ANEJO Nº 6. ESTRUCTURAS

4. Cálculos

Viaducto de Santa Oliva

-1.7. CÁLCULOS DEL VANO HIPERESTÁTICO III

M. DESCARRILAMIENTO DE VEHÍCULOS FERROVIARIOS

La hipótesis de descarrilamiento es una situación accidental a comprobar separada e independientemente del resto de acciones distintas de las cargas permanentes.

Se distinguen dos situaciones de diseño:

a) Análisis local de elementos

2 cargas verticales de 5 T/m en 6,4 m. separadas 1,4 m. entre sí actuantes a 2,20 m máximo en cada lado del eje de la vía.

b) Análisis de estabilidad (equilibrio)

Carga de 8 t/m en 20 m. en borde de voladizo, ó a 2,20 m. máximo cada lado del eje de la vía.

Coeficientes de ponderación:

Mayoración de acciones	1,00
Minoración resistencias	1,30 en hormigón 1,00 en acero

N. ACCIONES SÍSMICAS

Según NCSE-94.

La aceleración sísmica básica será menor de 0,04 g y la de cálculo:

$a_c = \rho\, a_b$

ρ = coeficiente adimensional de riesgo

T = 100 años $\rho = 1,3$

$a_c = 1,3 \cdot 0,04 = 0,052\ g < 0,06\ s$

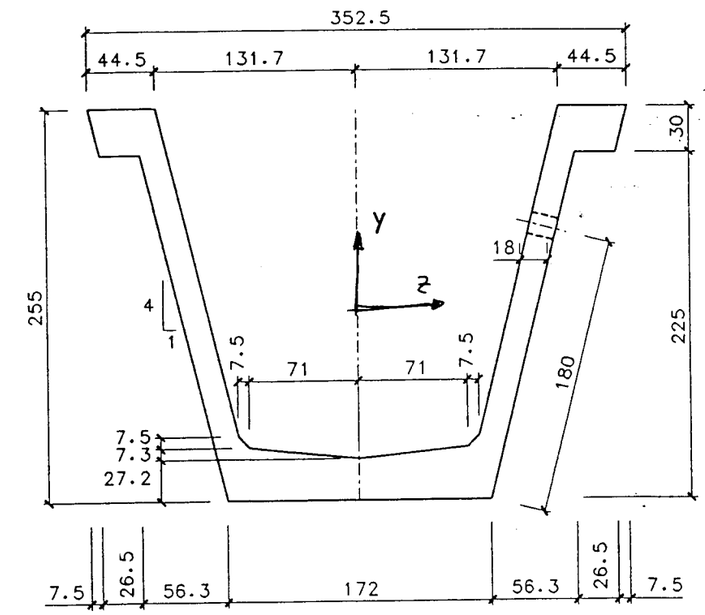
Según esta norma para aceleraciones de cálculo menores de 0,06 g no es necesario tener en cuenta el efecto del sismo.

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

2.2.3 TABLERO ; CÁLCULO LONGITUDINAL

2.2.3.1 CONSTANTES ESTÁTICAS

En este punto se recogen las constantes estáticas de las secciones brutas y eficaces de los vanos PREFABRICADOS



se toman las siguientes características mecánicas

$A = 1'5269\ m^2$

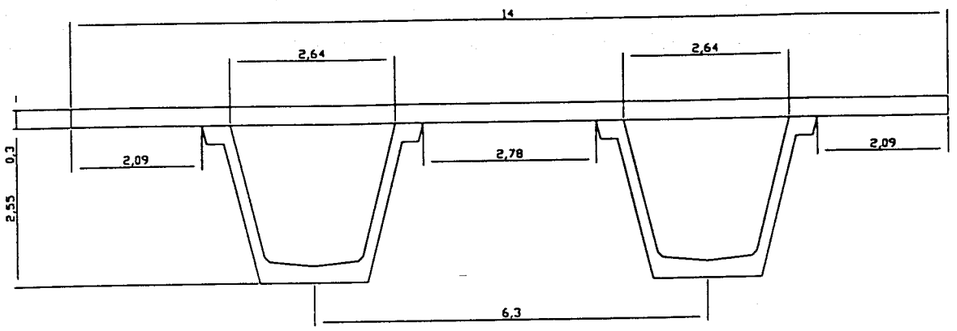
$I_z = 1'8943\ m^4$

$I_y = 1'6112\ m^4$

$I_T = \frac{1}{3} 2'55 \cdot 0'18^3 \cdot 2 + \frac{1'36}{3} 0'3^3 = 0'022\ m^4$ (0'026 Hormigón armado c E=285 777 kg/cm²

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

CALCULO DE ANCHOS EFICACES



- Cortina de vano: se emplea el criterio PPX-05

luces: 0'7 * 40'00 = 28'00 $\psi_{0,2} = \frac{1}{1+0,4\left(\frac{b}{l}\right)^2}$

b= 2'09 m $\psi_{0,2} \simeq 1'00$

b= 1'32 m $\psi_{0,2} \simeq 1'00$

b= 1'30 m $\psi_{0,2} \simeq 1'00$

No se realizará reducción de anchos eficaces en el cálculo de vano

- Pila tipo $b_{eff} = 0'25\,(40'00 + 34'00) = 18'50$ m

se emplea el criterio EHE

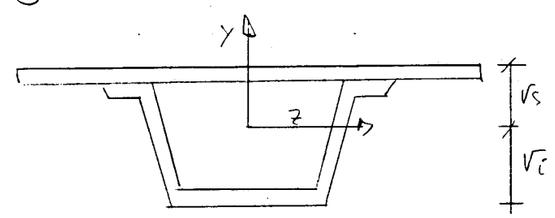
b= 2'09 m < beff beff = $\frac{l}{10}$ = 4'25 m

b= 1'32 < beff

b= 1'30 < beff No se realizará reducciones de ancho eficaz

b= 0'25 < beff

- Sección homogeneizada (E = 285 770 kg/cm²)



$V_s = \frac{1'32 \cdot 1'18 \cdot 0'79 + 0'15 \cdot 0'30 \cdot 0'07 + \ldots}{\ldots} = 0'905$ $V_i = 1'945$ m

$A = 1'32 \cdot 1'18 + 0'30 \cdot 0'07 + \ldots = 3'393$ m²

$I_z = 1'945 \cdot 1'18 + \frac{1}{12} \ldots + \ldots (0'905 - 1'30)^2 +$

$+ 0'3 \cdot 2\,(0'15 - 0'905)^2 = 4'026$ m⁴/cortina

I_y = Sección homogeneizada mitad de las 2 secciones

$\frac{1}{2}\left(\frac{1}{12} \ldots + \ldots\right) =$

= 4'513 m⁴/arteria

$I_{torsión} = \frac{4A^2}{\int \frac{ds}{t}} = \frac{4 \cdot 5'756^2}{\frac{2'57}{\ldots} + \frac{2'52}{\ldots} + \frac{\ldots}{\ldots} + \frac{\ldots}{0'30}}$

= 3'45 m⁴

Características de la sección (Homogeneizadas a ZES770)

-Sección rejon:

A: 1'801 m²

Iflexión: 1'43 m⁴

Iflexión trans: 1'902 m⁴

-Sección completa / rejón:

A= 3'293 m²

Iflexión: 4'028 m⁴

Iflexión = 45'13 m⁴

J = 3'41 m⁴

2.2.3.2 MODELO DE CÁLCULO

A continuación se expone el modelo de cálculo empleado en el cálculo

- Nudos y elementos longitudinales
- Nudos y elementos transversales
- Definición de fases del modelo
- Entrada de cargas
- Fases constructivas en estudio de carga

Los correspondientes listados en soporte de datos en el programa ROBOT se recogen al final del anejo

Asimismo se incluye el cálculo del tiro teórico para el cálculo longitudinal

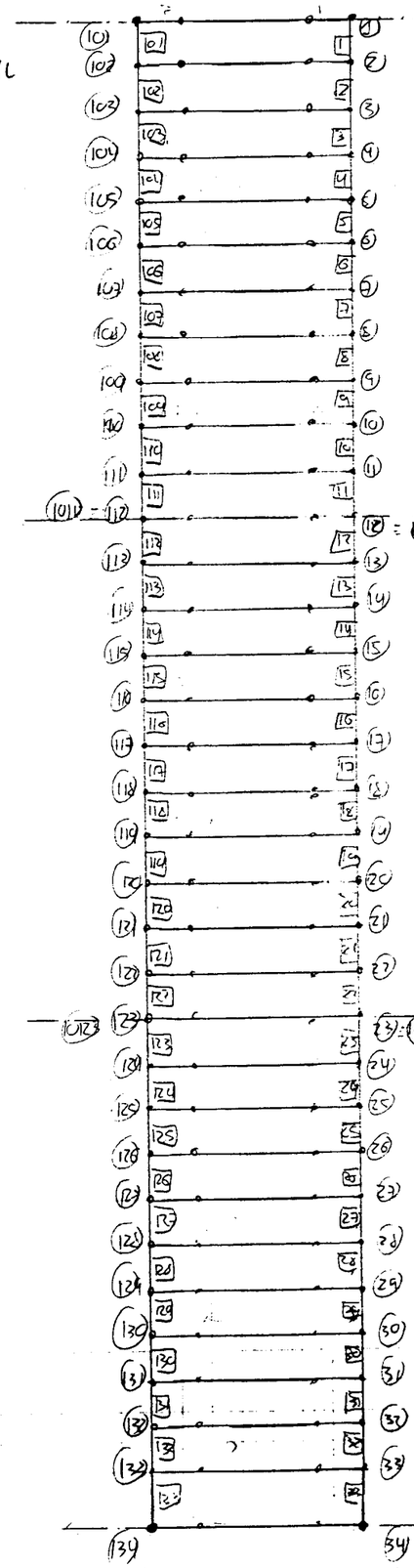
PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

NUDOS y ELEMENTOS LONGITUDINALES

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

DESCRIPCIÓN GRAL DEL MODELO:

NUDOS:



Avance PK

Grupo 1: 1 → 33

Grupo 2: 101 → 133

Grupo 3: Resto barras

NUDOS EN BARAS VIGA

Vano 29	Vano 30	Vano 31	Nº de divisiones
33.55	40	34.21	11

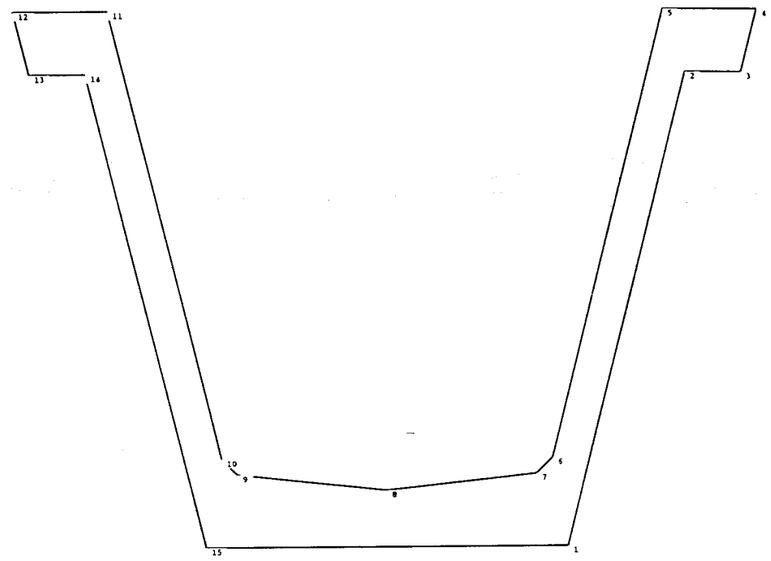
Longitud basica de barras (m)

3.05 3.636363636 3.11

NUDOS EJE 1(y=-6.3000)		NUDOS EJE 2 (y=0.0000)	
1	0.00000	101	0.00000
2	3.05000	102	3.05000
3	6.10000	103	6.10000
4	9.15000	104	9.15000
5	12.20000	105	12.20000
6	15.25000	106	15.25000
7	18.30000	107	18.30000
8	21.35000	108	21.35000
9	24.40000	109	24.40000
10	27.45000	110	27.45000
11	30.50000	111	30.50000
12=10012	33.55000	112=10112	33.55000
13	37.18636	113	37.18636
14	40.82273	114	40.82273
15	44.45909	115	44.45909
16	48.09545	116	48.09545
17	51.73182	117	51.73182
18	55.36818	118	55.36818
19	59.00455	119	59.00455
20	62.64091	120	62.64091
21	66.27727	121	66.27727
22	69.91364	122	69.91364
23=10023	73.55000	123=10123	73.55000
24	76.66000	124	76.66000
25	79.77000	125	79.77000
26	82.88000	126	82.88000
27	85.99000	127	85.99000
28	89.10000	128	89.10000
29	92.21000	129	92.21000
30	95.32000	130	95.32000
31	98.43000	131	98.43000
32	101.54000	132	101.54000
33	104.65000	133	104.65000
34	107.76000	134	107.76000

E = 1200

EJE CLOECAMO



Sección: viga.cs2

Sección parcial 1: Hormigón E = 3469407 t/m2

Pto	Cood-Z	Coord-Y
1	.860	.000
2	1.423	2.250
3	1.688	2.250
4	1.763	2.550
5	1.318	2.550
6	.785	.420
7	.710	.345
8	.000	.270
9	-.710	.345
10	-.785	.420
11	-1.318	2.550
12	-1.763	2.550
13	-1.688	2.250
14	-1.423	2.250
15	-.860	.000

Características mecánicas de la Sección:

Area : Ax=1.779 [m2]

Momentos de inercia:

Ejes de definición : Iz=1.391419 [m4] Iy=1.877114 [m4]

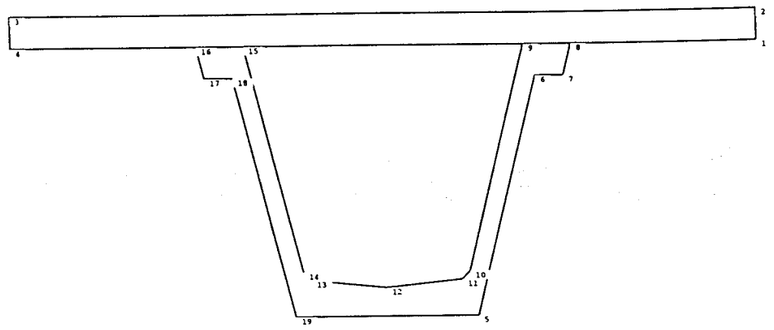
Inercia a torsión : Ix=0.561670 [m4] (de un círculo del mismo área) J =

Posición del centro de gravedad: zs=0.0000 [m] ys=1.0638 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iy	-1.763	-1.065	-0.599
dch.	Iy	1.763	1.065	0.599
abajo	Iz	-1.064	-1.308	-0.735
arriba	Iz	1.486	0.936	0.526

Características del material:

E=2977900.0 [t/m2]



Sección: cajon.cs2

Sección parcial 1: Hormigón E = 2977900 t/m2

Pto	Cood-Z	Coord-Y
1	3.500	2.550
2	3.500	2.850
3	-3.500	2.850
4	-3.500	2.550

Sección parcial 2: Hormigón E = 3469407 t/m2

Pto	Cood-Z	Coord-Y
5	.860	.000
6	1.423	2.250
7	1.688	2.250
8	1.763	2.550
9	1.318	2.550
10	.785	.420
11	.710	.345
12	.000	.270
13	-.710	.345
14	-.785	.420
15	-1.318	2.550
16	-1.763	2.550
17	-1.688	2.250
18	-1.423	2.250
19	-.860	.000

Características mecánicas de la Sección:

Area : Ax=3.879 [m2]

Momentos de inercia:

Ejes de definición : Iz=3.985496 [m4] Iy=10.452110 [m4]

Inercia a torsión : Ix=2.~~3~~46583 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: zs=0.0000 [m] ys=1.9496 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iy	-3.500	-2.986	-0.770
dch.	Iy	3.500	2.986	0.770
abajo	Iz	-1.950	-2.044	-0.527
arriba	Iz	0.900	4.426	1.141

Características del material:

E=2977900.0 [t/m2] → LOSA

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

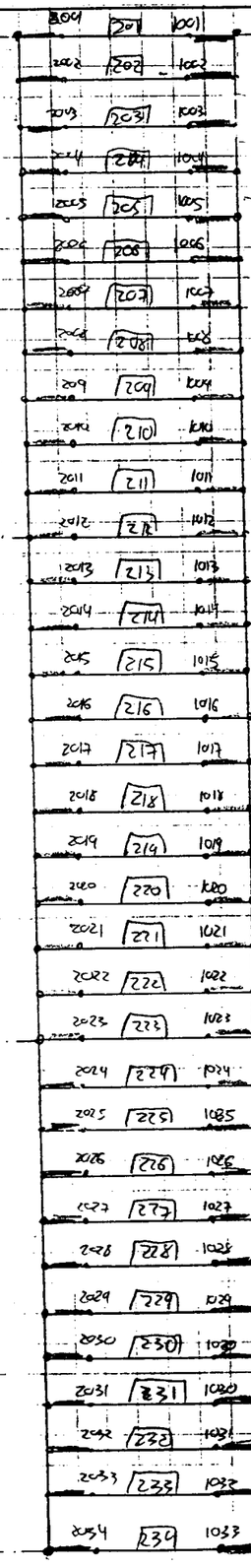
NUDOS Y ELEMENTOS

TRANSVERSALES

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

DESCRIPCIÓN GRAL DEL MODELO

BARRAS TRANSVERSALES



PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

BARRAS LOSA:

conforme a los Nodos y barras empleados en el modelo general se tienen las siguientes anchuras de barras losa:

Barra	ANCHO (m)	TIPO
201	1'515	①
202 – 2011	3'05	②
212	3'8112	③
213 - 222	3'636	④
223	2'373	③
224 - 233	3'11	②
234	1'555	①

Dado que las anchuras en los tramos 1º y 2º son muy semejantes se ha decidido uniformizar, tomando de lado de la seguridad el mayor de ellos

A continuación se recogen las características mecánicas de las barras losa, en función del ancho de losa considerado

se tomará: $A = b \cdot 0{,}3$

$I_{TORSION} = \frac{4'738}{3'41} \frac{0{,}3^3 \, b}{6}$

$I_{FLEXION\ LONG} = \frac{1}{12} b \, 0{,}3^3$

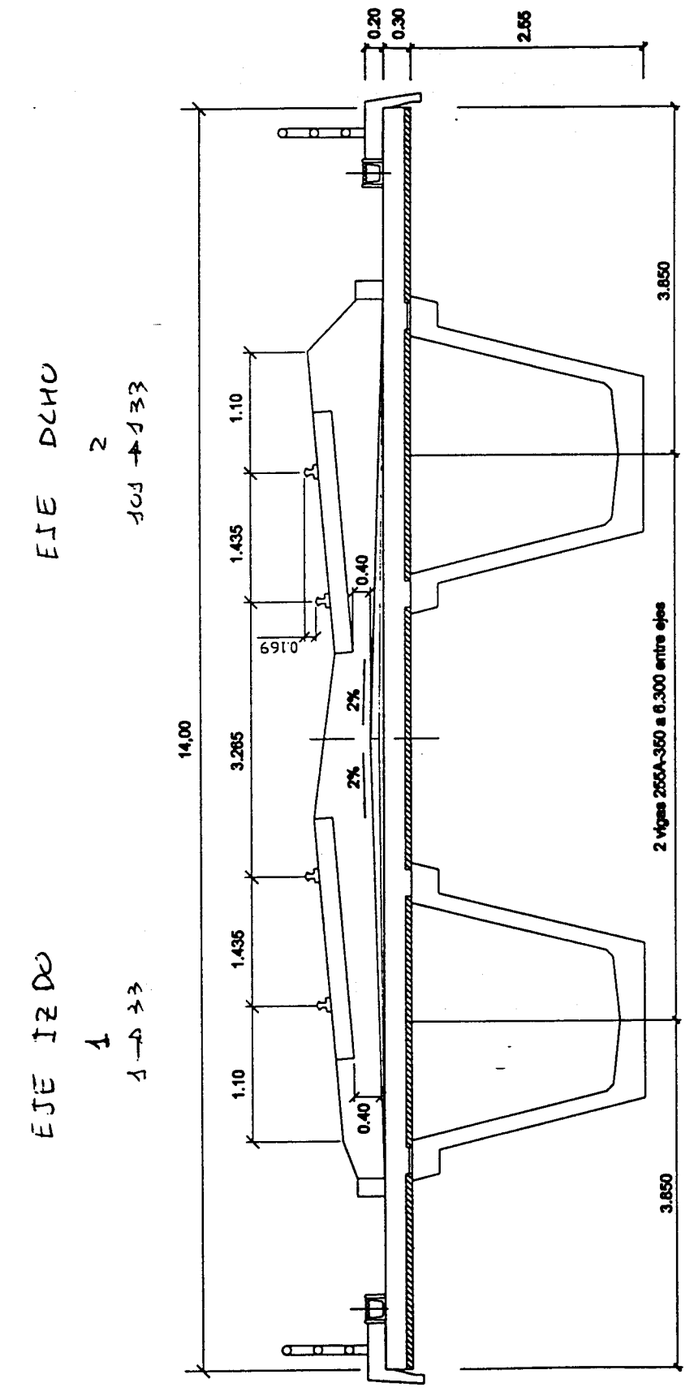
$I_{FLEXION\ TRANSV} = \frac{1}{12} 0{,}3 \, b^3$

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

en función de los diferentes anchos de losa se tiene:

Tipo barra	Anchor.(m)	Area (m^2)	I_{flex} (m^4) (long)	I_{flex} (m^4) (trans)	J (m^4)
①	1'525	0'4575	0'0034312	0'08866	$9'635\ 10^{-3}$
②	2'05	0'915	0'0068625	0'70931	$19'27\ 10^{-3}$
③	3'3432	1'003	0'0075272	0'93417	$21'1234\ 10^{-3}$
④	3'636	1'091	0'008181	1'20174	$22'974\ 10^{-3}$

Estas características mecánicas se han obtenido aplicando un coeficiente de homogeneización de $n = 1$, esto es con el material $E = 2477900\ t/m^2$



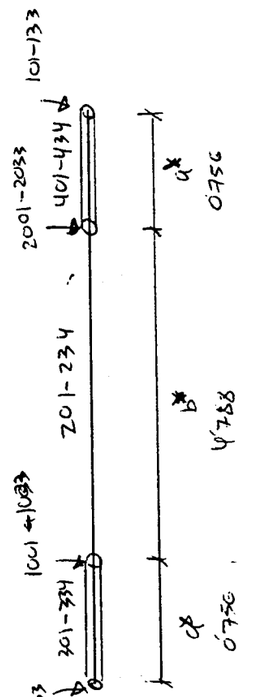
EJE DCHO
2
101 → 133

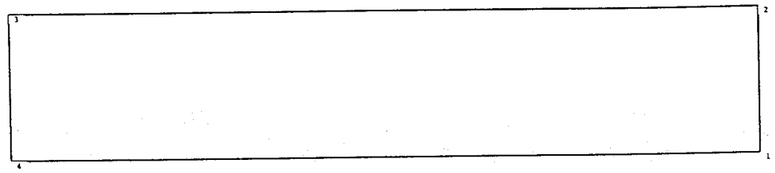
EJE IZDO
1
1 → 33

$\phi = \frac{a}{2} = \frac{\sqrt{445}}{12.(445+341)}$

$= 0'224$

$\beta = \frac{a\phi}{a} = 0'5235$





Sección: A1.cs2

Sección parcial 1: Hormigón E = 2977900 t/m2

Pto	Cood-Z	Coord-Y
1	.763	.000
2	.763	.300
3	-.763	.300
4	-.763	.000

Características mecánicas de la Sección:

Area : Ax=0.458 [m2] ✓

Momentos de inercia:

Ejes de definición : Iz=0.003431 [m4] Iy=0.088664 [m4]

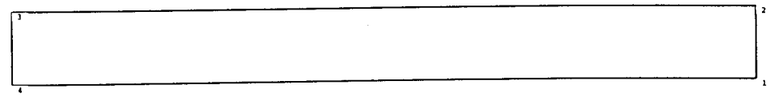
Inercia a torsión : Ix=0.009312 [m4] (de un círculo del mismo área) J= 0.009635 m⁴

Posición del centro de gravedad: zs=0.0000 [m] ys=0.1500 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iy	-0.763	-0.116	-0.254
dch.	Iy	0.763	0.116	0.254
abajo	Iz	-0.150	-0.023	-0.050
arriba	Iz	0.150	0.023	0.050

Características del material:

E=2977900.0 [t/m2]



Sección: A2.cs2

Sección parcial 1: Hormigón E = 2977900 t/m2

Pto	Cood-Z	Coord-Y
1	1.525	.000
2	1.525	.300
3	-1.525	.300
4	-1.525	.000

Características mecánicas de la Sección:

Area : Ax=0.915 [m2]

Momentos de inercia:

Ejes de definición : Iz=0.006863 [m4] Iy=0.709316 [m4]

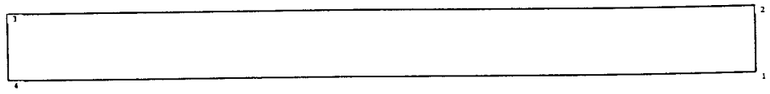
Inercia a torsión : Ix=0.013249 [m4] (de un círculo del mismo área) J= 0.01927 m⁴

Posición del centro de gravedad: zs=0.0000 [m] ys=0.1500 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iy	-1.525	-0.465	-0.508
dch.	Iy	1.525	0.465	0.508
abajo	Iz	-0.150	-0.046	-0.050
arriba	Iz	0.150	0.046	0.050

Características del material:

E=2977900.0 [t/m2]



Sección: A3.cs2

Sección parcial 1: Hormigón E = 2977900 t/m2

Pto	Cood-Z	Coord-Y
1	1.672	.000
2	1.672	.300
3	-1.672	.300
4	-1.672	.000

Características mecánicas de la Sección:

Area : Ax=1.003 [m2]

Momentos de inercia:

Ejes de definición : Iz=0.007522 [m4] Iy=0.934005 [m4]

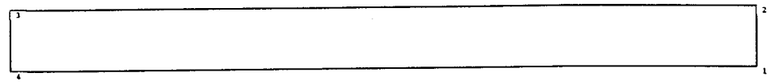
Inercia a torsión : Ix=0.160080 [m4] (de un círculo del mismo área) J= 0'021124 m4

Posición del centro de gravedad: zs=0.0000 [m] ys=0.1500 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iy	-1.672	-0.559	-0.557
dch.	Iy	1.672	0.559	0.557
abajo	Iz	-0.150	-0.050	-0.050
arriba	Iz	0.150	0.050	0.050

Características del material:

E=2977900.0 [t/m2]



Sección: A4.cs2

Sección parcial 1: Hormigón E = 2977900 t/m2

Pto	Cood-Z	Coord-Y
1	1.818	.000
2	1.818	.300
3	-1.818	.300
4	-1.818	.000

Características mecánicas de la Sección:

Area : Ax=1.091 [m2]

Momentos de inercia:

Ejes de definición : Iz=0.008181 [m4] Iy=1.201743 [m4]

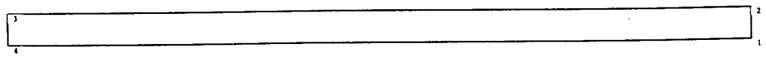
Inercia a torsión : Ix=0.169370 [m4] (de un círculo del mismo área) J= 0'022971 m4

Posición del centro de gravedad: zs=0.0000 [m] ys=0.1500 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iy	-1.818	-0.661	-0.606
dch.	Iy	1.818	0.661	0.606
abajo	Iz	-0.150	-0.055	-0.050
arriba	Iz	0.150	0.055	0.050

Características del material:

E=2977900.0 [t/m2]



Sección: losa.cs2

Sección parcial 1: Hormigón E = 2977900 t/m2

Pto	Cood-Z	Coord-Y
1	3.500	2.550
2	3.500	2.850
3	-3.500	2.850
4	-3.500	2.550

Características mecánicas de la Sección:

Area : Ax=2.100 [m2]

Momentos de inercia:

Ejes de definición : Iz=0.015750 [m4] Iy=8.575000 [m4]

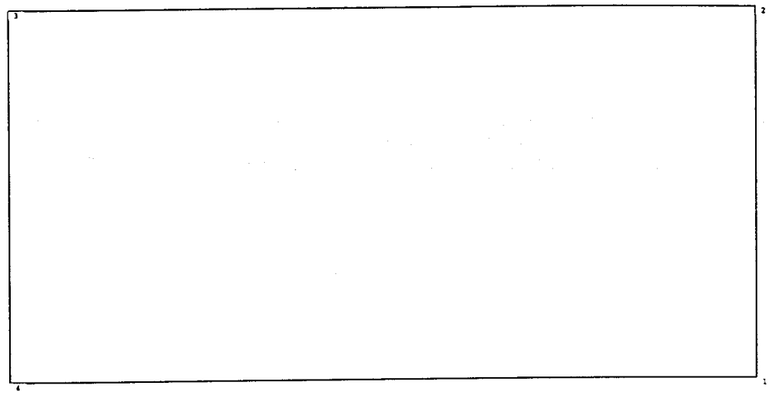
Inercia a torsión : Ix=0.~~701874~~ [m4] (de un círculo del mismo área) $\frac{\pi}{32} \cdot 0.64472^4$

Posición del centro de gravedad: zs=0.0000 [m] ys=2.7000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iy	-3.500	-2.450	-1.167
dch.	Iy	3.500	2.450	1.167
abajo	Iz	-0.150	-0.105	-0.050
arriba	Iz	0.150	0.105	0.050

Características del material:

E=2977900.0 [t/m2]



Sección: rig.cs2

Sección parcial 1: Hormigón E = 4455895 t/m2

Pto	Cood-Z	Coord-Y
1	100.000	.000
2	100.000	100.000
3	-100.000	100.000
4	-100.000	.000

Características mecánicas de la Sección:

Area : Ax=4243.709 [m2]

Momentos de inercia:

Ejes de definición : Iz=3536425.000000 [m4] Iy=14145700.000000 [m4]

Inercia a torsión : Ix=2866234.946048 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: zs=0.0000 [m] ys=50.0000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iy	-100.000	-141457.000	-33.333
dch.	Iy	100.000	141457.000	33.333
abajo	Iz	-50.000	-70728.490	-16.667
arriba	Iz	50.000	70728.490	16.667

Características del material:

E=21000000.0 [t/m2]

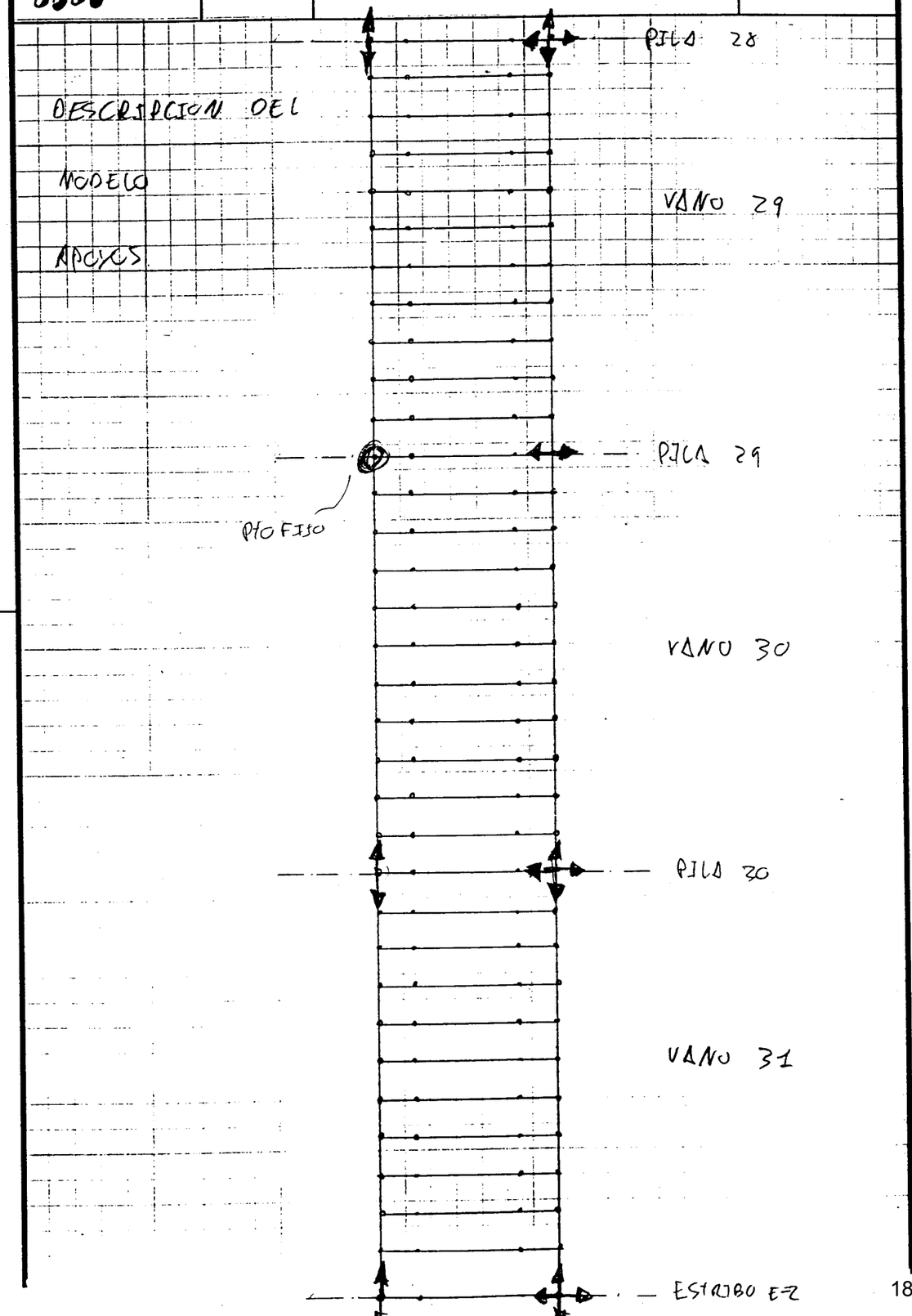
PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

DEFINICIÓN DE

FASES DEL

MODELO

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:



PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

DEFINICIÓN DE APOYOS.

FASE 1:

Se fija un esquema isostático de apoyos:

Nudo	Ux	Uy	Uz	Rx	Ry	Rz
1	X	X	X	X	—	—
12	X	X	X	X	—	—
10012	—	X	X	X	—	—
23	X	X	X	X	—	—
10023	—	X	X	X	—	—
34	—	X	X	X	—	—
101	X	X	X	X	—	—
112	X	X	X	X	—	—
10112	—	X	X	X	—	—
123	X	X	X	X	—	—
10123	—	X	X	X	—	—
134	—	X	X	X	—	—

Se ha supuesto apoyos empotrados a flexión debido a que durante el proceso de montaje se aplica la utilización de apoyos provisionales que bloquean los giros

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

FASE 2:

El tablero funciona con un esquema hiperestático

Nudo	Ux	Uy	Uz	Rx	Ry	Rz
1	—	X	—	X	—	—
12	—	X	—	X	—	—
10012	—	—	—	—	—	—
23	—	X	—	X	—	—
10023	—	—	—	—	—	—
34	—	X	—	X	—	—
101	—	X	X	X	—	—
112	—	X	X	X	—	—
10112	—	—	—	—	—	—
123	X	X	X	X	—	—
10123	—	—	—	—	—	—
134	—	X	X	X	—	—

Esta configuración de apoyos se mantiene a lo largo de la Fase 2 se debe considerar que en esta fase ya la losa de pilas se ha realizado la unión de los vigas con barras predefinidas por lo que se introducen las siguientes conexiones:

Nudo 12 - 10012

23 - 10023

112 - 10112

123 - 10123

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

FASE 3

El tablero funciona con un esquema hiperestático

NUDO	Ux	Uy	Uz	Rx	Ry	Rz
1	-	X		X	-	-
12	-	X		X	-	-
10012	-	-	-	X	-	-
23	-	X	-	X	-	-
10023	-	-	-	X	-	-
34	-	X	-	X	-	-
101	-	X	X	X	-	-
112	-	X	X	X	-	-
10112	-	-	-	X	-	-
123	X	X	X	X	-	-
10123	-	-	-	X	-	-
134	-	X	X	X	-	-

Debido a que en la fase 2 se ha reemplazado la zona de losa sobre pilas se forma una estructura en la que las vigas resisten flexiones

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

FASE 4

El tablero funciona con un esquema hiperestático

NUDO	Ux	Uy	Uz	Rx	Ry	Rz
1	-	X	-	-	-	-
12	-	X	-	-	-	-
10012	-	-	-	-	-	-
23	-	X	-	-	-	-
10023	-	-	-	-	-	-
34	-	X	-	-	-	-
101	-	X	X	-	-	-
112	-	X	X	-	-	-
10112	-	-	-	-	-	-
123	X	X	X	-	-	-
10123	-	-	-	-	-	-
34	-	X	X	-	-	-

Las compatibilidades aplicadas son análogas a las de la fase anterior

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

DATOS DE ENTRADA

DE CARGAS

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

CARGAS SOBRE ESTRUCTURA : BASE 1.

Se considera el peso propio de las vigas actuando sobre ellas, puesto que las vigas son simétricas la carga resultante se aplica en el eje de simetría de la viga; por esto no existen momentos en aplicados las cargas aplicadas son:

pge 1200	(Barras 1 → 33) x = -6'30m	p: -3'825 tn/mt
pge 0CM0	(Barras 101 → 133) x = 5'00	p: -3'225 tn/mp

El predimensionado se introduce conforme al modelo que se describe a continuación

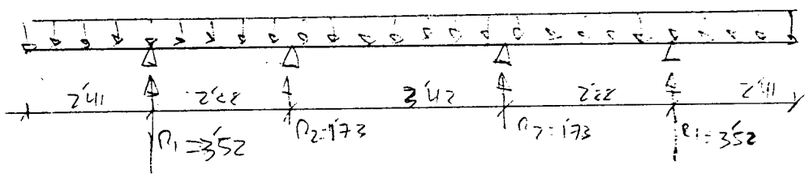
PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

CARGAS SOBRE ESTRUCTURA : FASE 2

- PPLTZ representa el hormigonado de la losa sobre la zona de pilas, se considera homigonada la totalidad de la anchura del tablero. Debido a la presencia de la rampa se obtienen flexiones, para estabilizar se emplea el mismo transversal ya empleado en otras viadectos.

EJE IZDO (1-33)

EJE DCHO (101-133)



R = 5'25

m = ± 2'58

componendo cargas flexiones se obtiene:

eje IZDO (1-33)
$F_y = -5'25$ tn/m
$m_x = -2'58$ mtn/m

eje DCHO (101-133)
$F_y = -5'25$ tn/m
$m_x = +2'58$ mtn/m

(+) coincide a la sección empleada esto es el sentido positivo de los flexores

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

Esta carga se aplica en la zona hormigonada en esta fase que es la correspondiente a los dos pilas dichas barras son:

	PILA 5	PILA 6
EJE IZDO:	9; 10; 11; 12; 13; 14	20; 21; 22; 23; 24; 25
EJE DCHO:	109; 110; 111; 112; 113; 114;	120; 121; 122; 123; 124; 125

Adicionalmente se aplica el gradiente de temperaturas puesto que en esta fase ya se ha realizado la unión de las vigas prefabricadas las barras de pretensado

CARGAS SOBRE ESTRUCTURA: FASE 3:

PPLF3: representa el hormigonado sobre la zona de contiguo vano del tablero; las acciones son las mismas que en la fase anterior; el gradiente se aplica a las barras correspondientes

		Barras:
EJE IZDO (1-33)	F_y = -5'25 tn/m m_x = -2'58 mtn/m	1; 2; 3; 4; 5; 6; 7; 8; 15; 16; 17; 18; 19; 26; 27; 28; 29; 30; 31; 32; 33
EJE DCHO (101-133)	F_y = -5'25 tn/m m_x = +2'58 mtn	101; 102; 103; 104; 105; 106; 107; 108; 115; 116; 117; 118; 119; 126; 127; 128; 129; 130; 131; 132; 133

Al igual que en la fase anterior se aplica el gradiente de temperaturas sobre las barras viga del tablero

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

CARGAS SOBRE FASE 4

- PPVIGAS: se aplica el peso propio de las vigas sobre la estructura ideal

EJE IZDO (1→32) p= -3'625 tn/ml

EJE DCHO (101→133) p= -3'625 tn/ml

- PPLOSA: se aplica el peso de la losa sobre las barras correspondientes

EJE IZDO (1-33) p= -5'25 tn/ml
mx= -2'58 mtn/ml

EJE DCHO (101-133) p= -5'25 tn/ml
mx= +2'58 mtn/ml

- CMMAX: El esquema de cargas es análogo al empleado en las flexiones V-1 y V-2 si bien sabiendo que la resultante se tiene una distinta disposición de cargas:



EJE IZDO (1-33) p= -11'79 tn/ml
mx= +2'01

EJE DCHO (101-133) p= -13'01 tn/ml
mx = 3'02

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

CM Min se hace de forma análoga a la carga anterior:

EJE IZDO (1-33) p= -8'13 tn/m
mx= -0'48 mtn/m

EJE DCHO (101-133) p= -8'79 tn/m
mx= 3'02 mtn/m

SOBRECARGAS

A continuación se recogen las sobrecargas introducidas en el modelo, dichas sobrecargas son el gradiente térmico y la sobrecarga del tren IPF-75B que ha visto anteriormente que esta es la pésima de entre todas las trenes posibles.

GRAD: gradiente térmico, se considera una diferencia de temperatura entre las caras superior e inferior de valor 7'5ºC, dicha variación es idéntica a la considerada en las fases constructivas.

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

-TRENES DE CARGA: Se aplican las hipótesis de carga de forma semejante a la realizada en los tramos anteriores

Para representar el tren IAF 75-B se van a realizar las siguientes estados individuales:

- CUNIF: carga uniforme de 1 t/m vía
- SCUNIF: sobrecarga uniforme de 4 t/m. vía.
- TREN: formado por cargas de 7'5 toneladas y separadas 4'286m

Para cada vía de tren se deberán estudiar las posiciones de trenes ripiados 30cm tanto hacia el exterior como al interior.

Conforme a lo estudiado en los tramos II y IV se ha visto que las posiciones pésimas del tren son las resultantes de considerar los ripados hacia el interior

Una vez obtenidos los esfuerzos en estas posiciones los pésimos a flexión se obtuvieron multiplicando por 1'08

las cargas unitarias a introducir en cada eje del emparrillado son:

eje IZDO: (1-33) $F_y = -0'98$ ton/m; $m_x = +1'23$ mton/m

eje DCHO (101-133) $F_y = -1'04$ ton/m; $m_x = -1'03$ mton/m

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

por tanto las cargas introducidas que componen el tren IAF-75 se introducirán de la siguiente forma:

CUNIF:

eje IZDO (1-33) ① "CUNIFI" $F_y = -0'98$ ton/m; $m_x = +1'23$ mton/m

eje DCHO (101-133) ② "CUNIFD" $F_y = -1'04$ ton/m; $m_x = -1'03$ mton/m

SCUNIF:

eje IZDO (1-33) ① × "SCUNIFI" $F_y = -3'82$ ton/m; $m_x = 11'07$ mton/m

eje DCHO (101-133) ② "SCUNIFD" $F_y = -9'26$ ton/m; $m_x = -9'27$ mton/m

TREN:

eje IZDO (1-33) ① × "TRENI" $F_y = -7'35$ ton/m; $m_x = 9'23$ mton/m

eje DCHO (101-133) ② "TRENO" $F_y = -7'8$ ton/m; $m_x = -7'73$ mton/m

RESUMEN DE REACCIONES MODELO TRANSVERSAL

	VIGA IZQUIERDA (1-33)				VIGA DERECHA (101-133)			
	3	5	FY(tn)	MX(mtn)	7	9	FY(tn)	MX(mtn)
PESO PROPIO	3.52	1.73	-5.25	-2.58	1.73	3.52	-5.25	2.58
CARGA MUERTA			0.00	0.00			0.00	0.00
BALASTO MÁXIMO	2.09	5.84	-7.93	5.39	6.10	3.04	-9.14	-4.41
BALASTO MÍNIMO	1.13	3.14	-4.27	2.90	3.28	1.63	-4.92	-2.37
RESTO CM	3.11	0.76	-3.86	-3.38	0.76	3.11	-3.87	3.39
TRENES DE 1 TN/M								
POS DER	0.02	-0.08	0.06	-0.13	0.82	0.24	-1.06	-0.82
POS DER EXT	0.02	-0.09	0.07	-0.16	0.73	0.34	-1.07	-0.57
POS DER INT	0.01	-0.05	0.04	-0.08	0.88	0.16	-1.04	-1.03
POS IZQ	0.13	0.90	-1.03	1.11	-0.03	0.01	0.03	0.06
POS IZQ EXT	0.20	0.85	-1.06	0.93	-0.07	0.01	0.06	0.12
POS IZQ INT	0.06	0.92	-0.98	1.23	0.02	-0.04	0.02	-0.09
SCU PASEOS								
DERECHA	-0.02	0.10	-0.08	0.18	-0.47	1.21	-0.74	2.41
IZQUIERDA	1.20	-0.52	-0.69	-2.47	0.11	-0.02	-0.09	-0.19

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

DETERMINACIÓN DEL TREN
CONDICIONANTE FRENTE A
ESFUERZOS LONGITUDINALES

El objeto del presente estudio es realizar una comparación entre los 4 tiros correspondientes a las normas IPF y EC2

Para ello se toma como referencia el estudio realizado en este mismo viaducto y en el tramo correspondiente al viaducto V-2

Puesto que las secciones transversales son idénticas y las longitudes de vanos centrales y laterales son muy similares se adopta como valido el cálculo realizado en dicha estructura

Se obtiene como conclusión que en el cálculo longitudinal el tiro dominante es el IPF 75 B

2.2.3.3. CÁLCULO DE ESFUERZOS

En este apartado se recoge los listados de esfuerzos de las hipótesis simples

Los estados del tren se presentan sin coef. de impacto, para el cálculo longitudinal se deben multiplicar por 1,08 para tener en cuenta el rípado hacia el exterior (más desfavorable que el rípado interior considerado, en el caso de esfuerzos longitudinales)

Así mismo se recoge un resumen de los esf correspondientes a las estructuras V-1 y V-2 que permitan verificar la similitud de esfuerzos obtenidos en los diferentes estudios de carga introducidos

RESUMEN ESFUERZOS; VTO STA OLIVA TRAMO V-3

	V 29-1	P 29-1	V 30-1	P 30-1	V 31-1	V 29-2	P 29-2	V 30-2	P 30-2	V 31-2
	6	12	17/18	23	29	106	112	117/118	123	129
		10012		10023			10112		10123	
CF1	533.75	0	758.67	0	554.93	533.75	0	758.67	0	554.93
LF2	-1.01	-221.99	88.86	-225.4	1.41	-1.01	-221.99	88.86	-225.4	1.41
ADF2	65.28	143.62	143.88	144.1	65.5	65.28	143.62	143.88	144.1	65.5
LF3	375.65	-627.46	90	-652.7	390.47	375.65	-627.46	90	-652.7	390.47
ADF3	98.2	216.04	216.59	217.06	98.66	98.2	216.04	216.59	217.06	98.66
VIGAS	310.09	-517.17	235.26	-530.92	324.88	310.09	-517.17	235.26	-530.92	324.88
MMAX	954.77	-1582	722.12	-1625	1001.37	954.77	-1582	722.12	-1625	1001.37
MMIN	658.48	-1093	498.36	-1022.11	690.47	658.48	-1093	498.36	-1022.11	690.47
RAD	167.3	368.07	368.74	369.29	167.86	167.3	368.07	368.74	369.29	167.86
CPASEOIZQU.MZ+	94.53	6.81	82.19	6.4	96.95	3.86	42.21	9.76	42.38	4.02
CPASEOIZQU.MZ-	-13.98	-157.19	-16.06	-159.82	-13.57	-21.98	0	-26.88	0	-21.85
CPASEOIDERE.MZ+	3.86	42.21	9.73	42.38	4.02	94.54	6.81	82.12	6.4	96.95
CPASEODERE.MZ-	-21.98	0	-26.88	0	-21.85	-13.98	-157.19	-16.06	-159.82	-13.57
PLOSA										
F75BI.MZ+	910.84	38.58	853.36	29.7	936.2	384.33	39.19	394.75	32.81	399.58
F75BI.MZ-	-195.72	-1260.68	-258.04	-1280.58	-188.84	-137.51	-390.44	-193.51	-395.74	-135.82
F75BD.MZ+	379.66	49.89	399.32	43.06	395.27	994.3	31.88	925.21	22.43	1021.83
F75BD.MZ-	-153.41	-359.36	214.82	-364.11	-151.5	-200.27	-1393.12	-264.28	-1415.15	-192.82

RESUMEN ESFUERZOS; VTO STA OLIVA TRAMO V-2

	V 17-1	P 17	V 18-1	P 18	V 19-1	P 19	V 20-1	V 17-2	P 17	V 18-2	P 18	V 19-2	P 19	V 20-2
	6	10011	17	10023	29	10035	41	106	10113	119	10125	131	10137	141
		11		23		35			113		125		137	
CF1	516.51	0	690.32	0	765.03	0	598.68	516.51	0	690.32	0	765.03	0	393.81
LF2	0.3	-161.56	48.98	-224.6	51.18	-199.13	20.08	19.77	-178.36	40.48	-226.07	50.47	-184.43	6.1
ADF2	71.76	143.53	121.92	100.8	123.74	146.62	71.33	58.27	146.35	123.83	100.78	115.18	144.02	86.41
LF3	185.2	-497.55	183.13	-503.37	170.27	-725.39	376.04	323.5	-616.46	143.97	-511.06	209.64	-591.65	213.32
ADF3	118.57	237.77	172.5	129.63	171.47	225.42	114.07	94.09	226.54	173.13	130.36	159.72	237.55	142.18
VIGAS	187.32	388.35	218.23	-475.78	-251	-538.8	301.62	264.97	-464.04	213.3	-474.23	246.65	-454.66	231.37
MMAX	580.28	-1183.41	663.03	-1452.01	774.76	-1636.26	898.71	915.86	-1596	728.79	-1631	851.59	-1559	779.5
MMIN	399.63	-818.14	458.78	-1002.78	533.39	-1135.95	633.5	616.81	-1076	492.2	-1099	573.03	-1052	529.04
RAD	178.91	368.91	319.97	261.54	309.69	373.93	195.44	159.45	374.1	310.21	260.3	303.01	371	215.28
CPASEOIZQU.MZ+	63.63	8.77	80.19	9.53	82.95	6.2	104.15	3.29	48.13	7.23	44.6	10.78	39.28	6.7
CPASEOIZQU.MZ-	-22.93	-125.99	-12.19	-152.5	-15.37	-167.42	-11.54	-33.58	-2.7	-23.63	0	-29.48	-0.16	-12.4
CPASEOIDERE.MZ+	4.99	36.51	4.62	43.61	8.08	50.69	3.66	93.99	7.86	77.98	9.26	85.62	7	72.87
CPASEODERE.MZ-	-9.96	-0.32	-26.97	0	-23.16	-1.99	-36.56	-8.3	-150.2	-16.97	-152.89	-10.34	-141.02	-22.62
PLOSA	257.11	-533.02	299.54	-653.03	344.51	-739.53	-374.98	363.69	-636.92	292.76	-650.9	339.4	-624.05	317.56
QUINT2.MZ+	665.7	72.57	828.73	114.97	876.01	29.76	976.28	268.09	75.77	331.37	76.14	374.08	16.44	337.7
QUINT2.MZ-	-280.04	-1054.15	-217.69	-1295.9	-225.56	-1350.72	-191.32	-135.12	-354.19	-161.96	-375.95	-175.35	-321.29	-120.25
EREINT2.MZ+	268.15	39.25	326.05	67.19	379.76	63.45	302.59	948.35	58.98	877.16	111.76	938	34.91	801.69
EREINT2.MZ-	-110.92	-250.22	-174.64	-326.82	-161.97	-359.52	-177.68	-142.64	-1315.94	-252.98	-1404.04	-197.68	-1258.31	-286.47

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPCF1

Peso propio de los cajones en fase 1.

[1; 1]PPCF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-64.17	0.00
1	2	3.05	0.00	-52.50	177.91
2	2	3.05	0.00	-52.50	177.91
2	3	6.10	0.00	-40.83	320.25
3	3	6.10	0.00	-40.83	320.25
3	4	9.15	0.00	-29.17	427.00
4	4	9.15	0.00	-29.17	427.00
4	5	12.20	0.00	-17.50	498.16
5	5	12.20	0.00	-17.50	498.16
5	6	15.25	0.00	-5.83	533.75
6	6	15.25	0.00	-5.83	533.75
6	7	18.30	0.00	5.83	533.75
7	7	18.30	0.00	5.83	533.75
7	8	21.35	0.00	17.50	498.16
8	8	21.35	0.00	17.50	498.16
8	9	24.40	0.00	29.17	427.00
9	9	24.40	0.00	29.17	427.00
9	10	27.45	0.00	40.83	320.25
10	10	27.45	0.00	40.83	320.25
10	11	30.50	0.00	52.50	177.92
11	11	30.50	0.00	52.50	177.92
11	12	33.55	0.00	64.17	0.00
12	10012	33.55	0.00	-76.50	0.00
12	13	37.19	0.00	-62.59	252.89
13	13	37.19	0.00	-62.59	252.89
13	14	40.82	0.00	-48.68	455.20
14	14	40.82	0.00	-48.68	455.20
14	15	44.46	0.00	-34.77	606.94
15	15	44.46	0.00	-34.77	606.94
15	16	48.10	0.00	-20.86	708.09
16	16	48.10	0.00	-20.86	708.09
16	17	51.73	0.00	-6.95	758.67
17	17	51.73	0.00	-6.95	758.67
17	18	55.37	0.00	6.96	758.67
18	18	55.37	0.00	6.96	758.67
18	19	59.01	0.00	20.87	708.09
19	19	59.01	0.00	20.86	708.09
19	20	62.64	0.00	34.77	606.93
20	20	62.64	0.00	34.77	606.93
20	21	66.28	0.00	48.68	455.20
21	21	66.28	0.00	48.68	455.20
21	22	69.91	0.00	62.59	252.89
22	22	69.91	0.00	62.59	252.89
22	23	73.55	0.00	76.50	0.00
23	10023	73.55	0.00	-65.43	0.00
23	24	76.66	0.00	-53.53	184.98
24	24	76.66	0.00	-53.53	184.98
24	25	79.77	0.00	-41.63	332.96
25	25	79.77	0.00	-41.63	332.96
25	26	82.88	0.00	-29.74	443.94
26	26	82.88	0.00	-29.74	443.94

RESUMEN ESFUERZOS; VTO STA OLIVA TRAMO V-1

	V 1-1	P 1-1	V 2-1	P 2-1	V 3-1
	7	10013	19	10025	30
		13		25	
PPCF1	536.39	0	764.85	0	364.22
PLF2	4.4	-196.18	64.97	-181.44	-0.74
QADF2	71.02	144.71	142.31	139.99	69.99
PLF3	267.79	-685.35	180.26	-526.06	154.71
QADF3	109.33	209.24	200.32	220.83	109.82
PVIGAS	265.81	-513.87	257.13	-440.57	202.6
QMMAX	805.62	-1566	789.26	-1348	625.9
QMMIN					
QRAD	192.58	362.65	361.01	368.12	177.34
QCPASEOIZQU.MZ+	95.07	2.47	82.24	7.32	68.79
QCPASEOIZQU.MZ-	-13.48	-158.22	-9.93	-135	-22.79
QCPASEOIDERE.MZ+	4.03	48.43	5.5	35.71	4.22
QCPASEODERE.MZ-	-33.75	0	-24	0	-11.66
QLOSA	900.15	3.38	861.61	39.43	708.72
QCQUINT2.MZ+	-211.91	-1283.02	-179.15	-1128.42	-282.94
QCQUINT2.MZ-	266.73	56.36	359.24	4.45	285.6
QCEREINT2.MZ+	172.03	-330.7	-146.58	-276.77	-128.27

	V 1-2	P 1-2	V 2-2	P 2-2	V 3-2
	106	10111	117	10123	129
		111		123	
PPCF1	358.96	0	764.82	0	542.85
PLF2	-1.66	-180.69	65.12	-196.67	4.62
QADF2	69.91	193.82	142.3	144.86	71.18
PLF3	151.37	-520.37	180.02	-691.59	271.49
QADF3	109.66	220.5	200.26	209.33	109.52
PVIGAS	198.25	-437.62	257.56	-517.54	269.73
QMMAX	673.18	-1498.46	879.19	-1778.48	931.03
QMMIN					
QRAD	177.18	367.68	360.94	362.96	193.98
QCPASEOIZQU.MZ+	4.05	35.57	5.5	48.56	3.95
QCPASEOIZQU.MZ-	-11.61	0	-23.84	0	-33.79
QCPASEOIDERE.MZ+	68.07	7.45	82.21	2.38	92.86
QCPASEODERE.MZ-	-22.98	-134.38	-9.97	-159.03	-13.33
QLOSA	284.93	0.95	362.33	41.09	279.29
QCQUINT2.MZ+	-122.92	-307.07	-129.77	-367.15	-156.34
QCQUINT2.MZ-	745.23	37.16	915.42	-9.55	973.1
QCEREINT2.MZ+	-295.22	-1212.45	-177.29	-1390.69	-210.52

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PPCF1

Peso propio de los cajones en fase 1.

[1; 1]PPCF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-17.84	517.93
27	27	85.99	0.00	-17.84	517.93
27	28	89.10	0.00	-5.95	554.93
28	28	89.10	0.00	-5.95	554.93
28	29	92.21	0.00	5.95	554.93
29	29	92.21	0.00	5.95	554.93
29	30	95.32	0.00	17.84	517.94
30	30	95.32	0.00	17.84	517.94
30	31	98.43	0.00	29.74	443.95
31	31	98.43	0.00	29.74	443.95
31	32	101.54	0.00	41.63	332.96
32	32	101.54	0.00	41.63	332.96
32	33	104.65	0.00	53.53	184.98
33	33	104.65	0.00	53.53	184.98
33	34	107.76	0.00	65.43	0.00
101	101	0.00	0.00	-64.17	0.00
101	102	3.05	0.00	-52.50	177.91
102	102	3.05	0.00	-52.50	177.91
102	103	6.10	0.00	-40.83	320.25
103	103	6.10	0.00	-40.83	320.25
103	104	9.15	0.00	-29.17	427.00
104	104	9.15	0.00	-29.17	427.00
104	105	12.20	0.00	-17.50	498.16
105	105	12.20	0.00	-17.50	498.16
105	106	15.25	0.00	-5.83	533.75
106	106	15.25	0.00	-5.83	533.75
106	107	18.30	0.00	5.83	533.75
107	107	18.30	0.00	5.83	533.75
107	108	21.35	0.00	17.50	498.16
108	108	21.35	0.00	17.50	498.16
108	109	24.40	0.00	29.17	427.00
109	109	24.40	0.00	29.17	427.00
109	110	27.45	0.00	40.83	320.25
110	110	27.45	0.00	40.83	320.25
110	111	30.50	0.00	52.50	177.92
111	111	30.50	0.00	52.50	177.92
111	112	33.55	0.00	64.17	0.00
112	10112	33.55	0.00	-76.50	0.00
112	113	37.19	0.00	-62.59	252.89
113	113	37.19	0.00	-62.59	252.89
113	114	40.82	0.00	-48.68	455.20
114	114	40.82	0.00	-48.68	455.20
114	115	44.46	0.00	-34.77	606.94
115	115	44.46	0.00	-34.77	606.94
115	116	48.10	0.00	-20.86	708.09
116	116	48.10	0.00	-20.86	708.09
116	117	51.73	0.00	-6.95	758.67
117	117	51.73	0.00	-6.95	758.67
117	118	55.37	0.00	6.96	758.67
118	118	55.37	0.00	6.96	758.67
118	119	59.01	0.00	20.87	708.09

f1.esf

Programa DINTEL PACADAR S.A.
PPCF1

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PPCF1

Peso propio de los cajones en fase 1.

[1; 1]PPCF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	20.86	708.09
119	120	62.64	0.00	34.77	606.93
120	120	62.64	0.00	34.77	606.93
120	121	66.28	0.00	48.68	455.20
121	121	66.28	0.00	48.68	455.20
121	122	69.91	0.00	62.59	252.89
122	122	69.91	0.00	62.59	252.89
122	123	73.55	0.00	76.50	0.00
123	10123	73.55	0.00	-65.43	0.00
123	124	76.66	0.00	-53.53	184.98
124	124	76.66	0.00	-53.53	184.98
124	125	79.77	0.00	-41.63	332.96
125	125	79.77	0.00	-41.63	332.96
125	126	82.88	0.00	-29.74	443.94
126	126	82.88	0.00	-29.74	443.94
126	127	85.99	0.00	-17.84	517.93
127	127	85.99	0.00	-17.84	517.93
127	128	89.10	0.00	-5.95	554.93
128	128	89.10	0.00	-5.95	554.93
128	129	92.21	0.00	5.95	554.93
129	129	92.21	0.00	5.95	554.93
129	130	95.32	0.00	17.84	517.94
130	130	95.32	0.00	17.84	517.94
130	131	98.43	0.00	29.74	443.95
131	131	98.43	0.00	29.74	443.95
131	132	101.54	0.00	41.63	332.96
132	132	101.54	0.00	41.63	332.96
132	133	104.65	0.00	53.53	184.98
133	133	104.65	0.00	53.53	184.98
133	134	107.76	0.00	65.43	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPCF1

Peso propio de los cajones en fase 1.

[1; 1]PPCF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPCF1

Peso propio de los cajones en fase 1.

[1; 1]PPCF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPCF1

Peso propio de los cajones en fase 1.

[1; 1]PPCF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

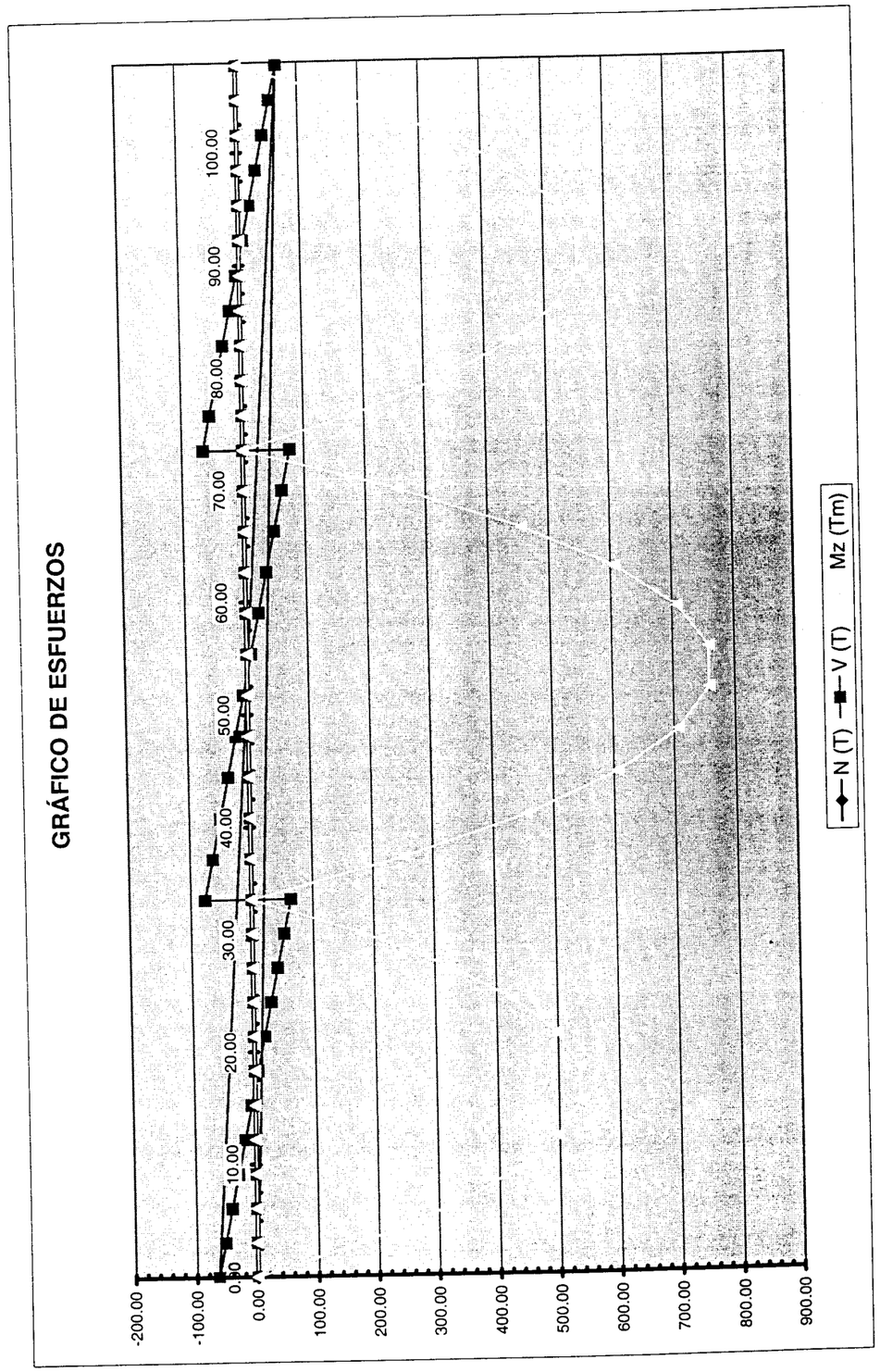
Hipótesis de cálculo:
PPCF1

Peso propio de los cajones en fase 1.

[1; 1]PPCF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLF2

Peso de losa hormigonada en fase 2

[1; 1]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	0.07	-3.22	0.00
1	2	3.05	0.00	0.07	-3.22	-0.20
2	2	3.05	0.00	0.07	-3.22	-0.20
2	3	6.10	0.00	0.07	-3.22	-0.40
3	3	6.10	0.00	0.07	-3.22	-0.40
3	4	9.15	0.00	0.07	-3.22	-0.61
4	4	9.15	0.00	0.07	-3.22	-0.61
4	5	12.20	0.00	0.07	-3.22	-0.81
5	5	12.20	0.00	0.07	-3.22	-0.81
5	6	15.25	0.00	0.07	-3.22	-1.01
6	6	15.25	0.00	0.07	-3.22	-1.01
6	7	18.30	0.00	0.07	-3.22	-1.21
7	7	18.30	0.00	0.07	-3.22	-1.21
7	8	21.35	0.00	0.07	-3.22	-1.42
8	8	21.35	0.00	0.07	-3.22	-1.42
8	9	24.40	0.00	0.07	-3.22	-1.62
9	9	24.40	0.00	0.07	-3.22	-1.62
9	10	27.45	0.00	16.08	4.65	-26.24
10	10	27.45	0.00	16.08	4.65	-26.24
10	11	30.50	0.00	32.09	12.52	-99.70
11	11	30.50	0.00	32.09	12.52	-99.70
11	12	33.55	0.00	48.10	20.39	-221.99
12	10012	33.55	0.00	-57.19	-28.15	-221.99
12	13	37.19	0.00	-38.10	-18.76	-48.75
13	13	37.19	0.00	-38.10	-18.76	-48.75
13	14	40.82	0.00	-19.01	-9.38	55.08
14	14	40.82	0.00	-19.01	-9.38	55.08
14	15	44.46	0.00	0.09	0.00	89.48
15	15	44.46	0.00	0.09	0.00	89.48
15	16	48.10	0.00	0.09	0.00	89.17
16	16	48.10	0.00	0.09	0.00	89.17
16	17	51.73	0.00	0.09	0.00	88.86
17	17	51.73	0.00	0.09	0.00	88.86
17	18	55.37	0.00	0.09	0.00	88.55
18	18	55.37	0.00	0.09	0.00	88.55
18	19	59.01	0.00	0.09	0.00	88.24
19	19	59.01	0.00	0.09	0.00	88.24
19	20	62.64	0.00	0.09	0.00	87.93
20	20	62.64	0.00	0.09	0.00	87.93
20	21	66.28	0.00	19.18	9.38	52.91
21	21	66.28	0.00	19.18	9.38	52.91
21	22	69.91	0.00	38.27	18.76	-51.53
22	22	69.91	0.00	38.27	18.76	-51.53
22	23	73.55	0.00	57.36	28.15	-225.40
23	10023	73.55	0.00	-48.89	-20.79	-225.40
23	24	76.66	0.00	-32.56	-12.77	-98.73
24	24	76.66	0.00	-32.56	-12.77	-98.73
24	25	79.77	0.00	-16.24	-4.74	-22.85
25	25	79.77	0.00	-16.24	-4.74	-22.85
25	26	82.88	0.00	0.09	3.28	2.26
26	26	82.88	0.00	0.09	3.28	2.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLF2
Peso de losa hormigonada en fase 2
[1; 1]PPLF2
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	0.09	3.28	1.98
27	27	85.99	0.00	0.09	3.28	1.98
27	28	89.10	0.00	0.09	3.28	1.70
28	28	89.10	0.00	0.09	3.28	1.70
28	29	92.21	0.00	0.09	3.28	1.41
29	29	92.21	0.00	0.09	3.28	1.41
29	30	95.32	0.00	0.09	3.28	1.13
30	30	95.32	0.00	0.09	3.28	1.13
30	31	98.43	0.00	0.09	3.28	0.85
31	31	98.43	0.00	0.09	3.28	0.85
31	32	101.54	0.00	0.09	3.28	0.57
32	32	101.54	0.00	0.09	3.28	0.57
32	33	104.65	0.00	0.09	3.28	0.28
33	33	104.65	0.00	0.09	3.28	0.28
33	34	107.76	0.00	0.09	3.28	0.00
101	101	0.00	0.00	0.07	3.22	0.00
101	102	3.05	0.00	0.07	3.22	-0.20
102	102	3.05	0.00	0.07	3.22	-0.20
102	103	6.10	0.00	0.07	3.22	-0.40
103	103	6.10	0.00	0.07	3.22	-0.40
103	104	9.15	0.00	0.07	3.22	-0.61
104	104	9.15	0.00	0.07	3.22	-0.61
104	105	12.20	0.00	0.07	3.22	-0.81
105	105	12.20	0.00	0.07	3.22	-0.81
105	106	15.25	0.00	0.07	3.22	-1.01
106	106	15.25	0.00	0.07	3.22	-1.01
106	107	18.30	0.00	0.07	3.22	-1.21
107	107	18.30	0.00	0.07	3.22	-1.21
107	108	21.35	0.00	0.07	3.22	-1.42
108	108	21.35	0.00	0.07	3.22	-1.42
108	109	24.40	0.00	0.07	3.22	-1.62
109	109	24.40	0.00	0.07	3.22	-1.62
109	110	27.45	0.00	16.08	-4.65	-26.24
110	110	27.45	0.00	16.08	-4.65	-26.24
110	111	30.50	0.00	32.09	-12.52	-99.70
111	111	30.50	0.00	32.09	-12.52	-99.70
111	112	33.55	0.00	48.10	-20.39	-221.99
112	10112	33.55	0.00	-57.19	28.15	-221.99
112	113	37.19	0.00	-38.10	18.76	-48.75
113	113	37.19	0.00	-38.10	18.76	-48.75
113	114	40.82	0.00	-19.01	9.38	55.08
114	114	40.82	0.00	-19.01	9.38	55.08
114	115	44.46	0.00	0.09	0.00	89.48
115	115	44.46	0.00	0.09	0.00	89.48
115	116	48.10	0.00	0.09	0.00	89.17
116	116	48.10	0.00	0.09	0.00	89.17
116	117	51.73	0.00	0.09	0.00	88.86
117	117	51.73	0.00	0.09	0.00	88.86
117	118	55.37	0.00	0.09	0.00	88.55
118	118	55.37	0.00	0.09	0.00	88.55
118	119	59.01	0.00	0.09	0.00	88.24

f2.esf

Programa DINTEL PACADAR S.A.
PPLF2

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLF2
Peso de losa hormigonada en fase 2
[1; 1]PPLF2
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	0.09	0.00	88.24
119	120	62.64	0.00	0.09	0.00	87.93
120	120	62.64	0.00	0.09	0.00	87.93
120	121	66.28	0.00	19.18	-9.38	52.91
121	121	66.28	0.00	19.18	-9.38	52.91
121	122	69.91	0.00	38.27	-18.76	-51.53
122	122	69.91	0.00	38.27	-18.76	-51.53
122	123	73.55	0.00	57.36	-28.15	-225.40
123	10123	73.55	0.00	-48.89	20.79	-225.40
123	124	76.66	0.00	-32.56	12.76	-98.73
124	124	76.66	0.00	-32.56	12.77	-98.73
124	125	79.77	0.00	-16.24	4.74	-22.85
125	125	79.77	0.00	-16.24	4.74	-22.85
125	126	82.88	0.00	0.09	-3.28	2.26
126	126	82.88	0.00	0.09	-3.28	2.26
126	127	85.99	0.00	0.09	-3.28	1.98
127	127	85.99	0.00	0.09	-3.28	1.98
127	128	89.10	0.00	0.09	-3.28	1.70
128	128	89.10	0.00	0.09	-3.28	1.70
128	129	92.21	0.00	0.09	-3.28	1.41
129	129	92.21	0.00	0.09	-3.28	1.41
129	130	95.32	0.00	0.09	-3.28	1.13
130	130	95.32	0.00	0.09	-3.28	1.13
130	131	98.43	0.00	0.09	-3.28	0.85
131	131	98.43	0.00	0.09	-3.28	0.85
131	132	101.54	0.00	0.09	-3.28	0.57
132	132	101.54	0.00	0.09	-3.28	0.57
132	133	104.65	0.00	0.09	-3.28	0.28
133	133	104.65	0.00	0.09	-3.28	0.28
133	134	107.76	0.00	0.09	-3.28	0.00
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PPLF2

Peso de losa hormigonada en fase 2

[1; 1]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00	0.00

f2.esf

Programa DINTEL PACADAR S.A.
PPLF2

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PPLF2

Peso de losa hormigonada en fase 2

[1; 1]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PPLF2

Peso de losa hormigonada en fase 2

[1; 1]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00	0.00

f2.esf

Programa DINTEL PACADAR S.A.
PPLF2

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PPLF2

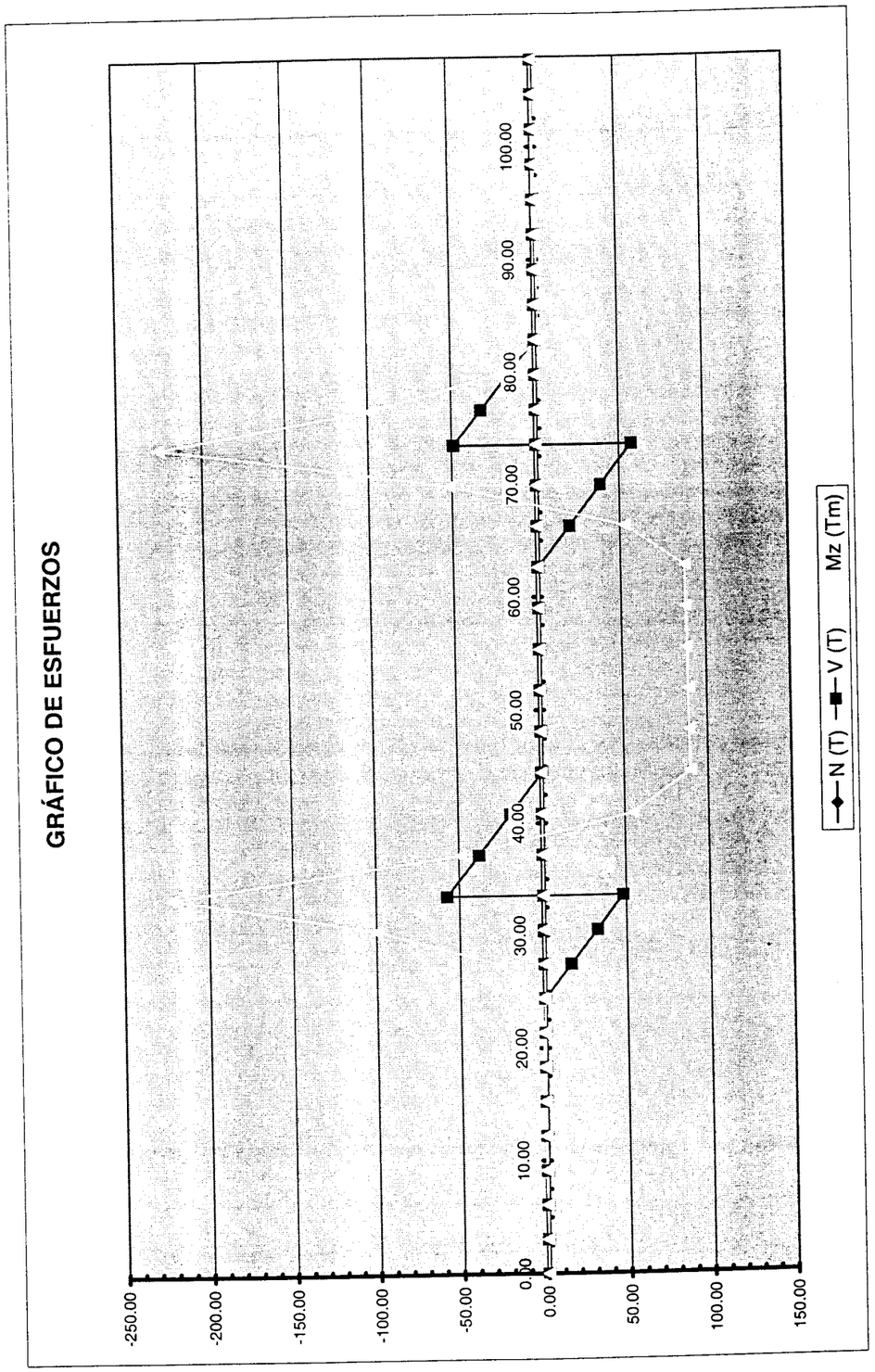
Peso de losa hormigonada en fase 2

[1; 1]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00

GRÁFICO DE ESFUERZOS



CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF2

Gradiente en fase 2

[1; 1]GRADF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-4.28	0.00
1	2	3.05	0.00	-4.28	13.06
2	2	3.05	0.00	-4.28	13.06
2	3	6.10	0.00	-4.28	26.11
3	3	6.10	0.00	-4.28	26.11
3	4	9.15	0.00	-4.28	39.17
4	4	9.15	0.00	-4.28	39.17
4	5	12.20	0.00	-4.28	52.22
5	5	12.20	0.00	-4.28	52.22
5	6	15.25	0.00	-4.28	65.28
6	6	15.25	0.00	-4.28	65.28
6	7	18.30	0.00	-4.28	78.34
7	7	18.30	0.00	-4.28	78.34
7	8	21.35	0.00	-4.28	91.39
8	8	21.35	0.00	-4.28	91.39
8	9	24.40	0.00	-4.28	104.45
9	9	24.40	0.00	-4.28	104.45
9	10	27.45	0.00	-4.28	117.51
10	10	27.45	0.00	-4.28	117.51
10	11	30.50	0.00	-4.28	130.56
11	11	30.50	0.00	-4.28	130.56
11	12	33.55	0.00	-4.28	143.62
12	10012	33.55	0.00	-0.01	143.62
12	13	37.19	0.00	-0.01	143.66
13	13	37.19	0.00	-0.01	143.66
13	14	40.82	0.00	-0.01	143.71
14	14	40.82	0.00	-0.01	143.71
14	15	44.46	0.00	-0.01	143.75
15	15	44.46	0.00	-0.01	143.75
15	16	48.10	0.00	-0.01	143.79
16	16	48.10	0.00	-0.01	143.79
16	17	51.73	0.00	-0.01	143.84
17	17	51.73	0.00	-0.01	143.84
17	18	55.37	0.00	-0.01	143.88
18	18	55.37	0.00	-0.01	143.88
18	19	59.01	0.00	-0.01	143.92
19	19	59.01	0.00	-0.01	143.92
19	20	62.64	0.00	-0.01	143.96
20	20	62.64	0.00	-0.01	143.96
20	21	66.28	0.00	-0.01	144.01
21	21	66.28	0.00	-0.01	144.01
21	22	69.91	0.00	-0.01	144.05
22	22	69.91	0.00	-0.01	144.05
22	23	73.55	0.00	-0.01	144.10
23	10023	73.55	0.00	4.21	144.10
23	24	76.66	0.00	4.21	131.00
24	24	76.66	0.00	4.21	131.00
24	25	79.77	0.00	4.21	117.90
25	25	79.77	0.00	4.21	117.90
25	26	82.88	0.00	4.21	104.80
26	26	82.88	0.00	4.21	104.80

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF2
Gradiente en fase 2
[1; 1]GRADF2
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	4.21	91.70
27	27	85.99	0.00	4.21	91.70
27	28	89.10	0.00	4.21	78.60
28	28	89.10	0.00	4.21	78.60
28	29	92.21	0.00	4.21	65.50
29	29	92.21	0.00	4.21	65.50
29	30	95.32	0.00	4.21	52.40
30	30	95.32	0.00	4.21	52.40
30	31	98.43	0.00	4.21	39.30
31	31	98.43	0.00	4.21	39.30
31	32	101.54	0.00	4.21	26.20
32	32	101.54	0.00	4.21	26.20
32	33	104.65	0.00	4.21	13.10
33	33	104.65	0.00	4.21	13.10
33	34	107.76	0.00	4.21	0.00
101	101	0.00	0.00	-4.28	0.00
101	102	3.05	0.00	-4.28	13.06
102	102	3.05	0.00	-4.28	13.06
102	103	6.10	0.00	-4.28	26.11
103	103	6.10	0.00	-4.28	26.11
103	104	9.15	0.00	-4.28	39.17
104	104	9.15	0.00	-4.28	39.17
104	105	12.20	0.00	-4.28	52.22
105	105	12.20	0.00	-4.28	52.22
105	106	15.25	0.00	-4.28	65.28
106	106	15.25	0.00	-4.28	65.28
106	107	18.30	0.00	-4.28	78.34
107	107	18.30	0.00	-4.28	78.34
107	108	21.35	0.00	-4.28	91.39
108	108	21.35	0.00	-4.28	91.39
108	109	24.40	0.00	-4.28	104.45
109	109	24.40	0.00	-4.28	104.45
109	110	27.45	0.00	-4.28	117.51
110	110	27.45	0.00	-4.28	117.51
110	111	30.50	0.00	-4.28	130.56
111	111	30.50	0.00	-4.28	130.56
111	112	33.55	0.00	-4.28	143.62
112	10112	33.55	0.00	-0.01	143.62
112	113	37.19	0.00	-0.01	143.66
113	113	37.19	0.00	-0.01	143.66
113	114	40.82	0.00	-0.01	143.71
114	114	40.82	0.00	-0.01	143.71
114	115	44.46	0.00	-0.01	143.75
115	115	44.46	0.00	-0.01	143.75
115	116	48.10	0.00	-0.01	143.79
116	116	48.10	0.00	-0.01	143.79
116	117	51.73	0.00	-0.01	143.84
117	117	51.73	0.00	-0.01	143.84
117	118	55.37	0.00	-0.01	143.88
118	118	55.37	0.00	-0.01	143.88
118	119	59.01	0.00	-0.01	143.92

f2.esf

Programa DINTEL PACADAR S.A.
GRADF2

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF2
Gradiente en fase 2
[1; 1]GRADF2
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	-0.01	143.92
119	120	62.64	0.00	-0.01	143.96
120	120	62.64	0.00	-0.01	143.96
120	121	66.28	0.00	-0.01	144.01
121	121	66.28	0.00	-0.01	144.01
121	122	69.91	0.00	-0.01	144.05
122	122	69.91	0.00	-0.01	144.05
122	123	73.55	0.00	4.21	144.10
123	10123	73.55	0.00	4.21	131.00
123	124	76.66	0.00	4.21	131.00
124	124	76.66	0.00	4.21	117.90
124	125	79.77	0.00	4.21	117.90
125	125	79.77	0.00	4.21	104.80
125	126	82.88	0.00	4.21	104.80
126	126	82.88	0.00	4.21	91.70
126	127	85.99	0.00	4.21	91.70
127	127	85.99	0.00	4.21	78.60
127	128	89.10	0.00	4.21	78.60
128	128	89.10	0.00	4.21	65.50
128	129	92.21	0.00	4.21	65.50
129	129	92.21	0.00	4.21	52.40
129	130	95.32	0.00	4.21	52.40
130	130	95.32	0.00	4.21	39.30
130	131	98.43	0.00	4.21	39.30
131	131	98.43	0.00	4.21	26.20
131	132	101.54	0.00	4.21	26.20
132	132	101.54	0.00	4.21	13.10
132	133	104.65	0.00	4.21	13.10
133	133	104.65	0.00	4.21	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50			

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF2
Gradiente en fase 2
[1; 1]GRADF2
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

f2.esf

Programa DINTEL PACADAR S.A.
GRADF2

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF2
Gradiente en fase 2
[1; 1]GRADF2
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF2

Gradiente en fase 2

[1; 1]GRADF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

f2.esf

Programa DINTEL PACADAR S.A.
GRADF2

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF2

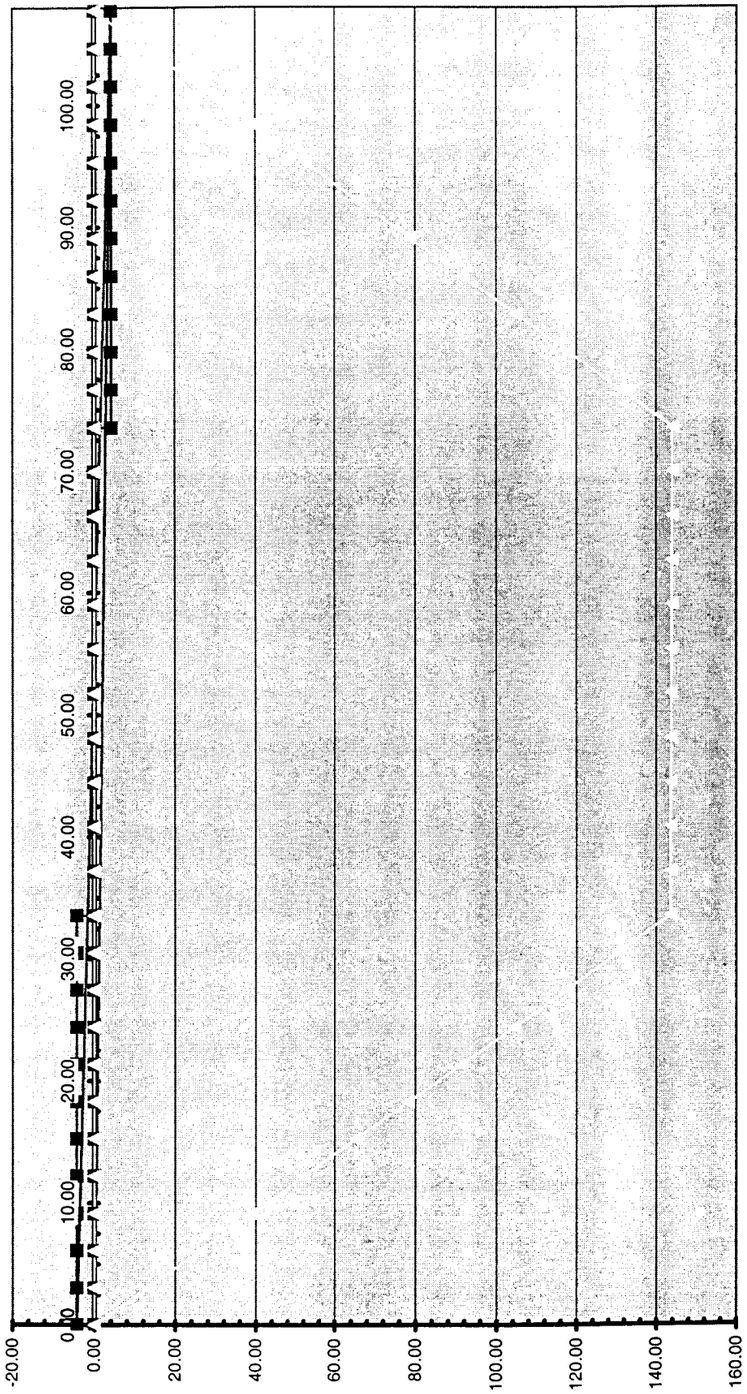
Gradiente en fase 2

[1; 1]GRADF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

GRÁFICO DE ESFUERZOS



CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLF3
Peso propio de losa hormigonada en fase 3.

[1; 1]PPLF3
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-62.82	-31.56	0.00
1	2	3.05	0.00	-46.80	-23.69	167.17
2	2	3.05	0.00	-46.80	-23.69	167.17
2	3	6.10	0.00	-30.79	-15.82	285.50
3	3	6.10	0.00	-30.79	-15.82	285.50
3	4	9.15	0.00	-14.78	-7.96	355.00
4	4	9.15	0.00	-14.78	-7.96	355.00
4	5	12.20	0.00	1.23	-0.09	375.65
5	5	12.20	0.00	1.23	-0.09	375.65
5	6	15.25	0.00	17.25	7.78	347.47
6	6	15.25	0.00	17.25	7.78	347.47
6	7	18.30	0.00	33.26	15.65	270.45
7	7	18.30	0.00	33.26	15.65	270.45
7	8	21.35	0.00	49.27	23.52	144.59
8	8	21.35	0.00	49.27	23.52	144.59
8	9	24.40	0.00	65.28	31.39	-30.11
9	9	24.40	0.00	65.28	30.82	-30.11
9	10	27.45	0.00	65.28	30.82	-229.22
10	10	27.45	0.00	65.28	30.45	-229.22
10	11	30.50	0.00	65.28	30.45	-428.34
11	11	30.50	0.00	65.28	30.26	-428.34
11	12	33.55	0.00	65.28	30.26	-627.46
12	10012	33.55	0.00	-47.10	-22.28	-627.46
12	13	37.19	0.00	-47.10	-22.28	-456.20
13	13	37.19	0.00	-47.10	-22.47	-456.20
13	14	40.82	0.00	-47.10	-22.47	-284.94
14	14	40.82	0.00	-47.10	-22.86	-284.94
14	15	44.46	0.00	-47.10	-22.86	-113.68
15	15	44.46	0.00	-47.10	-23.45	-113.68
15	16	48.10	0.00	-28.01	-14.07	22.87
16	16	48.10	0.00	-28.01	-14.07	22.87
16	17	51.73	0.00	-8.91	-4.69	90.00
17	17	51.73	0.00	-8.91	-4.69	90.00
17	18	55.37	0.00	10.18	4.69	87.70
18	18	55.37	0.00	10.18	4.69	87.70
18	19	59.01	0.00	29.27	14.07	15.99
19	19	59.01	0.00	29.27	14.07	15.99
19	20	62.64	0.00	48.36	23.45	-125.15
20	20	62.64	0.00	48.36	22.86	-125.15
20	21	66.28	0.00	48.36	22.86	-301.00
21	21	66.28	0.00	48.36	22.47	-301.00
21	22	69.91	0.00	48.36	22.47	-476.85
22	22	69.91	0.00	48.36	22.28	-476.85
22	23	73.55	0.00	48.36	22.28	-652.70
23	10023	73.55	0.00	-66.58	-30.84	-652.70
23	24	76.66	0.00	-66.58	-30.84	-445.64
24	24	76.66	0.00	-66.58	-31.03	-445.64
24	25	79.77	0.00	-66.58	-31.03	-238.59
25	25	79.77	0.00	-66.58	-31.42	-238.59
25	26	82.88	0.00	-66.58	-31.42	-31.53
26	26	82.88	0.00	-66.58	-32.01	-31.53

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLF3

Peso propio de losa hormigonada en fase 3.

[1; 1]PPLF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-50.25	-23.98	150.13
27	27	85.99	0.00	-50.25	-23.98	150.13
27	28	89.10	0.00	-33.92	-15.96	281.02
28	28	89.10	0.00	-33.92	-15.96	281.02
28	29	92.21	0.00	-17.60	-7.94	361.13
29	29	92.21	0.00	-17.60	-7.93	361.13
29	30	95.32	0.00	-1.27	0.09	390.47
30	30	95.32	0.00	-1.27	0.09	390.47
30	31	98.43	0.00	15.06	8.11	369.02
31	31	98.43	0.00	15.06	8.11	369.02
31	32	101.54	0.00	31.39	16.14	296.79
32	32	101.54	0.00	31.39	16.14	296.79
32	33	104.65	0.00	47.72	24.16	173.79
33	33	104.65	0.00	47.72	24.16	173.79
33	34	107.76	0.00	64.04	32.18	0.00
101	101	0.00	0.00	-62.82	31.56	0.00
101	102	3.05	0.00	-46.80	23.69	167.17
102	102	3.05	0.00	-46.80	23.69	167.17
102	103	6.10	0.00	-30.79	15.83	285.50
103	103	6.10	0.00	-30.79	15.83	285.50
103	104	9.15	0.00	-14.78	7.96	355.00
104	104	9.15	0.00	-14.78	7.96	355.00
104	105	12.20	0.00	1.23	0.09	375.65
105	105	12.20	0.00	1.23	0.09	375.65
105	106	15.25	0.00	17.25	-7.78	347.47
106	106	15.25	0.00	17.25	-7.78	347.47
106	107	18.30	0.00	33.26	-15.65	270.45
107	107	18.30	0.00	33.26	-15.65	270.45
107	108	21.35	0.00	49.27	-23.52	144.59
108	108	21.35	0.00	49.27	-23.52	144.59
108	109	24.40	0.00	65.28	-31.39	-30.11
109	109	24.40	0.00	65.28	-30.83	-30.11
109	110	27.45	0.00	65.28	-30.83	-229.22
110	110	27.45	0.00	65.28	-30.45	-229.22
110	111	30.50	0.00	65.28	-30.45	-428.34
111	111	30.50	0.00	65.28	-30.27	-428.34
111	112	33.55	0.00	65.28	-30.27	-627.46
112	10112	33.55	0.00	-47.10	22.28	-627.46
112	113	37.19	0.00	-47.10	22.28	-456.20
113	113	37.19	0.00	-47.10	22.47	-456.20
113	114	40.82	0.00	-47.10	22.47	-284.94
114	114	40.82	0.00	-47.10	22.86	-284.94
114	115	44.46	0.00	-47.10	22.86	-113.68
115	115	44.46	0.00	-47.10	23.45	-113.68
115	116	48.10	0.00	-28.01	14.07	22.87
116	116	48.10	0.00	-28.01	14.07	22.87
116	117	51.73	0.00	-8.91	4.69	90.00
117	117	51.73	0.00	-8.91	4.69	90.00
117	118	55.37	0.00	10.18	-4.69	87.70
118	118	55.37	0.00	10.18	-4.69	87.70
118	119	59.01	0.00	29.27	-14.07	15.99

f3.esf

Programa DINTEL PACADAR S.A.
PPLF3

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLF3

Peso propio de losa hormigonada en fase 3.

[1; 1]PPLF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	29.27	-14.07	15.99
119	120	62.64	0.00	48.36	-23.45	-125.15
120	120	62.64	0.00	48.36	-22.86	-125.15
120	121	66.28	0.00	48.36	-22.86	-301.00
121	121	66.28	0.00	48.36	-22.47	-301.00
121	122	69.91	0.00	48.36	-22.47	-476.85
122	122	69.91	0.00	48.36	-22.28	-476.85
122	123	73.55	0.00	48.36	-22.28	-652.70
123	10123	73.55	0.00	-66.58	30.84	-652.70
123	124	76.66	0.00	-66.58	30.84	-445.64
124	124	76.66	0.00	-66.58	31.03	-445.64
124	125	79.77	0.00	-66.58	31.03	-238.59
125	125	79.77	0.00	-66.58	31.42	-238.59
125	126	82.88	0.00	-66.58	31.42	-31.53
126	126	82.88	0.00	-66.58	32.01	-31.53
126	127	85.99	0.00	-50.25	23.98	150.13
127	127	85.99	0.00	-50.25	23.98	150.13
127	128	89.10	0.00	-33.92	15.96	281.02
128	128	89.10	0.00	-33.92	15.96	281.02
128	129	92.21	0.00	-17.59	7.93	361.13
129	129	92.21	0.00	-17.59	7.94	361.13
129	130	95.32	0.00	-1.27	-0.09	390.46
130	130	95.32	0.00	-1.27	-0.09	390.46
130	131	98.43	0.00	15.06	-8.11	369.01
131	131	98.43	0.00	15.06	-8.11	369.01
131	132	101.54	0.00	31.39	-16.14	296.79
132	132	101.54	0.00	31.39	-16.14	296.79
132	133	104.65	0.00	47.71	-24.16	173.78
133	133	104.65	0.00	47.72	-24.16	173.78
133	134	107.76	0.00	64.04	-32.18	0.00
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00	-0.56
309	2009	24.40	0.00	0.00	0.00	-0.56
310	110	27.45	0.00	0.00	0.00	-0.37
310	2010	27.45	0.00	0.00	0.00	-0.37
311	111	30.50	0.00	0.00	0.00	-0.19

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PPLF3

Peso propio de losa hormigonada en fase 3.

[1; 1]PPLF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	-0.19
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00	-0.19
313	2013	37.19	0.00	0.00	0.00	-0.19
314	114	40.82	0.00	0.00	0.00	-0.39
314	2014	40.82	0.00	0.00	0.00	-0.39
315	115	44.46	0.00	0.00	0.00	-0.59
315	2015	44.46	0.00	0.00	0.00	-0.59
316	116	48.10	0.00	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00	-0.59
320	120	62.64	0.00	0.00	0.00	-0.59
320	2020	62.64	0.00	0.00	0.00	-0.39
321	121	66.28	0.00	0.00	0.00	-0.39
321	2021	66.28	0.00	0.00	0.00	-0.19
322	122	69.91	0.00	0.00	0.00	-0.19
322	2022	69.91	0.00	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	-0.19
324	124	76.66	0.00	0.00	0.00	-0.19
324	2024	76.66	0.00	0.00	0.00	-0.39
325	125	79.77	0.00	0.00	0.00	-0.39
325	2025	79.77	0.00	0.00	0.00	-0.59
326	126	82.88	0.00	0.00	0.00	-0.59
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PPLF3

Peso propio de losa hormigonada en fase 3.

[1; 1]PPLF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	0.00	0.00	-0.56
209	1009	24.40	0.00	0.00	0.00	-0.56
210	2010	27.45	0.00	0.00	0.00	-0.37
210	1010	27.45	0.00	0.00	0.00	-0.37
211	2011	30.50	0.00	0.00	0.00	-0.19
211	1011	30.50	0.00	0.00	0.00	-0.19
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	0.00	0.00	-0.19
213	1013	37.19	0.00	0.00	0.00	-0.19
214	2014	40.82	0.00	0.00	0.00	-0.39
214	1014	40.82	0.00	0.00	0.00	-0.39
215	2015	44.46	0.00	0.00	0.00	-0.59
215	1015	44.46	0.00	0.00	0.00	-0.59
216	2016	0.00	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	0.00	0.00	-0.59
220	1020	62.64	0.00	0.00	0.00	-0.59
221	2021	66.28	0.00	0.00	0.00	-0.39
221	1021	66.28	0.00	0.00	0.00	-0.39
222	2022	69.91	0.00	0.00	0.00	-0.19
222	1022	69.91	0.00	0.00	0.00	-0.19
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00	-0.19
224	1024	76.66	0.00	0.00	0.00	-0.19
225	2025	79.77	0.00	0.00	0.00	-0.39
225	1025	79.77	0.00	0.00	0.00	-0.39
226	2026	82.88	0.00	0.00	0.00	-0.59
226	1026	82.88	0.00	0.00	0.00	-0.59
227	2027	0.00	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLF3

Peso propio de losa hormigonada en fase 3.

[1; 1]PPLF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00	-0.56
409	9	24.40	0.00	0.00	0.00	-0.56
410	1010	27.45	0.00	0.00	0.00	-0.37
410	10	27.45	0.00	0.00	0.00	-0.37
411	1011	30.50	0.00	0.00	0.00	-0.19
411	11	30.50	0.00	0.00	0.00	-0.19
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	-0.19
413	13	37.19	0.00	0.00	0.00	-0.19
414	1014	40.82	0.00	0.00	0.00	-0.39
414	14	40.82	0.00	0.00	0.00	-0.39
415	1015	44.46	0.00	0.00	0.00	-0.59
415	15	44.46	0.00	0.00	0.00	-0.59
416	1016	48.10	0.00	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

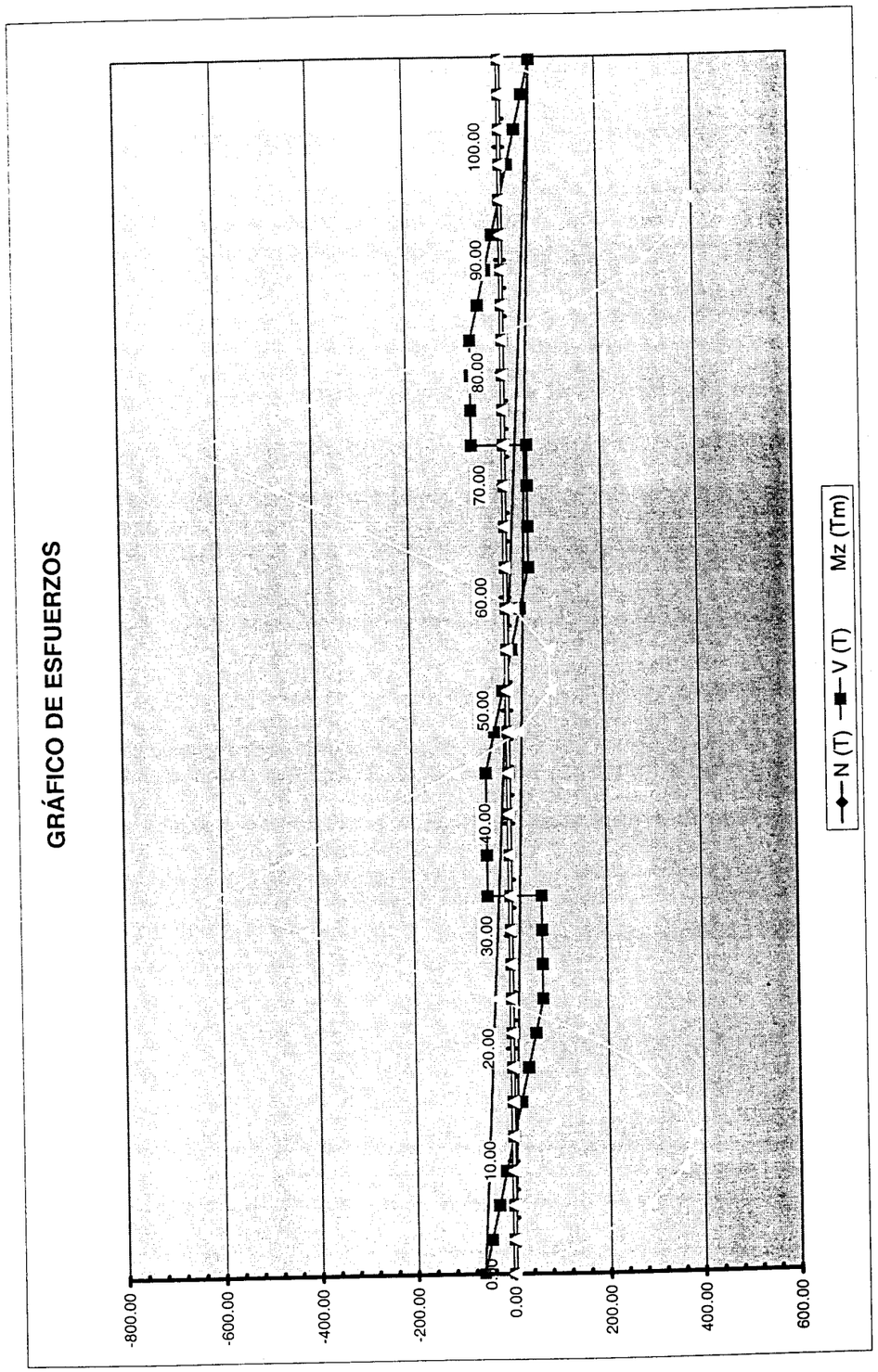
Hipótesis de cálculo:
PPLF3

Peso propio de losa hormigonada en fase 3.

[1; 1]PPLF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	-0.59
420	20	62.64	0.00	0.00	0.00	-0.59
421	1021	66.28	0.00	0.00	0.00	-0.39
421	21	66.28	0.00	0.00	0.00	-0.39
422	1022	69.91	0.00	0.00	0.00	-0.19
422	22	69.91	0.00	0.00	0.00	-0.19
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	-0.19
424	24	76.66	0.00	0.00	0.00	-0.19
425	1025	79.77	0.00	0.00	0.00	-0.39
425	25	79.77	0.00	0.00	0.00	-0.39
426	1026	82.88	0.00	0.00	0.00	-0.59
426	26	82.88	0.00	0.00	0.00	-0.58
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF3
Gradiente en fase 3
[1; 1]GRADF3
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-6.44	0.00	0.00
1	2	3.05	0.00	-6.44	0.00	19.64
2	2	3.05	0.00	-6.44	0.00	19.64
2	3	6.10	0.00	-6.44	0.00	39.28
3	3	6.10	0.00	-6.44	0.00	39.28
3	4	9.15	0.00	-6.44	0.00	58.92
4	4	9.15	0.00	-6.44	0.00	58.92
4	5	12.20	0.00	-6.44	0.00	78.56
5	5	12.20	0.00	-6.44	0.00	78.56
5	6	15.25	0.00	-6.44	0.00	98.20
6	6	15.25	0.00	-6.44	0.00	98.20
6	7	18.30	0.00	-6.44	0.00	117.84
7	7	18.30	0.00	-6.44	0.00	117.84
7	8	21.35	0.00	-6.44	0.00	137.48
8	8	21.35	0.00	-6.44	0.00	137.48
8	9	24.40	0.00	-6.44	0.00	157.12
9	9	24.40	0.00	-6.44	0.00	157.12
9	10	27.45	0.00	-6.44	0.00	176.76
10	10	27.45	0.00	-6.44	0.00	176.76
10	11	30.50	0.00	-6.44	0.00	196.40
11	11	30.50	0.00	-6.44	0.00	196.40
11	12	33.55	0.00	-6.44	0.00	216.04
12	10012	33.55	0.00	-0.03	0.00	216.04
12	13	37.19	0.00	-0.03	0.00	216.13
13	13	37.19	0.00	-0.03	0.00	216.13
13	14	40.82	0.00	-0.03	0.00	216.22
14	14	40.82	0.00	-0.03	0.00	216.22
14	15	44.46	0.00	-0.03	0.00	216.32
15	15	44.46	0.00	-0.03	0.00	216.32
15	16	48.10	0.00	-0.03	0.00	216.41
16	16	48.10	0.00	-0.03	0.00	216.41
16	17	51.73	0.00	-0.03	0.00	216.50
17	17	51.73	0.00	-0.03	0.00	216.50
17	18	55.37	0.00	-0.03	0.00	216.59
18	18	55.37	0.00	-0.03	0.00	216.59
18	19	59.01	0.00	-0.03	0.00	216.69
19	19	59.01	0.00	-0.03	0.00	216.69
19	20	62.64	0.00	-0.03	0.00	216.78
20	20	62.64	0.00	-0.03	0.00	216.78
20	21	66.28	0.00	-0.03	0.00	216.87
21	21	66.28	0.00	-0.03	0.00	216.87
21	22	69.91	0.00	-0.03	0.00	216.96
22	22	69.91	0.00	-0.03	0.00	216.96
22	23	73.55	0.00	-0.03	0.00	217.06
23	10023	73.55	0.00	6.34	0.00	217.06
23	24	76.66	0.00	6.34	0.00	197.32
24	24	76.66	0.00	6.34	0.00	197.32
24	25	79.77	0.00	6.34	0.00	177.59
25	25	79.77	0.00	6.34	0.00	177.59
25	26	82.88	0.00	6.34	0.00	157.86
26	26	82.88	0.00	6.34	0.00	157.86

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF3
Gradiente en fase 3
[1; 1]GRADF3
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	6.34	0.00	138.13
27	27	85.99	0.00	6.34	0.00	138.13
27	28	89.10	0.00	6.34	0.00	118.39
28	28	89.10	0.00	6.34	0.00	118.39
28	29	92.21	0.00	6.34	0.00	98.66
29	29	92.21	0.00	6.34	0.00	98.66
29	30	95.32	0.00	6.34	0.00	78.93
30	30	95.32	0.00	6.34	0.00	78.93
30	31	98.43	0.00	6.34	0.00	59.20
31	31	98.43	0.00	6.34	0.00	59.20
31	32	101.54	0.00	6.34	0.00	39.46
32	32	101.54	0.00	6.34	0.00	39.46
32	33	104.65	0.00	6.34	0.00	19.73
33	33	104.65	0.00	6.34	0.00	19.73
33	34	107.76	0.00	6.34	0.00	0.00
101	101	0.00	0.00	-6.44	0.00	0.00
101	102	3.05	0.00	-6.44	0.00	19.64
102	102	3.05	0.00	-6.44	0.00	19.64
102	103	6.10	0.00	-6.44	0.00	39.28
103	103	6.10	0.00	-6.44	0.00	39.28
103	104	9.15	0.00	-6.44	0.00	58.92
104	104	9.15	0.00	-6.44	0.00	58.92
104	105	12.20	0.00	-6.44	0.00	78.56
105	105	12.20	0.00	-6.44	0.00	78.56
105	106	15.25	0.00	-6.44	0.00	98.20
106	106	15.25	0.00	-6.44	0.00	98.20
106	107	18.30	0.00	-6.44	0.00	117.84
107	107	18.30	0.00	-6.44	0.00	117.84
107	108	21.35	0.00	-6.44	0.00	137.48
108	108	21.35	0.00	-6.44	0.00	137.48
108	109	24.40	0.00	-6.44	0.00	157.12
109	109	24.40	0.00	-6.44	0.00	157.12
109	110	27.45	0.00	-6.44	0.00	176.76
110	110	27.45	0.00	-6.44	0.00	176.76
110	111	30.50	0.00	-6.44	0.00	196.40
111	111	30.50	0.00	-6.44	0.00	196.40
111	112	33.55	0.00	-6.44	0.00	216.04
112	10112	33.55	0.00	-0.03	0.00	216.04
112	113	37.19	0.00	-0.03	0.00	216.13
113	113	37.19	0.00	-0.03	0.00	216.13
113	114	40.82	0.00	-0.03	0.00	216.22
114	114	40.82	0.00	-0.03	0.00	216.22
114	115	44.46	0.00	-0.03	0.00	216.32
115	115	44.46	0.00	-0.03	0.00	216.32
115	116	48.10	0.00	-0.03	0.00	216.41
116	116	48.10	0.00	-0.03	0.00	216.41
116	117	51.73	0.00	-0.03	0.00	216.50
117	117	51.73	0.00	-0.03	0.00	216.50
117	118	55.37	0.00	-0.03	0.00	216.59
118	118	55.37	0.00	-0.03	0.00	216.59
118	119	59.01	0.00	-0.03	0.00	216.69

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF3
Gradiente en fase 3
[1; 1]GRADF3
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-0.03	0.00	216.69
119	120	62.64	0.00	-0.03	0.00	216.78
120	120	62.64	0.00	-0.03	0.00	216.78
120	121	66.28	0.00	-0.03	0.00	216.87
121	121	66.28	0.00	-0.03	0.00	216.87
121	122	69.91	0.00	-0.03	0.00	216.96
122	122	69.91	0.00	-0.03	0.00	216.96
122	123	73.55	0.00	-0.03	0.00	217.06
123	10123	73.55	0.00	6.34	0.00	217.06
123	124	76.66	0.00	6.34	0.00	197.32
124	124	76.66	0.00	6.34	0.00	197.32
124	125	79.77	0.00	6.34	0.00	177.59
125	125	79.77	0.00	6.34	0.00	177.59
125	126	82.88	0.00	6.34	0.00	157.86
126	126	82.88	0.00	6.34	0.00	157.86
126	127	85.99	0.00	6.34	0.00	138.13
127	127	85.99	0.00	6.34	0.00	138.13
127	128	89.10	0.00	6.34	0.00	118.40
128	128	89.10	0.00	6.34	0.00	118.40
128	129	92.21	0.00	6.34	0.00	98.66
129	129	92.21	0.00	6.34	0.00	98.66
129	130	95.32	0.00	6.34	0.00	78.93
130	130	95.32	0.00	6.34	0.00	78.93
130	131	98.43	0.00	6.34	0.00	59.20
131	131	98.43	0.00	6.34	0.00	59.20
131	132	101.54	0.00	6.34	0.00	39.47
132	132	101.54	0.00	6.34	0.00	39.47
132	133	104.65	0.00	6.34	0.00	19.73
133	133	104.65	0.00	6.34	0.00	19.73
133	134	107.76	0.00	6.34	0.00	0.00
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

GRADF3

Gradiente en fase 3

[1; 1]GRADF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00	0.00

f3.esf

Programa DINTEL PACADAR S.A.
GRADF3

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

GRADF3

Gradiente en fase 3

[1; 1]GRADF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	0.00	0.00	0.00
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	0.00	0.00	0.00
210	1010	27.45	0.00	0.00	0.00	0.00
211	2011	30.50	0.00	0.00	0.00	0.00
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	0.00	0.00	0.00
213	1013	37.19	0.00	0.00	0.00	0.00
214	2014	40.82	0.00	0.00	0.00	0.00
214	1014	40.82	0.00	0.00	0.00	0.00
215	2015	44.46	0.00	0.00	0.00	0.00
215	1015	44.46	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	0.00	0.00	0.00
220	1020	62.64	0.00	0.00	0.00	0.00
221	2021	66.28	0.00	0.00	0.00	0.00
221	1021	66.28	0.00	0.00	0.00	0.00
222	2022	69.91	0.00	0.00	0.00	0.00
222	1022	69.91	0.00	0.00	0.00	0.00
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00	0.00
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	0.00	0.00	0.00
225	1025	79.77	0.00	0.00	0.00	0.00
226	2026	82.88	0.00	0.00	0.00	0.00
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF3

Gradiente en fase 3

[1; 1]GRADF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00	0.00

f3.esf

Programa DINTEL PACADAR S.A.
GRADF3

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRADF3

Gradiente en fase 3

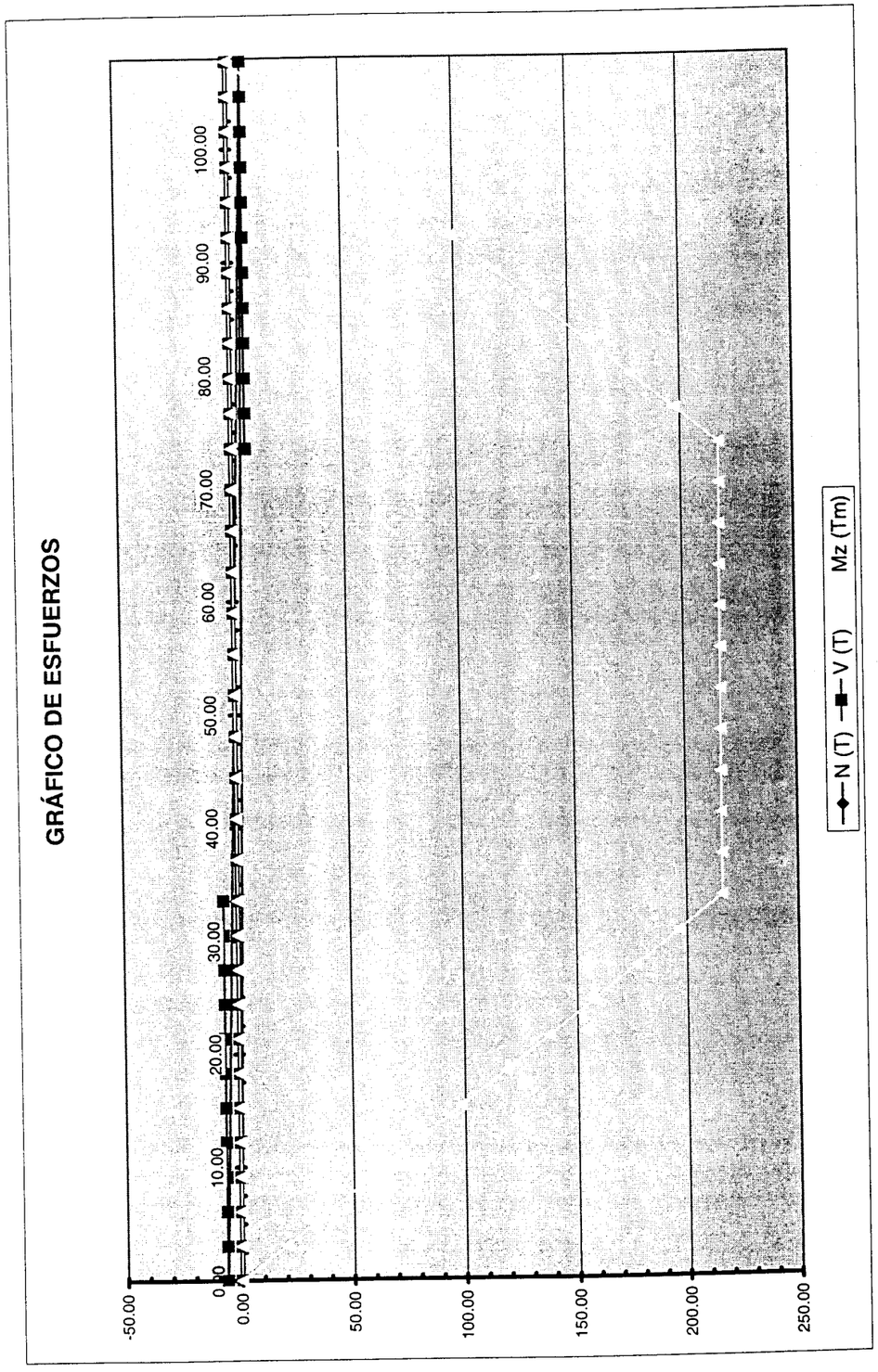
[1; 1]GRADF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00

17/11/0

Programa DINTEL PACADAR S.A.
GRADF3



f3.esf.xls

CÁLCULO TENSIONAL

Hipótesis de cálculo:
LTORSION
Liberacion de coacciones a torsión

[1; 1]LTORSION

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	0.00	3.98	0.00
1	2	3.05	0.00	0.00	-30.80	0.00
2	2	3.05	0.00	0.00	-23.02	0.00
2	3	6.10	0.00	0.00	-23.02	0.00
3	3	6.10	0.00	0.00	-15.38	0.00
3	4	9.15	0.00	0.00	-15.38	0.00
4	4	9.15	0.00	0.00	-7.84	0.00
4	5	12.20	0.00	0.00	-7.84	0.00
5	5	12.20	0.00	0.00	-0.35	0.00
5	6	15.25	0.00	0.00	-0.35	0.00
6	6	15.25	0.00	0.00	7.14	0.00
6	7	18.30	0.00	0.00	7.14	0.00
7	7	18.30	0.00	0.00	14.67	0.00
7	8	21.35	0.00	0.00	14.67	0.00
8	8	21.35	0.00	0.00	22.30	0.00
8	9	24.40	0.00	0.00	22.30	0.00
9	9	24.40	0.00	0.00	30.06	0.00
9	10	27.45	0.00	0.00	30.06	0.00
10	10	27.45	0.00	0.00	38.01	0.00
10	11	30.50	0.00	0.00	38.01	0.00
11	11	30.50	0.00	0.00	46.19	0.00
11	12	33.55	0.00	0.00	46.19	0.00
12	10012	33.55	0.00	0.00	55.46	0.00
12	13	37.19	0.00	0.00	-45.61	0.00
13	13	37.19	0.00	0.00	-35.91	0.00
13	14	40.82	0.00	0.00	-35.91	0.00
14	14	40.82	0.00	0.00	-26.54	0.00
14	15	44.46	0.00	0.00	-26.54	0.00
15	15	44.46	0.00	0.00	-17.39	0.00
15	16	48.10	0.00	0.00	-17.39	0.00
16	16	48.10	0.00	0.00	-8.40	0.00
16	17	51.73	0.00	0.00	-8.40	0.00
17	17	51.73	0.00	0.00	0.53	0.00
17	18	55.37	0.00	0.00	0.53	0.00
18	18	55.37	0.00	0.00	9.45	0.00
18	19	59.01	0.00	0.00	9.45	0.00
19	19	59.01	0.00	0.00	18.46	0.00
19	20	62.64	0.00	0.00	18.46	0.00
20	20	62.64	0.00	0.00	27.63	0.00
20	21	66.28	0.00	0.00	27.63	0.00
21	21	66.28	0.00	0.00	37.04	0.00
21	22	69.91	0.00	0.00	37.04	0.00
22	22	69.91	0.00	0.00	46.77	0.00
22	23	73.55	0.00	0.00	46.77	0.00
23	10023	73.55	0.00	0.00	56.10	0.00
23	24	76.66	0.00	0.00	-45.95	0.00
24	24	76.66	0.00	0.00	-37.73	0.00
24	25	79.77	0.00	0.00	-37.73	0.00
25	25	79.77	0.00	0.00	-29.75	0.00
25	26	82.88	0.00	0.00	-29.75	0.00
26	26	82.88	0.00	0.00	-21.95	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
LTORSION

Liberacion de coacciones a torsión

[1; 1]LTORSION

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	0.00	-21.95	0.00
27	27	85.99	0.00	0.00	-14.29	0.00
27	28	89.10	0.00	0.00	-14.29	0.00
28	28	89.10	0.00	0.00	-6.72	0.00
28	29	92.21	0.00	0.00	-6.72	0.00
29	29	92.21	0.00	0.00	0.81	0.00
29	30	95.32	0.00	0.00	0.81	0.00
30	30	95.32	0.00	0.00	8.34	0.00
30	31	98.43	0.00	0.00	8.34	0.00
31	31	98.43	0.00	0.00	15.93	0.00
31	32	101.54	0.00	0.00	15.93	0.00
32	32	101.54	0.00	0.00	23.61	0.00
32	33	104.65	0.00	0.00	23.61	0.00
33	33	104.65	0.00	0.00	31.44	0.00
33	34	107.76	0.00	0.00	-4.02	0.00
101	101	0.00	0.00	0.00	-3.98	0.00
101	102	3.05	0.00	0.00	30.80	0.00
102	102	3.05	0.00	0.00	23.02	0.00
102	103	6.10	0.00	0.00	23.02	0.00
103	103	6.10	0.00	0.00	15.38	0.00
103	104	9.15	0.00	0.00	15.38	0.00
104	104	9.15	0.00	0.00	7.84	0.00
104	105	12.20	0.00	0.00	7.84	0.00
105	105	12.20	0.00	0.00	0.35	0.00
105	106	15.25	0.00	0.00	0.35	0.00
106	106	15.25	0.00	0.00	-7.14	0.00
106	107	18.30	0.00	0.00	-7.14	0.00
107	107	18.30	0.00	0.00	-14.67	0.00
107	108	21.35	0.00	0.00	-14.67	0.00
108	108	21.35	0.00	0.00	-22.30	0.00
108	109	24.40	0.00	0.00	-22.30	0.00
109	109	24.40	0.00	0.00	-30.06	0.00
109	110	27.45	0.00	0.00	-30.06	0.00
110	110	27.45	0.00	0.00	-38.01	0.00
110	111	30.50	0.00	0.00	-38.01	0.00
111	111	30.50	0.00	0.00	-46.19	0.00
111	112	33.55	0.00	0.00	-46.19	0.00
112	10112	33.55	0.00	0.00	-55.46	0.00
112	113	37.19	0.00	0.00	45.61	0.00
113	113	37.19	0.00	0.00	35.91	0.00
113	114	40.82	0.00	0.00	35.91	0.00
114	114	40.82	0.00	0.00	26.54	0.00
114	115	44.46	0.00	0.00	26.54	0.00
115	115	44.46	0.00	0.00	17.39	0.00
115	116	48.10	0.00	0.00	17.39	0.00
116	116	48.10	0.00	0.00	8.40	0.00
116	117	51.73	0.00	0.00	8.40	0.00
117	117	51.73	0.00	0.00	-0.53	0.00
117	118	55.37	0.00	0.00	-0.53	0.00
118	118	55.37	0.00	0.00	-9.45	0.00
118	119	59.01	0.00	0.00	-9.45	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CMmin

Carga muerta mínima

[1; 1]CMmin

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-103.03	0.10	0.12
1	2	3.05	0.00	-78.23	1.56	276.55
2	2	3.05	0.00	-78.72	0.78	276.77
2	3	6.10	0.00	-53.92	2.25	479.04
3	3	6.10	0.00	-54.14	0.65	479.22
3	4	9.15	0.00	-29.34	2.12	606.53
4	4	9.15	0.00	-29.38	-0.07	606.65
4	5	12.20	0.00	-4.58	1.40	658.44
5	5	12.20	0.00	-4.51	-1.12	658.48
5	6	15.25	0.00	20.28	0.34	634.43
6	6	15.25	0.00	20.38	-2.23	634.41
6	7	18.30	0.00	45.17	-0.77	534.45
7	7	18.30	0.00	45.20	-3.16	534.36
7	8	21.35	0.00	70.00	-1.70	358.68
8	8	21.35	0.00	69.90	-3.69	358.54
8	9	24.40	0.00	94.70	-2.23	107.52
9	9	24.40	0.00	94.43	-3.68	107.36
9	10	27.45	0.00	119.23	-2.21	-218.47
10	10	27.45	0.00	118.77	-3.06	-218.63
10	11	30.50	0.00	143.57	-1.60	-618.69
11	11	30.50	0.00	142.94	-1.93	-618.80
11	12	33.55	0.00	167.74	-0.47	-1093.00
12	10012	33.55	0.00	-160.38	-0.57	-1092.60
12	13	37.19	0.00	-130.82	1.17	-563.14
13	13	37.19	0.00	-131.55	0.74	-563.01
13	14	40.82	0.00	-101.99	2.49	-138.40
14	14	40.82	0.00	-102.49	1.32	-138.22
14	15	44.46	0.00	-72.92	3.07	180.71
15	15	44.46	0.00	-73.17	1.11	180.88
15	16	48.10	0.00	-43.61	2.86	393.21
16	16	48.10	0.00	-43.66	0.27	393.32
16	17	51.73	0.00	-14.09	2.01	498.32
17	17	51.73	0.00	-14.03	-0.92	498.36
17	18	55.37	0.00	15.53	0.83	495.64
18	18	55.37	0.00	15.59	-2.10	495.59
18	19	59.01	0.00	45.16	-0.36	385.14
19	19	59.01	0.00	45.10	-2.93	385.03
19	20	62.64	0.00	74.66	-1.18	167.28
20	20	62.64	0.00	74.40	-3.10	167.11
20	21	66.28	0.00	103.97	-1.36	-157.19
21	21	66.28	0.00	103.45	-2.47	-157.37
21	22	69.91	0.00	133.01	-0.73	-587.30
22	22	69.91	0.00	132.26	-1.11	-587.42
22	23	73.55	0.00	161.82	0.64	-1122.00
23	10023	73.55	0.00	-170.70	0.58	-1122.11
23	24	76.66	0.00	-145.42	2.07	-630.54
24	24	76.66	0.00	-146.05	1.76	-630.42
24	25	79.77	0.00	-120.77	3.25	-215.51
25	25	79.77	0.00	-121.23	2.39	-215.35
25	26	82.88	0.00	-95.94	3.88	122.36
26	26	82.88	0.00	-96.20	2.39	122.52

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CMmin
Carga muerta mínima
[1; 1]CMmin
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-70.92	3.88	382.40
27	27	85.99	0.00	-71.00	1.81	382.54
27	28	89.10	0.00	-45.71	3.30	564.02
28	28	89.10	0.00	-45.65	0.81	564.11
28	29	92.21	0.00	-20.37	2.31	666.78
29	29	92.21	0.00	-20.25	-0.38	666.80
29	30	95.32	0.00	5.03	1.11	690.47
30	30	95.32	0.00	5.13	-1.50	690.42
30	31	98.43	0.00	30.41	0.00	635.16
31	31	98.43	0.00	30.39	-2.26	635.04
31	32	101.54	0.00	55.68	-0.76	501.20
32	32	101.54	0.00	55.46	-2.39	501.02
32	33	104.65	0.00	80.74	-0.89	289.23
33	33	104.65	0.00	80.24	-1.64	289.00
33	34	107.76	0.00	105.53	-0.15	0.13
101	101	0.00	0.00	-112.61	2.39	-0.12
101	102	3.05	0.00	-85.80	-0.72	302.47
102	102	3.05	0.00	-85.32	3.09	302.25
102	103	6.10	0.00	-58.51	-0.02	521.60
103	103	6.10	0.00	-58.29	2.97	521.43
103	104	9.15	0.00	-31.48	-0.14	658.33
104	104	9.15	0.00	-31.45	2.26	658.22
104	105	12.20	0.00	-4.64	-0.85	713.25
105	105	12.20	0.00	-4.71	1.22	713.20
105	106	15.25	0.00	22.10	-1.89	686.68
106	106	15.25	0.00	22.01	0.12	686.71
106	107	18.30	0.00	48.82	-2.99	578.69
107	107	18.30	0.00	48.79	-0.80	578.78
107	108	21.35	0.00	75.60	-3.91	389.09
108	108	21.35	0.00	75.69	-1.32	389.22
108	109	24.40	0.00	102.50	-4.43	117.48
109	109	24.40	0.00	102.77	-1.29	117.64
109	110	27.45	0.00	129.58	-4.40	-236.70
110	110	27.45	0.00	130.04	-0.66	-236.54
110	111	30.50	0.00	156.85	-3.77	-674.05
111	111	30.50	0.00	157.47	0.49	-673.94
111	112	33.55	0.00	184.28	-2.62	-1195.00
112	10112	33.55	0.00	-176.50	2.31	-1195.10
112	113	37.19	0.00	-144.53	-1.40	-611.42
113	113	37.19	0.00	-143.80	3.64	-611.54
113	114	40.82	0.00	-111.84	-0.07	-146.74
114	114	40.82	0.00	-111.34	4.24	-146.92
114	115	44.46	0.00	-79.37	0.53	199.83
115	115	44.46	0.00	-79.12	4.05	199.66
115	116	48.10	0.00	-47.16	0.35	429.27
116	116	48.10	0.00	-47.11	3.23	429.16
116	117	51.73	0.00	-15.15	-0.48	542.37
117	117	51.73	0.00	-15.21	2.07	542.33
117	118	55.37	0.00	16.75	-1.64	539.53
118	118	55.37	0.00	16.69	0.92	539.57
118	119	59.01	0.00	48.66	-2.79	420.75

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CMmin
Carga muerta mínima
[1; 1]CMmin
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	48.71	0.13	420.87
119	120	62.64	0.00	80.68	-3.58	185.62
120	120	62.64	0.00	80.94	-0.01	185.78
120	121	66.28	0.00	112.90	-3.72	-166.65
121	121	66.28	0.00	113.42	0.65	-166.47
121	122	69.91	0.00	145.38	-3.06	-637.01
122	122	69.91	0.00	146.13	2.06	-636.89
122	123	73.55	0.00	178.10	-1.65	-1226.00
123	10123	73.55	0.00	-187.36	3.34	-1226.41
123	124	76.66	0.00	-160.03	0.17	-686.22
124	124	76.66	0.00	-159.39	4.48	-686.34
124	125	79.77	0.00	-132.05	1.30	-233.14
125	125	79.77	0.00	-131.59	5.06	-233.30
125	126	82.88	0.00	-104.26	1.89	133.45
126	126	82.88	0.00	-104.00	5.02	133.28
126	127	85.99	0.00	-76.66	1.84	414.21
127	127	85.99	0.00	-76.59	4.39	414.07
127	128	89.10	0.00	-49.25	1.22	609.74
128	128	89.10	0.00	-49.31	3.35	609.65
128	129	92.21	0.00	-21.97	0.18	720.49
129	129	92.21	0.00	-22.09	2.12	720.47
129	130	95.32	0.00	5.25	-1.05	746.65
130	130	95.32	0.00	5.16	0.97	746.70
130	131	98.43	0.00	32.49	-2.20	688.16
131	131	98.43	0.00	32.51	0.17	688.28
131	132	101.54	0.00	59.85	-3.00	544.66
132	132	101.54	0.00	60.07	0.00	544.84
132	133	104.65	0.00	87.40	-3.17	315.53
133	133	104.65	0.00	87.90	0.71	315.76
133	134	107.76	0.00	115.24	-2.46	-0.13
301	101	0.00	0.00	-0.39	-0.12	-2.39
301	2001	0.00	0.00	-0.39	-0.12	-2.09
302	102	3.05	0.00	-0.48	-0.22	-3.81
302	2002	3.05	0.00	-0.48	-0.22	-3.44
303	103	6.10	0.00	-0.22	-0.18	-2.99
303	2003	6.10	0.00	-0.22	-0.18	-2.82
304	104	9.15	0.00	-0.03	-0.12	-2.40
304	2004	9.15	0.00	-0.03	-0.12	-2.38
305	105	12.20	0.00	0.07	-0.05	-2.07
305	2005	12.20	0.00	0.07	-0.05	-2.13
306	106	15.25	0.00	0.09	0.02	-2.01
306	2006	15.25	0.00	0.09	0.02	-2.08
307	107	18.30	0.00	0.03	0.08	-2.19
307	2007	18.30	0.00	0.03	0.08	-2.22
308	108	21.35	0.00	-0.10	0.13	-2.59
308	2008	21.35	0.00	-0.10	0.13	-2.52
309	109	24.40	0.00	-0.27	0.16	-3.14
309	2009	24.40	0.00	-0.27	0.16	-2.94
310	110	27.45	0.00	-0.46	0.16	-3.74
310	2010	27.45	0.00	-0.46	0.16	-3.39
311	111	30.50	0.00	-0.62	0.11	-4.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:

CMmin

Carga muerta mínima

[1; 1]CMmin

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.62	0.11	-3.79
312	112	33.55	0.00	-0.77	0.01	-4.93
312	2012	33.55	0.00	-0.77	0.01	-4.35
313	113	37.19	0.00	-0.73	-0.13	-5.04
313	2013	37.19	0.00	-0.73	-0.13	-4.49
314	114	40.82	0.00	-0.50	-0.18	-4.31
314	2014	40.82	0.00	-0.50	-0.18	-3.94
315	115	44.46	0.00	-0.25	-0.17	-3.52
315	2015	44.46	0.00	-0.25	-0.17	-3.33
316	116	48.10	0.00	-0.05	-0.11	-2.89
316	2016	48.10	0.00	-0.05	-0.11	-2.85
317	117	51.73	0.00	0.06	-0.04	-2.55
317	2017	51.73	0.00	0.06	-0.04	-2.59
318	118	55.37	0.00	0.06	0.04	-2.56
318	2018	55.37	0.00	0.06	0.04	-2.60
319	119	59.01	0.00	-0.06	0.12	-2.92
319	2019	59.01	0.00	-0.06	0.12	-2.88
320	120	62.64	0.00	-0.26	0.17	-3.57
320	2020	62.64	0.00	-0.26	0.17	-3.37
321	121	66.28	0.00	-0.52	0.18	-4.38
321	2021	66.28	0.00	-0.52	0.18	-3.98
322	122	69.91	0.00	-0.75	0.12	-5.11
322	2022	69.91	0.00	-0.75	0.12	-4.55
323	123	73.55	0.00	-0.78	-0.01	-5.00
323	2023	73.55	0.00	-0.78	-0.01	-4.40
324	124	76.66	0.00	-0.63	-0.12	-4.30
324	2024	76.66	0.00	-0.63	-0.12	-3.82
325	125	79.77	0.00	-0.46	-0.16	-3.76
325	2025	79.77	0.00	-0.46	-0.16	-3.41
326	126	82.88	0.00	-0.26	-0.17	-3.13
326	2026	82.88	0.00	-0.26	-0.17	-2.93
327	127	85.99	0.00	-0.08	-0.14	-2.55
327	2027	85.99	0.00	-0.08	-0.14	-2.49
328	128	89.10	0.00	0.06	-0.09	-2.13
328	2028	89.10	0.00	0.06	-0.09	-2.18
329	129	92.21	0.00	0.12	-0.02	-1.94
329	2029	92.21	0.00	0.12	-0.02	-2.03
330	130	95.32	0.00	0.09	0.05	-2.02
330	2030	95.32	0.00	0.09	0.05	-2.09
331	131	98.43	0.00	-0.02	0.12	-2.37
331	2031	98.43	0.00	-0.02	0.12	-2.36
332	132	101.54	0.00	-0.22	0.19	-3.01
332	2032	101.54	0.00	-0.22	0.19	-2.84
333	133	104.65	0.00	-0.50	0.23	-3.88
333	2033	104.65	0.00	-0.50	0.23	-3.50
334	134	107.76	0.00	-0.41	0.13	-2.46
334	2034	107.76	0.00	-0.41	0.13	-2.15
201	2001	0.00	0.00	-0.39	-0.12	-2.09
201	1001	0.00	0.00	-0.39	-0.12	-0.20
202	2002	3.05	0.00	-0.48	-0.22	-3.44
202	1002	3.05	0.00	-0.48	-0.22	-1.14

CÁLCULO TENSIONAL

Hipótesis de cálculo:

CMmin

Carga muerta mínima

[1; 1]CMmin

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.22	-0.18	-2.82
203	1003	6.10	0.00	-0.22	-0.18	-1.76
204	2004	9.15	0.00	-0.03	-0.12	-2.38
204	1004	9.15	0.00	-0.03	-0.12	-2.21
205	2005	12.20	0.00	0.07	-0.05	-2.13
205	1005	12.20	0.00	0.07	-0.05	-2.46
206	2006	15.25	0.00	0.09	0.02	-2.08
206	1006	15.25	0.00	0.09	0.02	-2.51
207	2007	18.30	0.00	0.03	0.08	-2.22
207	1007	18.30	0.00	0.03	0.08	-2.37
208	2008	21.35	0.00	-0.10	0.13	-2.52
208	1008	21.35	0.00	-0.10	0.13	-2.07
209	2009	24.40	0.00	-0.27	0.16	-2.94
209	1009	24.40	0.00	-0.27	0.16	-1.65
210	2010	27.45	0.00	-0.46	0.16	-3.39
210	1010	27.45	0.00	-0.46	0.16	-1.20
211	2011	30.50	0.00	-0.62	0.11	-3.79
211	1011	30.50	0.00	-0.62	0.11	-0.80
212	2012	33.55	0.00	-0.77	0.01	-4.35
212	1012	33.55	0.00	-0.77	0.01	-0.68
213	2013	37.19	0.00	-0.73	-0.13	-4.49
213	1013	37.19	0.00	-0.73	-0.13	-0.99
214	2014	40.82	0.00	-0.50	-0.18	-3.94
214	1014	40.82	0.00	-0.50	-0.18	-1.54
215	2015	44.46	0.00	-0.25	-0.17	-3.33
215	1015	44.46	0.00	-0.25	-0.17	-2.14
216	2016	48.10	0.00	-0.05	-0.11	-2.85
216	1016	48.10	0.00	-0.05	-0.11	-2.63
217	2017	51.73	0.00	0.06	-0.04	-2.59
217	1017	51.73	0.00	0.06	-0.04	-2.89
218	2018	55.37	0.00	0.06	0.04	-2.60
218	1018	55.37	0.00	0.06	0.04	-2.88
219	2019	59.01	0.00	-0.06	0.12	-2.88
219	1019	59.01	0.00	-0.06	0.12	-2.61
220	2020	62.64	0.00	-0.26	0.17	-3.37
220	1020	62.64	0.00	-0.26	0.17	-2.12
221	2021	66.28	0.00	-0.52	0.18	-3.98
221	1021	66.28	0.00	-0.52	0.18	-1.51
222	2022	69.91	0.00	-0.75	0.12	-4.55
222	1022	69.91	0.00	-0.75	0.12	-0.95
223	2023	73.55	0.00	-0.78	-0.01	-4.40
223	1023	73.55	0.00	-0.78	-0.01	-0.65
224	2024	76.66	0.00	-0.63	-0.12	-3.82
224	1024	76.66	0.00	-0.63	-0.12	-0.79
225	2025	79.77	0.00	-0.46	-0.16	-3.41
225	1025	79.77	0.00	-0.46	-0.16	-1.21
226	2026	82.88	0.00	-0.26	-0.17	-2.93
226	1026	82.88	0.00	-0.26	-0.17	-1.69
227	2027	85.99	0.00	-0.08	-0.14	-2.49
227	1027	85.99	0.00	-0.08	-0.14	-2.13
228	2028	89.10	0.00	0.06	-0.09	-2.18

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CMmin
Carga muerta mínima
[1; 1]CMmin
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.06	-0.09	-2.45
229	2029	92.21	0.00	0.12	-0.02	-2.03
229	1029	92.21	0.00	0.12	-0.02	-2.59
230	2030	95.32	0.00	0.09	0.05	-2.09
230	1030	95.32	0.00	0.09	0.05	-2.54
231	2031	98.43	0.00	-0.02	0.12	-2.36
231	1031	98.43	0.00	-0.02	0.12	-2.27
232	2032	101.54	0.00	-0.22	0.19	-2.84
232	1032	101.54	0.00	-0.22	0.19	-1.79
233	2033	104.65	0.00	-0.50	0.23	-3.50
233	1033	104.65	0.00	-0.50	0.23	-1.12
234	2034	107.76	0.00	-0.41	0.13	-2.15
234	1034	107.76	0.00	-0.41	0.13	-0.17
401	1001	0.00	0.00	-0.39	-0.12	-0.20
401	1	0.00	0.00	-0.39	-0.12	0.10
402	1002	3.05	0.00	-0.48	-0.22	-1.14
402	2	3.05	0.00	-0.48	-0.22	-0.78
403	1003	6.10	0.00	-0.22	-0.18	-1.76
403	3	6.10	0.00	-0.22	-0.18	-1.59
404	1004	9.15	0.00	-0.04	-0.12	-2.21
404	4	9.15	0.00	-0.04	-0.12	-2.18
405	1005	12.20	0.00	0.07	-0.05	-2.46
405	5	12.20	0.00	0.07	-0.05	-2.51
406	1006	15.25	0.00	0.09	0.02	-2.51
406	6	15.25	0.00	0.09	0.02	-2.58
407	1007	18.30	0.00	0.03	0.08	-2.37
407	7	18.30	0.00	0.03	0.08	-2.39
408	1008	21.35	0.00	-0.10	0.13	-2.07
408	8	21.35	0.00	-0.10	0.13	-1.99
409	1009	24.40	0.00	-0.27	0.16	-1.65
409	9	24.40	0.00	-0.27	0.16	-1.45
410	1010	27.45	0.00	-0.46	0.16	-1.20
410	10	27.45	0.00	-0.46	0.16	-0.85
411	1011	30.50	0.00	-0.62	0.11	-0.80
411	11	30.50	0.00	-0.62	0.11	-0.33
412	1012	33.55	0.00	-0.77	0.01	-0.68
412	12	33.55	0.00	-0.77	0.01	-0.10
413	1013	37.19	0.00	-0.73	-0.13	-0.99
413	13	37.19	0.00	-0.73	-0.13	-0.43
414	1014	40.82	0.00	-0.50	-0.18	-1.54
414	14	40.82	0.00	-0.50	-0.18	-1.16
415	1015	44.46	0.00	-0.25	-0.17	-2.14
415	15	44.46	0.00	-0.25	-0.17	-1.96
416	1016	48.10	0.00	-0.05	-0.11	-2.63
416	16	48.10	0.00	-0.05	-0.11	-2.59
417	1017	51.73	0.00	0.06	-0.04	-2.89
417	17	51.73	0.00	0.06	-0.04	-2.93
418	1018	55.37	0.00	0.06	0.04	-2.88
418	18	55.37	0.00	0.06	0.04	-2.93
419	1019	59.01	0.00	-0.06	0.12	-2.61
419	19	59.01	0.00	-0.06	0.12	-2.57

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CMmin
Carga muerta mínima
[1; 1]CMmin
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.26	0.17	-2.12
420	20	62.64	0.00	-0.26	0.17	-1.92
421	1021	66.28	0.00	-0.52	0.18	-1.51
421	21	66.28	0.00	-0.52	0.18	-1.12
422	1022	69.91	0.00	-0.75	0.12	-0.95
422	22	69.91	0.00	-0.75	0.12	-0.38
423	1023	73.55	0.00	-0.78	-0.01	-0.65
423	23	73.55	0.00	-0.78	-0.01	-0.06
424	1024	76.66	0.00	-0.63	-0.12	-0.79
424	24	76.66	0.00	-0.63	-0.12	-0.31
425	1025	79.77	0.00	-0.46	-0.16	-1.21
425	25	79.77	0.00	-0.46	-0.16	-0.86
426	1026	82.88	0.00	-0.26	-0.17	-1.69
426	26	82.88	0.00	-0.26	-0.17	-1.49
427	1027	85.99	0.00	-0.08	-0.14	-2.13
427	27	85.99	0.00	-0.08	-0.14	-2.07
428	1028	89.10	0.00	0.06	-0.09	-2.45
428	28	89.10	0.00	0.06	-0.09	-2.49
429	1029	92.21	0.00	0.12	-0.02	-2.59
429	29	92.21	0.00	0.12	-0.02	-2.68
430	1030	95.32	0.00	0.09	0.05	-2.54
430	30	95.32	0.00	0.09	0.05	-2.61
431	1031	98.43	0.00	-0.02	0.12	-2.27
431	31	98.43	0.00	-0.02	0.12	-2.25
432	1032	101.54	0.00	-0.22	0.19	-1.79
432	32	101.54	0.00	-0.22	0.19	-1.62
433	1033	104.65	0.00	-0.50	0.23	-1.12
433	33	104.65	0.00	-0.50	0.23	-0.75
434	1034	107.76	0.00	-0.41	0.13	-0.17
434	34	107.76	0.00	-0.41	0.13	0.15

CÁLCULO TENSIONAL

Hipótesis de cálculo:

CMmax

Carga muerta maxima

[1; 1]CMmax

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-149.19	4.61	0.22
1	2	3.05	0.00	-113.23	-1.52	400.42
2	2	3.05	0.00	-114.12	5.89	400.83
2	3	6.10	0.00	-78.16	-0.24	694.06
3	3	6.10	0.00	-78.57	5.67	694.38
3	4	9.15	0.00	-42.61	-0.46	879.17
4	4	9.15	0.00	-42.67	4.37	879.38
4	5	12.20	0.00	-6.71	-1.76	954.68
5	5	12.20	0.00	-6.57	2.45	954.77
5	6	15.25	0.00	29.39	-3.68	919.98
6	6	15.25	0.00	29.56	0.42	919.94
6	7	18.30	0.00	65.52	-5.71	774.95
7	7	18.30	0.00	65.58	-1.27	774.80
7	8	21.35	0.00	101.54	-7.40	519.95
8	8	21.35	0.00	101.36	-2.23	519.70
8	9	24.40	0.00	137.32	-8.36	155.70
9	9	24.40	0.00	136.83	-2.17	155.41
9	10	27.45	0.00	172.79	-8.30	-316.76
10	10	27.45	0.00	171.95	-1.00	-317.05
10	11	30.50	0.00	207.90	-7.13	-896.32
11	11	30.50	0.00	206.76	1.11	-896.52
11	12	33.55	0.00	242.72	-5.02	-1582.00
12	10012	33.55	0.00	-232.02	4.50	-1581.99
12	13	37.19	0.00	-189.15	-2.81	-816.24
13	13	37.19	0.00	-190.49	6.96	-816.01
13	14	40.82	0.00	-147.62	-0.35	-201.26
14	14	40.82	0.00	-148.54	8.08	-200.94
14	15	44.46	0.00	-105.67	0.77	261.25
15	15	44.46	0.00	-106.12	7.73	261.55
15	16	48.10	0.00	-63.25	0.42	569.49
16	16	48.10	0.00	-63.33	6.22	569.70
16	17	51.73	0.00	-20.46	-1.09	722.05
17	17	51.73	0.00	-20.34	4.08	722.12
17	18	55.37	0.00	22.53	-3.23	718.13
18	18	55.37	0.00	22.65	1.95	718.06
18	19	59.01	0.00	65.52	-5.36	557.76
19	19	59.01	0.00	65.42	0.49	557.54
19	20	62.64	0.00	108.29	-6.82	241.70
20	20	62.64	0.00	107.81	0.24	241.40
20	21	66.28	0.00	150.69	-7.07	-228.61
21	21	66.28	0.00	149.74	1.47	-228.93
21	22	69.91	0.00	192.61	-5.84	-851.38
22	22	69.91	0.00	191.23	4.06	-851.61
22	23	73.55	0.00	234.10	-3.25	-1625.00
23	10023	73.55	0.00	-247.04	6.41	-1624.90
23	24	76.66	0.00	-210.37	0.16	-913.62
24	24	76.66	0.00	-211.54	8.49	-913.41
24	25	79.77	0.00	-174.87	2.24	-312.54
25	25	79.77	0.00	-175.72	9.57	-312.23
25	26	82.88	0.00	-139.05	3.32	177.23
26	26	82.88	0.00	-139.53	9.48	177.54

CÁLCULO TENSIONAL

Hipótesis de cálculo:

CMmax

Carga muerta maxima

[1; 1]CMmax

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-102.86	3.23	554.46
27	27	85.99	0.00	-103.00	8.33	554.71
27	28	89.10	0.00	-66.33	2.08	818.02
28	28	89.10	0.00	-66.22	6.41	818.18
28	29	92.21	0.00	-29.56	0.16	967.11
29	29	92.21	0.00	-29.33	4.13	967.16
29	30	95.32	0.00	7.33	-2.12	1001.37
30	30	95.32	0.00	7.51	1.99	1001.00
30	31	98.43	0.00	44.18	-4.26	920.91
31	31	98.43	0.00	44.14	0.52	920.68
31	32	101.54	0.00	80.81	-5.73	726.37
32	32	101.54	0.00	80.41	0.21	726.03
32	33	104.65	0.00	117.08	-6.04	418.94
33	33	104.65	0.00	116.16	1.51	418.51
33	34	107.76	0.00	152.83	-4.74	0.23
101	101	0.00	0.00	-166.88	-0.03	-0.22
101	102	3.05	0.00	-127.20	3.09	448.26
102	102	3.05	0.00	-126.32	1.24	447.85
102	103	6.10	0.00	-86.64	4.35	772.60
103	103	6.10	0.00	-86.23	1.00	772.28
103	104	9.15	0.00	-46.55	4.11	974.77
104	104	9.15	0.00	-46.49	-0.33	974.55
104	105	12.20	0.00	-6.81	2.78	1055.83
105	105	12.20	0.00	-6.94	-2.27	1056.00
105	106	15.25	0.00	32.74	0.84	1016.41
106	106	15.25	0.00	32.57	-4.33	1016.00
106	107	18.30	0.00	72.25	-1.22	856.60
107	107	18.30	0.00	72.19	-6.05	856.76
107	108	21.35	0.00	111.87	-2.94	576.07
108	108	21.35	0.00	112.04	-7.03	576.32
108	109	24.40	0.00	151.72	-3.92	174.08
109	109	24.40	0.00	152.21	-7.00	174.37
109	110	27.45	0.00	191.90	-3.89	-350.40
110	110	27.45	0.00	192.74	-5.86	-350.11
110	111	30.50	0.00	232.42	-2.75	-998.48
111	111	30.50	0.00	233.57	-3.78	-998.28
111	112	33.55	0.00	273.25	-0.67	-1771.00
112	10112	33.55	0.00	-261.75	-1.31	-1771.15
112	113	37.19	0.00	-214.45	2.40	-905.33
113	113	37.19	0.00	-213.10	1.11	-905.56
113	114	40.82	0.00	-165.79	4.82	-216.67
114	114	40.82	0.00	-164.87	2.18	-217.00
114	115	44.46	0.00	-117.56	5.89	296.52
115	115	44.46	0.00	-117.11	1.79	296.21
115	116	48.10	0.00	-69.80	5.50	636.04
116	116	48.10	0.00	-69.71	0.23	635.83
116	117	51.73	0.00	-22.40	3.94	803.32
117	117	51.73	0.00	-22.52	-1.97	803.24
117	118	55.37	0.00	24.79	1.74	799.13
118	118	55.37	0.00	24.67	-4.15	799.20
118	119	59.01	0.00	71.98	-0.44	623.46

CÁLCULO TENSIONAL

Hipótesis de cálculo:

CMmax

Carga muerta maxima

[1; 1]CMmax

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	72.08	-5.67	623.68
119	120	62.64	0.00	119.39	-1.96	275.55
120	120	62.64	0.00	119.87	-6.00	275.85
120	121	66.28	0.00	167.18	-2.29	-246.05
121	121	66.28	0.00	168.13	-4.84	-245.73
121	122	69.91	0.00	215.44	-1.13	-943.12
122	122	69.91	0.00	216.82	-2.33	-942.90
122	123	73.55	0.00	264.13	1.38	-1817.00
123	10123	73.55	0.00	-277.78	0.82	-1817.38
123	124	76.66	0.00	-237.32	3.99	-1016.00
124	124	76.66	0.00	-236.16	3.00	-1016.60
124	125	79.77	0.00	-195.70	6.17	-345.07
125	125	79.77	0.00	-194.85	4.17	-345.37
125	126	82.88	0.00	-154.39	7.35	197.70
126	126	82.88	0.00	-153.92	4.17	197.39
126	127	85.99	0.00	-113.45	7.35	613.15
127	127	85.99	0.00	-113.32	3.11	612.89
127	128	89.10	0.00	-72.86	6.28	902.39
128	128	89.10	0.00	-72.96	1.27	902.23
128	129	92.21	0.00	-32.50	4.44	1066.23
129	129	92.21	0.00	-32.72	-0.92	1066.00
129	130	95.32	0.00	7.74	2.25	1105.04
130	130	95.32	0.00	7.56	-2.98	1105.00
130	131	98.43	0.00	48.02	0.19	1018.70
131	131	98.43	0.00	48.05	-4.38	1019.00
131	132	101.54	0.00	88.51	-1.21	806.57
132	132	101.54	0.00	88.92	-4.62	806.91
132	133	104.65	0.00	129.38	-1.44	467.46
133	133	104.65	0.00	130.29	-3.24	467.89
133	134	107.76	0.00	170.75	-0.07	-0.23
301	101	0.00	0.00	-0.73	-0.22	0.03
301	2001	0.00	0.00	-0.73	-0.22	0.58
302	102	3.05	0.00	-0.88	-0.41	1.85
302	2002	3.05	0.00	-0.88	-0.41	2.52
303	103	6.10	0.00	-0.41	-0.33	3.35
303	2003	6.10	0.00	-0.41	-0.33	3.66
304	104	9.15	0.00	-0.06	-0.21	4.44
304	2004	9.15	0.00	-0.06	-0.21	4.49
305	105	12.20	0.00	0.13	-0.09	5.05
305	2005	12.20	0.00	0.13	-0.09	4.95
306	106	15.25	0.00	0.17	0.04	5.17
306	2006	15.25	0.00	0.17	0.04	5.04
307	107	18.30	0.00	0.06	0.16	4.83
307	2007	18.30	0.00	0.06	0.16	4.78
308	108	21.35	0.00	-0.17	0.25	4.09
308	2008	21.35	0.00	-0.17	0.25	4.22
309	109	24.40	0.00	-0.49	0.30	3.08
309	2009	24.40	0.00	-0.49	0.30	3.45
310	110	27.45	0.00	-0.84	0.29	1.98
310	2010	27.45	0.00	-0.84	0.29	2.61
311	111	30.50	0.00	-1.15	0.20	1.03

CÁLCULO TENSIONAL

Hipótesis de cálculo:

CMmax

Carga muerta maxima

[1; 1]CMmax

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-1.15	0.20	1.89
312	112	33.55	0.00	-1.41	0.02	0.64
312	2012	33.55	0.00	-1.41	0.02	1.71
313	113	37.19	0.00	-1.35	-0.23	1.29
313	2013	37.19	0.00	-1.35	-0.23	2.31
314	114	40.82	0.00	-0.92	-0.33	2.63
314	2014	40.82	0.00	-0.92	-0.33	3.33
315	115	44.46	0.00	-0.46	-0.31	4.10
315	2015	44.46	0.00	-0.46	-0.31	4.44
316	116	48.10	0.00	-0.08	-0.21	5.27
316	2016	48.10	0.00	-0.08	-0.21	5.33
317	117	51.73	0.00	0.12	-0.07	5.91
317	2017	51.73	0.00	0.12	-0.07	5.82
318	118	55.37	0.00	0.11	0.08	5.89
318	2018	55.37	0.00	0.11	0.08	5.81
319	119	59.01	0.00	-0.10	0.21	5.23
319	2019	59.01	0.00	-0.10	0.21	5.31
320	120	62.64	0.00	-0.48	0.31	4.04
320	2020	62.64	0.00	-0.48	0.31	4.40
321	121	66.28	0.00	-0.95	0.32	2.55
321	2021	66.28	0.00	-0.95	0.32	3.27
322	122	69.91	0.00	-1.38	0.23	1.20
322	2022	69.91	0.00	-1.38	0.23	2.24
323	123	73.55	0.00	-1.44	-0.03	0.56
323	2023	73.55	0.00	-1.44	-0.03	1.65
324	124	76.66	0.00	-1.17	-0.22	0.99
324	2024	76.66	0.00	-1.17	-0.22	1.87
325	125	79.77	0.00	-0.85	-0.30	2.00
325	2025	79.77	0.00	-0.85	-0.30	2.64
326	126	82.88	0.00	-0.47	-0.31	3.17
326	2026	82.88	0.00	-0.47	-0.31	3.53
327	127	85.99	0.00	-0.14	-0.26	4.24
327	2027	85.99	0.00	-0.14	-0.26	4.34
328	128	89.10	0.00	0.11	-0.16	5.01
328	2028	89.10	0.00	0.11	-0.16	4.93
329	129	92.21	0.00	0.22	-0.04	5.37
329	2029	92.21	0.00	0.22	-0.04	5.20
330	130	95.32	0.00	0.18	0.09	5.23
330	2030	95.32	0.00	0.18	0.09	5.10
331	131	98.43	0.00	-0.03	0.23	4.57
331	2031	98.43	0.00	-0.03	0.23	4.60
332	132	101.54	0.00	-0.40	0.34	3.41
332	2032	101.54	0.00	-0.40	0.34	3.71
333	133	104.65	0.00	-0.91	0.43	1.79
333	2033	104.65	0.00	-0.91	0.43	2.49
334	134	107.76	0.00	-0.76	0.23	-0.07
334	2034	107.76	0.00	-0.76	0.23	0.51
201	2001	0.00	0.00	-0.73	-0.22	0.58
201	1001	0.00	0.00	-0.73	-0.22	4.06
202	2002	3.05	0.00	-0.88	-0.41	2.52
202	1002	3.05	0.00	-0.88	-0.41	6.75

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CMmax

Carga muerta maxima

[1; 1]CMmax

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.41	-0.33	3.66
203	1003	6.10	0.00	-0.41	-0.33	5.60
204	2004	9.15	0.00	-0.06	-0.21	4.49
204	1004	9.15	0.00	-0.06	-0.21	4.78
205	2005	12.20	0.00	0.13	-0.09	4.95
205	1005	12.20	0.00	0.13	-0.09	4.31
206	2006	15.25	0.00	0.17	0.04	5.04
206	1006	15.25	0.00	0.17	0.04	4.23
207	2007	18.30	0.00	0.06	0.16	4.78
207	1007	18.30	0.00	0.06	0.16	4.49
208	2008	21.35	0.00	-0.17	0.25	4.22
208	1008	21.35	0.00	-0.17	0.25	5.05
209	2009	24.40	0.00	-0.49	0.30	3.45
209	1009	24.40	0.00	-0.49	0.30	5.82
210	2010	27.45	0.00	-0.84	0.29	2.61
210	1010	27.45	0.00	-0.84	0.29	6.66
211	2011	30.50	0.00	-1.15	0.20	1.89
211	1011	30.50	0.00	-1.15	0.20	7.38
212	2012	33.55	0.00	-1.41	0.02	1.71
212	1012	33.55	0.00	-1.41	0.02	8.46
213	2013	37.19	0.00	-1.35	-0.23	2.31
213	1013	37.19	0.00	-1.35	-0.23	8.75
214	2014	40.82	0.00	-0.92	-0.33	3.33
214	1014	40.82	0.00	-0.92	-0.33	7.73
215	2015	44.46	0.00	-0.46	-0.31	4.44
215	1015	44.46	0.00	-0.46	-0.31	6.62
216	2016	48.10	0.00	-0.08	-0.21	5.33
216	1016	48.10	0.00	-0.08	-0.21	5.73
217	2017	51.73	0.00	0.12	-0.07	5.82
217	1017	51.73	0.00	0.12	-0.07	5.25
218	2018	55.37	0.00	0.11	0.08	5.81
218	1018	55.37	0.00	0.11	0.08	5.27
219	2019	59.01	0.00	-0.10	0.21	5.31
219	1019	59.01	0.00	-0.10	0.21	5.78
220	2020	62.64	0.00	-0.48	0.31	4.40
220	1020	62.64	0.00	-0.48	0.31	6.69
221	2021	66.28	0.00	-0.95	0.32	3.27
221	1021	66.28	0.00	-0.95	0.32	7.82
222	2022	69.91	0.00	-1.38	0.23	2.24
222	1022	69.91	0.00	-1.38	0.23	8.86
223	2023	73.55	0.00	-1.44	-0.03	1.65
223	1023	73.55	0.00	-1.44	-0.03	8.56
224	2024	76.66	0.00	-1.17	-0.22	1.87
224	1024	76.66	0.00	-1.17	-0.22	7.45
225	2025	79.77	0.00	-0.85	-0.30	2.64
225	1025	79.77	0.00	-0.85	-0.30	6.69
226	2026	82.88	0.00	-0.47	-0.31	3.53
226	1026	82.88	0.00	-0.47	-0.31	5.80
227	2027	85.99	0.00	-0.14	-0.26	4.34
227	1027	85.99	0.00	-0.14	-0.26	5.00
228	2028	89.10	0.00	0.11	-0.16	4.93

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CMmax

Carga muerta maxima

[1; 1]CMmax

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.11	-0.16	4.41
229	2029	92.21	0.00	0.22	-0.04	5.20
229	1029	92.21	0.00	0.22	-0.04	4.14
230	2030	95.32	0.00	0.18	0.09	5.10
230	1030	95.32	0.00	0.18	0.09	4.25
231	2031	98.43	0.00	-0.03	0.23	4.60
231	1031	98.43	0.00	-0.03	0.23	4.75
232	2032	101.54	0.00	-0.40	0.34	3.71
232	1032	101.54	0.00	-0.40	0.34	5.64
233	2033	104.65	0.00	-0.91	0.43	2.49
233	1033	104.65	0.00	-0.91	0.43	6.86
234	2034	107.76	0.00	-0.76	0.23	0.51
234	1034	107.76	0.00	-0.76	0.23	4.16
401	1001	0.00	0.00	-0.73	-0.22	4.06
401	1	0.00	0.00	-0.73	-0.22	4.61
402	1002	3.05	0.00	-0.88	-0.41	6.75
402	2	3.05	0.00	-0.88	-0.41	7.42
403	1003	6.10	0.00	-0.41	-0.33	5.61
403	3	6.10	0.00	-0.41	-0.33	5.91
404	1004	9.15	0.00	-0.06	-0.21	4.78
404	4	9.15	0.00	-0.06	-0.21	4.82
405	1005	12.20	0.00	0.13	-0.09	4.31
405	5	12.20	0.00	0.13	-0.09	4.21
406	1006	15.25	0.00	0.17	0.04	4.23
406	6	15.25	0.00	0.17	0.04	4.10
407	1007	18.30	0.00	0.06	0.16	4.49
407	7	18.30	0.00	0.06	0.16	4.44
408	1008	21.35	0.00	-0.17	0.25	5.05
408	8	21.35	0.00	-0.17	0.25	5.18
409	1009	24.40	0.00	-0.49	0.30	5.82
409	9	24.40	0.00	-0.49	0.30	6.19
410	1010	27.45	0.00	-0.84	0.29	6.66
410	10	27.45	0.00	-0.84	0.29	7.30
411	1011	30.50	0.00	-1.15	0.20	7.38
411	11	30.50	0.00	-1.15	0.20	8.24
412	1012	33.55	0.00	-1.41	0.02	8.46
412	12	33.55	0.00	-1.41	0.02	9.52
413	1013	37.19	0.00	-1.35	-0.23	8.75
413	13	37.19	0.00	-1.35	-0.23	9.77
414	1014	40.82	0.00	-0.92	-0.33	7.73
414	14	40.82	0.00	-0.92	-0.33	8.43
415	1015	44.46	0.00	-0.45	-0.31	6.62
415	15	44.46	0.00	-0.45	-0.31	6.97
416	1016	48.10	0.00	-0.08	-0.21	5.73
416	16	48.10	0.00	-0.08	-0.21	5.80
417	1017	51.73	0.00	0.12	-0.07	5.25
417	17	51.73	0.00	0.12	-0.07	5.17
418	1018	55.37	0.00	0.11	0.08	5.27
418	18	55.37	0.00	0.11	0.08	5.18
419	1019	59.01	0.00	-0.10	0.21	5.78
419	19	59.01	0.00	-0.10	0.21	5.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CMmax

Carga muerta maxima

[1; 1]CMmax

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.48	0.31	6.69
420	20	62.64	0.00	-0.48	0.31	7.05
421	1021	66.28	0.00	-0.95	0.32	7.82
421	21	66.28	0.00	-0.95	0.32	8.54
422	1022	69.91	0.00	-1.38	0.23	8.86
422	22	69.91	0.00	-1.38	0.23	9.90
423	1023	73.55	0.00	-1.44	-0.03	8.56
423	23	73.55	0.00	-1.44	-0.03	9.65
424	1024	76.66	0.00	-1.17	-0.22	7.45
424	24	76.66	0.00	-1.17	-0.22	8.33
425	1025	79.77	0.00	-0.85	-0.30	6.69
425	25	79.77	0.00	-0.85	-0.30	7.33
426	1026	82.88	0.00	-0.47	-0.31	5.80
426	26	82.88	0.00	-0.47	-0.31	6.16
427	1027	85.99	0.00	-0.14	-0.26	5.00
427	27	85.99	0.00	-0.14	-0.26	5.10
428	1028	89.10	0.00	0.11	-0.16	4.41
428	28	89.10	0.00	0.11	-0.16	4.33
429	1029	92.21	0.00	0.22	-0.04	4.14
429	29	92.21	0.00	0.22	-0.04	3.98
430	1030	95.32	0.00	0.18	0.09	4.25
430	30	95.32	0.00	0.18	0.09	4.11
431	1031	98.43	0.00	-0.03	0.23	4.75
431	31	98.43	0.00	-0.03	0.23	4.77
432	1032	101.54	0.00	-0.40	0.34	5.64
432	32	101.54	0.00	-0.40	0.34	5.94
433	1033	104.65	0.00	-0.91	0.43	6.86
433	33	104.65	0.00	-0.91	0.43	7.55
434	1034	107.76	0.00	-0.76	0.23	4.16
434	34	107.76	0.00	-0.76	0.23	4.74

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPVIGAS

Peso propio de vigas sobre estructura final

[1; 1]PPVIGAS

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-48.75	0.00	0.00
1	2	3.05	0.00	-37.08	0.00	130.90
2	2	3.05	0.00	-37.08	0.00	130.90
2	3	6.10	0.00	-25.42	0.00	226.21
3	3	6.10	0.00	-25.42	0.00	226.21
3	4	9.15	0.00	-13.75	0.00	285.94
4	4	9.15	0.00	-13.75	0.00	285.94
4	5	12.20	0.00	-2.08	0.00	310.09
5	5	12.20	0.00	-2.08	0.00	310.09
5	6	15.25	0.00	9.58	0.00	298.66
6	6	15.25	0.00	9.58	0.00	298.66
6	7	18.30	0.00	21.25	0.00	251.64
7	7	18.30	0.00	21.25	0.00	251.64
7	8	21.35	0.00	32.91	0.00	169.04
8	8	21.35	0.00	32.91	0.00	169.04
8	9	24.40	0.00	44.58	0.00	50.86
9	9	24.40	0.00	44.58	0.00	50.86
9	10	27.45	0.00	56.25	0.00	-102.90
10	10	27.45	0.00	56.25	0.00	-102.90
10	11	30.50	0.00	67.91	0.00	-292.24
11	11	30.50	0.00	67.91	0.00	-292.24
11	12	33.55	0.00	79.58	0.00	-517.17
12	10012	33.55	0.00	-76.16	0.00	-517.17
12	13	37.19	0.00	-62.25	0.00	-265.52
13	13	37.19	0.00	-62.25	0.00	-265.52
13	14	40.82	0.00	-48.34	0.00	-64.46
14	14	40.82	0.00	-48.34	0.00	-64.46
14	15	44.46	0.00	-34.43	0.00	86.03
15	15	44.46	0.00	-34.43	0.00	86.03
15	16	48.10	0.00	-20.52	0.00	185.93
16	16	48.10	0.00	-20.52	0.00	185.93
16	17	51.73	0.00	-6.61	0.00	235.26
17	17	51.73	0.00	-6.61	0.00	235.26
17	18	55.37	0.00	7.30	0.00	234.01
18	18	55.37	0.00	7.30	0.00	234.01
18	19	59.01	0.00	21.21	0.00	182.18
19	19	59.01	0.00	21.21	0.00	182.18
19	20	62.64	0.00	35.12	0.00	79.78
20	20	62.64	0.00	35.12	0.00	79.78
20	21	66.28	0.00	49.03	0.00	-73.21
21	21	66.28	0.00	49.03	0.00	-73.21
21	22	69.91	0.00	62.93	0.00	-276.77
22	22	69.91	0.00	62.93	0.00	-276.77
22	23	73.55	0.00	76.84	0.00	-530.92
23	10023	73.55	0.00	-80.95	0.00	-530.92
23	24	76.66	0.00	-69.05	0.00	-297.67
24	24	76.66	0.00	-69.05	0.00	-297.67
24	25	79.77	0.00	-57.15	0.00	-101.42
25	25	79.77	0.00	-57.15	0.00	-101.42
25	26	82.88	0.00	-45.26	0.00	57.83
26	26	82.88	0.00	-45.26	0.00	57.83

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPVIGAS

Peso propio de vigas sobre estructura final

[1; 1]PPVIGAS

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-33.36	0.00	180.08
27	27	85.99	0.00	-33.36	0.00	180.08
27	28	89.10	0.00	-21.47	0.00	265.35
28	28	89.10	0.00	-21.47	0.00	265.35
28	29	92.21	0.00	-9.57	0.00	313.61
29	29	92.21	0.00	-9.57	0.00	313.61
29	30	95.32	0.00	2.32	0.00	324.88
30	30	95.32	0.00	2.32	0.00	324.88
30	31	98.43	0.00	14.22	0.00	299.15
31	31	98.43	0.00	14.22	0.00	299.15
31	32	101.54	0.00	26.12	0.00	236.43
32	32	101.54	0.00	26.12	0.00	236.43
32	33	104.65	0.00	38.01	0.00	136.71
33	33	104.65	0.00	38.01	0.00	136.71
33	34	107.76	0.00	49.91	0.00	0.00
101	101	0.00	0.00	-48.75	0.00	0.00
101	102	3.05	0.00	-37.08	0.00	130.90
102	102	3.05	0.00	-37.08	0.00	130.90
102	103	6.10	0.00	-25.42	0.00	226.21
103	103	6.10	0.00	-25.42	0.00	226.21
103	104	9.15	0.00	-13.75	0.00	285.94
104	104	9.15	0.00	-13.75	0.00	285.94
104	105	12.20	0.00	-2.08	0.00	310.09
105	105	12.20	0.00	-2.08	0.00	310.09
105	106	15.25	0.00	9.58	0.00	298.66
106	106	15.25	0.00	9.58	0.00	298.66
106	107	18.30	0.00	21.25	0.00	251.64
107	107	18.30	0.00	21.25	0.00	251.64
107	108	21.35	0.00	32.91	0.00	169.04
108	108	21.35	0.00	32.91	0.00	169.04
108	109	24.40	0.00	44.58	0.00	50.86
109	109	24.40	0.00	44.58	0.00	50.86
109	110	27.45	0.00	56.25	0.00	-102.90
110	110	27.45	0.00	56.25	0.00	-102.90
110	111	30.50	0.00	67.91	0.00	-292.24
111	111	30.50	0.00	67.91	0.00	-292.24
111	112	33.55	0.00	79.58	0.00	-517.17
112	10112	33.55	0.00	-76.16	0.00	-517.17
112	113	37.19	0.00	-62.25	0.00	-265.52
113	113	37.19	0.00	-62.25	0.00	-265.52
113	114	40.82	0.00	-48.34	0.00	-64.46
114	114	40.82	0.00	-48.34	0.00	-64.46
114	115	44.46	0.00	-34.43	0.00	86.03
115	115	44.46	0.00	-34.43	0.00	86.03
115	116	48.10	0.00	-20.52	0.00	185.93
116	116	48.10	0.00	-20.52	0.00	185.93
116	117	51.73	0.00	-6.61	0.00	235.26
117	117	51.73	0.00	-6.61	0.00	235.26
117	118	55.37	0.00	7.30	0.00	234.01
118	118	55.37	0.00	7.30	0.00	234.01
118	119	59.01	0.00	21.21	0.00	182.18

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPVIGAS

Peso propio de vigas sobre estructura final

[1; 1]PPVIGAS

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	21.21	0.00	182.18
119	120	62.64	0.00	35.12	0.00	79.78
120	120	62.64	0.00	35.12	0.00	79.78
120	121	66.28	0.00	49.03	0.00	-73.21
121	121	66.28	0.00	49.03	0.00	-73.21
121	122	69.91	0.00	62.93	0.00	-276.77
122	122	69.91	0.00	62.93	0.00	-276.77
122	123	73.55	0.00	76.84	0.00	-530.92
123	10123	73.55	0.00	-80.95	0.00	-530.92
123	124	76.66	0.00	-69.05	0.00	-297.67
124	124	76.66	0.00	-69.05	0.00	-297.67
124	125	79.77	0.00	-57.15	0.00	-101.42
125	125	79.77	0.00	-57.15	0.00	-101.42
125	126	82.88	0.00	-45.26	0.00	57.83
126	126	82.88	0.00	-45.26	0.00	57.83
126	127	85.99	0.00	-33.36	0.00	180.08
127	127	85.99	0.00	-33.36	0.00	180.08
127	128	89.10	0.00	-21.47	0.00	265.35
128	128	89.10	0.00	-21.47	0.00	265.35
128	129	92.21	0.00	-9.57	0.00	313.61
129	129	92.21	0.00	-9.57	0.00	313.61
129	130	95.32	0.00	2.32	0.00	324.88
130	130	95.32	0.00	2.32	0.00	324.88
130	131	98.43	0.00	14.22	0.00	299.15
131	131	98.43	0.00	14.22	0.00	299.15
131	132	101.54	0.00	26.12	0.00	236.43
132	132	101.54	0.00	26.12	0.00	236.43
132	133	104.65	0.00	38.01	0.00	136.71
133	133	104.65	0.00	38.01	0.00	136.71
133	134	107.76	0.00	49.91	0.00	0.00
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPVIGAS

Peso propio de vigas sobre estructura final

[1; 1]PPVIGAS

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPVIGAS

Peso propio de vigas sobre estructura final

[1; 1]PPVIGAS

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00	0.00
203	1003	6.10	0.00	0.00	0.00	0.00
204	2004	9.15	0.00	0.00	0.00	0.00
204	1004	9.15	0.00	0.00	0.00	0.00
205	2005	12.20	0.00	0.00	0.00	0.00
205	1005	12.20	0.00	0.00	0.00	0.00
206	2006	15.25	0.00	0.00	0.00	0.00
206	1006	15.25	0.00	0.00	0.00	0.00
207	2007	18.30	0.00	0.00	0.00	0.00
207	1007	18.30	0.00	0.00	0.00	0.00
208	2008	21.35	0.00	0.00	0.00	0.00
208	1008	21.35	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	0.00	0.00	0.00
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	0.00	0.00	0.00
210	1010	27.45	0.00	0.00	0.00	0.00
211	2011	30.50	0.00	0.00	0.00	0.00
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	0.00	0.00	0.00
213	1013	37.19	0.00	0.00	0.00	0.00
214	2014	40.82	0.00	0.00	0.00	0.00
214	1014	40.82	0.00	0.00	0.00	0.00
215	2015	44.46	0.00	0.00	0.00	0.00
215	1015	44.46	0.00	0.00	0.00	0.00
216	2016	48.10	0.00	0.00	0.00	0.00
216	1016	48.10	0.00	0.00	0.00	0.00
217	2017	51.73	0.00	0.00	0.00	0.00
217	1017	51.73	0.00	0.00	0.00	0.00
218	2018	55.37	0.00	0.00	0.00	0.00
218	1018	55.37	0.00	0.00	0.00	0.00
219	2019	59.01	0.00	0.00	0.00	0.00
219	1019	59.01	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	0.00	0.00	0.00
220	1020	62.64	0.00	0.00	0.00	0.00
221	2021	66.28	0.00	0.00	0.00	0.00
221	1021	66.28	0.00	0.00	0.00	0.00
222	2022	69.91	0.00	0.00	0.00	0.00
222	1022	69.91	0.00	0.00	0.00	0.00
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00	0.00
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	0.00	0.00	0.00
225	1025	79.77	0.00	0.00	0.00	0.00
226	2026	82.88	0.00	0.00	0.00	0.00
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	85.99	0.00	0.00	0.00	0.00
227	1027	85.99	0.00	0.00	0.00	0.00
228	2028	89.10	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPVIGAS

Peso propio de vigas sobre estructura final

[1; 1]PPVIGAS

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00	0.00
229	2029	92.21	0.00	0.00	0.00	0.00
229	1029	92.21	0.00	0.00	0.00	0.00
230	2030	95.32	0.00	0.00	0.00	0.00
230	1030	95.32	0.00	0.00	0.00	0.00
231	2031	98.43	0.00	0.00	0.00	0.00
231	1031	98.43	0.00	0.00	0.00	0.00
232	2032	101.54	0.00	0.00	0.00	0.00
232	1032	101.54	0.00	0.00	0.00	0.00
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	0.00	0.00	0.00
234	1034	107.76	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPVIGAS

Peso propio de vigas sobre estructura final

[1; 1]PPVIGAS

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLOSA

Peso propio de losa sobre estructura final

[1; 1]PPLOSA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-66.78	-4.19	0.00
1	2	3.05	0.00	-50.77	3.68	179.26
2	2	3.05	0.00	-50.82	-4.74	179.26
2	3	6.10	0.00	-34.80	3.13	309.83
3	3	6.10	0.00	-34.85	-5.31	309.84
3	4	9.15	0.00	-18.83	2.56	391.70
4	4	9.15	0.00	-18.87	-5.91	391.70
4	5	12.20	0.00	-2.86	1.95	424.84
5	5	12.20	0.00	-2.88	-6.56	424.84
5	6	15.25	0.00	13.13	2.14	409.21
6	6	15.25	0.00	13.11	-6.41	409.21
6	7	18.30	0.00	29.12	2.29	344.81
7	7	18.30	0.00	29.11	-6.28	344.81
7	8	21.35	0.00	45.12	2.41	231.61
8	8	21.35	0.00	45.11	-6.17	231.61
8	9	24.40	0.00	61.12	2.53	69.61
9	9	24.40	0.00	61.11	-6.06	69.61
9	10	27.45	0.00	77.12	2.63	-141.18
10	10	27.45	0.00	77.10	-5.96	-141.19
10	11	30.50	0.00	93.12	2.73	-400.77
11	11	30.50	0.00	93.10	-5.86	-400.78
11	12	33.55	0.00	109.11	2.83	-709.15
12	10012	33.55	0.00	-104.45	-6.59	-709.15
12	13	37.19	0.00	-85.36	3.78	-364.03
13	13	37.19	0.00	-85.38	-6.49	-364.03
13	14	40.82	0.00	-66.29	3.88	-88.25
14	14	40.82	0.00	-66.31	-6.40	-88.25
14	15	44.46	0.00	-47.22	3.96	118.16
15	15	44.46	0.00	-47.23	-6.34	118.16
15	16	48.10	0.00	-28.14	4.03	255.20
16	16	48.10	0.00	-28.15	-6.29	255.20
16	17	51.73	0.00	-9.06	4.07	322.86
17	17	51.73	0.00	-9.07	-6.26	322.86
17	18	55.37	0.00	10.02	4.10	321.13
18	18	55.37	0.00	10.02	-6.25	321.13
18	19	59.01	0.00	29.11	4.11	249.99
19	19	59.01	0.00	29.10	-6.25	249.99
19	20	62.64	0.00	48.20	4.11	109.44
20	20	62.64	0.00	48.19	-6.26	109.44
20	21	66.28	0.00	67.28	4.10	-100.51
21	21	66.28	0.00	67.28	-6.29	-100.51
21	22	69.91	0.00	86.37	4.08	-379.88
22	22	69.91	0.00	86.37	-6.32	-379.88
22	23	73.55	0.00	105.46	4.04	-728.66
23	10023	73.55	0.00	-111.10	-5.53	-728.66
23	24	76.66	0.00	-94.77	3.34	-408.54
24	24	76.66	0.00	-94.77	-5.40	-408.54
24	25	79.77	0.00	-78.44	3.46	-139.20
25	25	79.77	0.00	-78.44	-5.28	-139.20
25	26	82.88	0.00	-62.12	3.58	79.37
26	26	82.88	0.00	-62.12	-5.17	79.37

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLOSA

Peso propio de losa sobre estructura final

[1; 1]PPLOSA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-45.79	3.70	247.17
27	27	85.99	0.00	-45.79	-5.06	247.17
27	28	89.10	0.00	-29.46	3.80	364.19
28	28	89.10	0.00	-29.46	-4.96	364.19
28	29	92.21	0.00	-13.14	3.91	430.43
29	29	92.21	0.00	-13.14	-4.86	430.43
29	30	95.32	0.00	3.19	4.01	445.90
30	30	95.32	0.00	3.19	-4.76	445.90
30	31	98.43	0.00	19.52	4.10	410.59
31	31	98.43	0.00	19.52	-4.66	410.59
31	32	101.54	0.00	35.84	4.20	324.50
32	32	101.54	0.00	35.84	-4.57	324.50
32	33	104.65	0.00	52.17	4.29	187.64
33	33	104.65	0.00	52.17	-4.48	187.64
33	34	107.76	0.00	68.50	4.39	0.00
101	101	0.00	0.00	-67.04	4.38	0.00
101	102	3.05	0.00	-51.03	-3.49	180.06
102	102	3.05	0.00	-50.98	-5.24	180.06
102	103	6.10	0.00	-34.97	-3.45	311.13
103	103	6.10	0.00	-34.93	5.26	311.13
103	104	9.15	0.00	-18.91	-3.43	393.23
104	104	9.15	0.00	-18.88	5.27	393.23
104	105	12.20	0.00	-2.87	-3.42	426.39
105	105	12.20	0.00	-2.84	5.25	426.39
105	106	15.25	0.00	13.17	-3.44	410.63
106	106	15.25	0.00	13.19	5.22	410.63
106	107	18.30	0.00	29.21	-3.47	345.97
107	107	18.30	0.00	29.22	5.19	345.97
107	108	21.35	0.00	45.23	-3.50	232.43
108	108	21.35	0.00	45.25	5.16	232.43
108	109	24.40	0.00	61.26	-3.53	70.01
109	109	24.40	0.00	61.27	5.14	70.02
109	110	27.45	0.00	77.28	-3.55	-141.28
110	110	27.45	0.00	77.30	5.13	-141.28
110	111	30.50	0.00	93.31	-3.56	-401.46
111	111	30.50	0.00	93.33	5.14	-401.45
111	112	33.55	0.00	109.34	-3.55	-710.53
112	10112	33.55	0.00	-104.60	5.99	-710.52
112	113	37.19	0.00	-85.51	-4.38	-364.86
113	113	37.19	0.00	-85.49	6.01	-364.86
113	114	40.82	0.00	-66.40	-4.35	-88.69
114	114	40.82	0.00	-66.38	6.03	-88.69
114	115	44.46	0.00	-47.29	-4.33	117.99
115	115	44.46	0.00	-47.28	6.05	117.99
115	116	48.10	0.00	-28.19	-4.31	255.20
116	116	48.10	0.00	-28.18	6.07	255.20
116	117	51.73	0.00	-9.09	-4.29	322.96
117	117	51.73	0.00	-9.08	6.09	322.96
117	118	55.37	0.00	10.01	-4.27	321.26
118	118	55.37	0.00	10.02	6.12	321.26
118	119	59.01	0.00	29.11	-4.25	250.12

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLOSA

Peso propio de losa sobre estructura final

[1; 1]PPLOSA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	29.11	6.14	250.12
119	120	62.64	0.00	48.20	-4.22	109.55
120	120	62.64	0.00	48.21	6.17	109.55
120	121	66.28	0.00	67.30	-4.19	-100.45
121	121	66.28	0.00	67.30	6.21	-100.45
121	122	69.91	0.00	86.39	-4.15	-379.89
122	122	69.91	0.00	86.39	6.26	-379.89
122	123	73.55	0.00	105.48	-4.10	-728.75
123	10123	73.55	0.00	-111.11	5.48	-728.75
123	124	76.66	0.00	-94.78	-3.39	-408.60
124	124	76.66	0.00	-94.78	5.36	-408.60
124	125	79.77	0.00	-78.45	-3.50	-139.22
125	125	79.77	0.00	-78.45	5.25	-139.22
125	126	82.88	0.00	-62.12	-3.61	79.37
126	126	82.88	0.00	-62.12	5.14	79.37
126	127	85.99	0.00	-45.79	-3.72	247.18
127	127	85.99	0.00	-45.79	5.04	247.18
127	128	89.10	0.00	-29.47	-3.82	364.21
128	128	89.10	0.00	-29.47	4.94	364.21
128	129	92.21	0.00	-13.14	-3.92	430.46
129	129	92.21	0.00	-13.14	4.84	430.46
129	130	95.32	0.00	3.19	-4.02	445.92
130	130	95.32	0.00	3.19	4.75	445.92
130	131	98.43	0.00	19.52	-4.11	410.61
131	131	98.43	0.00	19.52	4.66	410.61
131	132	101.54	0.00	35.85	-4.21	324.52
132	132	101.54	0.00	35.85	4.57	324.52
132	133	104.65	0.00	52.17	-4.30	187.65
133	133	104.65	0.00	52.17	4.48	187.65
133	134	107.76	0.00	68.50	-4.39	0.00
301	101	0.00	0.00	-0.03	0.00	-4.38
301	2001	0.00	0.00	-0.03	0.00	-4.36
302	102	3.05	0.00	-0.05	-0.01	-8.73
302	2002	3.05	0.00	-0.05	-0.01	-8.69
303	103	6.10	0.00	-0.04	-0.01	-8.71
303	2003	6.10	0.00	-0.04	-0.01	-8.68
304	104	9.15	0.00	-0.03	0.00	-8.70
304	2004	9.15	0.00	-0.03	0.00	-8.67
305	105	12.20	0.00	-0.03	0.00	-8.68
305	2005	12.20	0.00	-0.03	0.00	-8.66
306	106	15.25	0.00	-0.02	0.00	-8.66
306	2006	15.25	0.00	-0.02	0.00	-8.65
307	107	18.30	0.00	-0.02	0.00	-8.66
307	2007	18.30	0.00	-0.02	0.00	-8.65
308	108	21.35	0.00	-0.01	0.00	-8.66
308	2008	21.35	0.00	-0.01	0.00	-8.65
309	109	24.40	0.00	-0.01	0.00	-8.67
309	2009	24.40	0.00	-0.01	0.00	-8.66
310	110	27.45	0.00	-0.01	0.00	-8.68
310	2010	27.45	0.00	-0.01	0.00	-8.67
311	111	30.50	0.00	-0.02	0.00	-8.70

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLOSA

Peso propio de losa sobre estructura final

[1; 1]PPLOSA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.02	0.00	-8.68
312	112	33.55	0.00	-0.02	0.00	-9.54
312	2012	33.55	0.00	-0.02	0.00	-9.53
313	113	37.19	0.00	-0.02	0.00	-10.39
313	2013	37.19	0.00	-0.02	0.00	-10.37
314	114	40.82	0.00	-0.02	0.00	-10.39
314	2014	40.82	0.00	-0.02	0.00	-10.37
315	115	44.46	0.00	-0.01	0.00	-10.38
315	2015	44.46	0.00	-0.01	0.00	-10.37
316	116	48.10	0.00	-0.01	0.00	-10.38
316	2016	48.10	0.00	-0.01	0.00	-10.38
317	117	51.73	0.00	-0.01	0.00	-10.38
317	2017	51.73	0.00	-0.01	0.00	-10.38
318	118	55.37	0.00	-0.01	0.00	-10.39
318	2018	55.37	0.00	-0.01	0.00	-10.38
319	119	59.01	0.00	0.00	0.00	-10.39
319	2019	59.01	0.00	0.00	0.00	-10.39
320	120	62.64	0.00	0.00	0.00	-10.40
320	2020	62.64	0.00	0.00	0.00	-10.39
321	121	66.28	0.00	0.00	0.00	-10.40
321	2021	66.28	0.00	0.00	0.00	-10.40
322	122	69.91	0.00	0.00	0.00	-10.41
322	2022	69.91	0.00	0.00	0.00	-10.41
323	123	73.55	0.00	0.00	0.00	-9.58
323	2023	73.55	0.00	0.00	0.00	-9.58
324	124	76.66	0.00	0.00	0.00	-8.75
324	2024	76.66	0.00	0.00	0.00	-8.75
325	125	79.77	0.00	0.00	0.00	-8.75
325	2025	79.77	0.00	0.00	0.00	-8.75
326	126	82.88	0.00	0.00	0.00	-8.76
326	2026	82.88	0.00	0.00	0.00	-8.76
327	127	85.99	0.00	0.00	0.00	-8.76
327	2027	85.99	0.00	0.00	0.00	-8.76
328	128	89.10	0.00	0.00	0.00	-8.76
328	2028	89.10	0.00	0.00	0.00	-8.76
329	129	92.21	0.00	0.00	0.00	-8.77
329	2029	92.21	0.00	0.00	0.00	-8.77
330	130	95.32	0.00	0.00	0.00	-8.77
330	2030	95.32	0.00	0.00	0.00	-8.77
331	131	98.43	0.00	0.00	0.00	-8.77
331	2031	98.43	0.00	0.00	0.00	-8.77
332	132	101.54	0.00	0.00	0.00	-8.77
332	2032	101.54	0.00	0.00	0.00	-8.77
333	133	104.65	0.00	0.00	0.00	-8.77
333	2033	104.65	0.00	0.00	0.00	-8.77
334	134	107.76	0.00	0.00	0.00	-4.39
334	2034	107.76	0.00	0.00	0.00	-4.39
201	2001	0.00	0.00	-0.03	0.00	-4.36
201	1001	0.00	0.00	-0.03	0.00	-4.21
202	2002	3.05	0.00	-0.05	-0.01	-8.69
202	1002	3.05	0.00	-0.05	-0.01	-8.45

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLOSA

Peso propio de losa sobre estructura final

[1; 1]PPLOSA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.04	-0.01	-8.68
203	1003	6.10	0.00	-0.04	-0.01	-8.47
204	2004	9.15	0.00	-0.04	0.00	-8.67
204	1004	9.15	0.00	-0.04	0.00	-8.50
205	2005	12.20	0.00	-0.03	0.00	-8.66
205	1005	12.20	0.00	-0.03	0.00	-8.53
206	2006	15.25	0.00	-0.02	0.00	-8.65
206	1006	15.25	0.00	-0.02	0.00	-8.56
207	2007	18.30	0.00	-0.02	0.00	-8.65
207	1007	18.30	0.00	-0.02	0.00	-8.58
208	2008	21.35	0.00	-0.01	0.00	-8.65
208	1008	21.35	0.00	-0.01	0.00	-8.59
209	2009	24.40	0.00	-0.01	0.00	-8.66
209	1009	24.40	0.00	-0.01	0.00	-8.60
210	2010	27.45	0.00	-0.01	0.00	-8.67
210	1010	27.45	0.00	-0.01	0.00	-8.60
211	2011	30.50	0.00	-0.02	0.00	-8.68
211	1011	30.50	0.00	-0.02	0.00	-8.61
212	2012	33.55	0.00	-0.02	0.00	-9.53
212	1012	33.55	0.00	-0.02	0.00	-9.44
213	2013	37.19	0.00	-0.02	0.00	-10.37
213	1013	37.19	0.00	-0.02	0.00	-10.28
214	2014	40.82	0.00	-0.02	0.00	-10.37
214	1014	40.82	0.00	-0.02	0.00	-10.29
215	2015	44.46	0.00	-0.01	0.00	-10.37
215	1015	44.46	0.00	-0.01	0.00	-10.31
216	2016	48.10	0.00	-0.01	0.00	-10.38
216	1016	48.10	0.00	-0.01	0.00	-10.33
217	2017	51.73	0.00	-0.01	0.00	-10.38
217	1017	51.73	0.00	-0.01	0.00	-10.34
218	2018	55.37	0.00	-0.01	0.00	-10.38
218	1018	55.37	0.00	-0.01	0.00	-10.36
219	2019	59.01	0.00	0.00	0.00	-10.39
219	1019	59.01	0.00	0.00	0.00	-10.37
220	2020	62.64	0.00	0.00	0.00	-10.39
220	1020	62.64	0.00	0.00	0.00	-10.38
221	2021	66.28	0.00	0.00	0.00	-10.40
221	1021	66.28	0.00	0.00	0.00	-10.39
222	2022	69.91	0.00	0.00	0.00	-10.41
222	1022	69.91	0.00	0.00	0.00	-10.40
223	2023	73.55	0.00	0.00	0.00	-9.58
223	1023	73.55	0.00	0.00	0.00	-9.57
224	2024	76.66	0.00	0.00	0.00	-8.75
224	1024	76.66	0.00	0.00	0.00	-8.74
225	2025	79.77	0.00	0.00	0.00	-8.75
225	1025	79.77	0.00	0.00	0.00	-8.75
226	2026	82.88	0.00	0.00	0.00	-8.76
226	1026	82.88	0.00	0.00	0.00	-8.75
227	2027	85.99	0.00	0.00	0.00	-8.76
227	1027	85.99	0.00	0.00	0.00	-8.76
228	2028	89.10	0.00	0.00	0.00	-8.76

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLOSA

Peso propio de losa sobre estructura final

[1; 1]PPLOSA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00	-8.76
229	2029	92.21	0.00	0.00	0.00	-8.77
229	1029	92.21	0.00	0.00	0.00	-8.76
230	2030	95.32	0.00	0.00	0.00	-8.77
230	1030	95.32	0.00	0.00	0.00	-8.77
231	2031	98.43	0.00	0.00	0.00	-8.77
231	1031	98.43	0.00	0.00	0.00	-8.77
232	2032	101.54	0.00	0.00	0.00	-8.77
232	1032	101.54	0.00	0.00	0.00	-8.77
233	2033	104.65	0.00	0.00	0.00	-8.77
233	1033	104.65	0.00	0.00	0.00	-8.77
234	2034	107.76	0.00	0.00	0.00	-4.39
234	1034	107.76	0.00	0.00	0.00	-4.39
401	1001	0.00	0.00	-0.03	0.00	-4.21
401	1	0.00	0.00	-0.03	0.00	-4.19
402	1002	3.05	0.00	-0.05	-0.01	-8.45
402	2	3.05	0.00	-0.05	-0.01	-8.41
403	1003	6.10	0.00	-0.04	-0.01	-8.47
403	3	6.10	0.00	-0.04	-0.01	-8.44
404	1004	9.15	0.00	-0.04	0.00	-8.50
404	4	9.15	0.00	-0.04	0.00	-8.47
405	1005	12.20	0.00	-0.03	0.00	-8.53
405	5	12.20	0.00	-0.03	0.00	-8.51
406	1006	15.25	0.00	-0.02	0.00	-8.56
406	6	15.25	0.00	-0.02	0.00	-8.54
407	1007	18.30	0.00	-0.02	0.00	-8.58
407	7	18.30	0.00	-0.02	0.00	-8.57
408	1008	21.35	0.00	-0.01	0.00	-8.59
408	8	21.35	0.00	-0.01	0.00	-8.58
409	1009	24.40	0.00	-0.01	0.00	-8.60
409	9	24.40	0.00	-0.01	0.00	-8.59
410	1010	27.45	0.00	-0.02	0.00	-8.60
410	10	27.45	0.00	-0.02	0.00	-8.59
411	1011	30.50	0.00	-0.02	0.00	-8.61
411	11	30.50	0.00	-0.02	0.00	-8.59
412	1012	33.55	0.00	-0.02	0.00	-9.44
412	12	33.55	0.00	-0.02	0.00	-9.42
413	1013	37.19	0.00	-0.02	0.00	-10.28
413	13	37.19	0.00	-0.02	0.00	-10.26
414	1014	40.82	0.00	-0.02	0.00	-10.29
414	14	40.82	0.00	-0.02	0.00	-10.28
415	1015	44.46	0.00	-0.01	0.00	-10.31
415	15	44.46	0.00	-0.01	0.00	-10.30
416	1016	48.10	0.00	-0.01	0.00	-10.33
416	16	48.10	0.00	-0.01	0.00	-10.32
417	1017	51.73	0.00	-0.01	0.00	-10.34
417	17	51.73	0.00	-0.01	0.00	-10.34
418	1018	55.37	0.00	-0.01	0.00	-10.36
418	18	55.37	0.00	-0.01	0.00	-10.35
419	1019	59.01	0.00	0.00	0.00	-10.37
419	19	59.01	0.00	0.00	0.00	-10.36

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PPLOSA

Peso propio de losa sobre estructura final

[1; 1]PPLOSA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	-10.38
420	20	62.64	0.00	0.00	0.00	-10.38
421	1021	66.28	0.00	0.00	0.00	-10.39
421	21	66.28	0.00	0.00	0.00	-10.39
422	1022	69.91	0.00	0.00	0.00	-10.40
422	22	69.91	0.00	0.00	0.00	-10.40
423	1023	73.55	0.00	0.00	0.00	-9.57
423	23	73.55	0.00	0.00	0.00	-9.57
424	1024	76.66	0.00	0.00	0.00	-8.74
424	24	76.66	0.00	0.00	0.00	-8.74
425	1025	79.77	0.00	0.00	0.00	-8.75
425	25	79.77	0.00	0.00	0.00	-8.74
426	1026	82.88	0.00	0.00	0.00	-8.75
426	26	82.88	0.00	0.00	0.00	-8.75
427	1027	85.99	0.00	0.00	0.00	-8.76
427	27	85.99	0.00	0.00	0.00	-8.76
428	1028	89.10	0.00	0.00	0.00	-8.76
428	28	89.10	0.00	0.00	0.00	-8.76
429	1029	92.21	0.00	0.00	0.00	-8.76
429	29	92.21	0.00	0.00	0.00	-8.76
430	1030	95.32	0.00	0.00	0.00	-8.77
430	30	95.32	0.00	0.00	0.00	-8.77
431	1031	98.43	0.00	0.00	0.00	-8.77
431	31	98.43	0.00	0.00	0.00	-8.77
432	1032	101.54	0.00	0.00	0.00	-8.77
432	32	101.54	0.00	0.00	0.00	-8.77
433	1033	104.65	0.00	0.00	0.00	-8.77
433	33	104.65	0.00	0.00	0.00	-8.77
434	1034	107.76	0.00	0.00	0.00	-4.39
434	34	107.76	0.00	0.00	0.00	-4.39

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRAD

Gradiente termico

[1; 1]GRAD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-10.97	0.00	0.00
1	2	3.05	0.00	-10.97	0.00	33.46
2	2	3.05	0.00	-10.97	0.00	33.46
2	3	6.10	0.00	-10.97	0.00	66.92
3	3	6.10	0.00	-10.97	0.00	66.92
3	4	9.15	0.00	-10.97	0.00	100.38
4	4	9.15	0.00	-10.97	0.00	100.38
4	5	12.20	0.00	-10.97	0.00	133.84
5	5	12.20	0.00	-10.97	0.00	133.84
5	6	15.25	0.00	-10.97	0.00	167.30
6	6	15.25	0.00	-10.97	0.00	167.30
6	7	18.30	0.00	-10.97	0.00	200.77
7	7	18.30	0.00	-10.97	0.00	200.77
7	8	21.35	0.00	-10.97	0.00	234.23
8	8	21.35	0.00	-10.97	0.00	234.23
8	9	24.40	0.00	-10.97	0.00	267.69
9	9	24.40	0.00	-10.97	0.00	267.69
9	10	27.45	0.00	-10.97	0.00	301.15
10	10	27.45	0.00	-10.97	0.00	301.15
10	11	30.50	0.00	-10.97	0.00	334.61
11	11	30.50	0.00	-10.97	0.00	334.61
11	12	33.55	0.00	-10.97	0.00	368.07
12	10012	33.55	0.00	-0.03	0.00	368.07
12	13	37.19	0.00	-0.03	0.00	368.18
13	13	37.19	0.00	-0.03	0.00	368.18
13	14	40.82	0.00	-0.03	0.00	368.29
14	14	40.82	0.00	-0.03	0.00	368.29
14	15	44.46	0.00	-0.03	0.00	368.40
15	15	44.46	0.00	-0.03	0.00	368.40
15	16	48.10	0.00	-0.03	0.00	368.52
16	16	48.10	0.00	-0.03	0.00	368.52
16	17	51.73	0.00	-0.03	0.00	368.63
17	17	51.73	0.00	-0.03	0.00	368.63
17	18	55.37	0.00	-0.03	0.00	368.74
18	18	55.37	0.00	-0.03	0.00	368.74
18	19	59.01	0.00	-0.03	0.00	368.85
19	19	59.01	0.00	-0.03	0.00	368.85
19	20	62.64	0.00	-0.03	0.00	368.96
20	20	62.64	0.00	-0.03	0.00	368.96
20	21	66.28	0.00	-0.03	0.00	369.07
21	21	66.28	0.00	-0.03	0.00	369.07
21	22	69.91	0.00	-0.03	0.00	369.18
22	22	69.91	0.00	-0.03	0.00	369.18
22	23	73.55	0.00	-0.03	0.00	369.29
23	10023	73.55	0.00	10.79	0.00	369.29
23	24	76.66	0.00	10.79	0.00	335.72
24	24	76.66	0.00	10.79	0.00	335.72
24	25	79.77	0.00	10.79	0.00	302.15
25	25	79.77	0.00	10.79	0.00	302.15
25	26	82.88	0.00	10.79	0.00	268.58
26	26	82.88	0.00	10.79	0.00	268.58

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRAD

Gradiente termico

[1; 1]GRAD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	10.79	0.00	235.01
27	27	85.99	0.00	10.79	0.00	235.01
27	28	89.10	0.00	10.79	0.00	201.43
28	28	89.10	0.00	10.79	0.00	201.43
28	29	92.21	0.00	10.79	0.00	167.86
29	29	92.21	0.00	10.79	0.00	167.86
29	30	95.32	0.00	10.79	0.00	134.29
30	30	95.32	0.00	10.79	0.00	134.29
30	31	98.43	0.00	10.79	0.00	100.72
31	31	98.43	0.00	10.79	0.00	100.72
31	32	101.54	0.00	10.79	0.00	67.14
32	32	101.54	0.00	10.79	0.00	67.14
32	33	104.65	0.00	10.79	0.00	33.57
33	33	104.65	0.00	10.80	0.00	33.57
33	34	107.76	0.00	10.80	0.00	0.00
101	101	0.00	0.00	-10.97	0.00	0.00
101	102	3.05	0.00	-10.97	0.00	33.46
102	102	3.05	0.00	-10.97	0.00	33.46
102	103	6.10	0.00	-10.97	0.00	66.92
103	103	6.10	0.00	-10.97	0.00	66.92
103	104	9.15	0.00	-10.97	0.00	100.38
104	104	9.15	0.00	-10.97	0.00	100.38
104	105	12.20	0.00	-10.97	0.00	133.84
105	105	12.20	0.00	-10.97	0.00	133.84
105	106	15.25	0.00	-10.97	0.00	167.30
106	106	15.25	0.00	-10.97	0.00	167.30
106	107	18.30	0.00	-10.97	0.00	200.76
107	107	18.30	0.00	-10.97	0.00	200.76
107	108	21.35	0.00	-10.97	0.00	234.23
108	108	21.35	0.00	-10.97	0.00	234.23
108	109	24.40	0.00	-10.97	0.00	267.69
109	109	24.40	0.00	-10.97	0.00	267.69
109	110	27.45	0.00	-10.97	0.00	301.15
110	110	27.45	0.00	-10.97	0.00	301.15
110	111	30.50	0.00	-10.97	0.00	334.61
111	111	30.50	0.00	-10.97	0.00	334.61
111	112	33.55	0.00	-10.97	0.00	368.07
112	10112	33.55	0.00	-0.03	0.00	368.07
112	113	37.19	0.00	-0.03	0.00	368.18
113	113	37.19	0.00	-0.03	0.00	368.18
113	114	40.82	0.00	-0.03	0.00	368.29
114	114	40.82	0.00	-0.03	0.00	368.29
114	115	44.46	0.00	-0.03	0.00	368.40
115	115	44.46	0.00	-0.03	0.00	368.40
115	116	48.10	0.00	-0.03	0.00	368.52
116	116	48.10	0.00	-0.03	0.00	368.52
116	117	51.73	0.00	-0.03	0.00	368.63
117	117	51.73	0.00	-0.03	0.00	368.63
117	118	55.37	0.00	-0.03	0.00	368.74
118	118	55.37	0.00	-0.03	0.00	368.74
118	119	59.01	0.00	-0.03	0.00	368.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRAD

Gradiente termico

[1; 1]GRAD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-0.03	0.00	368.85
119	120	62.64	0.00	-0.03	0.00	368.96
120	120	62.64	0.00	-0.03	0.00	368.96
120	121	66.28	0.00	-0.03	0.00	369.07
121	121	66.28	0.00	-0.03	0.00	369.07
121	122	69.91	0.00	-0.03	0.00	369.18
122	122	69.91	0.00	-0.03	0.00	369.18
122	123	73.55	0.00	-0.03	0.00	369.29
123	10123	73.55	0.00	10.79	0.00	369.29
123	124	76.66	0.00	10.79	0.00	335.72
124	124	76.66	0.00	10.79	0.00	335.72
124	125	79.77	0.00	10.79	0.00	302.15
125	125	79.77	0.00	10.79	0.00	302.15
125	126	82.88	0.00	10.79	0.00	268.58
126	126	82.88	0.00	10.79	0.00	268.58
126	127	85.99	0.00	10.79	0.00	235.00
127	127	85.99	0.00	10.79	0.00	235.00
127	128	89.10	0.00	10.79	0.00	201.43
128	128	89.10	0.00	10.79	0.00	201.43
128	129	92.21	0.00	10.79	0.00	167.86
129	129	92.21	0.00	10.79	0.00	167.86
129	130	95.32	0.00	10.79	0.00	134.29
130	130	95.32	0.00	10.79	0.00	134.29
130	131	98.43	0.00	10.79	0.00	100.72
131	131	98.43	0.00	10.79	0.00	100.72
131	132	101.54	0.00	10.79	0.00	67.14
132	132	101.54	0.00	10.80	0.00	67.14
132	133	104.65	0.00	10.80	0.00	33.57
133	133	104.65	0.00	10.80	0.00	33.57
133	134	107.76	0.00	10.80	0.00	0.00
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

GRAD

Gradiente termico

[1; 1]GRAD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00	0.00

f4.rea

Programa DINTEL PACADAR S.A.
GRAD

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

GRAD

Gradiente termico

[1; 1]GRAD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00	0.00
203	1003	6.10	0.00	0.00	0.00	0.00
204	2004	9.15	0.00	0.00	0.00	0.00
204	1004	9.15	0.00	0.00	0.00	0.00
205	2005	12.20	0.00	0.00	0.00	0.00
205	1005	12.20	0.00	0.00	0.00	0.00
206	2006	15.25	0.00	0.00	0.00	0.00
206	1006	15.25	0.00	0.00	0.00	0.00
207	2007	18.30	0.00	0.00	0.00	0.00
207	1007	18.30	0.00	0.00	0.00	0.00
208	2008	21.35	0.00	0.00	0.00	0.00
208	1008	21.35	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	0.00	0.00	0.00
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	0.00	0.00	0.00
210	1010	27.45	0.00	0.00	0.00	0.00
211	2011	30.50	0.00	0.00	0.00	0.00
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	0.00	0.00	0.00
213	1013	37.19	0.00	0.00	0.00	0.00
214	2014	40.82	0.00	0.00	0.00	0.00
214	1014	40.82	0.00	0.00	0.00	0.00
215	2015	44.46	0.00	0.00	0.00	0.00
215	1015	44.46	0.00	0.00	0.00	0.00
216	2016	48.10	0.00	0.00	0.00	0.00
216	1016	48.10	0.00	0.00	0.00	0.00
217	2017	51.73	0.00	0.00	0.00	0.00
217	1017	51.73	0.00	0.00	0.00	0.00
218	2018	55.37	0.00	0.00	0.00	0.00
218	1018	55.37	0.00	0.00	0.00	0.00
219	2019	59.01	0.00	0.00	0.00	0.00
219	1019	59.01	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	0.00	0.00	0.00
220	1020	62.64	0.00	0.00	0.00	0.00
221	2021	66.28	0.00	0.00	0.00	0.00
221	1021	66.28	0.00	0.00	0.00	0.00
222	2022	69.91	0.00	0.00	0.00	0.00
222	1022	69.91	0.00	0.00	0.00	0.00
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00	0.00
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	0.00	0.00	0.00
225	1025	79.77	0.00	0.00	0.00	0.00
226	2026	82.88	0.00	0.00	0.00	0.00
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	85.99	0.00	0.00	0.00	0.00
227	1027	85.99	0.00	0.00	0.00	0.00
228	2028	89.10	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRAD
Gradiente termico
[1; 1]GRAD
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00	0.00
229	2029	92.21	0.00	0.00	0.00	0.00
229	1029	92.21	0.00	0.00	0.00	0.00
230	2030	95.32	0.00	0.00	0.00	0.00
230	1030	95.32	0.00	0.00	0.00	0.00
231	2031	98.43	0.00	0.00	0.00	0.00
231	1031	98.43	0.00	0.00	0.00	0.00
232	2032	101.54	0.00	0.00	0.00	0.00
232	1032	101.54	0.00	0.00	0.00	0.00
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	0.00	0.00	0.00
234	1034	107.76	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
GRAD
Gradiente termico
[1; 1]GRAD
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	0.52	-0.65	0.01
1	2	3.05	0.00	0.52	-0.65	-1.57
2	2	3.05	0.00	0.68	-2.02	-1.56
2	3	6.10	0.00	0.94	3.98	6.41
3	3	6.10	0.00	1.33	6.95	11.04
3	4	9.15	0.00	2.02	12.46	20.34
4	4	9.15	0.00	2.50	8.46	20.76
4	5	12.20	0.00	3.52	13.74	28.02
5	5	12.20	0.00	4.00	10.26	28.03
5	6	15.25	0.00	5.28	15.51	30.86
6	6	15.25	0.00	5.76	11.49	31.11
6	7	18.30	0.00	7.27	16.78	27.55
7	7	18.30	0.00	7.83	12.65	27.69
7	8	21.35	0.00	9.55	17.98	15.88
8	8	21.35	0.00	10.32	11.01	17.96
8	9	24.40	0.00	12.26	16.27	-4.26
9	9	24.40	0.00	13.32	9.53	-3.55
9	10	27.45	0.00	15.51	14.60	-38.54
10	10	27.45	0.00	16.94	3.94	-32.95
10	11	30.50	0.00	19.38	11.29	-88.35
11	11	30.50	0.00	21.19	2.29	-88.15
11	12	33.55	0.00	23.63	9.64	-156.52
12	10012	33.55	0.00	0.43	-5.99	6.80
12	13	37.19	0.00	0.43	-5.99	5.24
13	13	37.19	0.00	0.52	-6.96	5.25
13	14	40.82	0.00	0.67	-2.99	10.31
14	14	40.82	0.00	0.88	-4.60	10.30
14	15	44.46	0.00	1.43	-0.88	18.16
15	15	44.46	0.00	1.71	-0.83	20.37
15	16	48.10	0.00	2.59	2.93	27.98
16	16	48.10	0.00	2.89	-1.29	28.27
16	17	51.73	0.00	4.07	2.72	33.04
17	17	51.73	0.00	4.38	-0.35	33.11
17	18	55.37	0.00	5.83	4.03	32.63
18	18	55.37	0.00	6.23	0.45	32.77
18	19	59.01	0.00	7.95	5.19	24.42
19	19	59.01	0.00	8.58	2.07	24.93
19	20	62.64	0.00	10.60	7.06	5.53
20	20	62.64	0.00	11.62	-1.53	8.06
20	21	66.28	0.00	13.98	3.50	-26.39
21	21	66.28	0.00	15.56	-4.94	-26.08
21	22	69.91	0.00	18.31	-0.15	-80.39
22	22	69.91	0.00	20.44	-10.62	-80.15
22	23	73.55	0.00	23.35	-1.86	-159.78
23	10023	73.55	0.00	0.07	3.87	5.79
23	24	76.66	0.00	0.07	3.87	5.56
24	24	76.66	0.00	0.11	3.38	5.55
24	25	79.77	0.00	0.11	3.38	5.21
25	25	79.77	0.00	0.21	5.52	10.65
25	26	82.88	0.00	0.48	7.81	18.83
26	26	82.88	0.00	0.60	7.15	19.22

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	1.11	9.25	29.17
27	27	85.99	0.00	1.19	9.86	31.04
27	28	89.10	0.00	1.93	11.91	41.35
28	28	89.10	0.00	1.98	10.44	41.33
28	29	92.21	0.00	2.92	12.53	50.56
29	29	92.21	0.00	2.93	11.31	50.76
29	30	95.32	0.00	4.11	13.45	57.35
30	30	95.32	0.00	4.16	11.57	57.46
30	31	98.43	0.00	5.60	13.69	59.30
31	31	98.43	0.00	5.85	11.68	59.95
31	32	101.54	0.00	7.63	13.58	53.92
32	32	101.54	0.00	8.34	3.33	59.07
32	33	104.65	0.00	10.55	4.72	40.54
33	33	104.65	0.00	12.01	-2.75	40.98
33	34	107.76	0.00	14.50	4.74	-0.24
101	101	0.00	0.00	3.75	-1.71	0.22
101	102	3.05	0.00	3.75	-1.71	-11.22
102	102	3.05	0.00	2.19	-3.36	-10.81
102	103	6.10	0.00	2.19	-3.36	-17.49
103	103	6.10	0.00	1.33	-0.55	-13.43
103	104	9.15	0.00	1.33	-0.55	-17.49
104	104	9.15	0.00	0.92	1.26	-13.61
104	105	12.20	0.00	0.92	1.26	-16.42
105	105	12.20	0.00	0.56	1.26	-15.71
105	106	15.25	0.00	0.56	1.26	-17.43
106	106	15.25	0.00	0.17	0.54	-14.11
106	107	18.30	0.00	0.17	0.54	-14.62
107	107	18.30	0.00	0.00	0.00	0.00
107	108	21.35	0.00	0.00	0.00	0.00
108	108	21.35	0.00	0.00	0.00	0.00
108	109	24.40	0.00	0.00	0.00	0.00
109	109	24.40	0.00	0.00	0.00	0.00
109	110	27.45	0.00	0.00	0.00	0.00
110	110	27.45	0.00	0.00	0.00	0.00
110	111	30.50	0.00	0.00	0.00	0.00
111	111	30.50	0.00	0.00	0.00	0.00
111	112	33.55	0.00	0.00	0.00	0.00
112	10112	33.55	0.00	6.80	-0.62	42.19
112	113	37.19	0.00	6.80	-0.62	17.45
113	113	37.19	0.00	4.79	0.46	15.05
113	114	40.82	0.00	4.79	0.46	-2.37
114	114	40.82	0.00	3.25	0.08	-3.15
114	115	44.46	0.00	3.25	0.08	-14.96
115	115	44.46	0.00	2.01	0.07	-15.74
115	116	48.10	0.00	2.01	0.07	-23.06
116	116	48.10	0.00	0.98	-0.33	-23.02
116	117	51.73	0.00	0.98	-0.33	-26.58
117	117	51.73	0.00	0.44	4.44	-10.54
117	118	55.37	0.00	0.44	4.44	-12.14
118	118	55.37	0.00	0.25	1.86	9.48
118	119	59.01	0.00	0.25	1.86	8.55

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	0.40	3.85	8.37
119	120	62.64	0.00	0.40	3.85	6.94
120	120	62.64	0.00	0.36	4.26	5.82
120	121	66.28	0.00	0.36	4.26	4.52
121	121	66.28	0.00	0.16	3.30	3.04
121	122	69.91	0.00	0.16	3.30	2.46
122	122	69.91	0.00	0.00	0.00	0.00
122	123	73.55	0.00	0.00	0.00	0.00
123	10123	73.55	0.00	6.85	-2.62	42.38
123	124	76.66	0.00	6.85	-2.62	21.08
124	124	76.66	0.00	4.98	-4.81	21.30
124	125	79.77	0.00	4.98	-4.81	5.82
125	125	79.77	0.00	3.43	-5.99	6.13
125	126	82.88	0.00	3.43	-5.99	-4.52
126	126	82.88	0.00	2.25	-5.97	-4.21
126	127	85.99	0.00	2.25	-5.97	-11.21
127	127	85.99	0.00	1.42	-4.87	-10.95
127	128	89.10	0.00	1.42	-4.87	-15.37
128	128	89.10	0.00	1.01	-2.39	-0.55
128	129	92.21	0.00	1.01	-2.39	-3.69
129	129	92.21	0.00	0.94	0.58	-0.31
129	130	95.32	0.00	0.94	0.58	-3.22
130	130	95.32	0.00	0.77	2.67	-2.59
130	131	98.43	0.00	0.77	2.67	-5.00
131	131	98.43	0.00	0.44	2.22	-1.30
131	132	101.54	0.00	0.44	2.22	-2.68
132	132	101.54	0.00	0.16	-0.50	0.96
132	133	104.65	0.00	0.16	-0.50	0.45
133	133	104.65	0.00	0.14	-0.14	0.45
133	134	107.76	0.00	0.14	-0.14	0.00
301	101	0.00	0.00	1.08	0.22	1.56
301	2001	0.00	0.00	1.08	0.22	0.74
302	102	3.05	0.00	1.58	0.42	1.29
302	2002	3.05	0.00	1.58	0.42	0.10
303	103	6.10	0.00	1.09	0.33	-0.24
303	2003	6.10	0.00	1.09	0.33	-1.07
304	104	9.15	0.00	0.74	0.22	-1.35
304	2004	9.15	0.00	0.74	0.22	-1.91
305	105	12.20	0.00	0.55	0.05	-1.57
305	2005	12.20	0.00	0.55	0.05	-1.99
306	106	15.25	0.00	0.54	-0.05	-0.99
306	2006	15.25	0.00	0.54	-0.05	-1.40
307	107	18.30	0.00	0.65	-0.09	-0.67
307	2007	18.30	0.00	0.65	-0.09	-1.16
308	108	21.35	0.00	0.86	-0.19	-0.62
308	2008	21.35	0.00	0.86	-0.19	-1.27
309	109	24.40	0.00	1.18	-0.30	0.04
309	2009	24.40	0.00	1.18	-0.30	-0.86
310	110	27.45	0.00	1.54	-0.29	1.16
310	2010	27.45	0.00	1.54	-0.29	0.00
311	111	30.50	0.00	1.85	-0.21	2.13

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	1.85	-0.21	0.73
312	112	33.55	0.00	2.18	-0.02	2.83
312	2012	33.55	0.00	2.18	-0.02	1.18
313	113	37.19	0.00	2.18	0.24	2.47
313	2013	37.19	0.00	2.18	0.24	0.82
314	114	40.82	0.00	1.75	0.33	1.10
314	2014	40.82	0.00	1.75	0.33	-0.22
315	115	44.46	0.00	1.29	0.18	0.22
315	2015	44.46	0.00	1.29	0.18	-0.75
316	116	48.10	0.00	1.04	0.05	0.27
316	2016	48.10	0.00	1.04	0.05	-0.52
317	117	51.73	0.00	0.95	0.01	0.16
317	2017	51.73	0.00	0.95	0.01	-0.56
318	118	55.37	0.00	0.95	-0.01	0.17
318	2018	55.37	0.00	0.95	-0.01	-0.55
319	119	59.01	0.00	1.05	-0.05	0.31
319	2019	59.01	0.00	1.05	-0.05	-0.49
320	120	62.64	0.00	1.31	-0.18	0.29
320	2020	62.64	0.00	1.31	-0.18	-0.70
321	121	66.28	0.00	1.78	-0.33	1.20
321	2021	66.28	0.00	1.78	-0.33	-0.15
322	122	69.91	0.00	2.22	-0.23	2.59
322	2022	69.91	0.00	2.22	-0.23	0.91
323	123	73.55	0.00	2.22	0.03	2.93
323	2023	73.55	0.00	2.22	0.03	1.26
324	124	76.66	0.00	1.87	0.22	2.20
324	2024	76.66	0.00	1.87	0.22	0.78
325	125	79.77	0.00	1.55	0.31	1.17
325	2025	79.77	0.00	1.55	0.31	0.00
326	126	82.88	0.00	1.17	0.32	-0.02
326	2026	82.88	0.00	1.17	0.32	-0.90
327	127	85.99	0.00	0.84	0.16	-0.52
327	2027	85.99	0.00	0.84	0.16	-1.15
328	128	89.10	0.00	0.64	0.07	-0.53
328	2028	89.10	0.00	0.64	0.07	-1.02
329	129	92.21	0.00	0.53	0.04	-0.68
329	2029	92.21	0.00	0.53	0.04	-1.08
330	130	95.32	0.00	0.52	-0.03	-1.50
330	2030	95.32	0.00	0.52	-0.03	-1.90
331	131	98.43	0.00	0.72	-0.23	-1.44
331	2031	98.43	0.00	0.72	-0.23	-1.99
332	132	101.54	0.00	1.10	-0.35	-0.25
332	2032	101.54	0.00	1.10	-0.35	-1.08
333	133	104.65	0.00	1.62	-0.44	1.39
333	2033	104.65	0.00	1.62	-0.44	0.16
334	134	107.76	0.00	1.12	-0.24	1.67
334	2034	107.76	0.00	1.12	-0.24	0.83
201	2001	0.00	0.00	1.08	0.22	0.74
201	1001	0.00	0.00	1.08	0.22	-4.43
202	2002	3.05	0.00	1.58	0.42	0.10
202	1002	3.05	0.00	1.58	0.42	-7.47

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	1.09	0.33	-1.07
203	1003	6.10	0.00	1.09	0.33	-6.30
204	2004	9.15	0.00	0.74	0.22	-1.91
204	1004	9.15	0.00	0.74	0.22	-5.46
205	2005	12.20	0.00	0.55	0.05	-1.99
205	1005	12.20	0.00	0.55	0.05	-4.61
206	2006	15.25	0.00	0.54	-0.05	-1.40
206	1006	15.25	0.00	0.54	-0.05	-4.00
207	2007	18.30	0.00	0.65	-0.09	-1.16
207	1007	18.30	0.00	0.65	-0.09	-4.29
208	2008	21.35	0.00	0.86	-0.19	-1.27
208	1008	21.35	0.00	0.86	-0.19	-5.38
209	2009	24.40	0.00	1.18	-0.30	-0.86
209	1009	24.40	0.00	1.18	-0.30	-6.51
210	2010	27.45	0.00	1.54	-0.29	0.00
210	1010	27.45	0.00	1.54	-0.29	-7.37
211	2011	30.50	0.00	1.85	-0.21	0.73
211	1011	30.50	0.00	1.85	-0.21	-8.11
212	2012	33.55	0.00	2.18	-0.02	1.18
212	1012	33.55	0.00	2.18	-0.02	-9.26
213	2013	37.19	0.00	2.18	0.24	0.82
213	1013	37.19	0.00	2.18	0.24	-9.62
214	2014	40.82	0.00	1.75	0.33	-0.22
214	1014	40.82	0.00	1.75	0.33	-8.58
215	2015	44.46	0.00	1.29	0.18	-0.75
215	1015	44.46	0.00	1.29	0.18	-6.90
216	2016	48.10	0.00	1.04	0.05	-0.52
216	1016	48.10	0.00	1.04	0.05	-5.50
217	2017	51.73	0.00	0.94	0.01	-0.56
217	1017	51.73	0.00	0.94	0.01	-5.08
218	2018	55.37	0.00	0.95	-0.01	-0.55
218	1018	55.37	0.00	0.95	-0.01	-5.10
219	2019	59.01	0.00	1.05	-0.05	-0.49
219	1019	59.01	0.00	1.05	-0.05	-5.54
220	2020	62.64	0.00	1.31	-0.18	-0.70
220	1020	62.64	0.00	1.31	-0.18	-6.97
221	2021	66.28	0.00	1.78	-0.33	-0.15
221	1021	66.28	0.00	1.78	-0.33	-8.68
222	2022	69.91	0.00	2.22	-0.23	0.91
222	1022	69.91	0.00	2.22	-0.23	-9.74
223	2023	73.55	0.00	2.22	0.03	1.26
223	1023	73.55	0.00	2.22	0.03	-9.38
224	2024	76.66	0.00	1.87	0.22	0.78
224	1024	76.66	0.00	1.87	0.22	-8.20
225	2025	79.77	0.00	1.55	0.31	0.00
225	1025	79.77	0.00	1.55	0.31	-7.42
226	2026	82.88	0.00	1.17	0.32	-0.90
226	1026	82.88	0.00	1.17	0.32	-6.52
227	2027	85.99	0.00	0.84	0.16	-1.15
227	1027	85.99	0.00	0.84	0.16	-5.17
228	2028	89.10	0.00	0.64	0.07	-1.02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.64	0.07	-4.07
229	2029	92.21	0.00	0.53	0.04	-1.08
229	1029	92.21	0.00	0.53	0.04	-3.60
230	2030	95.32	0.00	0.52	-0.03	-1.90
230	1030	95.32	0.00	0.52	-0.03	-4.40
231	2031	98.43	0.00	0.72	-0.23	-1.99
231	1031	98.43	0.00	0.72	-0.23	-5.45
232	2032	101.54	0.00	1.10	-0.35	-1.08
232	1032	101.54	0.00	1.10	-0.35	-6.35
233	2033	104.65	0.00	1.62	-0.44	0.16
233	1033	104.65	0.00	1.62	-0.44	-7.60
234	2034	107.76	0.00	1.12	-0.24	0.83
234	1034	107.76	0.00	1.12	-0.24	-4.54
401	1001	0.00	0.00	1.08	0.22	-4.43
401	1	0.00	0.00	1.08	0.22	-5.25
402	1002	3.05	0.00	1.58	0.42	-7.47
402	2	3.05	0.00	1.58	0.42	-8.66
403	1003	6.10	0.00	1.09	0.33	-6.30
403	3	6.10	0.00	1.09	0.33	-7.13
404	1004	9.15	0.00	0.74	0.22	-5.46
404	4	9.15	0.00	0.74	0.22	-6.02
405	1005	12.20	0.00	0.55	0.05	-4.61
405	5	12.20	0.00	0.55	0.05	-5.03
406	1006	15.25	0.00	0.54	-0.05	-4.00
406	6	15.25	0.00	0.54	-0.05	-4.42
407	1007	18.30	0.00	0.65	-0.09	-4.29
407	7	18.30	0.00	0.65	-0.09	-4.78
408	1008	21.35	0.00	0.86	-0.19	-5.38
408	8	21.35	0.00	0.86	-0.19	-6.02
409	1009	24.40	0.00	1.18	-0.30	-6.51
409	9	24.40	0.00	1.18	-0.30	-7.41
410	1010	27.45	0.00	1.54	-0.29	-7.37
410	10	27.45	0.00	1.54	-0.29	-8.54
411	1011	30.50	0.00	1.85	-0.21	-8.11
411	11	30.50	0.00	1.85	-0.21	-9.51
412	1012	33.55	0.00	2.18	-0.02	-9.26
412	12	33.55	0.00	2.18	-0.02	-10.91
413	1013	37.19	0.00	2.18	0.24	-9.62
413	13	37.19	0.00	2.18	0.24	-11.27
414	1014	40.82	0.00	1.75	0.33	-8.58
414	14	40.82	0.00	1.75	0.33	-9.90
415	1015	44.46	0.00	1.29	0.18	-6.90
415	15	44.46	0.00	1.29	0.18	-7.87
416	1016	48.10	0.00	1.04	0.05	-5.50
416	16	48.10	0.00	1.04	0.05	-6.28
417	1017	51.73	0.00	0.95	0.01	-5.08
417	17	51.73	0.00	0.95	0.01	-5.80
418	1018	55.37	0.00	0.95	-0.01	-5.10
418	18	55.37	0.00	0.95	-0.01	-5.81
419	1019	59.01	0.00	1.05	-0.05	-5.54
419	19	59.01	0.00	1.05	-0.05	-6.34

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	1.31	-0.18	-6.97
420	20	62.64	0.00	1.31	-0.18	-7.96
421	1021	66.28	0.00	1.78	-0.33	-8.68
421	21	66.28	0.00	1.78	-0.33	-10.02
422	1022	69.91	0.00	2.22	-0.23	-9.74
422	22	69.91	0.00	2.22	-0.23	-11.42
423	1023	73.55	0.00	2.22	0.03	-9.38
423	23	73.55	0.00	2.22	0.03	-11.06
424	1024	76.66	0.00	1.87	0.22	-8.20
424	24	76.66	0.00	1.87	0.22	-9.61
425	1025	79.77	0.00	1.55	0.31	-7.42
425	25	79.77	0.00	1.55	0.31	-8.59
426	1026	82.88	0.00	1.17	0.32	-6.52
426	26	82.88	0.00	1.17	0.32	-7.41
427	1027	85.99	0.00	0.84	0.16	-5.17
427	27	85.99	0.00	0.84	0.16	-5.81
428	1028	89.10	0.00	0.64	0.07	-4.07
428	28	89.10	0.00	0.64	0.07	-4.55
429	1029	92.21	0.00	0.53	0.04	-3.60
429	29	92.21	0.00	0.53	0.04	-3.99
430	1030	95.32	0.00	0.52	-0.03	-4.40
430	30	95.32	0.00	0.52	-0.03	-4.80
431	1031	98.43	0.00	0.72	-0.23	-5.45
431	31	98.43	0.00	0.72	-0.23	-6.00
432	1032	101.54	0.00	1.10	-0.35	-6.35
432	32	101.54	0.00	1.10	-0.35	-7.18
433	1033	104.65	0.00	1.62	-0.44	-7.60
433	33	104.65	0.00	1.62	-0.44	-8.83
434	1034	107.76	0.00	1.12	-0.24	-4.54
434	34	107.76	0.00	1.12	-0.24	-5.39

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00	0.00
1	2	3.05	0.00	-0.25	6.82	4.47
2	2	3.05	0.00	-0.06	5.96	4.44
2	3	6.10	0.00	0.20	11.97	14.67
3	3	6.10	0.00	0.46	10.66	14.63
3	4	9.15	0.00	1.14	16.17	26.60
4	4	9.15	0.00	1.36	14.78	26.55
4	5	12.20	0.00	2.39	20.07	37.29
5	5	12.20	0.00	2.52	18.78	37.27
5	6	15.25	0.00	3.80	24.03	44.61
6	6	15.25	0.00	3.85	22.87	44.64
6	7	18.30	0.00	5.36	28.16	46.91
7	7	18.30	0.00	5.38	26.97	47.01
7	8	21.35	0.00	7.10	32.29	42.66
8	8	21.35	0.00	7.17	30.84	42.84
8	9	24.40	0.00	9.11	36.11	30.23
9	9	24.40	0.00	9.33	34.10	30.47
9	10	27.45	0.00	11.51	39.18	7.66
10	10	27.45	0.00	11.96	36.34	7.95
10	11	30.50	0.00	14.41	41.08	-27.28
11	11	30.50	0.00	15.15	37.27	-26.99
11	12	33.55	0.00	17.87	41.56	-76.91
12	10012	33.55	0.00	-5.76	36.43	-76.68
12	13	37.19	0.00	-6.02	40.92	-54.18
13	13	37.19	0.00	-4.69	34.79	-54.09
13	14	40.82	0.00	-4.54	38.76	-30.08
14	14	40.82	0.00	-3.28	32.80	-30.10
14	15	44.46	0.00	-2.73	36.53	-7.11
15	15	44.46	0.00	-1.70	31.23	-7.19
15	16	48.10	0.00	-0.82	34.99	12.84
16	16	48.10	0.00	-0.09	30.58	12.76
16	17	51.73	0.00	1.09	34.59	28.36
17	17	51.73	0.00	1.53	31.04	28.33
17	18	55.37	0.00	2.98	35.41	38.19
18	18	55.37	0.00	3.22	32.46	38.23
18	19	59.01	0.00	4.94	37.20	40.83
19	19	59.01	0.00	5.10	34.44	40.97
19	20	62.64	0.00	7.12	39.43	34.21
20	20	62.64	0.00	7.36	36.35	34.45
20	21	66.28	0.00	9.72	41.38	15.49
21	21	66.28	0.00	10.21	37.47	15.80
21	22	69.91	0.00	12.96	42.25	-19.06
22	22	69.91	0.00	13.81	37.13	-18.73
22	23	73.55	0.00	16.98	41.38	-73.63
23	10023	73.55	0.00	-5.63	35.59	-73.42
23	24	76.66	0.00	-5.91	38.70	-55.03
24	24	76.66	0.00	-4.79	32.99	-54.95
24	25	79.77	0.00	-4.80	35.63	-34.88
25	25	79.77	0.00	-3.70	29.92	-34.89
25	26	82.88	0.00	-3.44	32.21	-14.53
26	26	82.88	0.00	-2.47	26.82	-14.58

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-1.96	28.92	4.92
27	27	85.99	0.00	-1.18	24.02	4.84
27	28	89.10	0.00	-0.45	26.07	22.54
28	28	89.10	0.00	0.13	21.68	22.48
28	29	92.21	0.00	1.08	23.77	37.44
29	29	92.21	0.00	1.51	19.73	37.43
29	30	95.32	0.00	2.69	21.87	48.45
30	30	95.32	0.00	3.07	17.83	48.52
30	31	98.43	0.00	4.51	19.94	53.75
31	31	98.43	0.00	5.02	15.35	53.93
31	32	101.54	0.00	6.80	17.25	50.49
32	32	101.54	0.00	7.64	11.39	50.79
32	33	104.65	0.00	9.85	12.78	34.44
33	33	104.65	0.00	11.27	4.85	34.85
33	34	107.76	0.00	14.02	5.39	-0.24
101	101	0.00	0.00	1.47	0.41	0.00
101	102	3.05	0.00	1.47	0.41	-4.48
102	102	3.05	0.00	1.24	1.22	-4.49
102	103	6.10	0.00	1.24	1.22	-8.26
103	103	6.10	0.00	0.98	1.97	-8.27
103	104	9.15	0.00	0.98	1.97	-11.28
104	104	9.15	0.00	0.71	2.66	-12.00
104	105	12.20	0.00	0.71	2.66	-14.15
105	105	12.20	0.00	0.26	3.29	-14.84
105	106	15.25	0.00	0.26	3.29	-15.62
106	106	15.25	0.00	-0.48	4.29	-14.77
106	107	18.30	0.00	-0.48	4.29	-13.31
107	107	18.30	0.00	-0.95	5.78	-2.12
107	108	21.35	0.00	-0.95	5.78	0.78
108	108	21.35	0.00	-1.26	7.17	3.72
108	109	24.40	0.00	-1.26	7.17	7.56
109	109	24.40	0.00	-1.78	8.03	7.31
109	110	27.45	0.00	-1.78	8.03	12.75
110	110	27.45	0.00	-2.10	8.16	13.11
110	111	30.50	0.00	-2.10	8.16	19.53
111	111	30.50	0.00	-2.63	7.63	18.26
111	112	33.55	0.00	-2.63	7.63	26.29
112	10112	33.55	0.00	4.14	6.72	22.21
112	113	37.19	0.00	4.14	6.72	7.16
113	113	37.19	0.00	2.69	5.96	6.05
113	114	40.82	0.00	2.69	5.96	-3.72
114	114	40.82	0.00	1.32	6.21	-1.05
114	115	44.46	0.00	1.32	6.21	-5.84
115	115	44.46	0.00	1.09	6.73	-5.83
115	116	48.10	0.00	1.09	6.73	-9.81
116	116	48.10	0.00	0.77	7.27	-9.15
116	117	51.73	0.00	0.77	7.27	-11.95
117	117	51.73	0.00	0.38	8.05	-9.00
117	118	55.37	0.00	0.38	8.05	-10.38
118	118	55.37	0.00	0.06	9.46	-5.76
118	119	59.01	0.00	0.06	9.46	-5.97

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-0.54	10.45	-5.53
119	120	62.64	0.00	-0.54	10.45	-3.57
120	120	62.64	0.00	-1.62	10.25	-3.87
120	121	66.28	0.00	-1.62	10.25	2.01
121	121	66.28	0.00	-2.00	8.93	4.62
121	122	69.91	0.00	-2.00	8.93	11.90
122	122	69.91	0.00	-2.73	7.21	10.60
122	123	73.55	0.00	-2.73	7.21	20.54
123	10123	73.55	0.00	4.28	5.31	16.41
123	124	76.66	0.00	4.28	5.31	3.11
124	124	76.66	0.00	2.95	3.71	2.03
124	125	79.77	0.00	2.95	3.71	-7.13
125	125	79.77	0.00	1.73	2.42	-6.47
125	126	82.88	0.00	1.73	2.42	-11.84
126	126	82.88	0.00	1.07	1.53	-11.80
126	127	85.99	0.00	1.07	1.53	-15.12
127	127	85.99	0.00	0.47	1.14	-9.89
127	128	89.10	0.00	0.47	1.14	-11.35
128	128	89.10	0.00	0.39	1.46	-2.04
128	129	92.21	0.00	0.39	1.46	-3.25
129	129	92.21	0.00	0.64	2.59	-2.00
129	130	95.32	0.00	0.64	2.59	-4.00
130	130	95.32	0.00	0.58	4.05	-4.72
130	131	98.43	0.00	0.58	4.05	-6.51
131	131	98.43	0.00	0.12	4.78	-7.47
131	132	101.54	0.00	0.12	4.78	-7.85
132	132	101.54	0.00	-0.73	4.27	-8.21
132	133	104.65	0.00	-0.73	4.27	-5.93
133	133	104.65	0.00	-2.13	2.08	-6.37
133	134	107.76	0.00	-2.13	2.08	0.24
301	101	0.00	0.00	1.02	0.23	1.75
301	2001	0.00	0.00	1.02	0.23	0.97
302	102	3.05	0.00	1.45	0.43	1.60
302	2002	3.05	0.00	1.45	0.43	0.51
303	103	6.10	0.00	0.89	0.35	0.07
303	2003	6.10	0.00	0.89	0.35	-0.61
304	104	9.15	0.00	0.50	0.24	-1.17
304	2004	9.15	0.00	0.50	0.24	-1.55
305	105	12.20	0.00	0.23	0.12	-1.93
305	2005	12.20	0.00	0.23	0.12	-2.11
306	106	15.25	0.00	0.02	0.03	-1.28
306	2006	15.25	0.00	0.02	0.03	-1.29
307	107	18.30	0.00	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	0.78	0.03	1.29
310	2010	27.45	0.00	0.78	0.03	0.70
311	111	30.50	0.00	0.95	0.10	1.52

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.95	0.10	0.80
312	112	33.55	0.00	1.04	0.21	1.43
312	2012	33.55	0.00	1.04	0.21	0.64
313	113	37.19	0.00	0.91	0.34	0.69
313	2013	37.19	0.00	0.91	0.34	0.00
314	114	40.82	0.00	0.77	0.36	-0.14
314	2014	40.82	0.00	0.77	0.36	-0.72
315	115	44.46	0.00	1.10	0.33	-0.09
315	2015	44.46	0.00	1.10	0.33	-0.92
316	116	48.10	0.00	0.64	0.25	-1.45
316	2016	48.10	0.00	0.64	0.25	-1.94
317	117	51.73	0.00	0.34	0.14	-1.47
317	2017	51.73	0.00	0.34	0.14	-1.72
318	118	55.37	0.00	0.34	0.06	-0.79
318	2018	55.37	0.00	0.34	0.06	-1.04
319	119	59.01	0.00	0.24	0.03	-0.14
319	2019	59.01	0.00	0.24	0.03	-0.33
320	120	62.64	0.00	0.17	0.02	-0.30
320	2020	62.64	0.00	0.17	0.02	-0.43
321	121	66.28	0.00	1.01	0.03	1.31
321	2021	66.28	0.00	1.01	0.03	0.55
322	122	69.91	0.00	1.30	0.11	1.88
322	2022	69.91	0.00	1.30	0.11	0.89
323	123	73.55	0.00	1.17	0.24	1.53
323	2023	73.55	0.00	1.17	0.24	0.64
324	124	76.66	0.00	0.92	0.31	0.66
324	2024	76.66	0.00	0.92	0.31	-0.03
325	125	79.77	0.00	0.77	0.34	-0.12
325	2025	79.77	0.00	0.77	0.34	-0.71
326	126	82.88	0.00	1.17	0.32	-0.02
326	2026	82.88	0.00	1.17	0.32	-0.90
327	127	85.99	0.00	0.83	0.26	-1.10
327	2027	85.99	0.00	0.83	0.26	-1.73
328	128	89.10	0.00	0.58	0.17	-1.89
328	2028	89.10	0.00	0.58	0.17	-2.32
329	129	92.21	0.00	0.47	0.07	-0.90
329	2029	92.21	0.00	0.47	0.07	-1.25
330	130	95.32	0.00	0.30	0.03	-0.06
330	2030	95.32	0.00	0.30	0.03	-0.29
331	131	98.43	0.00	0.24	0.03	-0.19
331	2031	98.43	0.00	0.24	0.03	-0.37
332	132	101.54	0.00	0.19	0.02	-0.32
332	2032	101.54	0.00	0.19	0.02	-0.46
333	133	104.65	0.00	0.13	0.01	-0.31
333	2033	104.65	0.00	0.13	0.01	-0.41
334	134	107.76	0.00	0.05	0.01	-0.17
334	2034	107.76	0.00	0.05	0.01	-0.21
201	2001	0.00	0.00	1.02	0.23	0.97
201	1001	0.00	0.00	1.02	0.23	-3.93
202	2002	3.05	0.00	1.45	0.43	0.51
202	1002	3.05	0.00	1.45	0.43	-6.42

f4.rea

Programa DINTEL PACADAR S.A.
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.89	0.35	-0.61
203	1003	6.10	0.00	0.89	0.35	-4.89
204	2004	9.15	0.00	0.50	0.24	-1.55
204	1004	9.15	0.00	0.50	0.24	-3.93
205	2005	12.20	0.00	0.23	0.12	-2.11
205	1005	12.20	0.00	0.23	0.12	-3.22
206	2006	15.25	0.00	0.02	0.03	-1.29
206	1006	15.25	0.00	0.02	0.03	-1.38
207	2007	18.30	0.00	0.00	0.00	0.00
207	1007	18.30	0.00	0.00	0.00	0.00
208	2008	21.35	0.00	0.00	0.00	0.00
208	1008	21.35	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	0.00	0.00	0.00
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	0.78	0.03	0.70
210	1010	27.45	0.00	0.78	0.03	-3.02
211	2011	30.50	0.00	0.95	0.10	0.80
211	1011	30.50	0.00	0.95	0.10	-3.75
212	2012	33.55	0.00	1.04	0.21	0.64
212	1012	33.55	0.00	1.04	0.21	-4.32
213	2013	37.19	0.00	0.91	0.34	0.00
213	1013	37.19	0.00	0.91	0.34	-4.38
214	2014	40.82	0.00	0.77	0.36	-0.72
214	1014	40.82	0.00	0.77	0.36	-4.39
215	2015	44.46	0.00	1.10	0.33	-0.92
215	1015	44.46	0.00	1.10	0.33	-6.17
216	2016	48.10	0.00	0.64	0.25	-1.94
216	1016	48.10	0.00	0.64	0.25	-5.02
217	2017	51.73	0.00	0.34	0.14	-1.72
217	1017	51.73	0.00	0.34	0.14	-3.35
218	2018	55.37	0.00	0.34	0.06	-1.04
218	1018	55.37	0.00	0.34	0.06	-2.65
219	2019	59.01	0.00	0.24	0.03	-0.33
219	1019	59.01	0.00	0.24	0.03	-1.49
220	2020	62.64	0.00	0.17	0.02	-0.43
220	1020	62.64	0.00	0.17	0.02	-1.25
221	2021	66.28	0.00	1.01	0.03	0.55
221	1021	66.28	0.00	1.01	0.03	-4.27
222	2022	69.91	0.00	1.30	0.11	0.89
222	1022	69.91	0.00	1.30	0.11	-5.35
223	2023	73.55	0.00	1.17	0.24	0.64
223	1023	73.55	0.00	1.17	0.24	-4.98
224	2024	76.66	0.00	0.92	0.31	-0.03
224	1024	76.66	0.00	0.92	0.31	-4.43
225	2025	79.77	0.00	0.77	0.34	-0.71
225	1025	79.77	0.00	0.77	0.34	-4.39
226	2026	82.88	0.00	1.17	0.32	-0.90
226	1026	82.88	0.00	1.17	0.32	-6.52
227	2027	85.99	0.00	0.83	0.26	-1.73
227	1027	85.99	0.00	0.83	0.26	-5.70
228	2028	89.10	0.00	0.58	0.17	-2.32

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.58	0.17	-5.10
229	2029	92.21	0.00	0.47	0.07	-1.25
229	1029	92.21	0.00	0.47	0.07	-3.48
230	2030	95.32	0.00	0.30	0.03	-0.29
230	1030	95.32	0.00	0.30	0.03	-1.75
231	2031	98.43	0.00	0.24	0.03	-0.37
231	1031	98.43	0.00	0.24	0.03	-1.51
232	2032	101.54	0.00	0.19	0.02	-0.46
232	1032	101.54	0.00	0.19	0.02	-1.39
233	2033	104.65	0.00	0.13	0.01	-0.41
233	1033	104.65	0.00	0.13	0.01	-1.04
234	2034	107.76	0.00	0.05	0.01	-0.21
234	1034	107.76	0.00	0.05	0.01	-0.45
401	1001	0.00	0.00	1.02	0.23	-3.93
401	1	0.00	0.00	1.02	0.23	-4.70
402	1002	3.05	0.00	1.45	0.43	-6.42
402	2	3.05	0.00	1.45	0.43	-7.51
403	1003	6.10	0.00	0.89	0.35	-4.89
403	3	6.10	0.00	0.89	0.35	-5.57
404	1004	9.15	0.00	0.50	0.24	-3.93
404	4	9.15	0.00	0.50	0.24	-4.30
405	1005	12.20	0.00	0.23	0.12	-3.22
405	5	12.20	0.00	0.23	0.12	-3.39
406	1006	15.25	0.00	0.02	0.03	-1.38
406	6	15.25	0.00	0.02	0.03	-1.39
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	0.78	0.03	-3.02
410	10	27.45	0.00	0.78	0.03	-3.61
411	1011	30.50	0.00	0.95	0.10	-3.75
411	11	30.50	0.00	0.95	0.10	-4.47
412	1012	33.55	0.00	1.04	0.21	-4.32
412	12	33.55	0.00	1.04	0.21	-5.11
413	1013	37.19	0.00	0.91	0.34	-4.38
413	13	37.19	0.00	0.91	0.34	-5.07
414	1014	40.82	0.00	0.77	0.36	-4.39
414	14	40.82	0.00	0.77	0.36	-4.97
415	1015	44.46	0.00	1.10	0.33	-6.17
415	15	44.46	0.00	1.10	0.33	-7.00
416	1016	48.10	0.00	0.64	0.25	-5.02
416	16	48.10	0.00	0.64	0.25	-5.50
417	1017	51.73	0.00	0.34	0.14	-3.35
417	17	51.73	0.00	0.34	0.14	-3.61
418	1018	55.37	0.00	0.34	0.06	-2.65
418	18	55.37	0.00	0.34	0.06	-2.91
419	1019	59.01	0.00	0.24	0.03	-1.49
419	19	59.01	0.00	0.24	0.03	-1.67

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.17	0.02	-1.25
420	20	62.64	0.00	0.17	0.02	-1.38
421	1021	66.28	0.00	1.01	0.03	-4.27
421	21	66.28	0.00	1.01	0.03	-5.03
422	1022	69.91	0.00	1.30	0.11	-5.35
422	22	69.91	0.00	1.30	0.11	-6.34
423	1023	73.55	0.00	1.17	0.24	-4.98
423	23	73.55	0.00	1.17	0.24	-5.86
424	1024	76.66	0.00	0.92	0.31	-4.43
424	24	76.66	0.00	0.92	0.31	-5.12
425	1025	79.77	0.00	0.77	0.34	-4.39
425	25	79.77	0.00	0.77	0.34	-4.97
426	1026	82.88	0.00	1.17	0.32	-6.52
426	26	82.88	0.00	1.17	0.32	-7.41
427	1027	85.99	0.00	0.83	0.26	-5.70
427	27	85.99	0.00	0.83	0.26	-6.33
428	1028	89.10	0.00	0.58	0.17	-5.10
428	28	89.10	0.00	0.58	0.17	-5.54
429	1029	92.21	0.00	0.47	0.07	-3.48
429	29	92.21	0.00	0.47	0.07	-3.83
430	1030	95.32	0.00	0.30	0.03	-1.75
430	30	95.32	0.00	0.30	0.03	-1.98
431	1031	98.43	0.00	0.24	0.03	-1.51
431	31	98.43	0.00	0.24	0.03	-1.69
432	1032	101.54	0.00	0.19	0.02	-1.39
432	32	101.54	0.00	0.19	0.02	-1.54
433	1033	104.65	0.00	0.13	0.01	-1.04
433	33	104.65	0.00	0.13	0.01	-1.14
434	1034	107.76	0.00	0.05	0.01	-0.45
434	34	107.76	0.00	0.05	0.01	-0.49

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	0.51	-0.54	0.01
1	2	3.05	0.00	-11.87	2.76	39.69
2	2	3.05	0.00	-10.45	-4.53	39.26
2	3	6.10	0.00	-8.01	2.82	67.41
3	3	6.10	0.00	-7.11	-2.83	67.06
3	4	9.15	0.00	-4.67	4.52	85.02
4	4	9.15	0.00	-4.17	0.13	84.78
4	5	12.20	0.00	-1.74	7.78	93.79
5	5	12.20	0.00	-1.50	4.32	93.67
5	6	15.25	0.00	0.94	11.67	94.53
6	6	15.25	0.00	1.06	8.60	94.54
6	7	18.30	0.00	3.41	17.39	87.64
7	7	18.30	0.00	3.49	14.63	87.76
7	8	21.35	0.00	5.93	21.98	73.40
8	8	21.35	0.00	6.13	18.88	73.62
8	9	24.40	0.00	8.57	26.23	51.19
9	9	24.40	0.00	8.98	22.54	51.48
9	10	27.45	0.00	7.36	10.29	23.34
10	10	27.45	0.00	7.80	7.31	23.52
10	11	30.50	0.00	2.52	-2.81	8.77
11	11	30.50	0.00	2.78	-4.52	8.80
11	12	33.55	0.00	-0.05	-5.71	6.81
12	10012	33.55	0.00	0.41	-6.58	6.81
12	13	37.19	0.00	-2.74	-6.25	9.15
13	13	37.19	0.00	-2.37	-8.61	9.11
13	14	40.82	0.00	-7.19	-17.73	27.22
14	14	40.82	0.00	-6.66	-21.53	27.00
14	15	44.46	0.00	-6.58	-26.17	53.57
15	15	44.46	0.00	-6.20	-30.36	53.29
15	16	48.10	0.00	-4.10	-12.24	72.43
16	16	48.10	0.00	-4.14	-14.37	72.24
16	17	51.73	0.00	-1.30	-3.60	82.15
17	17	51.73	0.00	-1.43	-5.62	82.08
17	18	55.37	0.00	1.41	5.42	82.12
18	18	55.37	0.00	1.28	3.41	82.19
18	19	59.01	0.00	4.06	15.25	72.38
19	19	59.01	0.00	4.08	12.09	72.57
19	20	62.64	0.00	6.22	30.01	53.46
20	20	62.64	0.00	6.60	25.85	53.74
20	21	66.28	0.00	6.68	21.25	27.01
21	21	66.28	0.00	7.21	17.47	27.23
21	22	69.91	0.00	2.40	8.42	8.84
22	22	69.91	0.00	2.77	6.07	8.89
22	23	73.55	0.00	-0.38	6.43	6.40
23	10023	73.55	0.00	0.04	5.58	6.40
23	24	76.66	0.00	-2.84	4.32	8.49
24	24	76.66	0.00	-2.58	2.60	8.45
24	25	79.77	0.00	-7.92	-7.89	23.55
25	25	79.77	0.00	-7.48	-10.89	23.37
25	26	82.88	0.00	-9.10	-23.50	52.28
26	26	82.88	0.00	-8.70	-27.19	51.98

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-6.21	-19.69	75.17
27	27	85.99	0.00	-6.03	-22.75	74.95
27	28	89.10	0.00	-3.54	-15.25	89.84
28	28	89.10	0.00	-3.49	-17.95	89.71
28	29	92.21	0.00	-1.09	-9.04	96.95
29	29	92.21	0.00	-1.01	-12.03	96.95
29	30	95.32	0.00	1.48	-4.53	96.21
30	30	95.32	0.00	1.69	-7.95	96.33
30	31	98.43	0.00	4.17	-0.16	87.22
31	31	98.43	0.00	4.66	-4.55	87.47
31	32	101.54	0.00	7.15	2.95	69.11
32	32	101.54	0.00	8.06	-2.78	69.47
32	33	104.65	0.00	10.55	4.72	40.54
33	33	104.65	0.00	12.01	-2.75	40.98
33	34	107.76	0.00	-0.47	0.49	0.01
101	101	0.00	0.00	2.34	-1.75	0.23
101	102	3.05	0.00	-0.16	0.15	0.48
102	102	3.05	0.00	-0.18	-0.46	0.48
102	103	6.10	0.00	-0.18	0.46	1.02
103	103	6.10	0.00	-0.19	0.79	1.03
103	104	9.15	0.00	-0.19	0.88	1.62
104	104	9.15	0.00	-0.21	1.26	1.62
104	105	12.20	0.00	-0.36	0.79	2.36
105	105	12.20	0.00	-0.37	1.62	2.40
105	106	15.25	0.00	-0.52	1.37	3.84
106	106	15.25	0.00	-0.50	2.70	3.86
106	107	18.30	0.00	-0.63	2.77	5.59
107	107	18.30	0.00	-0.63	4.44	5.52
107	108	21.35	0.00	-0.72	4.36	7.43
108	108	21.35	0.00	-0.70	5.83	7.28
108	109	24.40	0.00	-0.89	6.26	9.87
109	109	24.40	0.00	-1.17	7.28	9.63
109	110	27.45	0.00	-1.76	7.20	14.35
110	110	27.45	0.00	-2.44	7.46	14.03
110	111	30.50	0.00	-3.56	6.73	23.36
111	111	30.50	0.00	-4.88	5.54	23.08
111	112	33.55	0.00	-6.91	2.21	42.21
112	10112	33.55	0.00	6.80	-0.62	42.19
112	113	37.19	0.00	6.80	-0.62	17.45
113	113	37.19	0.00	4.62	-3.09	17.69
113	114	40.82	0.00	0.79	-7.69	6.25
114	114	40.82	0.00	0.13	-7.54	6.60
114	115	44.46	0.00	-0.17	-6.67	6.87
115	115	44.46	0.00	-0.32	-5.35	7.15
115	116	48.10	0.00	-0.39	-4.72	8.53
116	116	48.10	0.00	-0.26	-2.58	8.71
116	117	51.73	0.00	-0.26	-2.58	9.67
117	117	51.73	0.00	-0.01	-0.01	9.73
117	118	55.37	0.00	-0.01	-0.01	9.76
118	118	55.37	0.00	0.25	2.55	9.70
118	119	59.01	0.00	0.25	2.55	8.79

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	0.37	4.69	8.61
119	120	62.64	0.00	0.31	5.33	7.28
120	120	62.64	0.00	0.15	6.65	7.00
120	121	66.28	0.00	-0.16	7.50	6.80
121	121	66.28	0.00	-0.82	7.63	6.45
121	122	69.91	0.00	-4.66	2.90	17.56
122	122	69.91	0.00	-6.88	0.32	17.32
122	123	73.55	0.00	-6.88	0.32	42.35
123	10123	73.55	0.00	6.85	-2.62	42.38
123	124	76.66	0.00	4.82	-5.91	22.89
124	124	76.66	0.00	3.47	-7.15	23.17
124	125	79.77	0.00	2.37	-7.85	13.91
125	125	79.77	0.00	1.67	-7.59	14.24
125	126	82.88	0.00	1.09	-7.61	9.66
126	126	82.88	0.00	0.82	-6.54	9.91
126	127	85.99	0.00	0.73	-6.16	7.45
127	127	85.99	0.00	0.67	-4.55	7.63
127	128	89.10	0.00	0.58	-4.59	5.77
128	128	89.10	0.00	0.61	-2.84	5.85
128	129	92.21	0.00	0.48	-2.73	4.02
129	129	92.21	0.00	0.51	-1.35	4.01
129	130	95.32	0.00	0.42	-1.57	2.46
130	130	95.32	0.00	0.42	-0.53	2.40
130	131	98.43	0.00	0.19	-1.24	1.52
131	131	98.43	0.00	0.18	-0.86	1.52
131	132	101.54	0.00	0.18	-0.78	0.96
132	132	101.54	0.00	0.16	-0.45	0.96
132	133	104.65	0.00	0.16	-0.45	0.45
133	133	104.65	0.00	0.14	-0.14	0.45
133	134	107.76	0.00	-2.35	1.86	0.24
301	101	0.00	0.00	0.97	0.22	1.97
301	2001	0.00	0.00	0.97	0.22	1.24
302	102	3.05	0.00	1.35	0.42	2.10
302	2002	3.05	0.00	1.30	0.41	1.10
303	103	6.10	0.00	0.72	0.30	0.56
303	2003	6.10	0.00	0.37	0.09	0.13
304	104	9.15	0.00	0.09	0.01	0.04
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.22	-0.03	0.09
305	2005	12.20	0.00	0.00	0.00	0.00
306	106	15.25	0.00	0.36	-0.03	0.28
306	2006	15.25	0.00	0.25	-0.03	0.05
307	107	18.30	0.00	0.50	-0.04	0.53
307	2007	18.30	0.00	0.42	-0.03	0.20
308	108	21.35	0.00	0.64	-0.03	0.85
308	2008	21.35	0.00	0.54	-0.03	0.39
309	109	24.40	0.00	0.81	-0.02	1.19
309	2009	24.40	0.00	0.72	-0.01	0.60
310	110	27.45	0.00	1.14	-0.07	1.64
310	2010	27.45	0.00	1.01	0.00	0.82
311	111	30.50	0.00	1.75	-0.20	2.53

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	1.65	-0.17	1.23
312	112	33.55	0.00	2.06	-0.02	3.26
312	2012	33.55	0.00	2.02	-0.03	1.71
313	113	37.19	0.00	2.04	0.23	2.96
313	2013	37.19	0.00	1.95	0.19	1.46
314	114	40.82	0.00	1.26	0.02	1.97
314	2014	40.82	0.00	1.17	0.00	1.04
315	115	44.46	0.00	0.95	0.04	1.39
315	2015	44.46	0.00	0.84	0.03	0.72
316	116	48.10	0.00	0.76	0.04	0.89
316	2016	48.10	0.00	0.61	0.05	0.40
317	117	51.73	0.00	0.73	0.01	0.64
317	2017	51.73	0.00	0.50	0.02	0.16
318	118	55.37	0.00	0.74	-0.01	0.66
318	2018	55.37	0.00	0.47	-0.03	0.17
319	119	59.01	0.00	0.78	-0.04	0.94
319	2019	59.01	0.00	0.63	-0.05	0.43
320	120	62.64	0.00	0.98	-0.04	1.46
320	2020	62.64	0.00	0.87	-0.03	0.76
321	121	66.28	0.00	1.30	-0.02	2.06
321	2021	66.28	0.00	1.21	0.00	1.10
322	122	69.91	0.00	2.08	-0.22	3.07
322	2022	69.91	0.00	1.99	-0.19	1.53
323	123	73.55	0.00	2.10	0.03	3.37
323	2023	73.55	0.00	2.06	0.04	1.78
324	124	76.66	0.00	1.78	0.22	2.60
324	2024	76.66	0.00	1.73	0.20	1.27
325	125	79.77	0.00	1.15	0.07	1.65
325	2025	79.77	0.00	1.02	0.00	0.83
326	126	82.88	0.00	0.81	0.02	1.19
326	2026	82.88	0.00	0.72	0.01	0.61
327	127	85.99	0.00	0.63	0.03	0.84
327	2027	85.99	0.00	0.54	0.03	0.39
328	128	89.10	0.00	0.44	0.03	0.52
328	2028	89.10	0.00	0.41	0.03	0.19
329	129	92.21	0.00	0.33	0.03	0.26
329	2029	92.21	0.00	0.19	0.02	0.05
330	130	95.32	0.00	0.19	0.02	0.08
330	2030	95.32	0.00	0.00	0.00	0.00
331	131	98.43	0.00	0.09	-0.01	0.04
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.73	-0.31	0.56
332	2032	101.54	0.00	0.37	-0.09	0.13
333	133	104.65	0.00	1.39	-0.44	2.19
333	2033	104.65	0.00	1.35	-0.43	1.16
334	134	107.76	0.00	1.01	-0.24	2.08
334	2034	107.76	0.00	1.01	-0.24	1.32
201	2001	0.00	0.00	0.97	0.22	1.24
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	1.30	0.41	1.10
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.37	0.09	0.13
203	1003	6.10	0.00	0.00	0.00	0.00
204	2004	9.15	0.00	0.00	0.00	0.00
204	1004	9.15	0.00	0.00	0.00	0.00
205	2005	12.20	0.00	0.00	0.00	0.00
205	1005	12.20	0.00	0.00	0.00	0.00
206	2006	15.25	0.00	0.25	-0.03	0.05
206	1006	15.25	0.00	0.00	0.00	0.00
207	2007	18.30	0.00	0.42	-0.03	0.20
207	1007	18.30	0.00	0.00	0.00	0.00
208	2008	21.35	0.00	0.54	-0.03	0.39
208	1008	21.35	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	0.72	-0.01	0.60
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	1.01	0.00	0.82
210	1010	27.45	0.00	0.00	0.00	0.00
211	2011	30.50	0.00	1.65	-0.17	1.23
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	2.02	-0.03	1.71
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	1.95	0.19	1.46
213	1013	37.19	0.00	0.00	0.00	0.00
214	2014	40.82	0.00	1.17	0.00	1.04
214	1014	40.82	0.00	0.00	0.00	0.00
215	2015	44.46	0.00	0.84	0.03	0.72
215	1015	44.46	0.00	0.00	0.00	0.00
216	2016	48.10	0.00	0.61	0.05	0.40
216	1016	48.10	0.00	0.00	0.00	0.00
217	2017	51.73	0.00	0.50	0.02	0.16
217	1017	51.73	0.00	0.00	0.00	0.00
218	2018	55.37	0.00	0.47	-0.03	0.17
218	1018	55.37	0.00	0.00	0.00	0.00
219	2019	59.01	0.00	0.63	-0.05	0.43
219	1019	59.01	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	0.87	-0.03	0.76
220	1020	62.64	0.00	0.00	0.00	0.00
221	2021	66.28	0.00	1.21	0.00	1.10
221	1021	66.28	0.00	0.00	0.00	0.00
222	2022	69.91	0.00	1.99	-0.19	1.53
222	1022	69.91	0.00	0.00	0.00	0.00
223	2023	73.55	0.00	2.06	0.04	1.78
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	1.73	0.20	1.27
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	1.02	0.00	0.83
225	1025	79.77	0.00	0.00	0.00	0.00
226	2026	82.88	0.00	0.72	0.01	0.61
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	85.99	0.00	0.54	0.03	0.39
227	1027	85.99	0.00	0.00	0.00	0.00
228	2028	89.10	0.00	0.41	0.03	0.19

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00	0.00
229	2029	92.21	0.00	0.19	0.02	0.05
229	1029	92.21	0.00	0.00	0.00	0.00
230	2030	95.32	0.00	0.00	0.00	0.00
230	1030	95.32	0.00	0.00	0.00	0.00
231	2031	98.43	0.00	0.00	0.00	0.00
231	1031	98.43	0.00	0.00	0.00	0.00
232	2032	101.54	0.00	0.37	-0.09	0.13
232	1032	101.54	0.00	0.00	0.00	0.00
233	2033	104.65	0.00	1.35	-0.43	1.16
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	1.01	-0.24	1.32
234	1034	107.76	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-14.31	-4.59	-0.23
1	2	3.05	0.00	-11.87	2.76	39.69
2	2	3.05	0.00	-10.45	-4.53	39.26
2	3	6.10	0.00	-8.27	-3.19	57.37
3	3	6.10	0.00	-7.57	-13.29	52.41
3	4	9.15	0.00	-5.82	-11.44	58.42
4	4	9.15	0.00	-5.56	-13.46	57.78
4	5	12.20	0.00	-4.14	-11.39	56.12
5	5	12.20	0.00	-4.07	-13.31	56.02
5	6	15.25	0.00	-2.92	-11.21	49.69
6	6	15.25	0.00	-2.89	-12.46	49.49
6	7	18.30	0.00	-1.96	-10.40	40.56
7	7	18.30	0.00	-1.90	-11.90	40.58
7	8	21.35	0.00	-1.18	-9.88	30.59
8	8	21.35	0.00	-1.10	-9.29	28.76
8	9	24.40	0.00	-0.60	-7.20	19.12
9	9	24.40	0.00	-0.47	-7.86	18.71
9	10	27.45	0.00	-0.22	-5.59	10.81
10	10	27.45	0.00	-0.12	-3.46	5.52
10	11	30.50	0.00	-0.12	-3.46	5.88
11	11	30.50	0.00	-0.08	-3.96	5.89
11	12	33.55	0.00	-0.08	-3.96	6.14
12	10012	33.55	0.00	-23.16	0.75	-157.15
12	13	37.19	0.00	-20.25	9.52	-78.23
13	13	37.19	0.00	-18.16	-0.79	-78.47
13	14	40.82	0.00	-15.41	4.01	-24.68
14	14	40.82	0.00	-13.87	-4.28	-24.99
14	15	44.46	0.00	-11.50	0.76	9.08
15	15	44.46	0.00	-10.51	-7.69	6.55
15	16	48.10	0.00	-8.49	-2.69	25.67
16	16	48.10	0.00	-7.89	-5.68	25.16
16	17	51.73	0.00	-6.16	-0.93	33.28
17	17	51.73	0.00	-5.78	-4.44	33.15
17	18	55.37	0.00	-4.32	-0.06	33.44
18	18	55.37	0.00	-4.03	-3.06	33.38
18	19	59.01	0.00	-2.84	0.96	28.44
19	19	59.01	0.00	-2.56	-3.19	28.15
19	20	62.64	0.00	-1.67	0.58	20.38
20	20	62.64	0.00	-1.39	0.68	18.16
20	21	66.28	0.00	-0.85	4.41	10.15
21	21	66.28	0.00	-0.64	2.82	10.16
21	22	69.91	0.00	-0.49	6.80	4.95
22	22	69.91	0.00	-0.40	5.86	4.94
22	23	73.55	0.00	-0.40	5.86	6.39
23	10023	73.55	0.00	-23.85	-10.93	-159.21
23	24	76.66	0.00	-21.37	-3.44	-88.89
24	24	76.66	0.00	-19.53	-12.56	-89.11
24	25	79.77	0.00	-17.04	-5.06	-32.25
25	25	79.77	0.00	-15.59	-15.80	-37.99
25	26	82.88	0.00	-13.37	-10.60	-2.22
26	26	82.88	0.00	-12.32	-17.34	-2.92

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-10.34	-11.94	19.71
27	27	85.99	0.00	-9.60	-18.88	17.57
27	28	89.10	0.00	-7.84	-13.43	29.52
28	28	89.10	0.00	-7.31	-17.51	29.37
28	29	92.21	0.00	-5.77	-12.10	32.86
29	29	92.21	0.00	-5.31	-16.06	32.62
29	30	95.32	0.00	-4.00	-10.71	29.55
30	30	95.32	0.00	-3.54	-14.15	29.54
30	31	98.43	0.00	-2.49	-8.77	21.90
31	31	98.43	0.00	-2.02	-12.76	21.48
31	32	101.54	0.00	-1.31	-7.16	11.72
32	32	101.54	0.00	-0.92	-4.10	6.93
32	33	104.65	0.00	-0.64	2.01	-1.48
33	33	104.65	0.00	-0.48	0.65	-1.50
33	34	107.76	0.00	-0.48	0.65	0.01
101	101	0.00	0.00	-0.16	0.15	0.00
101	102	3.05	0.00	-0.16	0.15	0.48
102	102	3.05	0.00	-0.18	0.51	0.48
102	103	6.10	0.00	-0.18	0.51	1.02
103	103	6.10	0.00	-0.41	-2.06	-2.71
103	104	9.15	0.00	-0.41	-2.06	-1.46
104	104	9.15	0.00	-0.74	-2.52	-5.12
104	105	12.20	0.00	-0.74	-2.52	-2.86
105	105	12.20	0.00	-0.93	-0.55	-3.49
105	106	15.25	0.00	-0.93	-0.55	-0.66
106	106	15.25	0.00	-1.04	2.27	-4.02
106	107	18.30	0.00	-1.04	2.27	-0.86
107	107	18.30	0.00	-1.48	4.55	-15.64
107	108	21.35	0.00	-1.48	4.55	-11.11
108	108	21.35	0.00	-2.34	5.54	-11.36
108	109	24.40	0.00	-2.34	5.54	-4.23
109	109	24.40	0.00	-3.52	5.51	-4.53
109	110	27.45	0.00	-3.52	5.51	6.21
110	110	27.45	0.00	-5.06	4.34	5.91
110	111	30.50	0.00	-5.06	4.34	21.35
111	111	30.50	0.00	-6.91	2.21	21.14
111	112	33.55	0.00	-6.91	2.21	42.21
112	10112	33.55	0.00	0.00	0.00	0.00
112	113	37.19	0.00	0.00	0.00	0.00
113	113	37.19	0.00	-0.17	-3.55	2.64
113	114	40.82	0.00	-0.17	-3.55	3.25
114	114	40.82	0.00	-0.37	-4.28	4.37
114	115	44.46	0.00	-0.37	-4.28	5.71
115	115	44.46	0.00	-0.41	-3.87	6.81
115	116	48.10	0.00	-0.41	-3.87	8.30
116	116	48.10	0.00	-0.27	-1.88	8.48
116	117	51.73	0.00	-0.27	-1.88	9.45
117	117	51.73	0.00	-0.42	-4.42	-6.51
117	118	55.37	0.00	-0.42	-4.42	-4.98
118	118	55.37	0.00	-0.93	0.38	-26.68
118	119	59.01	0.00	-0.93	0.38	-23.31

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-1.98	-0.07	-23.35
119	120	62.64	0.00	-1.98	-0.07	-16.16
120	120	62.64	0.00	-3.24	-0.15	-15.35
120	121	66.28	0.00	-3.24	-0.15	-3.58
121	121	66.28	0.00	-4.82	-0.40	-2.43
121	122	69.91	0.00	-4.82	-0.40	15.09
122	122	69.91	0.00	-6.88	0.32	17.32
122	123	73.55	0.00	-6.88	0.32	42.35
123	10123	73.55	0.00	0.00	0.00	0.00
123	124	76.66	0.00	0.00	0.00	0.00
124	124	76.66	0.00	0.00	0.00	0.00
124	125	79.77	0.00	0.00	0.00	0.00
125	125	79.77	0.00	0.00	0.00	0.00
125	126	82.88	0.00	0.00	0.00	0.00
126	126	82.88	0.00	0.00	0.00	0.00
126	127	85.99	0.00	0.00	0.00	0.00
127	127	85.99	0.00	0.00	0.00	0.00
127	128	89.10	0.00	0.00	0.00	0.00
128	128	89.10	0.00	-0.17	-0.59	-14.66
128	129	92.21	0.00	-0.17	-0.59	-14.14
129	129	92.21	0.00	-0.56	-1.32	-17.47
129	130	95.32	0.00	-0.56	-1.32	-15.73
130	130	95.32	0.00	-0.91	-1.30	-16.46
130	131	98.43	0.00	-0.91	-1.30	-13.63
131	131	98.43	0.00	-1.30	0.59	-17.57
131	132	101.54	0.00	-1.30	0.59	-13.52
132	132	101.54	0.00	-2.12	3.56	-17.50
132	133	104.65	0.00	-2.12	3.56	-10.91
133	133	104.65	0.00	-3.72	1.82	-11.34
133	134	107.76	0.00	-3.72	1.82	0.23
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.04	-0.40
305	2005	12.20	0.00	0.00	0.04	-0.39
306	106	15.25	0.00	-0.04	0.01	-1.11
306	2006	15.25	0.00	-0.04	0.01	-1.08
307	107	18.30	0.00	-0.04	-0.07	-1.07
307	2007	18.30	0.00	-0.04	-0.07	-1.05
308	108	21.35	0.00	0.00	-0.06	-0.38
308	2008	21.35	0.00	0.00	-0.06	-0.37
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00	0.00
315	115	44.46	0.00	-0.01	0.13	-0.61
315	2015	44.46	0.00	-0.01	0.13	-0.60
316	116	48.10	0.00	-0.15	0.17	-1.85
316	2016	48.10	0.00	-0.15	0.17	-1.74
317	117	51.73	0.00	-0.26	0.07	-2.39
317	2017	51.73	0.00	-0.26	0.07	-2.20
318	118	55.37	0.00	-0.26	-0.07	-2.39
318	2018	55.37	0.00	-0.26	-0.07	-2.20
319	119	59.01	0.00	-0.15	-0.17	-1.85
319	2019	59.01	0.00	-0.15	-0.17	-1.74
320	120	62.64	0.00	-0.01	-0.13	-0.61
320	2020	62.64	0.00	-0.01	-0.13	-0.60
321	121	66.28	0.00	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	-0.01	0.10	-0.58
327	2027	85.99	0.00	-0.01	0.10	-0.58
328	128	89.10	0.00	-0.06	0.09	-1.35
328	2028	89.10	0.00	-0.06	0.09	-1.31
329	129	92.21	0.00	-0.06	0.00	-1.57
329	2029	92.21	0.00	-0.06	0.00	-1.52
330	130	95.32	0.00	-0.01	-0.06	-0.61
330	2030	95.32	0.00	-0.01	-0.06	-0.60
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00	0.00
203	1003	6.10	0.00	0.00	0.00	0.00
204	2004	9.15	0.00	0.00	0.00	0.00
204	1004	9.15	0.00	0.00	0.00	0.00
205	2005	12.20	0.00	0.00	0.04	-0.39
205	1005	12.20	0.00	0.00	0.04	-0.37
206	2006	15.25	0.00	-0.04	0.01	-1.08
206	1006	15.25	0.00	-0.04	0.01	-0.89
207	2007	18.30	0.00	-0.04	-0.07	-1.05
207	1007	18.30	0.00	-0.04	-0.07	-0.88
208	2008	21.35	0.00	0.00	-0.06	-0.37
208	1008	21.35	0.00	0.00	-0.06	-0.36
209	2009	24.40	0.00	0.00	0.00	0.00
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	0.00	0.00	0.00
210	1010	27.45	0.00	0.00	0.00	0.00
211	2011	30.50	0.00	0.00	0.00	0.00
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	0.00	0.00	0.00
213	1013	37.19	0.00	0.00	0.00	0.00
214	2014	40.82	0.00	0.00	0.00	0.00
214	1014	40.82	0.00	0.00	0.00	0.00
215	2015	44.46	0.00	-0.01	0.13	-0.60
215	1015	44.46	0.00	-0.01	0.13	-0.55
216	2016	48.10	0.00	-0.15	0.17	-1.74
216	1016	48.10	0.00	-0.15	0.17	-1.04
217	2017	51.73	0.00	-0.26	0.07	-2.20
217	1017	51.73	0.00	-0.26	0.07	-0.97
218	2018	55.37	0.00	-0.26	-0.07	-2.20
218	1018	55.37	0.00	-0.26	-0.07	-0.97
219	2019	59.01	0.00	-0.15	-0.17	-1.74
219	1019	59.01	0.00	-0.15	-0.17	-1.05
220	2020	62.64	0.00	-0.01	-0.13	-0.60
220	1020	62.64	0.00	-0.01	-0.13	-0.55
221	2021	66.28	0.00	0.00	0.00	0.00
221	1021	66.28	0.00	0.00	0.00	0.00
222	2022	69.91	0.00	0.00	0.00	0.00
222	1022	69.91	0.00	0.00	0.00	0.00
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00	0.00
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	0.00	0.00	0.00
225	1025	79.77	0.00	0.00	0.00	0.00
226	2026	82.88	0.00	0.00	0.00	0.00
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	85.99	0.00	-0.01	0.10	-0.58
227	1027	85.99	0.00	-0.01	0.10	-0.53
228	2028	89.10	0.00	-0.06	0.09	-1.31

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.06	0.09	-1.04
229	2029	92.21	0.00	-0.06	0.00	-1.52
229	1029	92.21	0.00	-0.06	0.00	-1.23
230	2030	95.32	0.00	-0.01	-0.06	-0.60
230	1030	95.32	0.00	-0.01	-0.06	-0.54
231	2031	98.43	0.00	0.00	0.00	0.00
231	1031	98.43	0.00	0.00	0.00	0.00
232	2032	101.54	0.00	0.00	0.00	0.00
232	1032	101.54	0.00	0.00	0.00	0.00
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	0.00	0.00	0.00
234	1034	107.76	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.04	-0.37
405	5	12.20	0.00	0.00	0.04	-0.37
406	1006	15.25	0.00	-0.04	0.01	-0.89
406	6	15.25	0.00	-0.04	0.01	-0.86
407	1007	18.30	0.00	-0.04	-0.07	-0.87
407	7	18.30	0.00	-0.04	-0.07	-0.85
408	1008	21.35	0.00	0.00	-0.06	-0.36
408	8	21.35	0.00	0.00	-0.06	-0.35
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00	0.00
415	1015	44.46	0.00	-0.01	0.13	-0.55
415	15	44.46	0.00	-0.01	0.13	-0.54
416	1016	48.10	0.00	-0.15	0.17	-1.04
416	16	48.10	0.00	-0.15	0.17	-0.93
417	1017	51.73	0.00	-0.26	0.07	-0.97
417	17	51.73	0.00	-0.26	0.07	-0.78
418	1018	55.37	0.00	-0.26	-0.07	-0.97
418	18	55.37	0.00	-0.26	-0.07	-0.78
419	1019	59.01	0.00	-0.15	-0.17	-1.05
419	19	59.01	0.00	-0.15	-0.17	-0.94

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.01	-0.13	-0.55
420	20	62.64	0.00	-0.01	-0.13	-0.54
421	1021	66.28	0.00	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	-0.01	0.10	-0.53
427	27	85.99	0.00	-0.01	0.10	-0.52
428	1028	89.10	0.00	-0.06	0.09	-1.04
428	28	89.10	0.00	-0.06	0.09	-0.99
429	1029	92.21	0.00	-0.06	0.00	-1.23
429	29	92.21	0.00	-0.06	0.00	-1.19
430	1030	95.32	0.00	-0.01	-0.06	-0.54
430	30	95.32	0.00	-0.01	-0.06	-0.53
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-13.79	-5.25	-0.22
1	2	3.05	0.00	-11.10	-4.72	33.65
2	2	3.05	0.00	-9.71	-12.51	33.26
2	3	6.10	0.00	-7.53	-11.17	49.11
3	3	6.10	0.00	-6.70	-17.00	48.82
3	4	9.15	0.00	-4.94	-15.15	52.15
4	4	9.15	0.00	-4.42	-19.78	51.98
4	5	12.20	0.00	-3.00	-17.72	46.85
5	5	12.20	0.00	-2.59	-21.83	46.78
5	6	15.25	0.00	-1.44	-19.73	35.94
6	6	15.25	0.00	-0.98	-23.84	35.95
6	7	18.30	0.00	-0.05	-21.78	21.21
7	7	18.30	0.00	0.55	-26.22	21.27
7	8	21.35	0.00	1.26	-24.19	3.81
8	8	21.35	0.00	2.05	-29.12	3.88
8	9	24.40	0.00	2.55	-27.04	-15.36
9	9	24.40	0.00	3.52	-32.44	-15.30
9	10	27.45	0.00	3.77	-30.16	-35.39
10	10	27.45	0.00	4.86	-35.86	-35.38
10	11	30.50	0.00	4.85	-33.25	-55.19
11	11	30.50	0.00	5.96	-38.95	-55.27
11	12	33.55	0.00	5.68	-35.88	-73.47
12	10012	33.55	0.00	-16.97	-41.67	-73.68
12	13	37.19	0.00	-13.80	-37.40	-18.81
13	13	37.19	0.00	-12.95	-42.54	-19.14
13	14	40.82	0.00	-10.20	-37.74	15.71
14	14	40.82	0.00	-9.71	-41.68	15.40
14	15	44.46	0.00	-7.34	-36.64	34.35
15	15	44.46	0.00	-7.10	-39.76	34.11
15	16	48.10	0.00	-5.07	-34.76	40.81
16	16	48.10	0.00	-4.91	-37.56	40.67
16	17	51.73	0.00	-3.18	-32.81	37.97
17	17	51.73	0.00	-2.93	-35.82	37.92
17	18	55.37	0.00	-1.48	-31.44	27.88
18	18	55.37	0.00	-1.02	-35.07	27.91
18	19	59.01	0.00	0.17	-31.05	12.03
19	19	59.01	0.00	0.92	-35.56	12.11
19	20	62.64	0.00	1.81	-31.79	-8.31
20	20	62.64	0.00	2.87	-37.21	-8.23
20	21	66.28	0.00	3.41	-33.48	-31.74
21	21	66.28	0.00	4.71	-39.58	-31.72
21	22	69.91	0.00	4.86	-35.60	-56.39
22	22	69.91	0.00	6.24	-41.89	-56.48
22	23	73.55	0.00	5.97	-37.39	-79.76
23	10023	73.55	0.00	-18.15	-42.66	-80.00
23	24	76.66	0.00	-15.38	-38.27	-28.30
24	24	76.66	0.00	-14.63	-42.17	-28.60
24	25	79.77	0.00	-12.13	-37.31	7.85
25	25	79.77	0.00	-11.68	-40.20	7.54
25	26	82.88	0.00	-9.45	-34.99	31.14
26	26	82.88	0.00	-9.25	-37.01	30.88

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-7.27	-31.61	43.95
27	27	85.99	0.00	-7.22	-33.04	43.77
27	28	89.10	0.00	-5.46	-27.59	48.33
28	28	89.10	0.00	-5.47	-28.75	48.22
28	29	92.21	0.00	-3.92	-23.34	45.98
29	29	92.21	0.00	-3.89	-24.48	45.94
29	30	95.32	0.00	-2.58	-19.13	38.46
30	30	95.32	0.00	-2.45	-20.41	38.48
30	31	98.43	0.00	-1.40	-15.03	27.45
31	31	98.43	0.00	-1.19	-16.43	27.50
31	32	101.54	0.00	-0.48	-10.84	15.16
32	32	101.54	0.00	-0.22	-12.17	15.21
32	33	104.65	0.00	0.06	-6.06	4.62
33	33	104.65	0.00	0.25	-6.95	4.64
33	34	107.76	0.00	0.00	0.00	0.00
101	101	0.00	0.00	2.13	-1.97	0.22
101	102	3.05	0.00	2.13	-1.97	-6.26
102	102	3.05	0.00	0.78	-4.07	-5.84
102	103	6.10	0.00	0.78	-4.07	-8.21
103	103	6.10	0.00	-0.06	-4.58	-7.86
103	104	9.15	0.00	-0.06	-4.58	-7.67
104	104	9.15	0.00	-0.53	-3.92	-6.74
104	105	12.20	0.00	-0.53	-3.92	-5.13
105	105	12.20	0.00	-0.62	-2.58	-4.36
105	106	15.25	0.00	-0.62	-2.58	-2.47
106	106	15.25	0.00	-0.39	-1.49	-3.36
106	107	18.30	0.00	-0.39	-1.49	-2.17
107	107	18.30	0.00	-0.53	-1.24	-13.52
107	108	21.35	0.00	-0.53	-1.24	-11.89
108	108	21.35	0.00	-1.08	-1.63	-15.09
108	109	24.40	0.00	-1.08	-1.63	-11.79
109	109	24.40	0.00	-1.74	-2.52	-11.84
109	110	27.45	0.00	-1.74	-2.52	-6.54
110	110	27.45	0.00	-2.96	-3.82	-7.19
110	111	30.50	0.00	-2.96	-3.82	1.82
111	111	30.50	0.00	-4.27	-5.42	2.89
111	112	33.55	0.00	-4.27	-5.42	15.92
112	10112	33.55	0.00	2.67	-7.34	19.99
112	113	37.19	0.00	2.67	-7.34	10.29
113	113	37.19	0.00	1.94	-9.06	11.64
113	114	40.82	0.00	1.94	-9.06	4.60
114	114	40.82	0.00	1.56	-10.40	2.27
114	115	44.46	0.00	1.56	-10.40	-3.40
115	115	44.46	0.00	0.51	-10.53	-3.10
115	116	48.10	0.00	0.51	-10.53	-4.95
116	116	48.10	0.00	-0.06	-9.49	-5.40
116	117	51.73	0.00	-0.06	-9.49	-5.18
117	117	51.73	0.00	-0.36	-8.03	-8.05
117	118	55.37	0.00	-0.36	-8.03	-6.74
118	118	55.37	0.00	-0.73	-7.22	-11.44
118	119	59.01	0.00	-0.73	-7.22	-8.78

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-1.04	-6.67	-9.45
119	120	62.64	0.00	-1.04	-6.67	-5.65
120	120	62.64	0.00	-1.26	-6.15	-5.66
120	121	66.28	0.00	-1.26	-6.15	-1.07
121	121	66.28	0.00	-2.66	-6.02	-4.01
121	122	69.91	0.00	-2.66	-6.02	5.66
122	122	69.91	0.00	-4.15	-6.89	6.72
122	123	73.55	0.00	-4.15	-6.89	21.81
123	10123	73.55	0.00	2.57	-7.93	25.97
123	124	76.66	0.00	2.57	-7.93	17.96
124	124	76.66	0.00	2.03	-8.52	19.26
124	125	79.77	0.00	2.03	-8.52	12.95
125	125	79.77	0.00	1.70	-8.40	12.60
125	126	82.88	0.00	1.70	-8.40	7.32
126	126	82.88	0.00	1.18	-7.49	7.59
126	127	85.99	0.00	1.18	-7.49	3.91
127	127	85.99	0.00	0.95	-6.01	-1.06
127	128	89.10	0.00	0.95	-6.01	-4.02
128	128	89.10	0.00	0.45	-4.44	-13.17
128	129	92.21	0.00	0.45	-4.44	-14.58
129	129	92.21	0.00	-0.26	-3.32	-15.78
129	130	95.32	0.00	-0.26	-3.32	-14.96
130	130	95.32	0.00	-0.71	-2.67	-14.33
130	131	98.43	0.00	-0.71	-2.67	-12.12
131	131	98.43	0.00	-0.98	-1.97	-11.40
131	132	101.54	0.00	-0.98	-1.97	-8.35
132	132	101.54	0.00	-1.23	-1.21	-8.34
132	133	104.65	0.00	-1.23	-1.21	-4.52
133	133	104.65	0.00	-1.45	-0.41	-4.52
133	134	107.76	0.00	-1.45	-0.41	0.00
301	101	0.00	0.00	0.06	-0.01	-0.19
301	2001	0.00	0.00	0.06	-0.01	-0.23
302	102	3.05	0.00	0.13	-0.02	-0.31
302	2002	3.05	0.00	0.13	-0.02	-0.41
303	103	6.10	0.00	0.20	-0.02	-0.31
303	2003	6.10	0.00	0.20	-0.02	-0.46
304	104	9.15	0.00	0.24	-0.03	-0.18
304	2004	9.15	0.00	0.24	-0.03	-0.36
305	105	12.20	0.00	0.31	-0.03	-0.04
305	2005	12.20	0.00	0.31	-0.03	-0.28
306	106	15.25	0.00	0.49	-0.07	-0.81
306	2006	15.25	0.00	0.49	-0.07	-1.18
307	107	18.30	0.00	0.62	-0.16	-1.74
307	2007	18.30	0.00	0.62	-0.16	-2.21
308	108	21.35	0.00	0.85	-0.25	-0.99
308	2008	21.35	0.00	0.85	-0.25	-1.64
309	109	24.40	0.00	1.18	-0.30	0.04
309	2009	24.40	0.00	1.18	-0.30	-0.86
310	110	27.45	0.00	0.76	-0.32	-0.12
310	2010	27.45	0.00	0.76	-0.32	-0.70
311	111	30.50	0.00	0.90	-0.30	0.61

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.90	-0.30	-0.07
312	112	33.55	0.00	1.14	-0.23	1.44
312	2012	33.55	0.00	1.14	-0.23	0.58
313	113	37.19	0.00	1.27	-0.11	1.78
313	2013	37.19	0.00	1.27	-0.11	0.82
314	114	40.82	0.00	0.98	-0.03	1.24
314	2014	40.82	0.00	0.98	-0.03	0.50
315	115	44.46	0.00	0.18	-0.02	-0.30
315	2015	44.46	0.00	0.18	-0.02	-0.43
316	116	48.10	0.00	0.25	-0.03	-0.13
316	2016	48.10	0.00	0.25	-0.03	-0.32
317	117	51.73	0.00	0.35	-0.06	-0.77
317	2017	51.73	0.00	0.35	-0.06	-1.03
318	118	55.37	0.00	0.36	-0.14	-1.43
318	2018	55.37	0.00	0.36	-0.14	-1.70
319	119	59.01	0.00	0.67	-0.25	-1.40
319	2019	59.01	0.00	0.67	-0.25	-1.90
320	120	62.64	0.00	1.13	-0.33	-0.02
320	2020	62.64	0.00	1.13	-0.33	-0.87
321	121	66.28	0.00	0.77	-0.36	-0.12
321	2021	66.28	0.00	0.77	-0.36	-0.70
322	122	69.91	0.00	0.92	-0.34	0.71
322	2022	69.91	0.00	0.92	-0.34	0.01
323	123	73.55	0.00	1.04	-0.22	1.44
323	2023	73.55	0.00	1.04	-0.22	0.66
324	124	76.66	0.00	0.96	-0.09	1.54
324	2024	76.66	0.00	0.96	-0.09	0.81
325	125	79.77	0.00	0.78	-0.03	1.30
325	2025	79.77	0.00	0.78	-0.03	0.71
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00	0.00
329	129	92.21	0.00	0.00	-0.03	-1.30
329	2029	92.21	0.00	0.00	-0.03	-1.30
330	130	95.32	0.00	0.21	-0.13	-2.05
330	2030	95.32	0.00	0.21	-0.13	-2.21
331	131	98.43	0.00	0.49	-0.25	-1.24
331	2031	98.43	0.00	0.49	-0.25	-1.61
332	132	101.54	0.00	0.91	-0.37	0.07
332	2032	101.54	0.00	0.91	-0.37	-0.62
333	133	104.65	0.00	1.49	-0.45	1.70
333	2033	104.65	0.00	1.49	-0.45	0.58
334	134	107.76	0.00	1.07	-0.24	1.86
334	2034	107.76	0.00	1.07	-0.24	1.05
201	2001	0.00	0.00	0.06	-0.01	-0.23
201	1001	0.00	0.00	0.06	-0.01	-0.50
202	2002	3.05	0.00	0.13	-0.02	-0.41
202	1002	3.05	0.00	0.13	-0.02	-1.05

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.20	-0.02	-0.46
203	1003	6.10	0.00	0.20	-0.02	-1.41
204	2004	9.15	0.00	0.24	-0.03	-0.36
204	1004	9.15	0.00	0.24	-0.03	-1.53
205	2005	12.20	0.00	0.31	-0.03	-0.28
205	1005	12.20	0.00	0.31	-0.03	-1.77
206	2006	15.25	0.00	0.49	-0.07	-1.18
206	1006	15.25	0.00	0.49	-0.07	-3.52
207	2007	18.30	0.00	0.62	-0.16	-2.21
207	1007	18.30	0.00	0.62	-0.16	-5.16
208	2008	21.35	0.00	0.85	-0.25	-1.64
208	1008	21.35	0.00	0.85	-0.25	-5.73
209	2009	24.40	0.00	1.18	-0.30	-0.86
209	1009	24.40	0.00	1.18	-0.30	-6.51
210	2010	27.45	0.00	0.76	-0.32	-0.70
210	1010	27.45	0.00	0.76	-0.32	-4.35
211	2011	30.50	0.00	0.90	-0.30	-0.07
211	1011	30.50	0.00	0.90	-0.30	-4.35
212	2012	33.55	0.00	1.14	-0.23	0.58
212	1012	33.55	0.00	1.14	-0.23	-4.87
213	2013	37.19	0.00	1.27	-0.11	0.82
213	1013	37.19	0.00	1.27	-0.11	-5.24
214	2014	40.82	0.00	0.98	-0.03	0.50
214	1014	40.82	0.00	0.98	-0.03	-4.19
215	2015	44.46	0.00	0.18	-0.02	-0.43
215	1015	44.46	0.00	0.18	-0.02	-1.28
216	2016	48.10	0.00	0.25	-0.03	-0.32
216	1016	48.10	0.00	0.25	-0.03	-1.52
217	2017	51.73	0.00	0.35	-0.06	-1.03
217	1017	51.73	0.00	0.35	-0.06	-2.70
218	2018	55.37	0.00	0.36	-0.14	-1.70
218	1018	55.37	0.00	0.36	-0.14	-3.41
219	2019	59.01	0.00	0.67	-0.25	-1.90
219	1019	59.01	0.00	0.67	-0.25	-5.10
220	2020	62.64	0.00	1.13	-0.33	-0.87
220	1020	62.64	0.00	1.13	-0.33	-6.27
221	2021	66.28	0.00	0.77	-0.36	-0.70
221	1021	66.28	0.00	0.77	-0.36	-4.41
222	2022	69.91	0.00	0.92	-0.34	0.01
222	1022	69.91	0.00	0.92	-0.34	-4.38
223	2023	73.55	0.00	1.04	-0.22	0.66
223	1023	73.55	0.00	1.04	-0.22	-4.33
224	2024	76.66	0.00	0.96	-0.09	0.81
224	1024	76.66	0.00	0.96	-0.09	-3.77
225	2025	79.77	0.00	0.78	-0.03	0.71
225	1025	79.77	0.00	0.78	-0.03	-3.03
226	2026	82.88	0.00	0.00	0.00	0.00
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	85.99	0.00	0.00	0.00	0.00
227	1027	85.99	0.00	0.00	0.00	0.00
228	2028	89.10	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00	0.00
229	2029	92.21	0.00	0.00	-0.03	-1.30
229	1029	92.21	0.00	0.00	-0.03	-1.30
230	2030	95.32	0.00	0.21	-0.13	-2.21
230	1030	95.32	0.00	0.21	-0.13	-3.19
231	2031	98.43	0.00	0.49	-0.25	-1.61
231	1031	98.43	0.00	0.49	-0.25	-3.93
232	2032	101.54	0.00	0.91	-0.37	-0.62
232	1032	101.54	0.00	0.91	-0.37	-4.96
233	2033	104.65	0.00	1.49	-0.45	0.58
233	1033	104.65	0.00	1.49	-0.45	-6.56
234	2034	107.76	0.00	1.07	-0.24	1.05
234	1034	107.76	0.00	1.07	-0.24	-4.05
401	1001	0.00	0.00	0.06	-0.01	-0.50
401	1	0.00	0.00	0.06	-0.01	-0.54
402	1002	3.05	0.00	0.13	-0.02	-1.05
402	2	3.05	0.00	0.13	-0.02	-1.15
403	1003	6.10	0.00	0.20	-0.02	-1.41
403	3	6.10	0.00	0.20	-0.02	-1.56
404	1004	9.15	0.00	0.24	-0.03	-1.53
404	4	9.15	0.00	0.24	-0.03	-1.72
405	1005	12.20	0.00	0.31	-0.03	-1.77
405	5	12.20	0.00	0.31	-0.03	-2.00
406	1006	15.25	0.00	0.49	-0.07	-3.52
406	6	15.25	0.00	0.49	-0.07	-3.88
407	1007	18.30	0.00	0.62	-0.16	-5.16
407	7	18.30	0.00	0.62	-0.16	-5.63
408	1008	21.35	0.00	0.85	-0.25	-5.73
408	8	21.35	0.00	0.85	-0.25	-6.38
409	1009	24.40	0.00	1.18	-0.30	-6.51
409	9	24.40	0.00	1.18	-0.30	-7.41
410	1010	27.45	0.00	0.76	-0.32	-4.35
410	10	27.45	0.00	0.76	-0.32	-4.93
411	1011	30.50	0.00	0.90	-0.30	-4.35
411	11	30.50	0.00	0.90	-0.30	-5.03
412	1012	33.55	0.00	1.14	-0.23	-4.87
412	12	33.55	0.00	1.14	-0.23	-5.73
413	1013	37.19	0.00	1.27	-0.11	-5.24
413	13	37.19	0.00	1.27	-0.11	-6.20
414	1014	40.82	0.00	0.98	-0.03	-4.19
414	14	40.82	0.00	0.98	-0.03	-4.93
415	1015	44.46	0.00	0.18	-0.02	-1.28
415	15	44.46	0.00	0.18	-0.02	-1.41
416	1016	48.10	0.00	0.25	-0.03	-1.52
416	16	48.10	0.00	0.25	-0.03	-1.71
417	1017	51.73	0.00	0.35	-0.06	-2.70
417	17	51.73	0.00	0.35	-0.06	-2.96
418	1018	55.37	0.00	0.36	-0.14	-3.41
418	18	55.37	0.00	0.36	-0.14	-3.68
419	1019	59.01	0.00	0.67	-0.25	-5.10
419	19	59.01	0.00	0.67	-0.25	-5.60

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	1.13	-0.33	-6.27
420	20	62.64	0.00	1.13	-0.33	-7.12
421	1021	66.28	0.00	0.77	-0.36	-4.41
421	21	66.28	0.00	0.77	-0.36	-4.99
422	1022	69.91	0.00	0.92	-0.34	-4.38
422	22	69.91	0.00	0.92	-0.34	-5.07
423	1023	73.55	0.00	1.04	-0.22	-4.33
423	23	73.55	0.00	1.04	-0.22	-5.12
424	1024	76.66	0.00	0.96	-0.09	-3.77
424	24	76.66	0.00	0.96	-0.09	-4.49
425	1025	79.77	0.00	0.78	-0.03	-3.03
425	25	79.77	0.00	0.78	-0.03	-3.62
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	-0.03	-1.30
429	29	92.21	0.00	0.00	-0.03	-1.30
430	1030	95.32	0.00	0.21	-0.13	-3.19
430	30	95.32	0.00	0.21	-0.13	-3.35
431	1031	98.43	0.00	0.49	-0.25	-3.93
431	31	98.43	0.00	0.49	-0.25	-4.30
432	1032	101.54	0.00	0.91	-0.37	-4.96
432	32	101.54	0.00	0.91	-0.37	-5.64
433	1033	104.65	0.00	1.49	-0.45	-6.56
433	33	104.65	0.00	1.49	-0.45	-7.69
434	1034	107.76	0.00	1.07	-0.24	-4.05
434	34	107.76	0.00	1.07	-0.24	-4.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-14.30	-4.70	-0.23
1	2	3.05	0.00	0.52	-0.65	-1.57
2	2	3.05	0.00	0.68	-2.02	-1.56
2	3	6.10	0.00	0.68	-2.02	-3.63
3	3	6.10	0.00	0.87	-3.50	-3.61
3	4	9.15	0.00	0.87	-3.50	-6.27
4	4	9.15	0.00	1.11	-5.13	-6.24
4	5	12.20	0.00	1.12	-5.43	-9.66
5	5	12.20	0.00	1.43	-7.36	-9.62
5	6	15.25	0.00	1.43	-7.36	-13.98
6	6	15.25	0.00	1.82	-9.58	-13.94
6	7	18.30	0.00	1.91	-11.01	-19.53
7	7	18.30	0.00	2.44	-13.88	-19.49
7	8	21.35	0.00	2.44	-13.88	-26.93
8	8	21.35	0.00	3.09	-17.16	-26.90
8	9	24.40	0.00	3.09	-17.16	-36.33
9	9	24.40	0.00	3.86	-20.88	-36.31
9	10	27.45	0.00	7.93	-1.28	-51.07
10	10	27.45	0.00	9.03	-6.83	-50.95
10	11	30.50	0.00	16.74	10.64	-91.24
11	11	30.50	0.00	18.33	2.85	-91.07
11	12	33.55	0.00	23.60	11.38	-157.19
12	10012	33.55	0.00	-23.14	1.34	-157.17
12	13	37.19	0.00	-17.08	9.78	-82.14
13	13	37.19	0.00	-15.27	0.86	-82.33
13	14	40.82	0.00	-7.55	18.75	-41.58
14	14	40.82	0.00	-6.32	12.65	-41.69
14	15	44.46	0.00	-3.49	26.05	-26.33
15	15	44.46	0.00	-2.60	21.83	-26.36
15	16	48.10	0.00	-1.79	12.47	-18.79
16	16	48.10	0.00	-0.86	7.39	-18.81
16	17	51.73	0.00	-0.79	5.39	-15.82
17	17	51.73	0.00	0.02	0.83	-15.83
17	18	55.37	0.00	0.10	-1.45	-16.06
18	18	55.37	0.00	0.92	-6.02	-16.05
18	19	59.01	0.00	1.05	-9.10	-19.52
19	19	59.01	0.00	1.94	-13.22	-19.49
19	20	62.64	0.00	2.71	-22.36	-27.55
20	20	62.64	0.00	3.63	-26.71	-27.52
20	21	66.28	0.00	6.45	-13.34	-43.26
21	21	66.28	0.00	7.71	-19.59	-43.15
21	22	69.91	0.00	15.42	-1.77	-84.29
22	22	69.91	0.00	17.28	-10.84	-84.10
22	23	73.55	0.00	23.33	-2.43	-159.80
23	10023	73.55	0.00	-23.82	-12.64	-159.82
23	24	76.66	0.00	-18.45	-3.89	-91.82
24	24	76.66	0.00	-16.84	-11.78	-92.00
24	25	79.77	0.00	-9.01	6.20	-50.59
25	25	79.77	0.00	-7.90	0.62	-50.71
25	26	82.88	0.00	-3.79	20.71	-35.67
26	26	82.88	0.00	-3.02	17.00	-35.68

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-3.02	17.00	-26.30
27	27	85.99	0.00	-2.37	13.73	-26.33
27	28	89.10	0.00	-2.37	13.73	-18.97
28	28	89.10	0.00	-1.84	10.89	-19.01
28	29	92.21	0.00	-1.75	9.47	-13.53
29	29	92.21	0.00	-1.37	7.28	-13.57
29	30	95.32	0.00	-1.37	7.28	-9.30
30	30	95.32	0.00	-1.07	5.37	-9.33
30	31	98.43	0.00	-1.06	5.07	-6.01
31	31	98.43	0.00	-0.83	3.46	-6.04
31	32	101.54	0.00	-0.83	3.46	-3.46
32	32	101.54	0.00	-0.64	2.01	-3.48
32	33	104.65	0.00	-0.64	2.01	-1.48
33	33	104.65	0.00	-0.48	0.65	-1.50
33	34	107.76	0.00	14.49	4.85	-0.24
101	101	0.00	0.00	1.25	0.19	-0.01
101	102	3.05	0.00	3.75	-1.71	-11.22
102	102	3.05	0.00	2.19	-3.31	-10.81
102	103	6.10	0.00	2.19	-3.31	-17.49
103	103	6.10	0.00	1.11	-3.40	-17.16
103	104	9.15	0.00	1.12	-3.49	-20.57
104	104	9.15	0.00	0.39	-2.52	-20.35
104	105	12.20	0.00	0.54	-2.05	-21.64
105	105	12.20	0.00	0.01	-0.91	-21.59
105	106	15.25	0.00	0.15	-0.66	-21.93
106	106	15.25	0.00	-0.37	0.11	-21.98
106	107	18.30	0.00	-0.23	0.04	-21.08
107	107	18.30	0.00	-0.86	0.11	-21.16
107	108	21.35	0.00	-0.77	0.18	-18.55
108	108	21.35	0.00	-1.64	-0.29	-18.65
108	109	24.40	0.00	-1.45	-0.71	-14.10
109	109	24.40	0.00	-2.35	-1.78	-14.16
109	110	27.45	0.00	-1.76	-1.69	-8.15
110	110	27.45	0.00	-2.62	-3.12	-8.12
110	111	30.50	0.00	-1.51	-2.39	-2.01
111	111	30.50	0.00	-2.03	-3.33	-1.94
111	112	33.55	0.00	0.00	0.00	0.00
112	10112	33.55	0.00	0.00	0.00	0.00
112	113	37.19	0.00	0.00	0.00	0.00
113	113	37.19	0.00	0.00	0.00	0.00
113	114	40.82	0.00	3.83	4.60	-5.37
114	114	40.82	0.00	2.74	3.35	-5.38
114	115	44.46	0.00	3.05	2.48	-16.11
115	115	44.46	0.00	1.93	1.55	-16.08
115	116	48.10	0.00	1.99	0.92	-23.29
116	116	48.10	0.00	0.97	0.36	-23.26
116	117	51.73	0.00	0.97	0.36	-26.79
117	117	51.73	0.00	0.03	0.03	-26.78
117	118	55.37	0.00	0.03	0.03	-26.88
118	118	55.37	0.00	-0.92	-0.31	-26.90
118	119	59.01	0.00	-0.92	-0.31	-23.55

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-1.96	-0.91	-23.59
119	120	62.64	0.00	-1.89	-1.54	-16.51
120	120	62.64	0.00	-3.03	-2.54	-16.54
120	121	66.28	0.00	-2.72	-3.40	-5.87
121	121	66.28	0.00	-3.84	-4.73	-5.85
121	122	69.91	0.00	0.00	0.00	0.00
122	122	69.91	0.00	0.00	0.00	0.00
122	123	73.55	0.00	0.00	0.00	0.00
123	10123	73.55	0.00	0.00	0.00	0.00
123	124	76.66	0.00	2.03	3.29	-1.81
124	124	76.66	0.00	1.50	2.34	-1.88
124	125	79.77	0.00	2.61	3.04	-8.08
125	125	79.77	0.00	1.75	1.60	-8.11
125	126	82.88	0.00	2.33	1.62	-14.18
126	126	82.88	0.00	1.44	0.57	-14.12
126	127	85.99	0.00	1.52	0.19	-18.66
127	127	85.99	0.00	0.76	-0.32	-18.58
127	128	89.10	0.00	0.84	-0.27	-21.15
128	128	89.10	0.00	0.23	-0.14	-21.06
128	129	92.21	0.00	0.36	-0.25	-21.85
129	129	92.21	0.00	-0.13	0.62	-21.79
129	130	95.32	0.00	-0.05	0.83	-21.42
130	130	95.32	0.00	-0.55	1.91	-21.45
130	131	98.43	0.00	-0.33	2.61	-20.16
131	131	98.43	0.00	-1.04	3.67	-20.38
131	132	101.54	0.00	-1.03	3.59	-17.16
132	132	101.54	0.00	-2.12	3.52	-17.51
132	133	104.65	0.00	-2.12	3.52	-10.91
133	133	104.65	0.00	-3.72	1.82	-11.34
133	134	107.76	0.00	-1.17	-0.17	-0.01
301	101	0.00	0.00	0.11	0.00	-0.41
301	2001	0.00	0.00	0.11	0.00	-0.50
302	102	3.05	0.00	0.23	0.00	-0.81
302	2002	3.05	0.00	0.28	0.01	-1.00
303	103	6.10	0.00	0.37	0.04	-0.80
303	2003	6.10	0.00	0.73	0.24	-1.20
304	104	9.15	0.00	0.65	0.21	-1.39
304	2004	9.15	0.00	0.74	0.22	-1.91
305	105	12.20	0.00	0.32	0.11	-2.06
305	2005	12.20	0.00	0.54	0.09	-2.38
306	106	15.25	0.00	0.15	-0.01	-2.37
306	2006	15.25	0.00	0.25	-0.02	-2.53
307	107	18.30	0.00	0.12	-0.12	-2.27
307	2007	18.30	0.00	0.20	-0.13	-2.41
308	108	21.35	0.00	0.22	-0.22	-1.84
308	2008	21.35	0.00	0.31	-0.22	-2.03
309	109	24.40	0.00	0.37	-0.28	-1.16
309	2009	24.40	0.00	0.46	-0.29	-1.46
310	110	27.45	0.00	0.40	-0.23	-0.48
310	2010	27.45	0.00	0.53	-0.29	-0.82
311	111	30.50	0.00	0.09	0.00	-0.40

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.20	-0.03	-0.49
312	112	33.55	0.00	0.12	0.00	-0.44
312	2012	33.55	0.00	0.16	0.01	-0.53
313	113	37.19	0.00	0.14	0.01	-0.49
313	2013	37.19	0.00	0.23	0.04	-0.63
314	114	40.82	0.00	0.49	0.31	-0.87
314	2014	40.82	0.00	0.58	0.34	-1.25
315	115	44.46	0.00	0.32	0.27	-1.78
315	2015	44.46	0.00	0.43	0.28	-2.07
316	116	48.10	0.00	0.14	0.17	-2.48
316	2016	48.10	0.00	0.28	0.17	-2.66
317	117	51.73	0.00	-0.05	0.06	-2.88
317	2017	51.73	0.00	0.19	0.05	-2.91
318	118	55.37	0.00	-0.05	-0.06	-2.88
318	2018	55.37	0.00	0.22	-0.05	-2.91
319	119	59.01	0.00	0.13	-0.17	-2.48
319	2019	59.01	0.00	0.28	-0.17	-2.66
320	120	62.64	0.00	0.31	-0.27	-1.78
320	2020	62.64	0.00	0.42	-0.28	-2.07
321	121	66.28	0.00	0.48	-0.31	-0.86
321	2021	66.28	0.00	0.57	-0.34	-1.25
322	122	69.91	0.00	0.14	-0.01	-0.48
322	2022	69.91	0.00	0.23	-0.04	-0.63
323	123	73.55	0.00	0.12	0.00	-0.43
323	2023	73.55	0.00	0.16	-0.01	-0.52
324	124	76.66	0.00	0.09	0.00	-0.40
324	2024	76.66	0.00	0.14	0.02	-0.49
325	125	79.77	0.00	0.40	0.24	-0.48
325	2025	79.77	0.00	0.53	0.31	-0.83
326	126	82.88	0.00	0.36	0.29	-1.21
326	2026	82.88	0.00	0.45	0.30	-1.51
327	127	85.99	0.00	0.20	0.23	-1.94
327	2027	85.99	0.00	0.29	0.23	-2.11
328	128	89.10	0.00	0.14	0.13	-2.40
328	2028	89.10	0.00	0.17	0.13	-2.51
329	129	92.21	0.00	0.14	0.01	-2.51
329	2029	92.21	0.00	0.27	0.02	-2.65
330	130	95.32	0.00	0.32	-0.12	-2.19
330	2030	95.32	0.00	0.51	-0.09	-2.49
331	131	98.43	0.00	0.64	-0.22	-1.48
331	2031	98.43	0.00	0.72	-0.23	-1.99
332	132	101.54	0.00	0.37	-0.04	-0.81
332	2032	101.54	0.00	0.73	-0.26	-1.21
333	133	104.65	0.00	0.23	0.00	-0.80
333	2033	104.65	0.00	0.27	-0.01	-1.00
334	134	107.76	0.00	0.11	0.00	-0.41
334	2034	107.76	0.00	0.11	0.00	-0.49
201	2001	0.00	0.00	0.11	0.00	-0.50
201	1001	0.00	0.00	1.08	0.22	-4.43
202	2002	3.05	0.00	0.28	0.01	-1.00
202	1002	3.05	0.00	1.58	0.42	-7.47

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.73	0.24	-1.20
203	1003	6.10	0.00	1.09	0.33	-6.30
204	2004	9.15	0.00	0.74	0.22	-1.91
204	1004	9.15	0.00	0.74	0.22	-5.46
205	2005	12.20	0.00	0.54	0.09	-2.38
205	1005	12.20	0.00	0.54	0.09	-4.99
206	2006	15.25	0.00	0.25	-0.02	-2.53
206	1006	15.25	0.00	0.51	-0.04	-4.89
207	2007	18.30	0.00	0.20	-0.13	-2.41
207	1007	18.30	0.00	0.62	-0.16	-5.16
208	2008	21.35	0.00	0.31	-0.22	-2.03
208	1008	21.35	0.00	0.85	-0.25	-5.73
209	2009	24.40	0.00	0.46	-0.29	-1.46
209	1009	24.40	0.00	1.18	-0.30	-6.51
210	2010	27.45	0.00	0.53	-0.29	-0.82
210	1010	27.45	0.00	1.54	-0.29	-7.37
211	2011	30.50	0.00	0.20	-0.03	-0.49
211	1011	30.50	0.00	1.85	-0.21	-8.11
212	2012	33.55	0.00	0.16	0.01	-0.53
212	1012	33.55	0.00	2.18	-0.02	-9.26
213	2013	37.19	0.00	0.23	0.04	-0.63
213	1013	37.19	0.00	2.18	0.24	-9.62
214	2014	40.82	0.00	0.58	0.34	-1.25
214	1014	40.82	0.00	1.75	0.33	-8.58
215	2015	44.46	0.00	0.43	0.28	-2.07
215	1015	44.46	0.00	1.27	0.31	-7.45
216	2016	48.10	0.00	0.28	0.17	-2.66
216	1016	48.10	0.00	0.89	0.21	-6.54
217	2017	51.73	0.00	0.19	0.05	-2.91
217	1017	51.73	0.00	0.69	0.08	-6.05
218	2018	55.37	0.00	0.22	-0.05	-2.91
218	1018	55.37	0.00	0.69	-0.08	-6.07
219	2019	59.01	0.00	0.28	-0.17	-2.66
219	1019	59.01	0.00	0.91	-0.22	-6.58
220	2020	62.64	0.00	0.42	-0.28	-2.07
220	1020	62.64	0.00	1.30	-0.31	-7.52
221	2021	66.28	0.00	0.57	-0.34	-1.25
221	1021	66.28	0.00	1.78	-0.33	-8.68
222	2022	69.91	0.00	0.23	-0.04	-0.63
222	1022	69.91	0.00	2.22	-0.23	-9.74
223	2023	73.55	0.00	0.16	-0.01	-0.52
223	1023	73.55	0.00	2.22	0.03	-9.38
224	2024	76.66	0.00	0.14	0.02	-0.49
224	1024	76.66	0.00	1.87	0.22	-8.20
225	2025	79.77	0.00	0.53	0.31	-0.83
225	1025	79.77	0.00	1.55	0.31	-7.42
226	2026	82.88	0.00	0.45	0.30	-1.51
226	1026	82.88	0.00	1.17	0.32	-6.52
227	2027	85.99	0.00	0.29	0.23	-2.11
227	1027	85.99	0.00	0.83	0.26	-5.70
228	2028	89.10	0.00	0.17	0.13	-2.51

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.58	0.17	-5.10
229	2029	92.21	0.00	0.27	0.02	-2.65
229	1029	92.21	0.00	0.47	0.04	-4.83
230	2030	95.32	0.00	0.51	-0.09	-2.49
230	1030	95.32	0.00	0.51	-0.09	-4.94
231	2031	98.43	0.00	0.72	-0.23	-1.99
231	1031	98.43	0.00	0.72	-0.23	-5.45
232	2032	101.54	0.00	0.73	-0.26	-1.21
232	1032	101.54	0.00	1.10	-0.35	-6.35
233	2033	104.65	0.00	0.27	-0.01	-1.00
233	1033	104.65	0.00	1.62	-0.44	-7.60
234	2034	107.76	0.00	0.11	0.00	-0.49
234	1034	107.76	0.00	1.12	-0.24	-4.54
401	1001	0.00	0.00	1.08	0.22	-4.43
401	1	0.00	0.00	1.08	0.22	-5.25
402	1002	3.05	0.00	1.58	0.42	-7.47
402	2	3.05	0.00	1.58	0.42	-8.66
403	1003	6.10	0.00	1.09	0.33	-6.30
403	3	6.10	0.00	1.09	0.33	-7.13
404	1004	9.15	0.00	0.74	0.22	-5.46
404	4	9.15	0.00	0.74	0.22	-6.02
405	1005	12.20	0.00	0.54	0.09	-4.99
405	5	12.20	0.00	0.54	0.09	-5.40
406	1006	15.25	0.00	0.51	-0.04	-4.89
406	6	15.25	0.00	0.51	-0.04	-5.28
407	1007	18.30	0.00	0.62	-0.16	-5.16
407	7	18.30	0.00	0.62	-0.16	-5.63
408	1008	21.35	0.00	0.85	-0.25	-5.73
408	8	21.35	0.00	0.85	-0.25	-6.38
409	1009	24.40	0.00	1.18	-0.30	-6.51
409	9	24.40	0.00	1.18	-0.30	-7.41
410	1010	27.45	0.00	1.54	-0.29	-7.37
410	10	27.45	0.00	1.54	-0.29	-8.54
411	1011	30.50	0.00	1.85	-0.21	-8.11
411	11	30.50	0.00	1.85	-0.21	-9.51
412	1012	33.55	0.00	2.18	-0.02	-9.26
412	12	33.55	0.00	2.18	-0.02	-10.91
413	1013	37.19	0.00	2.18	0.24	-9.62
413	13	37.19	0.00	2.18	0.24	-11.27
414	1014	40.82	0.00	1.75	0.33	-8.58
414	14	40.82	0.00	1.75	0.33	-9.90
415	1015	44.46	0.00	1.27	0.31	-7.45
415	15	44.46	0.00	1.27	0.31	-8.41
416	1016	48.10	0.00	0.89	0.21	-6.54
416	16	48.10	0.00	0.89	0.21	-7.22
417	1017	51.73	0.00	0.69	0.08	-6.05
417	17	51.73	0.00	0.69	0.08	-6.57
418	1018	55.37	0.00	0.69	-0.08	-6.07
418	18	55.37	0.00	0.69	-0.08	-6.59
419	1019	59.01	0.00	0.91	-0.22	-6.58
419	19	59.01	0.00	0.91	-0.22	-7.27

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Barra2.Mx- + [0; 1]SCUPASEOIZQUISCun
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	1.30	-0.31	-7.52
420	20	62.64	0.00	1.30	-0.31	-8.50
421	1021	66.28	0.00	1.78	-0.33	-8.68
421	21	66.28	0.00	1.78	-0.33	-10.02
422	1022	69.91	0.00	2.22	-0.23	-9.74
422	22	69.91	0.00	2.22	-0.23	-11.42
423	1023	73.55	0.00	2.22	0.03	-9.38
423	23	73.55	0.00	2.22	0.03	-11.06
424	1024	76.66	0.00	1.87	0.22	-8.20
424	24	76.66	0.00	1.87	0.22	-9.61
425	1025	79.77	0.00	1.55	0.31	-7.42
425	25	79.77	0.00	1.55	0.31	-8.59
426	1026	82.88	0.00	1.17	0.32	-6.52
426	26	82.88	0.00	1.17	0.32	-7.41
427	1027	85.99	0.00	0.83	0.26	-5.70
427	27	85.99	0.00	0.83	0.26	-6.33
428	1028	89.10	0.00	0.58	0.17	-5.10
428	28	89.10	0.00	0.58	0.17	-5.54
429	1029	92.21	0.00	0.47	0.04	-4.83
429	29	92.21	0.00	0.47	0.04	-5.18
430	1030	95.32	0.00	0.51	-0.09	-4.94
430	30	95.32	0.00	0.51	-0.09	-5.32
431	1031	98.43	0.00	0.72	-0.23	-5.45
431	31	98.43	0.00	0.72	-0.23	-6.00
432	1032	101.54	0.00	1.10	-0.35	-6.35
432	32	101.54	0.00	1.10	-0.35	-7.18
433	1033	104.65	0.00	1.62	-0.44	-7.60
433	33	104.65	0.00	1.62	-0.44	-8.83
434	1034	107.76	0.00	1.12	-0.24	-4.54
434	34	107.76	0.00	1.12	-0.24	-5.39

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	3.75	1.71	0.22
1	2	3.05	0.00	3.75	1.71	-11.22
2	2	3.05	0.00	2.19	3.36	-10.81
2	3	6.10	0.00	2.19	3.36	-17.49
3	3	6.10	0.00	1.33	0.55	-13.43
3	4	9.15	0.00	1.33	0.55	-17.49
4	4	9.15	0.00	0.92	-1.26	-13.61
4	5	12.20	0.00	0.92	-1.26	-16.42
5	5	12.20	0.00	0.56	-1.26	-15.71
5	6	15.25	0.00	0.56	-1.26	-17.43
6	6	15.25	0.00	0.17	-0.54	-14.11
6	7	18.30	0.00	0.17	-0.54	-14.62
7	7	18.30	0.00	0.00	0.00	0.00
7	8	21.35	0.00	0.00	0.00	0.00
8	8	21.35	0.00	0.00	0.00	0.00
8	9	24.40	0.00	0.00	0.00	0.00
9	9	24.40	0.00	0.00	0.00	0.00
9	10	27.45	0.00	0.00	0.00	0.00
10	10	27.45	0.00	0.00	0.00	0.00
10	11	30.50	0.00	0.00	0.00	0.00
11	11	30.50	0.00	0.00	0.00	0.00
11	12	33.55	0.00	0.00	0.00	0.00
12	10012	33.55	0.00	6.80	0.62	42.19
12	13	37.19	0.00	6.80	0.62	17.45
13	13	37.19	0.00	4.79	-0.46	15.05
13	14	40.82	0.00	4.79	-0.46	-2.37
14	14	40.82	0.00	3.25	-0.08	-3.15
14	15	44.46	0.00	3.25	-0.08	-14.96
15	15	44.46	0.00	2.01	-0.07	-15.74
15	16	48.10	0.00	2.01	-0.07	-23.06
16	16	48.10	0.00	0.98	0.33	-23.02
16	17	51.73	0.00	0.98	0.33	-26.58
17	17	51.73	0.00	0.44	-4.44	-10.54
17	18	55.37	0.00	0.44	-4.44	-12.14
18	18	55.37	0.00	0.25	-1.86	9.48
18	19	59.01	0.00	0.25	-1.86	8.55
19	19	59.01	0.00	0.40	-3.85	8.37
19	20	62.64	0.00	0.40	-3.85	6.94
20	20	62.64	0.00	0.36	-4.26	5.82
20	21	66.28	0.00	0.36	-4.26	4.52
21	21	66.28	0.00	0.16	-3.30	3.04
21	22	69.91	0.00	0.16	-3.30	2.46
22	22	69.91	0.00	0.00	0.00	0.00
22	23	73.55	0.00	0.00	0.00	0.00
23	10023	73.55	0.00	6.85	2.62	42.38
23	24	76.66	0.00	6.85	2.62	21.08
24	24	76.66	0.00	4.98	4.81	21.30
24	25	79.77	0.00	4.98	4.81	5.82
25	25	79.77	0.00	3.43	5.99	6.13
25	26	82.88	0.00	3.43	5.99	-4.52
26	26	82.88	0.00	2.25	5.97	-4.21

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	2.25	5.97	-11.21
27	27	85.99	0.00	1.42	4.87	-10.95
27	28	89.10	0.00	1.42	4.87	-15.37
28	28	89.10	0.00	1.01	2.39	-0.55
28	29	92.21	0.00	1.01	2.39	-3.69
29	29	92.21	0.00	0.94	-0.58	-0.31
29	30	95.32	0.00	0.94	-0.58	-3.22
30	30	95.32	0.00	0.77	-2.67	-2.59
30	31	98.43	0.00	0.77	-2.67	-5.00
31	31	98.43	0.00	0.44	-2.22	-1.30
31	32	101.54	0.00	0.44	-2.22	-2.68
32	32	101.54	0.00	0.16	0.50	0.96
32	33	104.65	0.00	0.16	0.50	0.45
33	33	104.65	0.00	0.14	0.14	0.45
33	34	107.76	0.00	0.14	0.14	0.00
101	101	0.00	0.00	0.52	0.65	0.01
101	102	3.05	0.00	0.52	0.65	-1.57
102	102	3.05	0.00	0.68	2.02	-1.56
102	103	6.10	0.00	0.94	-3.98	6.41
103	103	6.10	0.00	1.33	-6.95	11.04
103	104	9.15	0.00	2.02	-12.46	20.34
104	104	9.15	0.00	2.50	-8.46	20.76
104	105	12.20	0.00	3.52	-13.74	28.02
105	105	12.20	0.00	4.00	-10.26	28.03
105	106	15.25	0.00	5.28	-15.51	30.86
106	106	15.25	0.00	5.76	-11.49	31.11
106	107	18.30	0.00	7.27	-16.78	27.55
107	107	18.30	0.00	7.83	-12.65	27.69
107	108	21.35	0.00	9.55	-17.98	15.88
108	108	21.35	0.00	10.32	-11.01	17.96
108	109	24.40	0.00	12.26	-16.27	-4.26
109	109	24.40	0.00	13.32	-9.53	-3.55
109	110	27.45	0.00	15.51	-14.60	-38.54
110	110	27.45	0.00	16.94	-3.94	-32.95
110	111	30.50	0.00	19.38	-11.29	-88.35
111	111	30.50	0.00	21.19	-2.29	-88.15
111	112	33.55	0.00	23.63	-9.64	-156.51
112	10112	33.55	0.00	0.43	5.99	6.80
112	113	37.19	0.00	0.43	5.99	5.24
113	113	37.19	0.00	0.52	6.96	5.25
113	114	40.82	0.00	0.67	2.99	10.31
114	114	40.82	0.00	0.88	4.60	10.30
114	115	44.46	0.00	1.43	0.88	18.16
115	115	44.46	0.00	1.71	0.83	20.37
115	116	48.10	0.00	2.59	-2.93	27.98
116	116	48.10	0.00	2.89	1.29	28.27
116	117	51.73	0.00	4.07	-2.72	33.04
117	117	51.73	0.00	4.38	0.35	33.11
117	118	55.37	0.00	5.83	-4.03	32.63
118	118	55.37	0.00	6.23	-0.45	32.77
118	119	59.01	0.00	7.95	-5.19	24.42

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	8.58	-2.07	24.93
119	120	62.64	0.00	10.60	-7.06	5.53
120	120	62.64	0.00	11.62	1.53	8.06
120	121	66.28	0.00	13.98	-3.50	-26.39
121	121	66.28	0.00	15.56	4.94	-26.08
121	122	69.91	0.00	18.31	0.15	-80.39
122	122	69.91	0.00	20.44	10.62	-80.15
122	123	73.55	0.00	23.35	1.86	-159.78
123	10123	73.55	0.00	0.07	-3.87	5.79
123	124	76.66	0.00	0.07	-3.87	5.56
124	124	76.66	0.00	0.11	-3.38	5.55
124	125	79.77	0.00	0.11	-3.38	5.21
125	125	79.77	0.00	0.21	-5.52	10.65
125	126	82.88	0.00	0.48	-7.81	18.83
126	126	82.88	0.00	0.60	-7.15	19.22
126	127	85.99	0.00	1.11	-9.25	29.17
127	127	85.99	0.00	1.19	-9.86	31.04
127	128	89.10	0.00	1.93	-11.91	41.35
128	128	89.10	0.00	1.98	-10.44	41.33
128	129	92.21	0.00	2.92	-12.53	50.56
129	129	92.21	0.00	2.93	-11.31	50.76
129	130	95.32	0.00	4.11	-13.45	57.35
130	130	95.32	0.00	4.16	-11.57	57.46
130	131	98.43	0.00	5.60	-13.69	59.30
131	131	98.43	0.00	5.85	-11.68	59.95
131	132	101.54	0.00	7.63	-13.58	53.92
132	132	101.54	0.00	8.34	-3.33	59.07
132	133	104.65	0.00	10.55	-4.72	40.54
133	133	104.65	0.00	12.01	2.75	40.98
133	134	107.76	0.00	14.50	-4.74	-0.24
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	-0.04	-0.37
305	2005	12.20	0.00	0.00	-0.04	-0.37
306	106	15.25	0.00	0.04	-0.01	-0.86
306	2006	15.25	0.00	0.04	-0.01	-0.89
307	107	18.30	0.00	0.04	0.07	-0.85
307	2007	18.30	0.00	0.04	0.07	-0.88
308	108	21.35	0.00	0.00	0.06	-0.35
308	2008	21.35	0.00	0.00	0.06	-0.36
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00	0.00
315	115	44.46	0.00	0.01	-0.13	-0.54
315	2015	44.46	0.00	0.01	-0.13	-0.55
316	116	48.10	0.00	0.15	-0.17	-0.93
316	2016	48.10	0.00	0.15	-0.17	-1.04
317	117	51.73	0.00	0.26	-0.07	-0.78
317	2017	51.73	0.00	0.26	-0.07	-0.97
318	118	55.37	0.00	0.26	0.07	-0.78
318	2018	55.37	0.00	0.26	0.07	-0.97
319	119	59.01	0.00	0.15	0.17	-0.94
319	2019	59.01	0.00	0.15	0.17	-1.05
320	120	62.64	0.00	0.01	0.13	-0.54
320	2020	62.64	0.00	0.01	0.13	-0.55
321	121	66.28	0.00	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.01	-0.10	-0.52
327	2027	85.99	0.00	0.01	-0.10	-0.53
328	128	89.10	0.00	0.06	-0.09	-0.99
328	2028	89.10	0.00	0.06	-0.09	-1.04
329	129	92.21	0.00	0.06	0.00	-1.19
329	2029	92.21	0.00	0.06	0.00	-1.23
330	130	95.32	0.00	0.01	0.06	-0.53
330	2030	95.32	0.00	0.01	0.06	-0.54
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00	0.00
203	1003	6.10	0.00	0.00	0.00	0.00
204	2004	9.15	0.00	0.00	0.00	0.00
204	1004	9.15	0.00	0.00	0.00	0.00
205	2005	12.20	0.00	0.00	-0.04	-0.37
205	1005	12.20	0.00	0.00	-0.04	-0.39
206	2006	15.25	0.00	0.04	-0.01	-0.89
206	1006	15.25	0.00	0.04	-0.01	-1.08
207	2007	18.30	0.00	0.04	0.07	-0.88
207	1007	18.30	0.00	0.04	0.07	-1.05
208	2008	21.35	0.00	0.00	0.06	-0.36
208	1008	21.35	0.00	0.00	0.06	-0.37
209	2009	24.40	0.00	0.00	0.00	0.00
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	0.00	0.00	0.00
210	1010	27.45	0.00	0.00	0.00	0.00
211	2011	30.50	0.00	0.00	0.00	0.00
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	0.00	0.00	0.00
213	1013	37.19	0.00	0.00	0.00	0.00
214	2014	40.82	0.00	0.00	0.00	0.00
214	1014	40.82	0.00	0.00	0.00	0.00
215	2015	44.46	0.00	0.01	-0.13	-0.55
215	1015	44.46	0.00	0.01	-0.13	-0.60
216	2016	48.10	0.00	0.15	-0.17	-1.04
216	1016	48.10	0.00	0.15	-0.17	-1.74
217	2017	51.73	0.00	0.26	-0.07	-0.97
217	1017	51.73	0.00	0.26	-0.07	-2.20
218	2018	55.37	0.00	0.26	0.07	-0.97
218	1018	55.37	0.00	0.26	0.07	-2.20
219	2019	59.01	0.00	0.15	0.17	-1.05
219	1019	59.01	0.00	0.15	0.17	-1.74
220	2020	62.64	0.00	0.01	0.13	-0.55
220	1020	62.64	0.00	0.01	0.13	-0.60
221	2021	66.28	0.00	0.00	0.00	0.00
221	1021	66.28	0.00	0.00	0.00	0.00
222	2022	69.91	0.00	0.00	0.00	0.00
222	1022	69.91	0.00	0.00	0.00	0.00
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00	0.00
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	0.00	0.00	0.00
225	1025	79.77	0.00	0.00	0.00	0.00
226	2026	82.88	0.00	0.00	0.00	0.00
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	85.99	0.00	0.01	-0.10	-0.53
227	1027	85.99	0.00	0.01	-0.10	-0.58
228	2028	89.10	0.00	0.06	-0.09	-1.04

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.06	-0.09	-1.31
229	2029	92.21	0.00	0.06	0.00	-1.23
229	1029	92.21	0.00	0.06	0.00	-1.52
230	2030	95.32	0.00	0.01	0.06	-0.54
230	1030	95.32	0.00	0.01	0.06	-0.60
231	2031	98.43	0.00	0.00	0.00	0.00
231	1031	98.43	0.00	0.00	0.00	0.00
232	2032	101.54	0.00	0.00	0.00	0.00
232	1032	101.54	0.00	0.00	0.00	0.00
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	0.00	0.00	0.00
234	1034	107.76	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	-0.04	-0.39
405	5	12.20	0.00	0.00	-0.04	-0.40
406	1006	15.25	0.00	0.04	-0.01	-1.08
406	6	15.25	0.00	0.04	-0.01	-1.11
407	1007	18.30	0.00	0.04	0.07	-1.05
407	7	18.30	0.00	0.04	0.07	-1.07
408	1008	21.35	0.00	0.00	0.06	-0.37
408	8	21.35	0.00	0.00	0.06	-0.38
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00	0.00
415	1015	44.46	0.00	0.01	-0.13	-0.60
415	15	44.46	0.00	0.01	-0.13	-0.61
416	1016	48.10	0.00	0.15	-0.17	-1.74
416	16	48.10	0.00	0.15	-0.17	-1.85
417	1017	51.73	0.00	0.26	-0.07	-2.20
417	17	51.73	0.00	0.26	-0.07	-2.39
418	1018	55.37	0.00	0.26	0.07	-2.20
418	18	55.37	0.00	0.26	0.07	-2.39
419	1019	59.01	0.00	0.15	0.17	-1.74
419	19	59.01	0.00	0.15	0.17	-1.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.01	0.13	-0.60
420	20	62.64	0.00	0.01	0.13	-0.61
421	1021	66.28	0.00	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	0.01	-0.10	-0.58
427	27	85.99	0.00	0.01	-0.10	-0.58
428	1028	89.10	0.00	0.06	-0.09	-1.31
428	28	89.10	0.00	0.06	-0.09	-1.35
429	1029	92.21	0.00	0.06	0.00	-1.52
429	29	92.21	0.00	0.06	0.00	-1.57
430	1030	95.32	0.00	0.01	0.06	-0.60
430	30	95.32	0.00	0.01	0.06	-0.61
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	2.13	1.97	0.22
1	2	3.05	0.00	2.13	1.97	-6.26
2	2	3.05	0.00	0.78	4.07	-5.84
2	3	6.10	0.00	0.78	4.07	-8.21
3	3	6.10	0.00	-0.06	4.58	-7.86
3	4	9.15	0.00	-0.06	4.58	-7.67
4	4	9.15	0.00	-0.53	3.92	-6.74
4	5	12.20	0.00	-0.53	3.92	-5.13
5	5	12.20	0.00	-0.62	2.58	-4.36
5	6	15.25	0.00	-0.62	2.58	-2.47
6	6	15.25	0.00	-0.39	1.49	-3.36
6	7	18.30	0.00	-0.39	1.49	-2.17
7	7	18.30	0.00	-0.53	1.24	-13.52
7	8	21.35	0.00	-0.53	1.24	-11.89
8	8	21.35	0.00	-1.08	1.63	-15.09
8	9	24.40	0.00	-1.08	1.63	-11.79
9	9	24.40	0.00	-1.74	2.52	-11.84
9	10	27.45	0.00	-1.74	2.52	-6.54
10	10	27.45	0.00	-2.96	3.82	-7.19
10	11	30.50	0.00	-2.96	3.82	1.82
11	11	30.50	0.00	-4.27	5.42	2.89
11	12	33.55	0.00	-4.27	5.42	15.92
12	10012	33.55	0.00	2.67	7.34	19.99
12	13	37.19	0.00	2.67	7.34	10.29
13	13	37.19	0.00	1.94	9.06	11.64
13	14	40.82	0.00	1.94	9.06	4.60
14	14	40.82	0.00	1.56	10.40	2.27
14	15	44.46	0.00	1.56	10.40	-3.40
15	15	44.46	0.00	0.51	10.53	-3.10
15	16	48.10	0.00	0.51	10.53	-4.95
16	16	48.10	0.00	-0.06	9.49	-5.40
16	17	51.73	0.00	-0.06	9.49	-5.18
17	17	51.73	0.00	-0.36	8.03	-8.05
17	18	55.37	0.00	-0.36	8.03	-6.74
18	18	55.37	0.00	-0.73	7.22	-11.44
18	19	59.01	0.00	-0.73	7.22	-8.78
19	19	59.01	0.00	-1.04	6.67	-9.45
19	20	62.64	0.00	-1.04	6.67	-5.65
20	20	62.64	0.00	-1.26	6.15	-5.66
20	21	66.28	0.00	-1.26	6.15	-1.07
21	21	66.28	0.00	-2.66	6.02	-4.01
21	22	69.91	0.00	-2.66	6.02	5.66
22	22	69.91	0.00	-4.15	6.89	6.72
22	23	73.55	0.00	-4.15	6.89	21.81
23	10023	73.55	0.00	2.57	7.93	25.97
23	24	76.66	0.00	2.57	7.93	17.96
24	24	76.66	0.00	2.03	8.52	19.26
24	25	79.77	0.00	2.03	8.52	12.95
25	25	79.77	0.00	1.70	8.40	12.60
25	26	82.88	0.00	1.70	8.40	7.32
26	26	82.88	0.00	1.18	7.49	7.59

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	1.18	7.49	3.91
27	27	85.99	0.00	0.95	6.01	-1.06
27	28	89.10	0.00	0.95	6.01	-4.02
28	28	89.10	0.00	0.45	4.44	-13.17
28	29	92.21	0.00	0.45	4.44	-14.58
29	29	92.21	0.00	-0.26	3.32	-15.78
29	30	95.32	0.00	-0.26	3.32	-14.96
30	30	95.32	0.00	-0.71	2.67	-14.33
30	31	98.43	0.00	-0.71	2.67	-12.12
31	31	98.43	0.00	-0.98	1.97	-11.40
31	32	101.54	0.00	-0.98	1.97	-8.35
32	32	101.54	0.00	-1.23	1.21	-8.34
32	33	104.65	0.00	-1.23	1.21	-4.52
33	33	104.65	0.00	-1.45	0.41	-4.52
33	34	107.76	0.00	-1.45	0.41	0.00
101	101	0.00	0.00	-13.79	5.25	-0.22
101	102	3.05	0.00	-11.10	4.72	33.65
102	102	3.05	0.00	-9.71	12.51	33.26
102	103	6.10	0.00	-7.53	11.17	49.11
103	103	6.10	0.00	-6.70	17.00	48.82
103	104	9.15	0.00	-4.94	15.15	52.15
104	104	9.15	0.00	-4.42	19.78	51.98
104	105	12.20	0.00	-3.00	17.72	46.85
105	105	12.20	0.00	-2.59	21.83	46.78
105	106	15.25	0.00	-1.44	19.73	35.94
106	106	15.25	0.00	-0.98	23.84	35.95
106	107	18.30	0.00	-0.05	21.78	21.21
107	107	18.30	0.00	0.55	26.22	21.27
107	108	21.35	0.00	1.26	24.19	3.81
108	108	21.35	0.00	2.05	29.12	3.88
108	109	24.40	0.00	2.55	27.04	-15.36
109	109	24.40	0.00	3.52	32.44	-15.30
109	110	27.45	0.00	3.77	30.16	-35.39
110	110	27.45	0.00	4.86	35.86	-35.38
110	111	30.50	0.00	4.85	33.25	-55.19
111	111	30.50	0.00	5.96	38.95	-55.27
111	112	33.55	0.00	5.68	35.88	-73.47
112	10112	33.55	0.00	-16.97	41.67	-73.68
112	113	37.19	0.00	-13.80	37.40	-18.81
113	113	37.19	0.00	-12.95	42.54	-19.14
113	114	40.82	0.00	-10.20	37.74	15.71
114	114	40.82	0.00	-9.71	41.68	15.40
114	115	44.46	0.00	-7.34	36.64	34.35
115	115	44.46	0.00	-7.10	39.76	34.11
115	116	48.10	0.00	-5.07	34.76	40.81
116	116	48.10	0.00	-4.91	37.56	40.67
116	117	51.73	0.00	-3.18	32.81	37.97
117	117	51.73	0.00	-2.93	35.82	37.92
117	118	55.37	0.00	-1.48	31.44	27.88
118	118	55.37	0.00	-1.02	35.07	27.91
118	119	59.01	0.00	0.17	31.05	12.03

f4.rea

Programa DINTEL PACADAR S.A.
SCUPASEODERE.ENV_TREN_GENERICO.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	0.92	35.56	12.11
119	120	62.64	0.00	1.81	31.79	-8.31
120	120	62.64	0.00	2.87	37.21	-8.23
120	121	66.28	0.00	3.41	33.48	-31.74
121	121	66.28	0.00	4.71	39.58	-31.72
121	122	69.91	0.00	4.86	35.60	-56.39
122	122	69.91	0.00	6.24	41.89	-56.48
122	123	73.55	0.00	5.97	37.39	-79.76
123	10123	73.55	0.00	-18.15	42.66	-80.00
123	124	76.66	0.00	-15.38	38.27	-28.30
124	124	76.66	0.00	-14.63	42.17	-28.60
124	125	79.77	0.00	-12.13	37.31	7.85
125	125	79.77	0.00	-11.68	40.20	7.54
125	126	82.88	0.00	-9.45	34.99	31.14
126	126	82.88	0.00	-9.25	37.01	30.88
126	127	85.99	0.00	-7.27	31.61	43.95
127	127	85.99	0.00	-7.22	33.04	43.77
127	128	89.10	0.00	-5.46	27.59	48.33
128	128	89.10	0.00	-5.47	28.75	48.22
128	129	92.21	0.00	-3.92	23.34	45.98
129	129	92.21	0.00	-3.89	24.48	45.94
129	130	95.32	0.00	-2.58	19.13	38.46
130	130	95.32	0.00	-2.45	20.41	38.48
130	131	98.43	0.00	-1.40	15.03	27.45
131	131	98.43	0.00	-1.19	16.43	27.50
131	132	101.54	0.00	-0.48	10.84	15.16
132	132	101.54	0.00	-0.22	12.17	15.21
132	133	104.65	0.00	0.06	6.06	4.62
133	133	104.65	0.00	0.25	6.95	4.64
133	134	107.76	0.00	0.00	0.00	0.00
301	101	0.00	0.00	-0.06	0.01	-0.54
301	2001	0.00	0.00	-0.06	0.01	-0.50
302	102	3.05	0.00	-0.13	0.02	-1.15
302	2002	3.05	0.00	-0.13	0.02	-1.05
303	103	6.10	0.00	-0.20	0.02	-1.56
303	2003	6.10	0.00	-0.20	0.02	-1.41
304	104	9.15	0.00	-0.24	0.03	-1.72
304	2004	9.15	0.00	-0.24	0.03	-1.53
305	105	12.20	0.00	-0.31	0.03	-2.00
305	2005	12.20	0.00	-0.31	0.03	-1.77
306	106	15.25	0.00	-0.49	0.07	-3.88
306	2006	15.25	0.00	-0.49	0.07	-3.52
307	107	18.30	0.00	-0.62	0.16	-5.63
307	2007	18.30	0.00	-0.62	0.16	-5.16
308	108	21.35	0.00	-0.85	0.25	-6.38
308	2008	21.35	0.00	-0.85	0.25	-5.73
309	109	24.40	0.00	-1.18	0.30	-7.41
309	2009	24.40	0.00	-1.18	0.30	-6.51
310	110	27.45	0.00	-0.76	0.32	-4.93
310	2010	27.45	0.00	-0.76	0.32	-4.35
311	111	30.50	0.00	-0.90	0.30	-5.03

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.90	0.30	-4.35
312	112	33.55	0.00	-1.14	0.23	-5.73
312	2012	33.55	0.00	-1.14	0.23	-4.87
313	113	37.19	0.00	-1.27	0.11	-6.20
313	2013	37.19	0.00	-1.27	0.11	-5.24
314	114	40.82	0.00	-0.98	0.03	-4.93
314	2014	40.82	0.00	-0.98	0.03	-4.19
315	115	44.46	0.00	-0.18	0.02	-1.41
315	2015	44.46	0.00	-0.18	0.02	-1.28
316	116	48.10	0.00	-0.25	0.03	-1.71
316	2016	48.10	0.00	-0.25	0.03	-1.52
317	117	51.73	0.00	-0.35	0.06	-2.96
317	2017	51.73	0.00	-0.35	0.06	-2.70
318	118	55.37	0.00	-0.36	0.14	-3.68
318	2018	55.37	0.00	-0.36	0.14	-3.41
319	119	59.01	0.00	-0.67	0.25	-5.60
319	2019	59.01	0.00	-0.67	0.25	-5.10
320	120	62.64	0.00	-1.13	0.33	-7.12
320	2020	62.64	0.00	-1.13	0.33	-6.27
321	121	66.28	0.00	-0.77	0.36	-4.99
321	2021	66.28	0.00	-0.77	0.36	-4.41
322	122	69.91	0.00	-0.92	0.34	-5.07
322	2022	69.91	0.00	-0.92	0.34	-4.38
323	123	73.55	0.00	-1.04	0.22	-5.12
323	2023	73.55	0.00	-1.04	0.22	-4.33
324	124	76.66	0.00	-0.96	0.09	-4.49
324	2024	76.66	0.00	-0.96	0.09	-3.77
325	125	79.77	0.00	-0.78	0.03	-3.62
325	2025	79.77	0.00	-0.78	0.03	-3.03
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.03	-1.30
329	2029	92.21	0.00	0.00	0.03	-1.30
330	130	95.32	0.00	-0.21	0.13	-3.35
330	2030	95.32	0.00	-0.21	0.13	-3.19
331	131	98.43	0.00	-0.49	0.25	-4.30
331	2031	98.43	0.00	-0.49	0.25	-3.93
332	132	101.54	0.00	-0.91	0.37	-5.64
332	2032	101.54	0.00	-0.91	0.37	-4.96
333	133	104.65	0.00	-1.49	0.45	-7.69
333	2033	104.65	0.00	-1.49	0.45	-6.56
334	134	107.76	0.00	-1.07	0.24	-4.85
334	2034	107.76	0.00	-1.07	0.24	-4.05
201	2001	0.00	0.00	-0.06	0.01	-0.50
201	1001	0.00	0.00	-0.06	0.01	-0.23
202	2002	3.05	0.00	-0.13	0.02	-1.05
202	1002	3.05	0.00	-0.13	0.02	-0.41

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.20	0.02	-1.41
203	1003	6.10	0.00	-0.20	0.02	-0.46
204	2004	9.15	0.00	-0.24	0.03	-1.53
204	1004	9.15	0.00	-0.24	0.03	-0.36
205	2005	12.20	0.00	-0.31	0.03	-1.77
205	1005	12.20	0.00	-0.31	0.03	-0.28
206	2006	15.25	0.00	-0.49	0.07	-3.52
206	1006	15.25	0.00	-0.49	0.07	-1.18
207	2007	18.30	0.00	-0.62	0.16	-5.16
207	1007	18.30	0.00	-0.62	0.16	-2.21
208	2008	21.35	0.00	-0.85	0.25	-5.73
208	1008	21.35	0.00	-0.85	0.25	-1.64
209	2009	24.40	0.00	-1.18	0.30	-6.51
209	1009	24.40	0.00	-1.18	0.30	-0.86
210	2010	27.45	0.00	-0.76	0.32	-4.35
210	1010	27.45	0.00	-0.76	0.32	-0.70
211	2011	30.50	0.00	-0.90	0.30	-4.35
211	1011	30.50	0.00	-0.90	0.30	-0.07
212	2012	33.55	0.00	-1.14	0.23	-4.87
212	1012	33.55	0.00	-1.14	0.23	0.58
213	2013	37.19	0.00	-1.27	0.11	-5.24
213	1013	37.19	0.00	-1.27	0.11	0.82
214	2014	40.82	0.00	-0.98	0.03	-4.19
214	1014	40.82	0.00	-0.98	0.03	0.50
215	2015	44.46	0.00	-0.18	0.02	-1.28
215	1015	44.46	0.00	-0.18	0.02	-0.43
216	2016	48.10	0.00	-0.25	0.03	-1.52
216	1016	48.10	0.00	-0.25	0.03	-0.32
217	2017	51.73	0.00	-0.35	0.06	-2.70
217	1017	51.73	0.00	-0.35	0.06	-1.03
218	2018	55.37	0.00	-0.36	0.14	-3.41
218	1018	55.37	0.00	-0.36	0.14	-1.70
219	2019	59.01	0.00	-0.67	0.25	-5.10
219	1019	59.01	0.00	-0.67	0.25	-1.90
220	2020	62.64	0.00	-1.13	0.33	-6.27
220	1020	62.64	0.00	-1.13	0.33	-0.87
221	2021	66.28	0.00	-0.77	0.36	-4.41
221	1021	66.28	0.00	-0.77	0.36	-0.70
222	2022	69.91	0.00	-0.92	0.34	-4.38
222	1022	69.91	0.00	-0.92	0.34	0.01
223	2023	73.55	0.00	-1.04	0.22	-4.33
223	1023	73.55	0.00	-1.04	0.22	0.66
224	2024	76.66	0.00	-0.96	0.09	-3.77
224	1024	76.66	0.00	-0.96	0.09	0.81
225	2025	79.77	0.00	-0.78	0.03	-3.03
225	1025	79.77	0.00	-0.78	0.03	0.71
226	2026	82.88	0.00	0.00	0.00	0.00
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	85.99	0.00	0.00	0.00	0.00
227	1027	85.99	0.00	0.00	0.00	0.00
228	2028	89.10	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00	0.00
229	2029	92.21	0.00	0.00	0.03	-1.30
229	1029	92.21	0.00	0.00	0.03	-1.30
230	2030	95.32	0.00	-0.21	0.13	-3.19
230	1030	95.32	0.00	-0.21	0.13	-2.21
231	2031	98.43	0.00	-0.49	0.25	-3.93
231	1031	98.43	0.00	-0.49	0.25	-1.61
232	2032	101.54	0.00	-0.91	0.37	-4.96
232	1032	101.54	0.00	-0.91	0.37	-0.62
233	2033	104.65	0.00	-1.49	0.45	-6.56
233	1033	104.65	0.00	-1.49	0.45	0.58
234	2034	107.76	0.00	-1.07	0.24	-4.05
234	1034	107.76	0.00	-1.07	0.24	1.05
401	1001	0.00	0.00	-0.06	0.01	-0.23
401	1	0.00	0.00	-0.06	0.01	-0.19
402	1002	3.05	0.00	-0.13	0.02	-0.41
402	2	3.05	0.00	-0.13	0.02	-0.31
403	1003	6.10	0.00	-0.20	0.02	-0.46
403	3	6.10	0.00	-0.20	0.02	-0.31
404	1004	9.15	0.00	-0.24	0.03	-0.36
404	4	9.15	0.00	-0.24	0.03	-0.18
405	1005	12.20	0.00	-0.31	0.03	-0.28
405	5	12.20	0.00	-0.31	0.03	-0.04
406	1006	15.25	0.00	-0.49	0.07	-1.18
406	6	15.25	0.00	-0.49	0.07	-0.81
407	1007	18.30	0.00	-0.62	0.16	-2.21
407	7	18.30	0.00	-0.62	0.16	-1.74
408	1008	21.35	0.00	-0.85	0.25	-1.64
408	8	21.35	0.00	-0.85	0.25	-0.99
409	1009	24.40	0.00	-1.18	0.30	-0.86
409	9	24.40	0.00	-1.18	0.30	0.04
410	1010	27.45	0.00	-0.76	0.32	-0.70
410	10	27.45	0.00	-0.76	0.32	-0.12
411	1011	30.50	0.00	-0.90	0.30	-0.07
411	11	30.50	0.00	-0.90	0.30	0.61
412	1012	33.55	0.00	-1.14	0.23	0.58
412	12	33.55	0.00	-1.14	0.23	1.44
413	1013	37.19	0.00	-1.27	0.11	0.82
413	13	37.19	0.00	-1.27	0.11	1.78
414	1014	40.82	0.00	-0.98	0.03	0.50
414	14	40.82	0.00	-0.98	0.03	1.24
415	1015	44.46	0.00	-0.18	0.02	-0.43
415	15	44.46	0.00	-0.18	0.02	-0.30
416	1016	48.10	0.00	-0.25	0.03	-0.32
416	16	48.10	0.00	-0.25	0.03	-0.13
417	1017	51.73	0.00	-0.35	0.06	-1.03
417	17	51.73	0.00	-0.35	0.06	-0.77
418	1018	55.37	0.00	-0.36	0.14	-1.70
418	18	55.37	0.00	-0.36	0.14	-1.43
419	1019	59.01	0.00	-0.67	0.25	-1.90
419	19	59.01	0.00	-0.67	0.25	-1.40

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-1.13	0.33	-0.87
420	20	62.64	0.00	-1.13	0.33	-0.02
421	1021	66.28	0.00	-0.77	0.36	-0.70
421	21	66.28	0.00	-0.77	0.36	-0.12
422	1022	69.91	0.00	-0.92	0.34	0.01
422	22	69.91	0.00	-0.92	0.34	0.71
423	1023	73.55	0.00	-1.04	0.22	0.66
423	23	73.55	0.00	-1.04	0.22	1.44
424	1024	76.66	0.00	-0.96	0.09	0.81
424	24	76.66	0.00	-0.96	0.09	1.54
425	1025	79.77	0.00	-0.78	0.03	0.71
425	25	79.77	0.00	-0.78	0.03	1.30
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.03	-1.30
429	29	92.21	0.00	0.00	0.03	-1.30
430	1030	95.32	0.00	-0.21	0.13	-2.21
430	30	95.32	0.00	-0.21	0.13	-2.05
431	1031	98.43	0.00	-0.49	0.25	-1.61
431	31	98.43	0.00	-0.49	0.25	-1.24
432	1032	101.54	0.00	-0.91	0.37	-0.62
432	32	101.54	0.00	-0.91	0.37	0.07
433	1033	104.65	0.00	-1.49	0.45	0.58
433	33	104.65	0.00	-1.49	0.45	1.70
434	1034	107.76	0.00	-1.07	0.24	1.05
434	34	107.76	0.00	-1.07	0.24	1.86

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	2.34	1.75	0.23
1	2	3.05	0.00	-0.16	-0.15	0.48
2	2	3.05	0.00	-0.18	-0.46	0.48
2	3	6.10	0.00	-0.18	-0.46	1.02
3	3	6.10	0.00	-0.19	-0.79	1.03
3	4	9.15	0.00	-0.19	-0.88	1.62
4	4	9.15	0.00	-0.21	-1.26	1.62
4	5	12.20	0.00	-0.36	-0.79	2.36
5	5	12.20	0.00	-0.37	-1.62	2.40
5	6	15.25	0.00	-0.52	-1.37	3.84
6	6	15.25	0.00	-0.50	-2.70	3.86
6	7	18.30	0.00	-0.63	-2.77	5.59
7	7	18.30	0.00	-0.63	-4.44	5.52
7	8	21.35	0.00	-0.72	-4.36	7.43
8	8	21.35	0.00	-0.70	-5.83	7.28
8	9	24.40	0.00	-0.89	-6.26	9.87
9	9	24.40	0.00	-1.17	-7.28	9.63
9	10	27.45	0.00	-1.76	-7.20	14.35
10	10	27.45	0.00	-2.44	-7.46	14.03
10	11	30.50	0.00	-3.56	-6.73	23.36
11	11	30.50	0.00	-4.88	-5.54	23.08
11	12	33.55	0.00	-6.91	-2.21	42.21
12	10012	33.55	0.00	6.80	0.62	42.19
12	13	37.19	0.00	6.80	0.62	17.45
13	13	37.19	0.00	4.62	3.09	17.69
13	14	40.82	0.00	0.79	7.69	6.25
14	14	40.82	0.00	0.13	7.54	6.60
14	15	44.46	0.00	-0.17	6.67	6.87
15	15	44.46	0.00	-0.32	5.35	7.15
15	16	48.10	0.00	-0.39	4.72	8.53
16	16	48.10	0.00	-0.26	2.58	8.71
16	17	51.73	0.00	-0.26	2.58	9.67
17	17	51.73	0.00	-0.01	0.01	9.73
17	18	55.37	0.00	-0.01	0.01	9.76
18	18	55.37	0.00	0.25	-2.55	9.70
18	19	59.01	0.00	0.25	-2.55	8.79
19	19	59.01	0.00	0.37	-4.69	8.61
19	20	62.64	0.00	0.31	-5.33	7.28
20	20	62.64	0.00	0.15	-6.65	7.00
20	21	66.28	0.00	-0.16	-7.50	6.80
21	21	66.28	0.00	-0.82	-7.63	6.45
21	22	69.91	0.00	-4.66	-2.90	17.56
22	22	69.91	0.00	-6.88	-0.32	17.32
22	23	73.55	0.00	-6.88	-0.32	42.35
23	10023	73.55	0.00	6.85	2.62	42.38
23	24	76.66	0.00	4.82	5.91	22.89
24	24	76.66	0.00	3.47	7.15	23.17
24	25	79.77	0.00	2.37	7.85	13.91
25	25	79.77	0.00	1.67	7.59	14.24
25	26	82.88	0.00	1.09	7.61	9.66
26	26	82.88	0.00	0.82	6.54	9.91

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	0.73	6.16	7.45
27	27	85.99	0.00	0.67	4.55	7.63
27	28	89.10	0.00	0.58	4.59	5.77
28	28	89.10	0.00	0.61	2.84	5.85
28	29	92.21	0.00	0.48	2.73	4.02
29	29	92.21	0.00	0.51	1.35	4.01
29	30	95.32	0.00	0.42	1.57	2.46
30	30	95.32	0.00	0.42	0.53	2.40
30	31	98.43	0.00	0.19	1.24	1.52
31	31	98.43	0.00	0.18	0.86	1.52
31	32	101.54	0.00	0.18	0.78	0.96
32	32	101.54	0.00	0.16	0.45	0.96
32	33	104.65	0.00	0.16	0.45	0.45
33	33	104.65	0.00	0.14	0.14	0.45
33	34	107.76	0.00	-2.35	-1.86	0.24
101	101	0.00	0.00	0.51	0.54	0.01
101	102	3.05	0.00	-11.87	-2.76	39.69
102	102	3.05	0.00	-10.45	4.53	39.26
102	103	6.10	0.00	-8.01	-2.82	67.41
103	103	6.10	0.00	-7.11	2.83	67.06
103	104	9.15	0.00	-4.67	-4.52	85.02
104	104	9.15	0.00	-4.17	-0.13	84.78
104	105	12.20	0.00	-1.74	-7.78	93.79
105	105	12.20	0.00	-1.50	-4.32	93.67
105	106	15.25	0.00	0.94	-11.67	94.53
106	106	15.25	0.00	1.06	-8.60	94.54
106	107	18.30	0.00	3.41	-17.39	87.64
107	107	18.30	0.00	3.49	-14.63	87.76
107	108	21.35	0.00	5.93	-21.98	73.40
108	108	21.35	0.00	6.13	-18.88	73.62
108	109	24.40	0.00	8.57	-26.23	51.19
109	109	24.40	0.00	8.98	-22.54	51.48
109	110	27.45	0.00	7.36	-10.29	23.34
110	110	27.45	0.00	7.80	-7.31	23.52
110	111	30.50	0.00	2.52	2.81	8.77
111	111	30.50	0.00	2.78	4.52	8.80
111	112	33.55	0.00	-0.05	5.71	6.81
112	10112	33.55	0.00	0.41	6.58	6.81
112	113	37.19	0.00	-2.74	6.25	9.15
113	113	37.19	0.00	-2.37	8.61	9.11
113	114	40.82	0.00	-7.19	17.73	27.22
114	114	40.82	0.00	-6.66	21.53	27.00
114	115	44.46	0.00	-6.58	26.17	53.57
115	115	44.46	0.00	-6.20	30.36	53.29
115	116	48.10	0.00	-4.10	12.24	72.43
116	116	48.10	0.00	-4.14	14.37	72.24
116	117	51.73	0.00	-1.30	3.60	82.15
117	117	51.73	0.00	-1.43	5.62	82.08
117	118	55.37	0.00	1.41	-5.42	82.12
118	118	55.37	0.00	1.28	-3.41	82.19
118	119	59.01	0.00	4.06	-15.25	72.38

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	4.08	-12.09	72.57
119	120	62.64	0.00	6.22	-30.01	53.46
120	120	62.64	0.00	6.60	-25.85	53.74
120	121	66.28	0.00	6.68	-21.25	27.01
121	121	66.28	0.00	7.21	-17.47	27.23
121	122	69.91	0.00	2.40	-8.42	8.84
122	122	69.91	0.00	2.77	-6.07	8.89
122	123	73.55	0.00	-0.38	-6.43	6.40
123	10123	73.55	0.00	0.04	-5.58	6.40
123	124	76.66	0.00	-2.84	-4.33	8.49
124	124	76.66	0.00	-2.58	-2.60	8.45
124	125	79.77	0.00	-7.92	7.89	23.55
125	125	79.77	0.00	-7.48	10.89	23.37
125	126	82.88	0.00	-9.10	23.50	52.28
126	126	82.88	0.00	-8.70	27.19	51.98
126	127	85.99	0.00	-6.21	19.69	75.17
127	127	85.99	0.00	-6.03	22.75	74.95
127	128	89.10	0.00	-3.54	15.25	89.84
128	128	89.10	0.00	-3.49	17.95	89.72
128	129	92.21	0.00	-1.09	9.04	96.95
129	129	92.21	0.00	-1.01	12.03	96.95
129	130	95.32	0.00	1.48	4.53	96.21
130	130	95.32	0.00	1.69	7.95	96.33
130	131	98.43	0.00	4.17	0.16	87.22
131	131	98.43	0.00	4.66	4.55	87.47
131	132	101.54	0.00	7.15	-2.95	69.11
132	132	101.54	0.00	8.06	2.78	69.47
132	133	104.65	0.00	10.55	-4.72	40.54
133	133	104.65	0.00	12.01	2.75	40.98
133	134	107.76	0.00	-0.47	-0.49	0.01
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00	0.00

f4.rea

Programa DINTEL PACADAR S.A.
SCUPASEODERE.ENV_TREN_GENERICO.MZ+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	-0.97	-0.22	1.24
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	-1.30	-0.41	1.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00	0.00
203	1003	6.10	0.00	-0.37	-0.09	0.13
204	2004	9.15	0.00	0.00	0.00	0.00
204	1004	9.15	0.00	0.00	0.00	0.00
205	2005	12.20	0.00	0.00	0.00	0.00
205	1005	12.20	0.00	0.00	0.00	0.00
206	2006	15.25	0.00	0.00	0.00	0.00
206	1006	15.25	0.00	-0.25	0.03	0.05
207	2007	18.30	0.00	0.00	0.00	0.00
207	1007	18.30	0.00	-0.42	0.03	0.20
208	2008	21.35	0.00	0.00	0.00	0.00
208	1008	21.35	0.00	-0.54	0.03	0.39
209	2009	24.40	0.00	0.00	0.00	0.00
209	1009	24.40	0.00	-0.72	0.01	0.60
210	2010	27.45	0.00	0.00	0.00	0.00
210	1010	27.45	0.00	-1.01	0.00	0.82
211	2011	30.50	0.00	0.00	0.00	0.00
211	1011	30.50	0.00	-1.65	0.17	1.23
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	-2.02	0.03	1.71
213	2013	37.19	0.00	0.00	0.00	0.00
213	1013	37.19	0.00	-1.95	-0.19	1.46
214	2014	40.82	0.00	0.00	0.00	0.00
214	1014	40.82	0.00	-1.17	0.00	1.04
215	2015	44.46	0.00	0.00	0.00	0.00
215	1015	44.46	0.00	-0.84	-0.03	0.72
216	2016	48.10	0.00	0.00	0.00	0.00
216	1016	48.10	0.00	-0.61	-0.05	0.40
217	2017	51.73	0.00	0.00	0.00	0.00
217	1017	51.73	0.00	-0.50	-0.02	0.16
218	2018	55.37	0.00	0.00	0.00	0.00
218	1018	55.37	0.00	-0.47	0.03	0.17
219	2019	59.01	0.00	0.00	0.00	0.00
219	1019	59.01	0.00	-0.63	0.05	0.43
220	2020	62.64	0.00	0.00	0.00	0.00
220	1020	62.64	0.00	-0.87	0.03	0.76
221	2021	66.28	0.00	0.00	0.00	0.00
221	1021	66.28	0.00	-1.21	0.00	1.10
222	2022	69.91	0.00	0.00	0.00	0.00
222	1022	69.91	0.00	-1.99	0.19	1.53
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	-2.06	-0.04	1.78
224	2024	76.66	0.00	0.00	0.00	0.00
224	1024	76.66	0.00	-1.73	-0.20	1.27
225	2025	79.77	0.00	0.00	0.00	0.00
225	1025	79.77	0.00	-1.02	0.00	0.83
226	2026	82.88	0.00	0.00	0.00	0.00
226	1026	82.88	0.00	-0.72	-0.01	0.61
227	2027	85.99	0.00	0.00	0.00	0.00
227	1027	85.99	0.00	-0.54	-0.03	0.39
228	2028	89.10	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.41	-0.03	0.19
229	2029	92.21	0.00	0.00	0.00	0.00
229	1029	92.21	0.00	-0.19	-0.02	0.05
230	2030	95.32	0.00	0.00	0.00	0.00
230	1030	95.32	0.00	0.00	0.00	0.00
231	2031	98.43	0.00	0.00	0.00	0.00
231	1031	98.43	0.00	0.00	0.00	0.00
232	2032	101.54	0.00	0.00	0.00	0.00
232	1032	101.54	0.00	-0.37	0.09	0.13
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	-1.35	0.43	1.16
234	2034	107.76	0.00	0.00	0.00	0.00
234	1034	107.76	0.00	-1.01	0.24	1.32
401	1001	0.00	0.00	-0.97	-0.22	1.24
401	1	0.00	0.00	-0.97	-0.22	1.97
402	1002	3.05	0.00	-1.30	-0.41	1.10
402	2	3.05	0.00	-1.35	-0.42	2.10
403	1003	6.10	0.00	-0.37	-0.09	0.13
403	3	6.10	0.00	-0.72	-0.30	0.56
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	-0.09	-0.01	0.04
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	-0.22	0.03	0.09
406	1006	15.25	0.00	-0.25	0.03	0.05
406	6	15.25	0.00	-0.36	0.03	0.28
407	1007	18.30	0.00	-0.42	0.03	0.20
407	7	18.30	0.00	-0.50	0.04	0.53
408	1008	21.35	0.00	-0.54	0.03	0.39
408	8	21.35	0.00	-0.64	0.03	0.85
409	1009	24.40	0.00	-0.72	0.01	0.60
409	9	24.40	0.00	-0.81	0.02	1.19
410	1010	27.45	0.00	-1.01	0.00	0.82
410	10	27.45	0.00	-1.14	0.07	1.64
411	1011	30.50	0.00	-1.65	0.17	1.23
411	11	30.50	0.00	-1.75	0.20	2.53
412	1012	33.55	0.00	-2.02	0.03	1.71
412	12	33.55	0.00	-2.06	0.02	3.26
413	1013	37.19	0.00	-1.95	-0.19	1.46
413	13	37.19	0.00	-2.04	-0.23	2.96
414	1014	40.82	0.00	-1.17	0.00	1.04
414	14	40.82	0.00	-1.26	-0.02	1.97
415	1015	44.46	0.00	-0.84	-0.03	0.72
415	15	44.46	0.00	-0.95	-0.04	1.39
416	1016	48.10	0.00	-0.61	-0.05	0.40
416	16	48.10	0.00	-0.76	-0.04	0.89
417	1017	51.73	0.00	-0.50	-0.02	0.16
417	17	51.73	0.00	-0.73	-0.01	0.64
418	1018	55.37	0.00	-0.47	0.03	0.17
418	18	55.37	0.00	-0.74	0.01	0.66
419	1019	59.01	0.00	-0.63	0.05	0.43
419	19	59.01	0.00	-0.78	0.04	0.94

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.87	0.03	0.76
420	20	62.64	0.00	-0.98	0.04	1.46
421	1021	66.28	0.00	-1.21	0.00	1.10
421	21	66.28	0.00	-1.30	0.02	2.06
422	1022	69.91	0.00	-1.99	0.19	1.53
422	22	69.91	0.00	-2.08	0.22	3.07
423	1023	73.55	0.00	-2.06	-0.04	1.78
423	23	73.55	0.00	-2.10	-0.03	3.37
424	1024	76.66	0.00	-1.73	-0.20	1.27
424	24	76.66	0.00	-1.78	-0.22	2.60
425	1025	79.77	0.00	-1.02	0.00	0.83
425	25	79.77	0.00	-1.15	-0.07	1.65
426	1026	82.88	0.00	-0.72	-0.01	0.61
426	26	82.88	0.00	-0.81	-0.02	1.19
427	1027	85.99	0.00	-0.54	-0.03	0.39
427	27	85.99	0.00	-0.63	-0.03	0.84
428	1028	89.10	0.00	-0.41	-0.03	0.19
428	28	89.10	0.00	-0.44	-0.03	0.52
429	1029	92.21	0.00	-0.19	-0.02	0.05
429	29	92.21	0.00	-0.33	-0.03	0.26
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	-0.19	-0.02	0.08
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	-0.09	0.01	0.04
432	1032	101.54	0.00	-0.37	0.09	0.13
432	32	101.54	0.00	-0.73	0.31	0.56
433	1033	104.65	0.00	-1.35	0.43	1.16
433	33	104.65	0.00	-1.39	0.44	2.19
434	1034	107.76	0.00	-1.01	0.24	1.32
434	34	107.76	0.00	-1.01	0.24	2.08

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-0.16	-0.15	0.00
1	2	3.05	0.00	-0.16	-0.15	0.48
2	2	3.05	0.00	-0.18	-0.51	0.48
2	3	6.10	0.00	-0.18	-0.51	1.02
3	3	6.10	0.00	-0.41	2.06	-2.71
3	4	9.15	0.00	-0.41	2.06	-1.46
4	4	9.15	0.00	-0.74	2.52	-5.12
4	5	12.20	0.00	-0.74	2.52	-2.86
5	5	12.20	0.00	-0.93	0.55	-3.49
5	6	15.25	0.00	-0.93	0.55	-0.66
6	6	15.25	0.00	-1.04	-2.27	-4.02
6	7	18.30	0.00	-1.04	-2.27	-0.86
7	7	18.30	0.00	-1.48	-4.55	-15.64
7	8	21.35	0.00	-1.48	-4.55	-11.11
8	8	21.35	0.00	-2.34	-5.54	-11.36
8	9	24.40	0.00	-2.34	-5.54	-4.23
9	9	24.40	0.00	-3.52	-5.51	-4.53
9	10	27.45	0.00	-3.52	-5.51	6.21
10	10	27.45	0.00	-5.06	-4.34	5.91
10	11	30.50	0.00	-5.06	-4.34	21.35
11	11	30.50	0.00	-6.91	-2.21	21.14
11	12	33.55	0.00	-6.91	-2.21	42.21
12	10012	33.55	0.00	0.00	0.00	0.00
12	13	37.19	0.00	0.00	0.00	0.00
13	13	37.19	0.00	-0.17	3.55	2.64
13	14	40.82	0.00	-0.17	3.55	3.25
14	14	40.82	0.00	-0.37	4.28	4.37
14	15	44.46	0.00	-0.37	4.28	5.71
15	15	44.46	0.00	-0.41	3.87	6.81
15	16	48.10	0.00	-0.41	3.87	8.30
16	16	48.10	0.00	-0.27	1.88	8.48
16	17	51.73	0.00	-0.27	1.88	9.45
17	17	51.73	0.00	-0.42	4.42	-6.51
17	18	55.37	0.00	-0.42	4.42	-4.98
18	18	55.37	0.00	-0.93	-0.38	-26.68
18	19	59.01	0.00	-0.93	-0.38	-23.31
19	19	59.01	0.00	-1.98	0.07	-23.35
19	20	62.64	0.00	-1.98	0.07	-16.16
20	20	62.64	0.00	-3.24	0.15	-15.35
20	21	66.28	0.00	-3.24	0.15	-3.58
21	21	66.28	0.00	-4.82	0.40	-2.43
21	22	69.91	0.00	-4.82	0.40	15.09
22	22	69.91	0.00	-6.88	-0.32	17.32
22	23	73.55	0.00	-6.88	-0.32	42.35
23	10023	73.55	0.00	0.00	0.00	0.00
23	24	76.66	0.00	0.00	0.00	0.00
24	24	76.66	0.00	0.00	0.00	0.00
24	25	79.77	0.00	0.00	0.00	0.00
25	25	79.77	0.00	0.00	0.00	0.00
25	26	82.88	0.00	0.00	0.00	0.00
26	26	82.88	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

SCUPASEODERE.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	0.00	0.00	0.00
27	27	85.99	0.00	0.00	0.00	0.00
27	28	89.10	0.00	0.00	0.00	0.00
28	28	89.10	0.00	-0.17	0.59	-14.66
28	29	92.21	0.00	-0.17	0.59	-14.14
29	29	92.21	0.00	-0.56	1.32	-17.47
29	30	95.32	0.00	-0.56	1.32	-15.73
30	30	95.32	0.00	-0.91	1.30	-16.46
30	31	98.43	0.00	-0.91	1.30	-13.63
31	31	98.43	0.00	-1.30	-0.59	-17.57
31	32	101.54	0.00	-1.30	-0.59	-13.52
32	32	101.54	0.00	-2.12	-3.56	-17.50
32	33	104.65	0.00	-2.12	-3.56	-10.91
33	33	104.65	0.00	-3.72	-1.82	-11.34
33	34	107.76	0.00	-3.72	-1.82	0.23
101	101	0.00	0.00	-14.31	4.59	-0.23
101	102	3.05	0.00	-11.87	-2.76	39.69
102	102	3.05	0.00	-10.45	4.53	39.26
102	103	6.10	0.00	-8.27	3.19	57.37
103	103	6.10	0.00	-7.57	13.29	52.41
103	104	9.15	0.00	-5.82	11.44	58.42
104	104	9.15	0.00	-5.56	13.46	57.78
104	105	12.20	0.00	-4.14	11.39	56.12
105	105	12.20	0.00	-4.07	13.31	56.02
105	106	15.25	0.00	-2.92	11.21	49.69
106	106	15.25	0.00	-2.89	12.46	49.49
106	107	18.30	0.00	-1.96	10.40	40.56
107	107	18.30	0.00	-1.90	11.90	40.58
107	108	21.35	0.00	-1.18	9.88	30.59
108	108	21.35	0.00	-1.10	9.29	28.76
108	109	24.40	0.00	-0.60	7.20	19.12
109	109	24.40	0.00	-0.47	7.86	18.71
109	110	27.45	0.00	-0.22	5.59	10.81
110	110	27.45	0.00	-0.12	3.46	5.52
110	111	30.50	0.00	-0.12	3.46	5.88
111	111	30.50	0.00	-0.08	3.96	5.89
111	112	33.55	0.00	-0.08	3.96	6.14
112	10112	33.55	0.00	-23.16	-0.75	-157.15
112	113	37.19	0.00	-20.25	-9.52	-78.23
113	113	37.19	0.00	-18.16	0.79	-78.47
113	114	40.82	0.00	-15.41	-4.01	-24.68
114	114	40.82	0.00	-13.87	4.28	-24.99
114	115	44.46	0.00	-11.50	-0.76	9.08
115	115	44.46	0.00	-10.51	7.69	6.55
115	116	48.10	0.00	-8.49	2.69	25.67
116	116	48.10	0.00	-7.89	5.68	25.16
116	117	51.73	0.00	-6.16	0.93	33.28
117	117	51.73	0.00	-5.78	4.44	33.15
117	118	55.37	0.00	-4.32	0.06	33.44
118	118	55.37	0.00	-4.03	3.06	33.38
118	119	59.01	0.00	-2.84	-0.96	28.44

CÁLCULO TENSIONAL

Hipótesis de cálculo:

SCUPASEODERE.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-2.56	3.19	28.15
119	120	62.64	0.00	-1.67	-0.58	20.38
120	120	62.64	0.00	-1.39	-0.68	18.16
120	121	66.28	0.00	-0.85	-4.41	10.15
121	121	66.28	0.00	-0.64	-2.82	10.16
121	122	69.91	0.00	-0.49	-6.80	4.95
122	122	69.91	0.00	-0.40	-5.86	4.94
122	123	73.55	0.00	-0.40	-5.86	6.39
123	10123	73.55	0.00	-23.85	10.93	-159.20
123	124	76.66	0.00	-21.37	3.44	-88.89
124	124	76.66	0.00	-19.53	12.56	-89.11
124	125	79.77	0.00	-17.04	5.06	-32.25
125	125	79.77	0.00	-15.59	15.80	-37.99
125	126	82.88	0.00	-13.37	10.60	-2.22
126	126	82.88	0.00	-12.32	17.34	-2.92
126	127	85.99	0.00	-10.34	11.94	19.71
127	127	85.99	0.00	-9.60	18.88	17.57
127	128	89.10	0.00	-7.84	13.43	29.52
128	128	89.10	0.00	-7.31	17.51	29.37
128	129	92.21	0.00	-5.77	12.10	32.86
129	129	92.21	0.00	-5.31	16.06	32.62
129	130	95.32	0.00	-4.00	10.71	29.55
130	130	95.32	0.00	-3.54	14.15	29.54
130	131	98.43	0.00	-2.49	8.77	21.90
131	131	98.43	0.00	-2.02	12.76	21.48
131	132	101.54	0.00	-1.31	7.16	11.72
132	132	101.54	0.00	-0.92	4.10	6.93
132	133	104.65	0.00	-0.64	-2.01	-1.48
133	133	104.65	0.00	-0.48	-0.65	-1.50
133	134	107.76	0.00	-0.48	-0.65	0.01
301	101	0.00	0.00	-1.08	-0.22	-5.25
301	2001	0.00	0.00	-1.08	-0.22	-4.43
302	102	3.05	0.00	-1.58	-0.42	-8.66
302	2002	3.05	0.00	-1.58	-0.42	-7.47
303	103	6.10	0.00	-1.09	-0.33	-7.13
303	2003	6.10	0.00	-1.09	-0.33	-6.30
304	104	9.15	0.00	-0.74	-0.22	-6.02
304	2004	9.15	0.00	-0.74	-0.22	-5.46
305	105	12.20	0.00	-0.55	-0.05	-5.03
305	2005	12.20	0.00	-0.55	-0.05	-4.61
306	106	15.25	0.00	-0.54	0.05	-4.42
306	2006	15.25	0.00	-0.54	0.05	-4.00
307	107	18.30	0.00	-0.65	0.09	-4.78
307	2007	18.30	0.00	-0.65	0.09	-4.29
308	108	21.35	0.00	-0.86	0.19	-6.02
308	2008	21.35	0.00	-0.86	0.19	-5.38
309	109	24.40	0.00	-1.18	0.30	-7.41
309	2009	24.40	0.00	-1.18	0.30	-6.51
310	110	27.45	0.00	-1.54	0.29	-8.54
310	2010	27.45	0.00	-1.54	0.29	-7.37
311	111	30.50	0.00	-1.85	0.21	-9.51

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-1.85	0.21	-8.11
312	112	33.55	0.00	-2.18	0.02	-10.91
312	2012	33.55	0.00	-2.18	0.02	-9.26
313	113	37.19	0.00	-2.18	-0.24	-11.27
313	2013	37.19	0.00	-2.18	-0.24	-9.62
314	114	40.82	0.00	-1.75	-0.33	-9.90
314	2014	40.82	0.00	-1.75	-0.33	-8.58
315	115	44.46	0.00	-1.29	-0.18	-7.87
315	2015	44.46	0.00	-1.29	-0.18	-6.90
316	116	48.10	0.00	-1.04	-0.05	-6.28
316	2016	48.10	0.00	-1.04	-0.05	-5.50
317	117	51.73	0.00	-0.94	-0.01	-5.80
317	2017	51.73	0.00	-0.94	-0.01	-5.08
318	118	55.37	0.00	-0.95	0.01	-5.81
318	2018	55.37	0.00	-0.95	0.01	-5.10
319	119	59.01	0.00	-1.05	0.05	-6.34
319	2019	59.01	0.00	-1.05	0.05	-5.54
320	120	62.64	0.00	-1.31	0.18	-7.96
320	2020	62.64	0.00	-1.31	0.18	-6.97
321	121	66.28	0.00	-1.78	0.33	-10.02
321	2021	66.28	0.00	-1.78	0.33	-8.68
322	122	69.91	0.00	-2.22	0.23	-11.42
322	2022	69.91	0.00	-2.22	0.23	-9.74
323	123	73.55	0.00	-2.22	-0.03	-11.06
323	2023	73.55	0.00	-2.22	-0.03	-9.38
324	124	76.66	0.00	-1.87	-0.22	-9.61
324	2024	76.66	0.00	-1.87	-0.22	-8.20
325	125	79.77	0.00	-1.55	-0.31	-8.59
325	2025	79.77	0.00	-1.55	-0.31	-7.42
326	126	82.88	0.00	-1.17	-0.32	-7.41
326	2026	82.88	0.00	-1.17	-0.32	-6.52
327	127	85.99	0.00	-0.84	-0.16	-5.81
327	2027	85.99	0.00	-0.84	-0.16	-5.17
328	128	89.10	0.00	-0.64	-0.07	-4.55
328	2028	89.10	0.00	-0.64	-0.07	-4.07
329	129	92.21	0.00	-0.53	-0.04	-3.99
329	2029	92.21	0.00	-0.53	-0.04	-3.60
330	130	95.32	0.00	-0.52	0.03	-4.80
330	2030	95.32	0.00	-0.52	0.03	-4.40
331	131	98.43	0.00	-0.72	0.23	-6.00
331	2031	98.43	0.00	-0.72	0.23	-5.45
332	132	101.54	0.00	-1.10	0.35	-7.18
332	2032	101.54	0.00	-1.10	0.35	-6.35
333	133	104.65	0.00	-1.62	0.44	-8.83
333	2033	104.65	0.00	-1.62	0.44	-7.60
334	134	107.76	0.00	-1.12	0.24	-5.39
334	2034	107.76	0.00	-1.12	0.24	-4.54
201	2001	0.00	0.00	-1.08	-0.22	-4.43
201	1001	0.00	0.00	-1.08	-0.22	0.74
202	2002	3.05	0.00	-1.58	-0.42	-7.47
202	1002	3.05	0.00	-1.58	-0.42	0.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-1.09	-0.33	-6.30
203	1003	6.10	0.00	-1.09	-0.33	-1.07
204	2004	9.15	0.00	-0.74	-0.22	-5.46
204	1004	9.15	0.00	-0.74	-0.22	-1.91
205	2005	12.20	0.00	-0.55	-0.05	-4.61
205	1005	12.20	0.00	-0.55	-0.05	-1.99
206	2006	15.25	0.00	-0.54	0.05	-4.00
206	1006	15.25	0.00	-0.54	0.05	-1.40
207	2007	18.30	0.00	-0.65	0.09	-4.29
207	1007	18.30	0.00	-0.65	0.09	-1.16
208	2008	21.35	0.00	-0.86	0.19	-5.38
208	1008	21.35	0.00	-0.86	0.19	-1.27
209	2009	24.40	0.00	-1.18	0.30	-6.51
209	1009	24.40	0.00	-1.18	0.30	-0.86
210	2010	27.45	0.00	-1.54	0.29	-7.37
210	1010	27.45	0.00	-1.54	0.29	0.00
211	2011	30.50	0.00	-1.85	0.21	-8.11
211	1011	30.50	0.00	-1.85	0.21	0.73
212	2012	33.55	0.00	-2.18	0.02	-9.26
212	1012	33.55	0.00	-2.18	0.02	1.18
213	2013	37.19	0.00	-2.18	-0.24	-9.62
213	1013	37.19	0.00	-2.18	-0.24	0.82
214	2014	40.82	0.00	-1.75	-0.33	-8.58
214	1014	40.82	0.00	-1.75	-0.33	-0.22
215	2015	44.46	0.00	-1.29	-0.18	-6.90
215	1015	44.46	0.00	-1.29	-0.18	-0.75
216	2016	48.10	0.00	-1.04	-0.05	-5.50
216	1016	48.10	0.00	-1.04	-0.05	-0.52
217	2017	51.73	0.00	-0.94	-0.01	-5.08
217	1017	51.73	0.00	-0.94	-0.01	-0.56
218	2018	55.37	0.00	-0.95	0.01	-5.10
218	1018	55.37	0.00	-0.95	0.01	-0.55
219	2019	59.01	0.00	-1.05	0.05	-5.54
219	1019	59.01	0.00	-1.05	0.05	-0.49
220	2020	62.64	0.00	-1.31	0.18	-6.97
220	1020	62.64	0.00	-1.31	0.18	-0.70
221	2021	66.28	0.00	-1.78	0.33	-8.68
221	1021	66.28	0.00	-1.78	0.33	-0.15
222	2022	69.91	0.00	-2.22	0.23	-9.74
222	1022	69.91	0.00	-2.22	0.23	0.91
223	2023	73.55	0.00	-2.22	-0.03	-9.38
223	1023	73.55	0.00	-2.22	-0.03	1.26
224	2024	76.66	0.00	-1.87	-0.22	-8.20
224	1024	76.66	0.00	-1.87	-0.22	0.78
225	2025	79.77	0.00	-1.55	-0.31	-7.42
225	1025	79.77	0.00	-1.55	-0.31	0.00
226	2026	82.88	0.00	-1.17	-0.32	-6.52
226	1026	82.88	0.00	-1.17	-0.32	-0.90
227	2027	85.99	0.00	-0.84	-0.16	-5.17
227	1027	85.99	0.00	-0.84	-0.16	-1.15
228	2028	89.10	0.00	-0.64	-0.07	-4.07

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.64	-0.07	-1.02
229	2029	92.21	0.00	-0.53	-0.04	-3.60
229	1029	92.21	0.00	-0.53	-0.04	-1.08
230	2030	95.32	0.00	-0.52	0.03	-4.40
230	1030	95.32	0.00	-0.52	0.03	-1.90
231	2031	98.43	0.00	-0.72	0.23	-5.45
231	1031	98.43	0.00	-0.72	0.23	-1.99
232	2032	101.54	0.00	-1.10	0.35	-6.35
232	1032	101.54	0.00	-1.10	0.35	-1.08
233	2033	104.65	0.00	-1.62	0.44	-7.60
233	1033	104.65	0.00	-1.62	0.44	0.16
234	2034	107.76	0.00	-1.12	0.24	-4.54
234	1034	107.76	0.00	-1.12	0.24	0.83
401	1001	0.00	0.00	-1.08	-0.22	0.74
401	1	0.00	0.00	-1.08	-0.22	1.56
402	1002	3.05	0.00	-1.58	-0.42	0.10
402	2	3.05	0.00	-1.58	-0.42	1.29
403	1003	6.10	0.00	-1.09	-0.33	-1.07
403	3	6.10	0.00	-1.09	-0.33	-0.24
404	1004	9.15	0.00	-0.74	-0.22	-1.91
404	4	9.15	0.00	-0.74	-0.22	-1.35
405	1005	12.20	0.00	-0.55	-0.05	-1.99
405	5	12.20	0.00	-0.55	-0.05	-1.57
406	1006	15.25	0.00	-0.54	0.05	-1.40
406	6	15.25	0.00	-0.54	0.05	-0.99
407	1007	18.30	0.00	-0.65	0.09	-1.16
407	7	18.30	0.00	-0.65	0.09	-0.67
408	1008	21.35	0.00	-0.86	0.19	-1.27
408	8	21.35	0.00	-0.86	0.19	-0.62
409	1009	24.40	0.00	-1.18	0.30	-0.86
409	9	24.40	0.00	-1.18	0.30	0.04
410	1010	27.45	0.00	-1.54	0.29	0.00
410	10	27.45	0.00	-1.54	0.29	1.16
411	1011	30.50	0.00	-1.85	0.21	0.73
411	11	30.50	0.00	-1.85	0.21	2.13
412	1012	33.55	0.00	-2.18	0.02	1.18
412	12	33.55	0.00	-2.18	0.02	2.83
413	1013	37.19	0.00	-2.18	-0.24	0.82
413	13	37.19	0.00	-2.18	-0.24	2.47
414	1014	40.82	0.00	-1.75	-0.33	-0.22
414	14	40.82	0.00	-1.75	-0.33	1.10
415	1015	44.46	0.00	-1.29	-0.18	-0.75
415	15	44.46	0.00	-1.29	-0.18	0.22
416	1016	48.10	0.00	-1.04	-0.05	-0.52
416	16	48.10	0.00	-1.04	-0.05	0.27
417	1017	51.73	0.00	-0.94	-0.01	-0.56
417	17	51.73	0.00	-0.94	-0.01	0.16
418	1018	55.37	0.00	-0.95	0.01	-0.55
418	18	55.37	0.00	-0.95	0.01	0.17
419	1019	59.01	0.00	-1.05	0.05	-0.49
419	19	59.01	0.00	-1.05	0.05	0.31

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-1.31	0.18	-0.70
420	20	62.64	0.00	-1.31	0.18	0.29
421	1021	66.28	0.00	-1.78	0.33	-0.15
421	21	66.28	0.00	-1.78	0.33	1.20
422	1022	69.91	0.00	-2.22	0.23	0.91
422	22	69.91	0.00	-2.22	0.23	2.59
423	1023	73.55	0.00	-2.22	-0.03	1.26
423	23	73.55	0.00	-2.22	-0.03	2.93
424	1024	76.66	0.00	-1.87	-0.22	0.78
424	24	76.66	0.00	-1.87	-0.22	2.20
425	1025	79.77	0.00	-1.55	-0.31	0.00
425	25	79.77	0.00	-1.55	-0.31	1.17
426	1026	82.88	0.00	-1.17	-0.32	-0.90
426	26	82.88	0.00	-1.17	-0.32	-0.02
427	1027	85.99	0.00	-0.84	-0.16	-1.15
427	27	85.99	0.00	-0.84	-0.16	-0.52
428	1028	89.10	0.00	-0.64	-0.07	-1.02
428	28	89.10	0.00	-0.64	-0.07	-0.53
429	1029	92.21	0.00	-0.53	-0.04	-1.08
429	29	92.21	0.00	-0.53	-0.04	-0.68
430	1030	95.32	0.00	-0.52	0.03	-1.90
430	30	95.32	0.00	-0.52	0.03	-1.50
431	1031	98.43	0.00	-0.72	0.23	-1.99
431	31	98.43	0.00	-0.72	0.23	-1.44
432	1032	101.54	0.00	-1.10	0.35	-1.08
432	32	101.54	0.00	-1.10	0.35	-0.25
433	1033	104.65	0.00	-1.62	0.44	0.16
433	33	104.65	0.00	-1.62	0.44	1.39
434	1034	107.76	0.00	-1.12	0.24	0.83
434	34	107.76	0.00	-1.12	0.24	1.67

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	1.47	-0.41	0.00
1	2	3.05	0.00	1.47	-0.41	-4.48
2	2	3.05	0.00	1.24	-1.22	-4.49
2	3	6.10	0.00	1.24	-1.22	-8.26
3	3	6.10	0.00	0.98	-1.97	-8.27
3	4	9.15	0.00	0.98	-1.97	-11.28
4	4	9.15	0.00	0.71	-2.66	-12.00
4	5	12.20	0.00	0.71	-2.66	-14.15
5	5	12.20	0.00	0.26	-3.29	-14.84
5	6	15.25	0.00	0.26	-3.29	-15.62
6	6	15.25	0.00	-0.48	-4.29	-14.77
6	7	18.30	0.00	-0.48	-4.29	-13.31
7	7	18.30	0.00	-0.95	-5.78	-2.12
7	8	21.35	0.00	-0.95	-5.78	0.78
8	8	21.35	0.00	-1.26	-7.17	3.72
8	9	24.40	0.00	-1.26	-7.17	7.56
9	9	24.40	0.00	-1.78	-8.03	7.31
9	10	27.45	0.00	-1.78	-8.03	12.75
10	10	27.45	0.00	-2.10	-8.16	13.11
10	11	30.50	0.00	-2.10	-8.16	19.53
11	11	30.50	0.00	-2.63	-7.63	18.26
11	12	33.55	0.00	-2.63	-7.63	26.29
12	10012	33.55	0.00	4.14	-6.72	22.21
12	13	37.19	0.00	4.14	-6.72	7.16
13	13	37.19	0.00	2.69	-5.96	6.05
13	14	40.82	0.00	2.69	-5.96	-3.72
14	14	40.82	0.00	1.32	-6.21	-1.05
14	15	44.46	0.00	1.32	-6.21	-5.84
15	15	44.46	0.00	1.09	-6.73	-5.83
15	16	48.10	0.00	1.09	-6.73	-9.81
16	16	48.10	0.00	0.77	-7.27	-9.15
16	17	51.73	0.00	0.77	-7.27	-11.95
17	17	51.73	0.00	0.38	-8.05	-9.00
17	18	55.37	0.00	0.38	-8.05	-10.38
18	18	55.37	0.00	0.06	-9.46	-5.76
18	19	59.01	0.00	0.06	-9.46	-5.97
19	19	59.01	0.00	-0.54	-10.45	-5.53
19	20	62.64	0.00	-0.54	-10.45	-3.57
20	20	62.64	0.00	-1.62	-10.25	-3.87
20	21	66.28	0.00	-1.62	-10.25	2.01
21	21	66.28	0.00	-2.00	-8.93	4.62
21	22	69.91	0.00	-2.00	-8.93	11.90
22	22	69.91	0.00	-2.73	-7.21	10.60
22	23	73.55	0.00	-2.73	-7.21	20.54
23	10023	73.55	0.00	4.28	-5.31	16.41
23	24	76.66	0.00	4.28	-5.31	3.11
24	24	76.66	0.00	2.95	-3.71	2.03
24	25	79.77	0.00	2.95	-3.71	-7.13
25	25	79.77	0.00	1.73	-2.42	-6.47
25	26	82.88	0.00	1.73	-2.42	-11.84
26	26	82.88	0.00	1.07	-1.53	-11.80

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	1.07	-1.53	-15.12
27	27	85.99	0.00	0.47	-1.14	-9.89
27	28	89.10	0.00	0.47	-1.14	-11.35
28	28	89.10	0.00	0.39	-1.46	-2.04
28	29	92.21	0.00	0.39	-1.46	-3.25
29	29	92.21	0.00	0.64	-2.59	-2.00
29	30	95.32	0.00	0.64	-2.59	-4.00
30	30	95.32	0.00	0.58	-4.05	-4.72
30	31	98.43	0.00	0.58	-4.05	-6.51
31	31	98.43	0.00	0.12	-4.78	-7.47
31	32	101.54	0.00	0.12	-4.78	-7.85
32	32	101.54	0.00	-0.73	-4.27	-8.21
32	33	104.65	0.00	-0.73	-4.27	-5.93
33	33	104.65	0.00	-2.13	-2.08	-6.37
33	34	107.76	0.00	-2.13	-2.08	0.24
101	101	0.00	0.00	0.00	0.00	0.00
101	102	3.05	0.00	-0.25	-6.82	4.47
102	102	3.05	0.00	-0.06	-5.96	4.44
102	103	6.10	0.00	0.20	-11.97	14.67
103	103	6.10	0.00	0.46	-10.66	14.63
103	104	9.15	0.00	1.14	-16.17	26.60
104	104	9.15	0.00	1.36	-14.78	26.55
104	105	12.20	0.00	2.39	-20.07	37.29
105	105	12.20	0.00	2.52	-18.78	37.27
105	106	15.25	0.00	3.80	-24.03	44.61
106	106	15.25	0.00	3.85	-22.87	44.64
106	107	18.30	0.00	5.36	-28.16	46.91
107	107	18.30	0.00	5.38	-26.97	47.01
107	108	21.35	0.00	7.10	-32.29	42.66
108	108	21.35	0.00	7.17	-30.84	42.84
108	109	24.40	0.00	9.11	-36.11	30.23
109	109	24.40	0.00	9.33	-34.10	30.47
109	110	27.45	0.00	11.51	-39.18	7.66
110	110	27.45	0.00	11.96	-36.34	7.95
110	111	30.50	0.00	14.41	-41.08	-27.28
111	111	30.50	0.00	15.15	-37.27	-26.99
111	112	33.55	0.00	17.87	-41.56	-76.91
112	10112	33.55	0.00	-5.76	-36.43	-76.68
112	113	37.19	0.00	-6.02	-40.92	-54.18
113	113	37.19	0.00	-4.69	-34.79	-54.09
113	114	40.82	0.00	-4.54	-38.76	-30.08
114	114	40.82	0.00	-3.28	-32.80	-30.10
114	115	44.46	0.00	-2.73	-36.53	-7.11
115	115	44.46	0.00	-1.70	-31.23	-7.19
115	116	48.10	0.00	-0.82	-34.99	12.84
116	116	48.10	0.00	-0.09	-30.58	12.76
116	117	51.73	0.00	1.09	-34.59	28.36
117	117	51.73	0.00	1.53	-31.04	28.33
117	118	55.37	0.00	2.98	-35.41	38.19
118	118	55.37	0.00	3.22	-32.46	38.23
118	119	59.01	0.00	4.94	-37.20	40.83

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	5.10	-34.44	40.97
119	120	62.64	0.00	7.12	-39.43	34.21
120	120	62.64	0.00	7.36	-36.35	34.45
120	121	66.28	0.00	9.72	-41.38	15.49
121	121	66.28	0.00	10.21	-37.47	15.80
121	122	69.91	0.00	12.96	-42.25	-19.06
122	122	69.91	0.00	13.81	-37.13	-18.73
122	123	73.55	0.00	16.98	-41.38	-73.63
123	10123	73.55	0.00	-5.63	-35.59	-73.42
123	124	76.66	0.00	-5.91	-38.70	-55.03
124	124	76.66	0.00	-4.79	-32.99	-54.95
124	125	79.77	0.00	-4.80	-35.63	-34.88
125	125	79.77	0.00	-3.70	-29.92	-34.89
125	126	82.88	0.00	-3.44	-32.21	-14.53
126	126	82.88	0.00	-2.47	-26.82	-14.58
126	127	85.99	0.00	-1.96	-28.92	4.92
127	127	85.99	0.00	-1.18	-24.02	4.84
127	128	89.10	0.00	-0.45	-26.07	22.54
128	128	89.10	0.00	0.13	-21.68	22.48
128	129	92.21	0.00	1.08	-23.77	37.44
129	129	92.21	0.00	1.51	-19.73	37.43
129	130	95.32	0.00	2.69	-21.87	48.45
130	130	95.32	0.00	3.07	-17.83	48.52
130	131	98.43	0.00	4.51	-19.94	53.75
131	131	98.43	0.00	5.02	-15.35	53.93
131	132	101.54	0.00	6.80	-17.25	50.49
132	132	101.54	0.00	7.64	-11.39	50.79
132	133	104.65	0.00	9.85	-12.78	34.44
133	133	104.65	0.00	11.27	-4.85	34.85
133	134	107.76	0.00	14.02	-5.39	-0.24
301	101	0.00	0.00	-1.02	-0.23	-4.70
301	2001	0.00	0.00	-1.02	-0.23	-3.93
302	102	3.05	0.00	-1.45	-0.43	-7.51
302	2002	3.05	0.00	-1.45	-0.43	-6.42
303	103	6.10	0.00	-0.89	-0.35	-5.57
303	2003	6.10	0.00	-0.89	-0.35	-4.89
304	104	9.15	0.00	-0.50	-0.24	-4.30
304	2004	9.15	0.00	-0.50	-0.24	-3.93
305	105	12.20	0.00	-0.23	-0.12	-3.39
305	2005	12.20	0.00	-0.23	-0.12	-3.22
306	106	15.25	0.00	-0.02	-0.03	-1.39
306	2006	15.25	0.00	-0.02	-0.03	-1.38
307	107	18.30	0.00	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00	0.00
310	110	27.45	0.00	-0.78	-0.03	-3.61
310	2010	27.45	0.00	-0.78	-0.03	-3.02
311	111	30.50	0.00	-0.95	-0.10	-4.47

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.95	-0.10	-3.75
312	112	33.55	0.00	-1.04	-0.21	-5.11
312	2012	33.55	0.00	-1.04	-0.21	-4.32
313	113	37.19	0.00	-0.91	-0.34	-5.07
313	2013	37.19	0.00	-0.91	-0.34	-4.38
314	114	40.82	0.00	-0.77	-0.36	-4.97
314	2014	40.82	0.00	-0.77	-0.36	-4.39
315	115	44.46	0.00	-1.10	-0.33	-7.00
315	2015	44.46	0.00	-1.10	-0.33	-6.17
316	116	48.10	0.00	-0.64	-0.25	-5.50
316	2016	48.10	0.00	-0.64	-0.25	-5.02
317	117	51.73	0.00	-0.34	-0.14	-3.61
317	2017	51.73	0.00	-0.34	-0.14	-3.35
318	118	55.37	0.00	-0.34	-0.06	-2.91
318	2018	55.37	0.00	-0.34	-0.06	-2.65
319	119	59.01	0.00	-0.24	-0.03	-1.67
319	2019	59.01	0.00	-0.24	-0.03	-1.49
320	120	62.64	0.00	-0.17	-0.02	-1.38
320	2020	62.64	0.00	-0.17	-0.02	-1.25
321	121	66.28	0.00	-1.01	-0.03	-5.03
321	2021	66.28	0.00	-1.01	-0.03	-4.27
322	122	69.91	0.00	-1.30	-0.11	-6.34
322	2022	69.91	0.00	-1.30	-0.11	-5.35
323	123	73.55	0.00	-1.17	-0.24	-5.86
323	2023	73.55	0.00	-1.17	-0.24	-4.98
324	124	76.66	0.00	-0.92	-0.31	-5.12
324	2024	76.66	0.00	-0.92	-0.31	-4.43
325	125	79.77	0.00	-0.77	-0.34	-4.97
325	2025	79.77	0.00	-0.77	-0.34	-4.39
326	126	82.88	0.00	-1.17	-0.32	-7.41
326	2026	82.88	0.00	-1.17	-0.32	-6.52
327	127	85.99	0.00	-0.83	-0.26	-6.33
327	2027	85.99	0.00	-0.83	-0.26	-5.70
328	128	89.10	0.00	-0.58	-0.17	-5.54
328	2028	89.10	0.00	-0.58	-0.17	-5.10
329	129	92.21	0.00	-0.47	-0.07	-3.83
329	2029	92.21	0.00	-0.47	-0.07	-3.48
330	130	95.32	0.00	-0.30	-0.03	-1.98
330	2030	95.32	0.00	-0.30	-0.03	-1.75
331	131	98.43	0.00	-0.24	-0.03	-1.69
331	2031	98.43	0.00	-0.24	-0.03	-1.51
332	132	101.54	0.00	-0.19	-0.02	-1.54
332	2032	101.54	0.00	-0.19	-0.02	-1.39
333	133	104.65	0.00	-0.13	-0.01	-1.14
333	2033	104.65	0.00	-0.13	-0.01	-1.04
334	134	107.76	0.00	-0.05	-0.01	-0.49
334	2034	107.76	0.00	-0.05	-0.01	-0.45
201	2001	0.00	0.00	-1.02	-0.23	-3.93
201	1001	0.00	0.00	-1.02	-0.23	0.97
202	2002	3.05	0.00	-1.45	-0.43	-6.42
202	1002	3.05	0.00	-1.45	-0.43	0.51

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.89	-0.35	-4.89
203	1003	6.10	0.00	-0.89	-0.35	-0.61
204	2004	9.15	0.00	-0.50	-0.24	-3.93
204	1004	9.15	0.00	-0.50	-0.24	-1.55
205	2005	12.20	0.00	-0.23	-0.12	-3.22
205	1005	12.20	0.00	-0.23	-0.12	-2.11
206	2006	15.25	0.00	-0.02	-0.03	-1.38
206	1006	15.25	0.00	-0.02	-0.03	-1.29
207	2007	18.30	0.00	0.00	0.00	0.00
207	1007	18.30	0.00	0.00	0.00	0.00
208	2008	21.35	0.00	0.00	0.00	0.00
208	1008	21.35	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	0.00	0.00	0.00
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	-0.78	-0.03	-3.02
210	1010	27.45	0.00	-0.78	-0.03	0.70
211	2011	30.50	0.00	-0.95	-0.10	-3.75
211	1011	30.50	0.00	-0.95	-0.10	0.80
212	2012	33.55	0.00	-1.04	-0.21	-4.32
212	1012	33.55	0.00	-1.04	-0.21	0.64
213	2013	37.19	0.00	-0.91	-0.34	-4.38
213	1013	37.19	0.00	-0.91	-0.34	0.00
214	2014	40.82	0.00	-0.77	-0.36	-4.39
214	1014	40.82	0.00	-0.77	-0.36	-0.72
215	2015	44.46	0.00	-1.10	-0.33	-6.17
215	1015	44.46	0.00	-1.10	-0.33	-0.92
216	2016	48.10	0.00	-0.64	-0.25	-5.02
216	1016	48.10	0.00	-0.64	-0.25	-1.94
217	2017	51.73	0.00	-0.34	-0.14	-3.35
217	1017	51.73	0.00	-0.34	-0.14	-1.72
218	2018	55.37	0.00	-0.34	-0.06	-2.65
218	1018	55.37	0.00	-0.34	-0.06	-1.04
219	2019	59.01	0.00	-0.24	-0.03	-1.49
219	1019	59.01	0.00	-0.24	-0.03	-0.33
220	2020	62.64	0.00	-0.17	-0.02	-1.25
220	1020	62.64	0.00	-0.17	-0.02	-0.43
221	2021	66.28	0.00	-1.01	-0.03	-4.27
221	1021	66.28	0.00	-1.01	-0.03	0.55
222	2022	69.91	0.00	-1.30	-0.11	-5.35
222	1022	69.91	0.00	-1.30	-0.11	0.89
223	2023	73.55	0.00	-1.17	-0.24	-4.98
223	1023	73.55	0.00	-1.17	-0.24	0.64
224	2024	76.66	0.00	-0.92	-0.31	-4.43
224	1024	76.66	0.00	-0.92	-0.31	-0.03
225	2025	79.77	0.00	-0.77	-0.34	-4.39
225	1025	79.77	0.00	-0.77	-0.34	-0.71
226	2026	82.88	0.00	-1.17	-0.32	-6.52
226	1026	82.88	0.00	-1.17	-0.32	-0.90
227	2027	85.99	0.00	-0.83	-0.26	-5.70
227	1027	85.99	0.00	-0.83	-0.26	-1.73
228	2028	89.10	0.00	-0.58	-0.17	-5.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.58	-0.17	-2.32
229	2029	92.21	0.00	-0.47	-0.07	-3.48
229	1029	92.21	0.00	-0.47	-0.07	-1.25
230	2030	95.32	0.00	-0.30	-0.03	-1.75
230	1030	95.32	0.00	-0.30	-0.03	-0.29
231	2031	98.43	0.00	-0.24	-0.03	-1.51
231	1031	98.43	0.00	-0.24	-0.03	-0.37
232	2032	101.54	0.00	-0.19	-0.02	-1.39
232	1032	101.54	0.00	-0.19	-0.02	-0.46
233	2033	104.65	0.00	-0.13	-0.01	-1.04
233	1033	104.65	0.00	-0.13	-0.01	-0.41
234	2034	107.76	0.00	-0.05	-0.01	-0.45
234	1034	107.76	0.00	-0.05	-0.01	-0.21
401	1001	0.00	0.00	-1.02	-0.23	0.97
401	1	0.00	0.00	-1.02	-0.23	1.75
402	1002	3.05	0.00	-1.45	-0.43	0.51
402	2	3.05	0.00	-1.45	-0.43	1.60
403	1003	6.10	0.00	-0.89	-0.35	-0.61
403	3	6.10	0.00	-0.89	-0.35	0.07
404	1004	9.15	0.00	-0.50	-0.24	-1.55
404	4	9.15	0.00	-0.50	-0.24	-1.17
405	1005	12.20	0.00	-0.23	-0.12	-2.11
405	5	12.20	0.00	-0.23	-0.12	-1.93
406	1006	15.25	0.00	-0.02	-0.03	-1.29
406	6	15.25	0.00	-0.02	-0.03	-1.28
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00	0.00
410	1010	27.45	0.00	-0.78	-0.03	0.70
410	10	27.45	0.00	-0.78	-0.03	1.29
411	1011	30.50	0.00	-0.95	-0.10	0.80
411	11	30.50	0.00	-0.95	-0.10	1.52
412	1012	33.55	0.00	-1.04	-0.21	0.64
412	12	33.55	0.00	-1.04	-0.21	1.43
413	1013	37.19	0.00	-0.91	-0.34	0.00
413	13	37.19	0.00	-0.91	-0.34	0.69
414	1014	40.82	0.00	-0.77	-0.36	-0.72
414	14	40.82	0.00	-0.77	-0.36	-0.14
415	1015	44.46	0.00	-1.10	-0.33	-0.92
415	15	44.46	0.00	-1.10	-0.33	-0.09
416	1016	48.10	0.00	-0.64	-0.25	-1.94
416	16	48.10	0.00	-0.64	-0.25	-1.45
417	1017	51.73	0.00	-0.34	-0.14	-1.72
417	17	51.73	0.00	-0.34	-0.14	-1.47
418	1018	55.37	0.00	-0.34	-0.06	-1.04
418	18	55.37	0.00	-0.34	-0.06	-0.79
419	1019	59.01	0.00	-0.24	-0.03	-0.33
419	19	59.01	0.00	-0.24	-0.03	-0.14

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.17	-0.02	-0.43
420	20	62.64	0.00	-0.17	-0.02	-0.30
421	1021	66.28	0.00	-1.01	-0.03	0.55
421	21	66.28	0.00	-1.01	-0.03	1.31
422	1022	69.91	0.00	-1.30	-0.11	0.89
422	22	69.91	0.00	-1.30	-0.11	1.88
423	1023	73.55	0.00	-1.17	-0.24	0.64
423	23	73.55	0.00	-1.17	-0.24	1.53
424	1024	76.66	0.00	-0.92	-0.31	-0.03
424	24	76.66	0.00	-0.92	-0.31	0.66
425	1025	79.77	0.00	-0.77	-0.34	-0.71
425	25	79.77	0.00	-0.77	-0.34	-0.12
426	1026	82.88	0.00	-1.17	-0.32	-0.90
426	26	82.88	0.00	-1.17	-0.32	-0.02
427	1027	85.99	0.00	-0.83	-0.26	-1.73
427	27	85.99	0.00	-0.83	-0.26	-1.10
428	1028	89.10	0.00	-0.58	-0.17	-2.32
428	28	89.10	0.00	-0.58	-0.17	-1.89
429	1029	92.21	0.00	-0.47	-0.07	-1.25
429	29	92.21	0.00	-0.47	-0.07	-0.90
430	1030	95.32	0.00	-0.30	-0.03	-0.29
430	30	95.32	0.00	-0.30	-0.03	-0.06
431	1031	98.43	0.00	-0.24	-0.03	-0.37
431	31	98.43	0.00	-0.24	-0.03	-0.19
432	1032	101.54	0.00	-0.19	-0.02	-0.46
432	32	101.54	0.00	-0.19	-0.02	-0.32
433	1033	104.65	0.00	-0.13	-0.01	-0.41
433	33	104.65	0.00	-0.13	-0.01	-0.31
434	1034	107.76	0.00	-0.05	-0.01	-0.21
434	34	107.76	0.00	-0.05	-0.01	-0.17

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	1.25	-0.19	-0.01
1	2	3.05	0.00	3.75	1.71	-11.22
2	2	3.05	0.00	2.19	3.31	-10.81
2	3	6.10	0.00	2.19	3.31	-17.49
3	3	6.10	0.00	1.11	3.40	-17.16
3	4	9.15	0.00	1.12	3.49	-20.57
4	4	9.15	0.00	0.39	2.52	-20.35
4	5	12.20	0.00	0.54	2.05	-21.64
5	5	12.20	0.00	0.01	0.91	-21.59
5	6	15.25	0.00	0.15	0.66	-21.93
6	6	15.25	0.00	-0.37	-0.11	-21.98
6	7	18.30	0.00	-0.24	-0.04	-21.08
7	7	18.30	0.00	-0.86	-0.11	-21.16
7	8	21.35	0.00	-0.77	-0.18	-18.55
8	8	21.35	0.00	-1.64	0.29	-18.65
8	9	24.40	0.00	-1.45	0.71	-14.10
9	9	24.40	0.00	-2.35	1.78	-14.16
9	10	27.45	0.00	-1.76	1.69	-8.15
10	10	27.45	0.00	-2.62	3.12	-8.12
10	11	30.50	0.00	-1.51	2.39	-2.01
11	11	30.50	0.00	-2.03	3.33	-1.94
11	12	33.55	0.00	0.00	0.00	0.00
12	10012	33.55	0.00	0.00	0.00	0.00
12	13	37.19	0.00	0.00	0.00	0.00
13	13	37.19	0.00	0.00	0.00	0.00
13	14	40.82	0.00	3.83	-4.60	-5.37
14	14	40.82	0.00	2.74	-3.35	-5.38
14	15	44.46	0.00	3.05	-2.48	-16.11
15	15	44.46	0.00	1.93	-1.55	-16.08
15	16	48.10	0.00	1.99	-0.92	-23.29
16	16	48.10	0.00	0.97	-0.36	-23.26
16	17	51.73	0.00	0.97	-0.36	-26.79
17	17	51.73	0.00	0.03	-0.03	-26.78
17	18	55.37	0.00	0.03	-0.03	-26.88
18	18	55.37	0.00	-0.92	0.31	-26.90
18	19	59.01	0.00	-0.92	0.31	-23.55
19	19	59.01	0.00	-1.96	0.91	-23.59
19	20	62.64	0.00	-1.89	1.54	-16.51
20	20	62.64	0.00	-3.03	2.54	-16.54
20	21	66.28	0.00	-2.72	3.40	-5.87
21	21	66.28	0.00	-3.84	4.73	-5.85
21	22	69.91	0.00	0.00	0.00	0.00
22	22	69.91	0.00	0.00	0.00	0.00
22	23	73.55	0.00	0.00	0.00	0.00
23	10023	73.55	0.00	0.00	0.00	0.00
23	24	76.66	0.00	2.03	-3.29	-1.81
24	24	76.66	0.00	1.50	-2.34	-1.88
24	25	79.77	0.00	2.61	-3.04	-8.08
25	25	79.77	0.00	1.75	-1.60	-8.11
25	26	82.88	0.00	2.33	-1.62	-14.18
26	26	82.88	0.00	1.44	-0.57	-14.12

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	1.52	-0.19	-18.66
27	27	85.99	0.00	0.76	0.32	-18.58
27	28	89.10	0.00	0.84	0.27	-21.15
28	28	89.10	0.00	0.23	0.14	-21.06
28	29	92.21	0.00	0.36	0.25	-21.85
29	29	92.21	0.00	-0.13	-0.62	-21.79
29	30	95.32	0.00	-0.05	-0.83	-21.42
30	30	95.32	0.00	-0.55	-1.91	-21.45
30	31	98.43	0.00	-0.33	-2.61	-20.16
31	31	98.43	0.00	-1.04	-3.67	-20.38
31	32	101.54	0.00	-1.03	-3.59	-17.16
32	32	101.54	0.00	-2.12	-3.52	-17.51
32	33	104.65	0.00	-2.12	-3.52	-10.91
33	33	104.65	0.00	-3.72	-1.82	-11.34
33	34	107.76	0.00	-1.17	0.17	-0.01
101	101	0.00	0.00	-14.30	4.70	-0.23
101	102	3.05	0.00	0.52	0.65	-1.57
102	102	3.05	0.00	0.68	2.02	-1.56
102	103	6.10	0.00	0.68	2.02	-3.63
103	103	6.10	0.00	0.87	3.50	-3.61
103	104	9.15	0.00	0.87	3.50	-6.27
104	104	9.15	0.00	1.11	5.13	-6.24
104	105	12.20	0.00	1.12	5.43	-9.66
105	105	12.20	0.00	1.43	7.36	-9.62
105	106	15.25	0.00	1.43	7.36	-13.98
106	106	15.25	0.00	1.82	9.58	-13.94
106	107	18.30	0.00	1.91	11.01	-19.53
107	107	18.30	0.00	2.44	13.88	-19.49
107	108	21.35	0.00	2.44	13.88	-26.93
108	108	21.35	0.00	3.09	17.16	-26.90
108	109	24.40	0.00	3.09	17.16	-36.33
109	109	24.40	0.00	3.86	20.88	-36.31
109	110	27.45	0.00	7.93	1.28	-51.07
110	110	27.45	0.00	9.03	6.83	-50.95
110	111	30.50	0.00	16.74	-10.64	-91.24
111	111	30.50	0.00	18.33	-2.85	-91.07
111	112	33.55	0.00	23.60	-11.38	-157.19
112	10112	33.55	0.00	-23.14	-1.34	-157.17
112	113	37.19	0.00	-17.08	-9.78	-82.14
113	113	37.19	0.00	-15.27	-0.86	-82.33
113	114	40.82	0.00	-7.55	-18.75	-41.58
114	114	40.82	0.00	-6.32	-12.65	-41.69
114	115	44.46	0.00	-3.49	-26.05	-26.33
115	115	44.46	0.00	-2.60	-21.83	-26.36
115	116	48.10	0.00	-1.79	-12.47	-18.79
116	116	48.10	0.00	-0.86	-7.39	-18.81
116	117	51.73	0.00	-0.79	-5.39	-15.82
117	117	51.73	0.00	0.02	-0.83	-15.83
117	118	55.37	0.00	0.10	1.45	-16.06
118	118	55.37	0.00	0.92	6.02	-16.05
118	119	59.01	0.00	1.05	9.10	-19.52

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	1.94	13.22	-19.49
119	120	62.64	0.00	2.71	22.36	-27.55
120	120	62.64	0.00	3.63	26.71	-27.52
120	121	66.28	0.00	6.45	13.34	-43.26
121	121	66.28	0.00	7.71	19.59	-43.15
121	122	69.91	0.00	15.42	1.77	-84.29
122	122	69.91	0.00	17.28	10.84	-84.10
122	123	73.55	0.00	23.33	2.43	-159.80
123	10123	73.55	0.00	-23.82	12.64	-159.82
123	124	76.66	0.00	-18.45	3.89	-91.82
124	124	76.66	0.00	-16.84	11.78	-92.00
124	125	79.77	0.00	-9.00	-6.20	-50.59
125	125	79.77	0.00	-7.90	-0.62	-50.71
125	126	82.88	0.00	-3.79	-20.71	-35.67
126	126	82.88	0.00	-3.02	-17.00	-35.68
126	127	85.99	0.00	-3.02	-17.00	-26.30
127	127	85.99	0.00	-2.37	-13.73	-26.33
127	128	89.10	0.00	-2.37	-13.73	-18.97
128	128	89.10	0.00	-1.84	-10.89	-19.01
128	129	92.21	0.00	-1.75	-9.47	-13.53
129	129	92.21	0.00	-1.37	-7.28	-13.57
129	130	95.32	0.00	-1.37	-7.28	-9.30
130	130	95.32	0.00	-1.07	-5.37	-9.33
130	131	98.43	0.00	-1.06	-5.07	-6.01
131	131	98.43	0.00	-0.83	-3.46	-6.04
131	132	101.54	0.00	-0.83	-3.46	-3.46
132	132	101.54	0.00	-0.64	-2.01	-3.48
132	133	104.65	0.00	-0.64	-2.01	-1.48
133	133	104.65	0.00	-0.48	-0.65	-1.50
133	134	107.76	0.00	14.49	-4.85	-0.24
301	101	0.00	0.00	-1.08	-0.22	-5.25
301	2001	0.00	0.00	-1.08	-0.22	-4.43
302	102	3.05	0.00	-1.58	-0.42	-8.66
302	2002	3.05	0.00	-1.58	-0.42	-7.47
303	103	6.10	0.00	-1.09	-0.33	-7.13
303	2003	6.10	0.00	-1.09	-0.33	-6.30
304	104	9.15	0.00	-0.74	-0.22	-6.02
304	2004	9.15	0.00	-0.74	-0.22	-5.46
305	105	12.20	0.00	-0.54	-0.09	-5.40
305	2005	12.20	0.00	-0.54	-0.09	-4.99
306	106	15.25	0.00	-0.51	0.04	-5.28
306	2006	15.25	0.00	-0.51	0.04	-4.89
307	107	18.30	0.00	-0.62	0.16	-5.63
307	2007	18.30	0.00	-0.62	0.16	-5.16
308	108	21.35	0.00	-0.85	0.25	-6.38
308	2008	21.35	0.00	-0.85	0.25	-5.73
309	109	24.40	0.00	-1.18	0.30	-7.41
309	2009	24.40	0.00	-1.18	0.30	-6.51
310	110	27.45	0.00	-1.54	0.29	-8.54
310	2010	27.45	0.00	-1.54	0.29	-7.37
311	111	30.50	0.00	-1.85	0.21	-9.51

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-1.85	0.21	-8.11
312	112	33.55	0.00	-2.18	0.02	-10.91
312	2012	33.55	0.00	-2.18	0.02	-9.26
313	113	37.19	0.00	-2.18	-0.24	-11.27
313	2013	37.19	0.00	-2.18	-0.24	-9.62
314	114	40.82	0.00	-1.75	-0.33	-9.90
314	2014	40.82	0.00	-1.75	-0.33	-8.58
315	115	44.46	0.00	-1.27	-0.31	-8.41
315	2015	44.46	0.00	-1.27	-0.31	-7.45
316	116	48.10	0.00	-0.89	-0.21	-7.22
316	2016	48.10	0.00	-0.89	-0.21	-6.54
317	117	51.73	0.00	-0.69	-0.08	-6.57
317	2017	51.73	0.00	-0.69	-0.08	-6.05
318	118	55.37	0.00	-0.69	0.08	-6.59
318	2018	55.37	0.00	-0.69	0.08	-6.07
319	119	59.01	0.00	-0.91	0.22	-7.27
319	2019	59.01	0.00	-0.91	0.22	-6.58
320	120	62.64	0.00	-1.30	0.31	-8.50
320	2020	62.64	0.00	-1.30	0.31	-7.52
321	121	66.28	0.00	-1.78	0.33	-10.02
321	2021	66.28	0.00	-1.78	0.33	-8.68
322	122	69.91	0.00	-2.22	0.23	-11.42
322	2022	69.91	0.00	-2.22	0.23	-9.74
323	123	73.55	0.00	-2.22	-0.03	-11.06
323	2023	73.55	0.00	-2.22	-0.03	-9.38
324	124	76.66	0.00	-1.87	-0.22	-9.61
324	2024	76.66	0.00	-1.87	-0.22	-8.20
325	125	79.77	0.00	-1.55	-0.31	-8.59
325	2025	79.77	0.00	-1.55	-0.31	-7.42
326	126	82.88	0.00	-1.17	-0.32	-7.41
326	2026	82.88	0.00	-1.17	-0.32	-6.52
327	127	85.99	0.00	-0.83	-0.26	-6.33
327	2027	85.99	0.00	-0.83	-0.26	-5.70
328	128	89.10	0.00	-0.58	-0.17	-5.54
328	2028	89.10	0.00	-0.58	-0.17	-5.10
329	129	92.21	0.00	-0.47	-0.04	-5.18
329	2029	92.21	0.00	-0.47	-0.04	-4.83
330	130	95.32	0.00	-0.51	0.09	-5.32
330	2030	95.32	0.00	-0.51	0.09	-4.94
331	131	98.43	0.00	-0.72	0.23	-6.00
331	2031	98.43	0.00	-0.72	0.23	-5.45
332	132	101.54	0.00	-1.10	0.35	-7.18
332	2032	101.54	0.00	-1.10	0.35	-6.35
333	133	104.65	0.00	-1.62	0.44	-8.83
333	2033	104.65	0.00	-1.62	0.44	-7.60
334	134	107.76	0.00	-1.12	0.24	-5.39
334	2034	107.76	0.00	-1.12	0.24	-4.54
201	2001	0.00	0.00	-1.08	-0.22	-4.43
201	1001	0.00	0.00	-0.11	0.00	-0.50
202	2002	3.05	0.00	-1.58	-0.42	-7.47
202	1002	3.05	0.00	-0.28	-0.01	-1.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-1.09	-0.33	-6.30
203	1003	6.10	0.00	-0.73	-0.24	-1.20
204	2004	9.15	0.00	-0.74	-0.22	-5.46
204	1004	9.15	0.00	-0.74	-0.22	-1.91
205	2005	12.20	0.00	-0.54	-0.09	-4.99
205	1005	12.20	0.00	-0.54	-0.09	-2.38
206	2006	15.25	0.00	-0.51	0.04	-4.89
206	1006	15.25	0.00	-0.25	0.02	-2.53
207	2007	18.30	0.00	-0.62	0.16	-5.16
207	1007	18.30	0.00	-0.20	0.13	-2.41
208	2008	21.35	0.00	-0.85	0.25	-5.73
208	1008	21.35	0.00	-0.31	0.22	-2.03
209	2009	24.40	0.00	-1.18	0.30	-6.51
209	1009	24.40	0.00	-0.46	0.29	-1.46
210	2010	27.45	0.00	-1.54	0.29	-7.37
210	1010	27.45	0.00	-0.53	0.29	-0.82
211	2011	30.50	0.00	-1.85	0.21	-8.11
211	1011	30.50	0.00	-0.20	0.03	-0.49
212	2012	33.55	0.00	-2.18	0.02	-9.26
212	1012	33.55	0.00	-0.16	-0.01	-0.53
213	2013	37.19	0.00	-2.18	-0.24	-9.62
213	1013	37.19	0.00	-0.23	-0.04	-0.63
214	2014	40.82	0.00	-1.75	-0.33	-8.58
214	1014	40.82	0.00	-0.58	-0.34	-1.25
215	2015	44.46	0.00	-1.27	-0.31	-7.45
215	1015	44.46	0.00	-0.43	-0.28	-2.07
216	2016	48.10	0.00	-0.89	-0.21	-6.54
216	1016	48.10	0.00	-0.28	-0.17	-2.66
217	2017	51.73	0.00	-0.69	-0.08	-6.05
217	1017	51.73	0.00	-0.19	-0.05	-2.91
218	2018	55.37	0.00	-0.69	0.08	-6.07
218	1018	55.37	0.00	-0.22	0.05	-2.91
219	2019	59.01	0.00	-0.91	0.22	-6.58
219	1019	59.01	0.00	-0.28	0.17	-2.66
220	2020	62.64	0.00	-1.30	0.31	-7.52
220	1020	62.64	0.00	-0.42	0.28	-2.07
221	2021	66.28	0.00	-1.78	0.33	-8.68
221	1021	66.28	0.00	-0.57	0.34	-1.25
222	2022	69.91	0.00	-2.22	0.23	-9.74
222	1022	69.91	0.00	-0.23	0.04	-0.63
223	2023	73.55	0.00	-2.22	-0.03	-9.38
223	1023	73.55	0.00	-0.16	0.01	-0.52
224	2024	76.66	0.00	-1.87	-0.22	-8.20
224	1024	76.66	0.00	-0.14	-0.02	-0.49
225	2025	79.77	0.00	-1.55	-0.31	-7.42
225	1025	79.77	0.00	-0.53	-0.31	-0.83
226	2026	82.88	0.00	-1.17	-0.32	-6.52
226	1026	82.88	0.00	-0.45	-0.30	-1.51
227	2027	85.99	0.00	-0.83	-0.26	-5.70
227	1027	85.99	0.00	-0.29	-0.23	-2.11
228	2028	89.10	0.00	-0.58	-0.17	-5.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.17	-0.13	-2.51
229	2029	92.21	0.00	-0.47	-0.04	-4.83
229	1029	92.21	0.00	-0.27	-0.02	-2.65
230	2030	95.32	0.00	-0.51	0.09	-4.94
230	1030	95.32	0.00	-0.51	0.09	-2.49
231	2031	98.43	0.00	-0.72	0.23	-5.45
231	1031	98.43	0.00	-0.72	0.23	-1.99
232	2032	101.54	0.00	-1.10	0.35	-6.35
232	1032	101.54	0.00	-0.73	0.26	-1.21
233	2033	104.65	0.00	-1.62	0.44	-7.60
233	1033	104.65	0.00	-0.27	0.01	-1.00
234	2034	107.76	0.00	-1.12	0.24	-4.54
234	1034	107.76	0.00	-0.11	0.00	-0.49
401	1001	0.00	0.00	-0.11	0.00	-0.50
401	1	0.00	0.00	-0.11	0.00	-0.41
402	1002	3.05	0.00	-0.28	-0.01	-1.00
402	2	3.05	0.00	-0.23	0.00	-0.81
403	1003	6.10	0.00	-0.73	-0.24	-1.20
403	3	6.10	0.00	-0.37	-0.04	-0.80
404	1004	9.15	0.00	-0.74	-0.22	-1.91
404	4	9.15	0.00	-0.65	-0.21	-1.39
405	1005	12.20	0.00	-0.54	-0.09	-2.38
405	5	12.20	0.00	-0.32	-0.11	-2.06
406	1006	15.25	0.00	-0.25	0.02	-2.53
406	6	15.25	0.00	-0.15	0.01	-2.37
407	1007	18.30	0.00	-0.20	0.13	-2.41
407	7	18.30	0.00	-0.12	0.12	-2.27
408	1008	21.35	0.00	-0.31	0.22	-2.03
408	8	21.35	0.00	-0.22	0.22	-1.84
409	1009	24.40	0.00	-0.46	0.29	-1.46
409	9	24.40	0.00	-0.37	0.28	-1.16
410	1010	27.45	0.00	-0.53	0.29	-0.82
410	10	27.45	0.00	-0.40	0.23	-0.48
411	1011	30.50	0.00	-0.20	0.03	-0.49
411	11	30.50	0.00	-0.09	0.00	-0.40
412	1012	33.55	0.00	-0.16	-0.01	-0.53
412	12	33.55	0.00	-0.12	0.00	-0.44
413	1013	37.19	0.00	-0.23	-0.04	-0.63
413	13	37.19	0.00	-0.14	-0.01	-0.49
414	1014	40.82	0.00	-0.58	-0.34	-1.25
414	14	40.82	0.00	-0.49	-0.31	-0.87
415	1015	44.46	0.00	-0.43	-0.28	-2.07
415	15	44.46	0.00	-0.32	-0.27	-1.78
416	1016	48.10	0.00	-0.28	-0.17	-2.66
416	16	48.10	0.00	-0.14	-0.17	-2.48
417	1017	51.73	0.00	-0.19	-0.05	-2.91
417	17	51.73	0.00	0.05	-0.06	-2.88
418	1018	55.37	0.00	-0.22	0.05	-2.91
418	18	55.37	0.00	0.05	0.06	-2.88
419	1019	59.01	0.00	-0.28	0.17	-2.66
419	19	59.01	0.00	-0.13	0.17	-2.48

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos.Barra102.Mx+ + [0; 1]SCUPASEODE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.42	0.28	-2.07
420	20	62.64	0.00	-0.31	0.27	-1.78
421	1021	66.28	0.00	-0.57	0.34	-1.25
421	21	66.28	0.00	-0.48	0.31	-0.86
422	1022	69.91	0.00	-0.23	0.04	-0.63
422	22	69.91	0.00	-0.14	0.01	-0.48
423	1023	73.55	0.00	-0.16	0.01	-0.52
423	23	73.55	0.00	-0.12	0.00	-0.43
424	1024	76.66	0.00	-0.14	-0.02	-0.49
424	24	76.66	0.00	-0.09	0.00	-0.40
425	1025	79.77	0.00	-0.53	-0.31	-0.83
425	25	79.77	0.00	-0.40	-0.24	-0.48
426	1026	82.88	0.00	-0.45	-0.30	-1.51
426	26	82.88	0.00	-0.36	-0.29	-1.21
427	1027	85.99	0.00	-0.29	-0.23	-2.11
427	27	85.99	0.00	-0.20	-0.23	-1.94
428	1028	89.10	0.00	-0.17	-0.13	-2.51
428	28	89.10	0.00	-0.14	-0.13	-2.40
429	1029	92.21	0.00	-0.27	-0.02	-2.65
429	29	92.21	0.00	-0.14	-0.01	-2.51
430	1030	95.32	0.00	-0.51	0.09	-2.49
430	30	95.32	0.00	-0.32	0.12	-2.19
431	1031	98.43	0.00	-0.72	0.23	-1.99
431	31	98.43	0.00	-0.64	0.22	-1.48
432	1032	101.54	0.00	-0.73	0.26	-1.21
432	32	101.54	0.00	-0.37	0.04	-0.81
433	1033	104.65	0.00	-0.27	0.01	-1.00
433	33	104.65	0.00	-0.23	0.00	-0.80
434	1034	107.76	0.00	-0.11	0.00	-0.49
434	34	107.76	0.00	-0.11	0.00	-0.41

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	14.70	5.33	0.26
1	2	3.05	0.00	18.50	-26.37	-15.15
2	2	3.05	0.00	16.68	-15.51	-14.24
2	3	6.10	0.00	23.38	-44.43	14.60
3	3	6.10	0.00	21.58	-31.53	14.99
3	4	9.15	0.00	31.00	-57.96	60.61
4	4	9.15	0.00	28.90	-43.11	60.94
4	5	12.20	0.00	40.65	-66.78	100.53
5	5	12.20	0.00	38.10	-49.63	100.89
5	6	15.25	0.00	51.83	-70.40	116.26
6	6	15.25	0.00	48.85	-51.09	116.74
6	7	18.30	0.00	64.32	-69.14	93.11
7	7	18.30	0.00	61.08	-48.27	93.77
7	8	21.35	0.00	78.20	-64.21	18.26
8	8	21.35	0.00	74.98	-42.71	19.10
8	9	24.40	0.00	93.77	-57.45	-120.60
9	9	24.40	0.00	90.88	-39.62	-116.64
9	10	27.45	0.00	111.43	-54.24	-332.91
10	10	27.45	0.00	109.25	-45.92	-315.10
10	11	30.50	0.00	131.62	-61.55	-620.77
11	11	30.50	0.00	130.32	-34.58	-618.88
11	12	33.55	0.00	154.50	-52.06	-1025.74
12	10012	33.55	0.00	13.83	16.41	108.16
12	13	37.19	0.00	17.32	-7.21	88.77
13	13	37.19	0.00	15.52	4.83	89.04
13	14	40.82	0.00	21.78	-20.91	105.13
14	14	40.82	0.00	19.68	4.94	116.71
14	15	44.46	0.00	28.66	-21.31	150.93
15	15	44.46	0.00	25.89	1.47	154.43
15	16	48.10	0.00	37.39	-23.72	189.25
16	16	48.10	0.00	33.88	-4.19	189.69
16	17	51.73	0.00	47.69	-27.15	207.99
17	17	51.73	0.00	43.52	-4.40	208.64
17	18	55.37	0.00	59.54	-24.53	193.52
18	18	55.37	0.00	55.00	0.48	194.43
18	19	59.01	0.00	73.23	-16.81	128.06
19	19	59.01	0.00	68.74	9.18	129.22
19	20	62.64	0.00	89.28	-5.87	-7.93
20	20	62.64	0.00	85.35	12.67	-3.24
20	21	66.28	0.00	108.41	-1.30	-233.05
21	21	66.28	0.00	105.41	8.93	-219.83
21	22	69.91	0.00	131.19	-5.52	-565.75
22	22	69.91	0.00	129.38	14.13	-564.70
22	23	73.55	0.00	157.95	-2.42	-1049.65
23	10023	73.55	0.00	6.19	-42.26	95.10
23	24	76.66	0.00	8.96	-58.83	99.89
24	24	76.66	0.00	7.20	-59.36	101.20
24	25	79.77	0.00	11.82	-77.90	135.29
25	25	79.77	0.00	9.86	-56.37	151.91
25	26	82.88	0.00	16.36	-75.99	206.41
26	26	82.88	0.00	13.87	-59.96	209.30

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	22.15	-79.50	274.81
27	27	85.99	0.00	18.84	-63.50	274.80
27	28	89.10	0.00	28.82	-81.81	342.08
28	28	89.10	0.00	24.69	-62.51	342.20
28	29	92.21	0.00	36.34	-78.65	401.22
29	29	92.21	0.00	31.55	-56.51	401.57
29	30	95.32	0.00	44.96	-69.85	440.31
30	30	95.32	0.00	39.86	-45.91	441.00
30	31	98.43	0.00	55.26	-56.24	443.85
31	31	98.43	0.00	50.41	-32.17	444.96
31	32	101.54	0.00	68.19	-39.66	390.93
32	32	101.54	0.00	64.29	-17.59	392.50
32	33	104.65	0.00	84.86	-22.54	253.89
33	33	104.65	0.00	82.75	-3.94	256.31
33	34	107.76	0.00	106.30	-6.06	-1.06
101	101	0.00	0.00	8.32	-0.26	-0.22
101	102	3.05	0.00	8.32	-0.26	-25.60
102	102	3.05	0.00	8.93	-2.59	-26.02
102	103	6.10	0.00	8.93	-2.59	-53.27
103	103	6.10	0.00	9.03	-6.66	-52.37
103	104	9.15	0.00	9.03	-6.66	-79.92
104	104	9.15	0.00	8.74	-12.62	-80.32
104	105	12.20	0.00	8.74	-12.62	-106.98
105	105	12.20	0.00	8.64	-4.09	-45.05
105	106	15.25	0.00	8.64	-4.09	-71.39
106	106	15.25	0.00	11.61	14.65	73.03
106	107	18.30	0.00	11.61	14.65	37.60
107	107	18.30	0.00	18.21	24.68	105.53
107	108	21.35	0.00	18.21	24.68	49.99
108	108	21.35	0.00	24.29	28.19	52.96
108	109	24.40	0.00	24.29	28.19	-21.13
109	109	24.40	0.00	29.28	27.60	-21.20
109	110	27.45	0.00	29.28	27.60	-110.49
110	110	27.45	0.00	33.73	67.10	15.83
110	111	30.50	0.00	33.73	67.10	-87.06
111	111	30.50	0.00	37.43	72.80	-60.04
111	112	33.55	0.00	37.43	72.80	-174.19
112	10112	33.55	0.00	10.58	58.73	-32.28
112	113	37.19	0.00	10.58	58.73	-70.75
113	113	37.19	0.00	9.74	39.96	-59.33
113	114	40.82	0.00	9.74	39.96	-94.75
114	114	40.82	0.00	8.30	11.44	-62.91
114	115	44.46	0.00	8.30	11.44	-93.10
115	115	44.46	0.00	7.80	-25.54	-29.64
115	116	48.10	0.00	7.80	-25.54	-58.01
116	116	48.10	0.00	7.18	-34.20	-58.28
116	117	51.73	0.00	7.18	-34.20	-84.37
117	117	51.73	0.00	9.21	-25.46	57.52
117	118	55.37	0.00	9.21	-25.46	24.03
118	118	55.37	0.00	15.79	-27.11	212.42
118	119	59.01	0.00	15.79	-27.11	155.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	24.43	-13.58	154.04
119	120	62.64	0.00	24.43	-13.58	65.22
120	120	62.64	0.00	31.58	25.26	131.68
120	121	66.28	0.00	31.58	25.26	16.85
121	121	66.28	0.00	38.17	50.40	49.72
121	122	69.91	0.00	38.17	50.40	-89.07
122	122	69.91	0.00	42.74	60.92	-77.62
122	123	73.55	0.00	42.74	60.92	-233.03
123	10123	73.55	0.00	2.06	65.50	-93.20
123	124	76.66	0.00	2.06	65.50	-99.60
124	124	76.66	0.00	1.38	51.58	-79.67
124	125	79.77	0.00	1.38	51.58	-83.96
125	125	79.77	0.00	0.86	8.20	43.19
125	126	82.88	0.00	0.86	8.20	40.52
126	126	82.88	0.00	1.19	9.48	46.92
126	127	85.99	0.00	1.19	9.48	43.24
127	127	85.99	0.00	1.53	9.32	46.87
127	128	89.10	0.00	1.53	9.32	42.12
128	128	89.10	0.00	2.18	5.20	113.80
128	129	92.21	0.00	2.18	5.20	107.01
129	129	92.21	0.00	6.95	-6.66	259.18
129	130	95.32	0.00	6.95	-6.66	237.56
130	130	95.32	0.00	14.78	-8.35	302.16
130	131	98.43	0.00	14.78	-8.35	256.20
131	131	98.43	0.00	22.11	2.68	255.01
131	132	101.54	0.00	22.11	2.68	186.25
132	132	101.54	0.00	27.75	7.74	185.95
132	133	104.65	0.00	27.75	7.74	99.65
133	133	104.65	0.00	31.09	5.43	97.73
133	134	107.76	0.00	31.09	5.43	1.02
301	101	0.00	0.00	0.65	0.74	4.67
301	2001	0.00	0.00	0.65	0.74	4.18
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.11	-0.17	2.36
303	2003	6.10	0.00	0.11	-0.17	2.27
304	104	9.15	0.00	0.43	-0.30	4.81
304	2004	9.15	0.00	0.43	-0.30	4.48
305	105	12.20	0.00	0.84	-0.30	6.78
305	2005	12.20	0.00	0.84	-0.30	6.15
306	106	15.25	0.00	1.21	-0.23	8.05
306	2006	15.25	0.00	1.21	-0.23	7.14
307	107	18.30	0.00	1.49	-0.13	9.10
307	2007	18.30	0.00	1.49	-0.13	7.97
308	108	21.35	0.00	1.66	0.01	9.80
308	2008	21.35	0.00	1.66	0.01	8.54
309	109	24.40	0.00	1.66	0.21	9.98
309	2009	24.40	0.00	1.66	0.21	8.73
310	110	27.45	0.00	1.46	0.38	8.82
310	2010	27.45	0.00	1.46	0.38	7.71
311	111	30.50	0.00	1.01	0.53	6.87

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.VY+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	1.01	0.53	6.11
312	112	33.55	0.00	0.79	-0.06	8.89
312	2012	33.55	0.00	0.79	-0.06	8.29
313	113	37.19	0.00	1.21	-0.57	7.89
313	2013	37.19	0.00	1.21	-0.57	6.98
314	114	40.82	0.00	1.80	-0.46	12.45
314	2014	40.82	0.00	1.80	-0.46	11.09
315	115	44.46	0.00	2.20	-0.35	15.31
315	2015	44.46	0.00	2.20	-0.35	13.65
316	116	48.10	0.00	2.45	-0.21	16.42
316	2016	48.10	0.00	2.45	-0.21	14.57
317	117	51.73	0.00	2.56	-0.07	16.70
317	2017	51.73	0.00	2.56	-0.07	14.76
318	118	55.37	0.00	2.58	0.05	16.76
318	2018	55.37	0.00	2.58	0.05	14.81
319	119	59.01	0.00	2.50	0.20	16.60
319	2019	59.01	0.00	2.50	0.20	14.71
320	120	62.64	0.00	2.28	0.34	15.61
320	2020	62.64	0.00	2.28	0.34	13.89
321	121	66.28	0.00	1.90	0.47	12.83
321	2021	66.28	0.00	1.90	0.47	11.39
322	122	69.91	0.00	1.31	0.58	8.27
322	2022	69.91	0.00	1.31	0.58	7.28
323	123	73.55	0.00	0.87	0.08	9.18
323	2023	73.55	0.00	0.87	0.08	8.53
324	124	76.66	0.00	1.02	-0.53	6.91
324	2024	76.66	0.00	1.02	-0.53	6.14
325	125	79.77	0.00	1.48	-0.38	8.88
325	2025	79.77	0.00	1.48	-0.38	7.76
326	126	82.88	0.00	1.68	-0.20	10.04
326	2026	82.88	0.00	1.68	-0.20	8.77
327	127	85.99	0.00	1.68	-0.01	9.84
327	2027	85.99	0.00	1.68	-0.01	8.57
328	128	89.10	0.00	1.50	0.13	9.11
328	2028	89.10	0.00	1.50	0.13	7.97
329	129	92.21	0.00	1.21	0.23	8.04
329	2029	92.21	0.00	1.21	0.23	7.13
330	130	95.32	0.00	0.84	0.30	6.76
330	2030	95.32	0.00	0.84	0.30	6.12
331	131	98.43	0.00	0.43	0.29	4.77
331	2031	98.43	0.00	0.43	0.29	4.45
332	132	101.54	0.00	0.10	0.17	2.33
332	2032	101.54	0.00	0.10	0.17	2.25
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.73	-0.76	4.91
334	2034	107.76	0.00	0.73	-0.76	4.35
201	2001	0.00	0.00	0.65	0.74	4.18
201	1001	0.00	0.00	0.65	0.74	1.08
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.11	-0.17	2.27
203	1003	6.10	0.00	0.11	-0.17	1.74
204	2004	9.15	0.00	0.43	-0.30	4.48
204	1004	9.15	0.00	0.43	-0.30	2.40
205	2005	12.20	0.00	0.84	-0.30	6.15
205	1005	12.20	0.00	0.84	-0.30	2.13
206	2006	15.25	0.00	1.21	-0.23	7.14
206	1006	15.25	0.00	1.21	-0.23	1.36
207	2007	18.30	0.00	1.49	-0.13	7.97
207	1007	18.30	0.00	1.49	-0.13	0.81
208	2008	21.35	0.00	1.66	0.01	8.54
208	1008	21.35	0.00	1.66	0.01	0.57
209	2009	24.40	0.00	1.66	0.21	8.73
209	1009	24.40	0.00	1.66	0.21	0.77
210	2010	27.45	0.00	1.46	0.38	7.71
210	1010	27.45	0.00	1.46	0.38	0.72
211	2011	30.50	0.00	1.01	0.53	6.11
211	1011	30.50	0.00	1.01	0.53	1.29
212	2012	33.55	0.00	0.79	-0.06	8.29
212	1012	33.55	0.00	0.79	-0.06	4.50
213	2013	37.19	0.00	1.21	-0.57	6.98
213	1013	37.19	0.00	1.21	-0.57	1.20
214	2014	40.82	0.00	1.80	-0.46	11.09
214	1014	40.82	0.00	1.80	-0.46	2.48
215	2015	44.46	0.00	2.20	-0.35	13.65
215	1015	44.46	0.00	2.20	-0.35	3.14
216	2016	48.10	0.00	2.45	-0.21	14.57
216	1016	48.10	0.00	2.45	-0.21	2.85
217	2017	51.73	0.00	2.56	-0.07	14.76
217	1017	51.73	0.00	2.56	-0.07	2.51
218	2018	55.37	0.00	2.58	0.05	14.81
218	1018	55.37	0.00	2.58	0.05	2.48
219	2019	59.01	0.00	2.50	0.20	14.71
219	1019	59.01	0.00	2.50	0.20	2.74
220	2020	62.64	0.00	2.28	0.34	13.89
220	1020	62.64	0.00	2.28	0.34	2.98
221	2021	66.28	0.00	1.90	0.47	11.39
221	1021	66.28	0.00	1.90	0.47	2.29
222	2022	69.91	0.00	1.31	0.58	7.28
222	1022	69.91	0.00	1.31	0.58	1.03
223	2023	73.55	0.00	0.87	0.08	8.53
223	1023	73.55	0.00	0.87	0.08	4.38
224	2024	76.66	0.00	1.02	-0.53	6.14
224	1024	76.66	0.00	1.02	-0.53	1.26
225	2025	79.77	0.00	1.48	-0.38	7.76
225	1025	79.77	0.00	1.48	-0.38	0.67
226	2026	82.88	0.00	1.68	-0.20	8.77
226	1026	82.88	0.00	1.68	-0.20	0.71
227	2027	85.99	0.00	1.68	-0.01	8.57
227	1027	85.99	0.00	1.68	-0.01	0.52
228	2028	89.10	0.00	1.50	0.13	7.97

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.VY+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	1.50	0.13	0.78
229	2029	92.21	0.00	1.21	0.23	7.13
229	1029	92.21	0.00	1.21	0.23	1.35
230	2030	95.32	0.00	0.83	0.30	6.12
230	1030	95.32	0.00	0.83	0.30	2.13
231	2031	98.43	0.00	0.43	0.29	4.45
231	1031	98.43	0.00	0.43	0.29	2.40
232	2032	101.54	0.00	0.10	0.17	2.25
232	1032	101.54	0.00	0.10	0.17	1.74
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	0.73	-0.76	4.35
234	1034	107.76	0.00	0.73	-0.76	0.84
401	1001	0.00	0.00	0.65	0.74	1.08
401	1	0.00	0.00	0.65	0.74	0.59
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.11	-0.17	1.74
403	3	6.10	0.00	0.11	-0.17	1.65
404	1004	9.15	0.00	0.43	-0.30	2.40
404	4	9.15	0.00	0.43	-0.30	2.07
405	1005	12.20	0.00	0.84	-0.30	2.13
405	5	12.20	0.00	0.84	-0.30	1.50
406	1006	15.25	0.00	1.21	-0.23	1.37
406	6	15.25	0.00	1.21	-0.23	0.45
407	1007	18.30	0.00	1.49	-0.13	0.81
407	7	18.30	0.00	1.49	-0.13	-0.32
408	1008	21.35	0.00	1.66	0.01	0.57
408	8	21.35	0.00	1.66	0.01	-0.69
409	1009	24.40	0.00	1.66	0.21	0.77
409	9	24.40	0.00	1.66	0.21	-0.49
410	1010	27.45	0.00	1.46	0.38	0.72
410	10	27.45	0.00	1.46	0.38	-0.39
411	1011	30.50	0.00	1.01	0.53	1.29
411	11	30.50	0.00	1.01	0.53	0.53
412	1012	33.55	0.00	0.79	-0.06	4.50
412	12	33.55	0.00	0.79	-0.06	3.90
413	1013	37.19	0.00	1.21	-0.57	1.20
413	13	37.19	0.00	1.21	-0.57	0.28
414	1014	40.82	0.00	1.80	-0.46	2.48
414	14	40.82	0.00	1.80	-0.46	1.12
415	1015	44.46	0.00	2.20	-0.35	3.14
415	15	44.46	0.00	2.20	-0.35	1.48
416	1016	48.10	0.00	2.45	-0.21	2.85
416	16	48.10	0.00	2.45	-0.21	1.00
417	1017	51.73	0.00	2.56	-0.07	2.51
417	17	51.73	0.00	2.56	-0.07	0.58
418	1018	55.37	0.00	2.58	0.05	2.48
418	18	55.37	0.00	2.58	0.05	0.53
419	1019	59.01	0.00	2.50	0.20	2.74
419	19	59.01	0.00	2.50	0.20	0.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	2.28	0.34	2.98
420	20	62.64	0.00	2.28	0.34	1.26
421	1021	66.28	0.00	1.90	0.47	2.29
421	21	66.28	0.00	1.90	0.47	0.86
422	1022	69.91	0.00	1.31	0.58	1.03
422	22	69.91	0.00	1.31	0.58	0.04
423	1023	73.55	0.00	0.87	0.08	4.38
423	23	73.55	0.00	0.87	0.08	3.72
424	1024	76.66	0.00	1.02	-0.53	1.26
424	24	76.66	0.00	1.02	-0.53	0.49
425	1025	79.77	0.00	1.48	-0.38	0.67
425	25	79.77	0.00	1.48	-0.38	-0.45
426	1026	82.88	0.00	1.68	-0.20	0.71
426	26	82.88	0.00	1.68	-0.20	-0.56
427	1027	85.99	0.00	1.68	-0.01	0.52
427	27	85.99	0.00	1.68	-0.01	-0.75
428	1028	89.10	0.00	1.50	0.13	0.78
428	28	89.10	0.00	1.50	0.13	-0.35
429	1029	92.21	0.00	1.21	0.23	1.35
429	29	92.21	0.00	1.21	0.23	0.43
430	1030	95.32	0.00	0.83	0.30	2.13
430	30	95.32	0.00	0.83	0.30	1.49
431	1031	98.43	0.00	0.43	0.29	2.40
431	31	98.43	0.00	0.43	0.29	2.08
432	1032	101.54	0.00	0.10	0.17	1.74
432	32	101.54	0.00	0.10	0.17	1.67
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.73	-0.76	0.84
434	34	107.76	0.00	0.73	-0.76	0.28

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-76.62	11.70	-0.50
1	2	3.05	0.00	-53.51	9.64	162.73
2	2	3.05	0.00	-70.19	35.00	202.42
2	3	6.10	0.00	-49.99	30.16	295.77
3	3	6.10	0.00	-54.04	57.57	294.70
3	4	9.15	0.00	-36.56	50.24	307.07
4	4	9.15	0.00	-40.99	77.89	306.40
4	5	12.20	0.00	-25.84	67.80	262.65
5	5	12.20	0.00	-30.03	93.95	262.32
5	6	15.25	0.00	-16.86	80.95	181.32
6	6	15.25	0.00	-20.37	104.31	181.22
6	7	18.30	0.00	-8.94	88.60	76.98
7	7	18.30	0.00	-11.56	108.55	76.98
7	8	21.35	0.00	-1.78	90.73	-39.56
8	8	21.35	0.00	-3.49	107.32	-39.58
8	9	24.40	0.00	4.62	88.29	-158.97
9	9	24.40	0.00	3.62	102.22	-159.14
9	10	27.45	0.00	9.98	83.08	-272.14
10	10	27.45	0.00	6.11	95.74	-215.16
10	11	30.50	0.00	10.63	77.60	-302.35
11	11	30.50	0.00	6.69	90.40	-246.47
11	12	33.55	0.00	9.41	74.13	-298.51
12	10012	33.55	0.00	-112.41	89.72	-365.05
12	13	37.19	0.00	-83.82	73.09	-45.51
13	13	37.19	0.00	-98.20	94.88	-84.96
13	14	40.82	0.00	-72.40	80.37	141.32
14	14	40.82	0.00	-77.12	106.31	139.87
14	15	44.46	0.00	-54.04	92.30	256.24
15	15	44.46	0.00	-59.54	120.40	255.15
15	16	48.10	0.00	-38.97	105.33	284.39
16	16	48.10	0.00	-44.50	133.28	283.70
16	17	51.73	0.00	-26.24	115.98	245.71
17	17	51.73	0.00	-31.15	141.72	245.39
17	18	55.37	0.00	-15.10	121.59	157.22
18	18	55.37	0.00	-18.91	143.63	157.16
18	19	59.01	0.00	-5.06	120.66	33.96
19	19	59.01	0.00	-7.53	138.25	34.00
19	20	62.64	0.00	4.01	113.05	-109.75
20	20	62.64	0.00	2.80	126.40	-109.79
20	21	66.28	0.00	11.82	100.11	-258.84
21	21	66.28	0.00	11.45	110.55	-259.18
21	22	69.91	0.00	17.74	84.75	-396.52
22	22	69.91	0.00	28.47	94.71	-434.61
22	23	73.55	0.00	31.97	71.01	-581.96
23	10023	73.55	0.00	-140.92	82.80	-647.96
23	24	76.66	0.00	-116.26	64.94	-276.41
24	24	76.66	0.00	-115.42	78.83	-221.93
24	25	79.77	0.00	-92.62	62.94	37.91
25	25	79.77	0.00	-92.98	80.49	93.11
25	26	82.88	0.00	-72.05	65.69	254.47
26	26	82.88	0.00	-76.50	85.97	253.23

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-57.36	71.09	339.86
27	27	85.99	0.00	-62.24	92.30	338.95
27	28	89.10	0.00	-44.78	76.19	363.96
28	28	89.10	0.00	-49.57	96.61	363.40
28	29	92.21	0.00	-33.79	78.32	339.11
29	29	92.21	0.00	-38.04	96.48	338.85
29	30	95.32	0.00	-24.02	75.39	277.65
30	30	95.32	0.00	-27.44	90.24	277.62
30	31	98.43	0.00	-15.42	66.15	193.49
31	31	98.43	0.00	-17.90	77.24	193.57
31	32	101.54	0.00	-8.25	50.31	103.83
32	32	101.54	0.00	-9.86	57.75	103.90
32	33	104.65	0.00	-3.00	28.27	30.57
33	33	104.65	0.00	9.85	32.52	72.99
33	34	107.76	0.00	13.73	0.22	-0.28
101	101	0.00	0.00	-1.91	1.47	-0.07
101	102	3.05	0.00	-1.91	1.47	5.75
102	102	3.05	0.00	-4.99	4.13	23.76
102	103	6.10	0.00	-4.99	4.13	38.99
103	103	6.10	0.00	-6.24	8.52	66.52
103	104	9.15	0.00	-6.24	8.52	85.56
104	104	9.15	0.00	-6.30	17.17	142.35
104	105	12.20	0.00	-6.30	17.17	161.55
105	105	12.20	0.00	-2.61	30.89	217.91
105	106	15.25	0.00	-2.61	30.89	225.87
106	106	15.25	0.00	4.38	47.85	263.19
106	107	18.30	0.00	4.38	47.85	249.84
107	107	18.30	0.00	12.39	64.66	249.37
107	108	21.35	0.00	12.39	64.66	211.57
108	108	21.35	0.00	20.20	79.24	217.47
108	109	24.40	0.00	20.20	79.24	155.86
109	109	24.40	0.00	26.46	90.48	154.58
109	110	27.45	0.00	26.46	90.48	73.89
110	110	27.45	0.00	31.07	96.95	72.40
110	111	30.50	0.00	31.07	96.95	-22.37
111	111	30.50	0.00	33.88	98.14	-23.87
111	112	33.55	0.00	33.88	98.14	-127.19
112	10112	33.55	0.00	0.50	94.07	-128.52
112	113	37.19	0.00	0.50	94.07	-130.34
113	113	37.19	0.00	-1.59	85.72	-134.00
113	114	40.82	0.00	-1.59	85.72	-128.21
114	114	40.82	0.00	-2.20	75.70	-128.64
114	115	44.46	0.00	-2.20	75.70	-120.64
115	115	44.46	0.00	-4.12	65.84	-104.38
115	116	48.10	0.00	-4.12	65.84	-89.41
116	116	48.10	0.00	-5.29	58.77	-23.03
116	117	51.73	0.00	-5.29	58.77	-3.78
117	117	51.73	0.00	-2.67	58.65	41.06
117	118	55.37	0.00	-2.67	58.65	50.78
118	118	55.37	0.00	3.48	66.39	141.74
118	119	59.01	0.00	3.48	66.39	129.07

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	12.73	78.86	195.10
119	120	62.64	0.00	12.73	78.86	148.80
120	120	62.64	0.00	21.46	90.07	164.18
120	121	66.28	0.00	21.46	90.07	86.14
121	121	66.28	0.00	27.28	96.36	84.58
121	122	69.91	0.00	27.28	96.36	-14.62
122	122	69.91	0.00	33.12	96.37	-19.03
122	123	73.55	0.00	33.12	96.37	-139.45
123	10123	73.55	0.00	-1.42	90.85	-140.72
123	124	76.66	0.00	-1.42	90.85	-136.31
124	124	76.66	0.00	-1.17	82.35	-137.11
124	125	79.77	0.00	-1.17	82.35	-133.46
125	125	79.77	0.00	-1.72	71.84	-133.95
125	126	82.88	0.00	-1.72	71.84	-128.61
126	126	82.88	0.00	-2.68	60.39	-128.86
126	127	85.99	0.00	-2.68	60.39	-120.52
127	127	85.99	0.00	-4.08	49.16	-113.50
127	128	89.10	0.00	-4.08	49.16	-100.81
128	128	89.10	0.00	-4.87	38.23	-100.73
128	129	92.21	0.00	-4.87	38.23	-85.57
129	129	92.21	0.00	-4.21	28.47	-46.39
129	130	95.32	0.00	-4.21	28.47	-33.31
130	130	95.32	0.00	-0.27	21.66	25.62
130	131	98.43	0.00	-0.27	21.66	26.46
131	131	98.43	0.00	6.83	17.88	85.52
131	132	101.54	0.00	6.83	17.88	64.27
132	132	101.54	0.00	13.82	14.45	91.73
132	133	104.65	0.00	13.82	14.45	48.74
133	133	104.65	0.00	20.86	7.16	65.76
133	134	107.76	0.00	20.86	7.16	0.88
301	101	0.00	0.00	-0.15	1.02	5.03
301	2001	0.00	0.00	-0.15	1.02	5.15
302	102	3.05	0.00	-2.96	1.92	1.69
302	2002	3.05	0.00	-2.96	1.92	3.93
303	103	6.10	0.00	-4.53	1.61	-4.22
303	2003	6.10	0.00	-4.53	1.61	-0.79
304	104	9.15	0.00	-6.39	1.17	-10.07
304	2004	9.15	0.00	-6.39	1.17	-5.24
305	105	12.20	0.00	-6.11	0.69	-10.42
305	2005	12.20	0.00	-6.11	0.69	-5.80
306	106	15.25	0.00	-4.66	0.34	-7.36
306	2006	15.25	0.00	-4.66	0.34	-3.83
307	107	18.30	0.00	-2.92	0.15	-2.79
307	2007	18.30	0.00	-2.92	0.15	-0.58
308	108	21.35	0.00	-1.10	0.11	4.57
308	2008	21.35	0.00	-1.10	0.11	5.40
309	109	24.40	0.00	0.57	0.28	10.35
309	2009	24.40	0.00	0.57	0.28	9.92
310	110	27.45	0.00	0.38	0.54	9.00
310	2010	27.45	0.00	0.38	0.54	8.71
311	111	30.50	0.00	0.19	0.89	7.32

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.19	0.89	7.17
312	112	33.55	0.00	-1.17	1.44	3.99
312	2012	33.55	0.00	-1.17	1.44	4.88
313	113	37.19	0.00	-3.77	1.94	-3.13
313	2013	37.19	0.00	-3.77	1.94	-0.29
314	114	40.82	0.00	-5.56	1.88	-10.05
314	2014	40.82	0.00	-5.56	1.88	-5.85
315	115	44.46	0.00	-7.96	1.54	-17.31
315	2015	44.46	0.00	-7.96	1.54	-11.29
316	116	48.10	0.00	-6.03	1.21	-7.35
316	2016	48.10	0.00	-6.03	1.21	-2.79
317	117	51.73	0.00	-4.59	0.91	-3.85
317	2017	51.73	0.00	-4.59	0.91	-0.39
318	118	55.37	0.00	-4.24	0.65	-3.80
318	2018	55.37	0.00	-4.24	0.65	-0.60
319	119	59.01	0.00	-2.09	0.48	1.94
319	2019	59.01	0.00	-2.09	0.48	3.52
320	120	62.64	0.00	1.24	0.48	16.39
320	2020	62.64	0.00	1.24	0.48	15.45
321	121	66.28	0.00	0.46	0.76	14.25
321	2021	66.28	0.00	0.46	0.76	13.91
322	122	69.91	0.00	0.15	1.16	12.00
322	2022	69.91	0.00	0.15	1.16	11.89
323	123	73.55	0.00	-1.59	1.54	5.97
323	2023	73.55	0.00	-1.59	1.54	7.17
324	124	76.66	0.00	-3.27	1.64	0.01
324	2024	76.66	0.00	-3.27	1.64	2.48
325	125	79.77	0.00	-4.58	1.60	-5.20
325	2025	79.77	0.00	-4.58	1.60	-1.74
326	126	82.88	0.00	-6.01	1.36	-10.67
326	2026	82.88	0.00	-6.01	1.36	-6.13
327	127	85.99	0.00	-5.56	1.01	-8.48
327	2027	85.99	0.00	-5.56	1.01	-4.28
328	128	89.10	0.00	-4.53	0.72	-3.62
328	2028	89.10	0.00	-4.53	0.72	-0.20
329	129	92.21	0.00	-3.11	0.50	-0.09
329	2029	92.21	0.00	-3.11	0.50	2.26
330	130	95.32	0.00	-1.45	0.40	3.58
330	2030	95.32	0.00	-1.45	0.40	4.68
331	131	98.43	0.00	-0.45	0.43	5.47
331	2031	98.43	0.00	-0.45	0.43	5.81
332	132	101.54	0.00	-1.12	0.48	3.36
332	2032	101.54	0.00	-1.12	0.48	4.21
333	133	104.65	0.00	-1.02	0.50	2.69
333	2033	104.65	0.00	-1.02	0.50	3.46
334	134	107.76	0.00	-0.85	0.26	0.27
334	2034	107.76	0.00	-0.85	0.26	0.91
201	2001	0.00	0.00	-0.15	1.02	5.15
201	1001	0.00	0.00	-0.15	1.02	5.88
202	2002	3.05	0.00	-2.96	1.92	3.93
202	1002	3.05	0.00	-2.96	1.92	18.09

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-4.53	1.61	-0.79
203	1003	6.10	0.00	-4.53	1.61	20.89
204	2004	9.15	0.00	-6.39	1.17	-5.24
204	1004	9.15	0.00	-6.39	1.17	25.33
205	2005	12.20	0.00	-6.11	0.69	-5.80
205	1005	12.20	0.00	-6.11	0.69	23.45
206	2006	15.25	0.00	-4.66	0.34	-3.83
206	1006	15.25	0.00	-4.66	0.34	18.47
207	2007	18.30	0.00	-2.92	0.15	-0.58
207	1007	18.30	0.00	-2.92	0.15	13.41
208	2008	21.35	0.00	-1.10	0.11	5.40
208	1008	21.35	0.00	-1.10	0.11	10.68
209	2009	24.40	0.00	0.57	0.28	9.92
209	1009	24.40	0.00	0.57	0.28	7.18
210	2010	27.45	0.00	0.38	0.54	8.71
210	1010	27.45	0.00	0.38	0.54	6.88
211	2011	30.50	0.00	0.19	0.89	7.17
211	1011	30.50	0.00	0.19	0.89	6.24
212	2012	33.55	0.00	-1.17	1.44	4.88
212	1012	33.55	0.00	-1.17	1.44	10.46
213	2013	37.19	0.00	-3.77	1.94	-0.29
213	1013	37.19	0.00	-3.77	1.94	17.74
214	2014	40.82	0.00	-5.56	1.88	-5.85
214	1014	40.82	0.00	-5.56	1.88	20.76
215	2015	44.46	0.00	-7.96	1.54	-11.29
215	1015	44.46	0.00	-7.96	1.54	26.84
216	2016	48.10	0.00	-6.03	1.21	-2.79
216	1016	48.10	0.00	-6.03	1.21	26.07
217	2017	51.73	0.00	-4.59	0.91	-0.39
217	1017	51.73	0.00	-4.59	0.91	21.58
218	2018	55.37	0.00	-4.24	0.65	-0.60
218	1018	55.37	0.00	-4.24	0.65	19.71
219	2019	59.01	0.00	-2.09	0.48	3.52
219	1019	59.01	0.00	-2.09	0.48	13.53
220	2020	62.64	0.00	1.24	0.48	15.45
220	1020	62.64	0.00	1.24	0.48	9.50
221	2021	66.28	0.00	0.46	0.76	13.91
221	1021	66.28	0.00	0.46	0.76	11.71
222	2022	69.91	0.00	0.15	1.16	11.89
222	1022	69.91	0.00	0.15	1.16	11.19
223	2023	73.55	0.00	-1.59	1.54	7.17
223	1023	73.55	0.00	-1.59	1.54	14.78
224	2024	76.66	0.00	-3.27	1.64	2.48
224	1024	76.66	0.00	-3.27	1.64	18.14
225	2025	79.77	0.00	-4.58	1.60	-1.74
225	1025	79.77	0.00	-4.58	1.60	20.19
226	2026	82.88	0.00	-6.01	1.36	-6.13
226	1026	82.88	0.00	-6.01	1.36	22.66
227	2027	85.99	0.00	-5.56	1.01	-4.28
227	1027	85.99	0.00	-5.56	1.01	22.33
228	2028	89.10	0.00	-4.53	0.72	-0.20

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-4.53	0.72	21.47
229	2029	92.21	0.00	-3.11	0.50	2.26
229	1029	92.21	0.00	-3.11	0.50	17.13
230	2030	95.32	0.00	-1.45	0.40	4.68
230	1030	95.32	0.00	-1.45	0.40	11.62
231	2031	98.43	0.00	-0.45	0.43	5.81
231	1031	98.43	0.00	-0.45	0.43	7.97
232	2032	101.54	0.00	-1.12	0.48	4.21
232	1032	101.54	0.00	-1.12	0.48	9.57
233	2033	104.65	0.00	-1.02	0.50	3.46
233	1033	104.65	0.00	-1.02	0.50	8.32
234	2034	107.76	0.00	-0.85	0.26	0.91
234	1034	107.76	0.00	-0.85	0.26	4.96
401	1001	0.00	0.00	-0.15	1.02	5.88
401	1	0.00	0.00	-0.15	1.02	6.00
402	1002	3.05	0.00	-2.96	1.92	18.09
402	2	3.05	0.00	-2.96	1.92	20.33
403	1003	6.10	0.00	-4.53	1.61	20.89
403	3	6.10	0.00	-4.53	1.61	24.32
404	1004	9.15	0.00	-6.39	1.17	25.33
404	4	9.15	0.00	-6.39	1.17	30.16
405	1005	12.20	0.00	-6.11	0.69	23.45
405	5	12.20	0.00	-6.11	0.69	28.07
406	1006	15.25	0.00	-4.66	0.34	18.47
406	6	15.25	0.00	-4.66	0.34	22.00
407	1007	18.30	0.00	-2.92	0.15	13.41
407	7	18.30	0.00	-2.92	0.15	15.62
408	1008	21.35	0.00	-1.10	0.11	10.68
408	8	21.35	0.00	-1.10	0.11	11.51
409	1009	24.40	0.00	0.57	0.28	7.18
409	9	24.40	0.00	0.57	0.28	6.74
410	1010	27.45	0.00	0.38	0.54	6.88
410	10	27.45	0.00	0.38	0.54	6.59
411	1011	30.50	0.00	0.19	0.89	6.24
411	11	30.50	0.00	0.19	0.89	6.10
412	1012	33.55	0.00	-1.17	1.44	10.46
412	12	33.55	0.00	-1.17	1.44	11.34
413	1013	37.19	0.00	-3.77	1.94	17.74
413	13	37.19	0.00	-3.77	1.94	20.59
414	1014	40.82	0.00	-5.56	1.88	20.76
414	14	40.82	0.00	-5.56	1.88	24.96
415	1015	44.46	0.00	-7.96	1.54	26.83
415	15	44.46	0.00	-7.96	1.54	32.85
416	1016	48.10	0.00	-6.03	1.21	26.07
416	16	48.10	0.00	-6.03	1.21	30.63
417	1017	51.73	0.00	-4.59	0.91	21.58
417	17	51.73	0.00	-4.59	0.91	25.05
418	1018	55.37	0.00	-4.24	0.65	19.71
418	18	55.37	0.00	-4.24	0.65	22.92
419	1019	59.01	0.00	-2.09	0.48	13.53
419	19	59.01	0.00	-2.09	0.48	15.11

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	1.24	0.48	9.50
420	20	62.64	0.00	1.24	0.48	8.56
421	1021	66.28	0.00	0.46	0.76	11.71
421	21	66.28	0.00	0.46	0.76	11.36
422	1022	69.91	0.00	0.15	1.16	11.19
422	22	69.91	0.00	0.15	1.16	11.07
423	1023	73.55	0.00	-1.59	1.54	14.78
423	23	73.55	0.00	-1.59	1.54	15.98
424	1024	76.66	0.00	-3.27	1.64	18.14
424	24	76.66	0.00	-3.27	1.64	20.62
425	1025	79.77	0.00	-4.58	1.60	20.19
425	25	79.77	0.00	-4.58	1.60	23.65
426	1026	82.88	0.00	-6.01	1.36	22.66
426	26	82.88	0.00	-6.01	1.36	27.20
427	1027	85.99	0.00	-5.56	1.01	22.33
427	27	85.99	0.00	-5.56	1.01	26.54
428	1028	89.10	0.00	-4.53	0.72	21.47
428	28	89.10	0.00	-4.53	0.72	24.89
429	1029	92.21	0.00	-3.11	0.50	17.13
429	29	92.21	0.00	-3.11	0.50	19.48
430	1030	95.32	0.00	-1.45	0.40	11.62
430	30	95.32	0.00	-1.45	0.40	12.72
431	1031	98.43	0.00	-0.45	0.43	7.97
431	31	98.43	0.00	-0.45	0.43	8.31
432	1032	101.54	0.00	-1.12	0.48	9.57
432	32	101.54	0.00	-1.12	0.48	10.41
433	1033	104.65	0.00	-1.02	0.50	8.32
433	33	104.65	0.00	-1.02	0.50	9.09
434	1034	107.76	0.00	-0.85	0.26	4.96
434	34	107.76	0.00	-0.85	0.26	5.60

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	14.66	5.58	0.26
1	2	3.05	0.00	-77.99	-27.52	277.88
2	2	3.05	0.00	-80.98	-6.70	275.96
2	3	6.10	0.00	-54.08	-40.46	481.91
3	3	6.10	0.00	-59.32	-12.59	480.32
3	4	9.15	0.00	-32.58	-43.63	620.32
4	4	9.15	0.00	-39.69	-9.32	619.18
4	5	12.20	0.00	-12.79	-43.09	699.21
5	5	12.20	0.00	-21.03	-5.35	698.58
5	6	15.25	0.00	5.88	-39.11	721.68
6	6	15.25	0.00	-2.86	0.07	721.58
6	7	18.30	0.00	24.04	-33.69	689.29
7	7	18.30	0.00	15.41	4.95	689.71
7	8	21.35	0.00	42.32	-28.81	601.67
8	8	21.35	0.00	34.38	7.46	602.56
8	9	24.40	0.00	60.91	-12.33	457.29
9	9	24.40	0.00	54.37	18.62	458.58
9	10	27.45	0.00	56.08	13.27	272.70
10	10	27.45	0.00	52.00	33.47	273.68
10	11	30.50	0.00	34.99	17.52	152.63
11	11	30.50	0.00	32.83	29.51	153.06
11	12	33.55	0.00	-5.55	35.38	118.08
12	10012	33.55	0.00	12.96	40.43	118.23
12	13	37.19	0.00	-29.65	33.42	140.24
13	13	37.19	0.00	-32.48	49.27	139.95
13	14	40.82	0.00	-44.18	17.98	264.49
14	14	40.82	0.00	-49.65	45.05	263.52
14	15	44.46	0.00	-50.01	-29.15	449.20
15	15	44.46	0.00	-58.52	6.34	447.68
15	16	48.10	0.00	-26.80	-26.07	602.48
16	16	48.10	0.00	-37.09	15.81	601.50
16	17	51.73	0.00	-5.02	-24.45	678.05
17	17	51.73	0.00	-16.16	20.23	677.72
17	18	55.37	0.00	15.91	-20.02	678.18
18	18	55.37	0.00	4.76	24.66	678.52
18	19	59.01	0.00	36.83	-15.59	602.90
19	19	59.01	0.00	26.54	26.30	603.88
19	20	62.64	0.00	58.26	-6.14	450.02
20	20	62.64	0.00	49.74	29.39	451.53
20	21	66.28	0.00	50.00	-44.11	264.12
21	21	66.28	0.00	44.51	-17.03	265.09
21	22	69.91	0.00	32.92	-48.38	137.55
22	22	69.91	0.00	30.07	-32.54	137.84
22	23	73.55	0.00	-12.45	-39.76	112.86
23	10023	73.55	0.00	5.31	-34.76	112.70
23	24	76.66	0.00	-33.78	-28.97	148.99
24	24	76.66	0.00	-35.99	-16.83	148.55
24	25	79.77	0.00	-53.19	-33.92	273.40
25	25	79.77	0.00	-57.38	-13.33	272.38
25	26	82.88	0.00	-55.52	-19.82	464.53
26	26	82.88	0.00	-62.25	11.84	463.19

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MZ+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-35.20	-8.41	614.67
27	27	85.99	0.00	-43.39	28.80	613.75
27	28	89.10	0.00	-15.96	-5.62	706.04
28	28	89.10	0.00	-24.88	34.10	705.60
28	29	92.21	0.00	2.55	-0.33	740.33
29	29	92.21	0.00	-6.49	39.97	740.42
29	30	95.32	0.00	20.94	5.54	717.97
30	30	95.32	0.00	12.42	44.33	718.62
30	31	98.43	0.00	39.85	9.91	637.35
31	31	98.43	0.00	32.51	45.08	638.53
31	32	101.54	0.00	59.78	13.40	495.13
32	32	101.54	0.00	54.42	41.83	496.79
32	33	104.65	0.00	81.85	7.41	284.89
33	33	104.65	0.00	78.87	28.37	286.88
33	34	107.76	0.00	-14.18	-5.60	0.26
101	101	0.00	0.00	-29.18	-5.03	1.02
101	102	3.05	0.00	-30.55	-5.09	94.15
102	102	3.05	0.00	-27.19	-7.20	95.99
102	103	6.10	0.00	-27.19	-7.20	178.93
103	103	6.10	0.00	-21.66	-2.39	180.46
103	104	9.15	0.00	-21.66	-2.39	246.51
104	104	9.15	0.00	-14.44	7.76	247.61
104	105	12.20	0.00	-14.44	7.76	291.66
105	105	12.20	0.00	-6.13	21.46	292.27
105	106	15.25	0.00	-6.13	21.46	310.97
106	106	15.25	0.00	2.67	36.83	311.06
106	107	18.30	0.00	2.42	38.20	303.45
107	107	18.30	0.00	11.04	53.88	303.03
107	108	21.35	0.00	11.04	53.88	269.35
108	108	21.35	0.00	18.97	67.59	268.46
108	109	24.40	0.00	18.97	67.59	210.59
109	109	24.40	0.00	25.71	77.77	209.32
109	110	27.45	0.00	25.71	77.77	130.90
110	110	27.45	0.00	30.87	83.24	129.38
110	111	30.50	0.00	2.59	-4.51	57.96
111	111	30.50	0.00	0.01	-13.57	57.76
111	112	33.55	0.00	0.01	-13.57	57.71
112	10112	33.55	0.00	7.67	-15.01	57.57
112	113	37.19	0.00	7.67	-15.01	29.69
113	113	37.19	0.00	8.01	-17.33	29.46
113	114	40.82	0.00	-31.90	-89.91	87.25
114	114	40.82	0.00	-26.80	-78.87	89.05
114	115	44.46	0.00	-30.14	-70.49	197.76
115	115	44.46	0.00	-21.43	-53.17	199.24
115	116	48.10	0.00	-21.54	-50.49	277.55
116	116	48.10	0.00	-11.22	-27.95	278.50
116	117	51.73	0.00	-11.25	-25.60	319.34
117	117	51.73	0.00	-0.10	-0.04	319.68
117	118	55.37	0.00	-0.10	-0.04	320.05
118	118	55.37	0.00	11.02	27.84	319.72
118	119	59.01	0.00	11.02	27.84	279.64

CÁLCULO TENSIONAL

Hipótesis de cálculo:

SCUNIFI.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	21.35	50.41	278.69
119	120	62.64	0.00	21.25	53.04	201.08
120	120	62.64	0.00	29.97	70.40	199.60
120	121	66.28	0.00	27.90	76.18	91.21
121	121	66.28	0.00	34.26	85.92	89.39
121	122	69.91	0.00	-7.50	16.86	26.83
122	122	69.91	0.00	-7.16	14.61	27.06
122	123	73.55	0.00	-7.16	14.61	53.09
123	10123	73.55	0.00	-0.17	13.23	53.22
123	124	76.66	0.00	-0.17	13.23	53.75
124	124	76.66	0.00	0.30	12.23	53.81
124	125	79.77	0.00	-32.08	-87.09	127.79
125	125	79.77	0.00	-26.82	-81.39	129.36
125	126	82.88	0.00	-26.82	-81.39	212.77
126	126	82.88	0.00	-19.89	-70.74	214.09
126	127	85.99	0.00	-19.89	-70.74	275.95
127	127	85.99	0.00	-11.70	-56.36	276.88
127	128	89.10	0.00	-11.70	-56.36	313.27
128	128	89.10	0.00	-2.78	-39.90	313.71
128	129	92.21	0.00	-3.03	-38.51	322.58
129	129	92.21	0.00	6.07	-22.35	322.49
129	130	95.32	0.00	6.07	-22.35	303.60
130	130	95.32	0.00	14.66	-7.94	302.98
130	131	98.43	0.00	14.66	-7.94	257.38
131	131	98.43	0.00	22.09	2.72	256.24
131	132	101.54	0.00	22.09	2.72	187.54
132	132	101.54	0.00	27.75	7.74	185.95
132	133	104.65	0.00	27.75	7.74	99.65
133	133	104.65	0.00	31.09	5.43	97.73
133	134	107.76	0.00	29.74	5.38	1.07
301	101	0.00	0.00	0.31	0.84	6.81
301	2001	0.00	0.00	-0.10	0.87	6.67
302	102	3.05	0.00	-1.12	0.80	7.60
302	2002	3.05	0.00	-1.85	0.98	8.95
303	103	6.10	0.00	-0.87	-0.30	6.34
303	2003	6.10	0.00	-1.44	0.08	7.21
304	104	9.15	0.00	-0.03	-0.38	7.75
304	2004	9.15	0.00	-0.26	-0.34	7.88
305	105	12.20	0.00	0.36	-0.30	9.13
305	2005	12.20	0.00	0.36	-0.30	8.86
306	106	15.25	0.00	0.84	-0.21	10.24
306	2006	15.25	0.00	0.28	-0.21	9.81
307	107	18.30	0.00	1.04	-0.10	11.10
307	2007	18.30	0.00	0.50	-0.08	10.53
308	108	21.35	0.00	0.86	0.06	11.62
308	2008	21.35	0.00	0.86	0.06	10.97
309	109	24.40	0.00	0.74	0.26	11.53
309	2009	24.40	0.00	0.49	0.21	11.08
310	110	27.45	0.00	0.28	0.29	10.95
310	2010	27.45	0.00	-0.25	0.17	10.98
311	111	30.50	0.00	-0.33	0.06	10.95

f4.rea Programa DINTEL PACADAR S.A. 17/11/02
SCUNIFI.ENV_TREN_GENERICO.MZ+

CÁLCULO TENSIONAL

Hipótesis de cálculo:

SCUNIFI.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.66	-0.19	11.40
312	112	33.55	0.00	-0.77	-0.14	12.54
312	2012	33.55	0.00	-0.77	-0.14	13.13
313	113	37.19	0.00	-0.06	-0.34	14.31
313	2013	37.19	0.00	-0.39	-0.03	14.41
314	114	40.82	0.00	1.04	-0.56	15.50
314	2014	40.82	0.00	0.52	-0.42	14.94
315	115	44.46	0.00	1.72	-0.47	16.94
315	2015	44.46	0.00	1.51	-0.41	15.78
316	116	48.10	0.00	2.05	-0.24	17.85
316	2016	48.10	0.00	2.05	-0.24	16.30
317	117	51.73	0.00	2.15	-0.07	18.15
317	2017	51.73	0.00	1.84	-0.09	16.54
318	118	55.37	0.00	2.17	0.05	18.21
318	2018	55.37	0.00	1.86	0.08	16.59
319	119	59.01	0.00	2.10	0.23	18.04
319	2019	59.01	0.00	2.10	0.23	16.45
320	120	62.64	0.00	1.80	0.46	17.23
320	2020	62.64	0.00	1.59	0.40	16.01
321	121	66.28	0.00	1.14	0.56	15.86
321	2021	66.28	0.00	0.61	0.42	15.23
322	122	69.91	0.00	0.04	0.36	14.70
322	2022	69.91	0.00	-0.28	0.04	14.72
323	123	73.55	0.00	-0.69	0.17	12.86
323	2023	73.55	0.00	-0.69	0.17	13.38
324	124	76.66	0.00	-0.28	-0.03	11.13
324	2024	76.66	0.00	-0.61	0.22	11.55
325	125	79.77	0.00	0.31	-0.28	11.02
325	2025	79.77	0.00	-0.22	-0.16	11.05
326	126	82.88	0.00	0.77	-0.26	11.57
326	2026	82.88	0.00	0.52	-0.20	11.11
327	127	85.99	0.00	0.89	-0.06	11.65
327	2027	85.99	0.00	0.89	-0.06	10.98
328	128	89.10	0.00	1.06	0.10	11.10
328	2028	89.10	0.00	0.52	0.08	10.53
329	129	92.21	0.00	0.86	0.21	10.22
329	2029	92.21	0.00	0.29	0.21	9.79
330	130	95.32	0.00	0.37	0.30	9.10
330	2030	95.32	0.00	0.37	0.30	8.82
331	131	98.43	0.00	-0.03	0.38	7.70
331	2031	98.43	0.00	-0.26	0.33	7.83
332	132	101.54	0.00	-1.11	0.13	6.31
332	2032	101.54	0.00	-1.44	-0.10	7.20
333	133	104.65	0.00	-1.39	-1.18	7.82
333	2033	104.65	0.00	-1.80	-1.04	9.13
334	134	107.76	0.00	0.40	-0.88	7.16
334	2034	107.76	0.00	0.09	-0.95	6.95
201	2001	0.00	0.00	-0.10	0.87	6.67
201	1001	0.00	0.00	-0.99	0.77	10.83
202	2002	3.05	0.00	-1.85	0.98	8.95
202	1002	3.05	0.00	-3.96	1.42	26.41

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-1.44	0.08	7.21
203	1003	6.10	0.00	-5.62	1.13	30.38
204	2004	9.15	0.00	-0.26	-0.34	7.88
204	1004	9.15	0.00	-6.82	0.74	33.25
205	2005	12.20	0.00	0.36	-0.30	8.86
205	1005	12.20	0.00	-7.49	0.30	34.86
206	2006	15.25	0.00	0.28	-0.21	9.81
206	1006	15.25	0.00	-8.02	-0.08	35.18
207	2007	18.30	0.00	0.50	-0.08	10.53
207	1007	18.30	0.00	-8.19	-0.46	34.56
208	2008	21.35	0.00	0.87	0.06	10.97
208	1008	21.35	0.00	-7.52	-0.85	32.86
209	2009	24.40	0.00	0.49	0.21	11.08
209	1009	24.40	0.00	-6.45	-1.12	30.23
210	2010	27.45	0.00	-0.25	0.17	10.98
210	1010	27.45	0.00	-4.91	-1.16	27.09
211	2011	30.50	0.00	-0.66	-0.19	11.40
211	1011	30.50	0.00	-3.06	-0.70	24.26
212	2012	33.55	0.00	-0.77	-0.14	13.13
212	1012	33.55	0.00	-2.82	-0.06	25.33
213	2013	37.19	0.00	-0.39	-0.03	14.41
213	1013	37.19	0.00	-3.72	0.80	29.10
214	2014	40.82	0.00	0.52	-0.42	14.94
214	1014	40.82	0.00	-6.15	1.26	33.05
215	2015	44.46	0.00	1.51	-0.41	15.78
215	1015	44.46	0.00	-8.28	1.08	37.15
216	2016	48.10	0.00	2.05	-0.24	16.30
216	1016	48.10	0.00	-9.20	0.64	40.09
217	2017	51.73	0.00	1.84	-0.09	16.54
217	1017	51.73	0.00	-9.68	0.11	41.42
218	2018	55.37	0.00	1.86	0.08	16.59
218	1018	55.37	0.00	-9.71	-0.12	41.45
219	2019	59.01	0.00	2.10	0.23	16.45
219	1019	59.01	0.00	-9.42	-0.64	40.10
220	2020	62.64	0.00	1.59	0.40	16.01
220	1020	62.64	0.00	-8.29	-1.09	37.15
221	2021	66.28	0.00	0.61	0.42	15.23
221	1021	66.28	0.00	-6.38	-1.29	33.02
222	2022	69.91	0.00	-0.28	0.04	14.72
222	1022	69.91	0.00	-3.63	-0.78	28.98
223	2023	73.55	0.00	-0.69	0.17	13.38
223	1023	73.55	0.00	-2.77	0.10	25.28
224	2024	76.66	0.00	-0.61	0.22	11.55
224	1024	76.66	0.00	-3.06	0.75	24.36
225	2025	79.77	0.00	-0.22	-0.16	11.05
225	1025	79.77	0.00	-5.01	1.22	27.41
226	2026	82.88	0.00	0.52	-0.20	11.11
226	1026	82.88	0.00	-6.63	1.17	30.77
227	2027	85.99	0.00	0.89	-0.06	10.98
227	1027	85.99	0.00	-7.76	0.89	33.57
228	2028	89.10	0.00	0.52	0.08	10.53

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Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MZ+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-8.48	0.48	35.38
229	2029	92.21	0.00	0.29	0.21	9.79
229	1029	92.21	0.00	-8.32	0.08	36.03
230	2030	95.32	0.00	0.37	0.30	8.82
230	1030	95.32	0.00	-7.77	-0.32	35.67
231	2031	98.43	0.00	-0.26	0.33	7.83
231	1031	98.43	0.00	-7.04	-0.79	33.93
232	2032	101.54	0.00	-1.44	-0.10	7.20
232	1032	101.54	0.00	-5.75	-1.20	30.85
233	2033	104.65	0.00	-1.80	-1.04	9.13
233	1033	104.65	0.00	-3.97	-1.50	26.57
234	2034	107.76	0.00	0.09	-0.95	6.95
234	1034	107.76	0.00	-0.92	-0.81	10.73
401	1001	0.00	0.00	-0.99	0.77	10.83
401	1	0.00	0.00	-1.30	0.50	11.70
402	1002	3.05	0.00	-3.96	1.42	26.41
402	2	3.05	0.00	-3.96	1.42	29.41
403	1003	6.10	0.00	-5.62	1.13	30.38
403	3	6.10	0.00	-5.62	1.13	34.63
404	1004	9.15	0.00	-6.82	0.74	33.25
404	4	9.15	0.00	-6.82	0.74	38.41
405	1005	12.20	0.00	-7.49	0.30	34.86
405	5	12.20	0.00	-7.49	0.30	40.52
406	1006	15.25	0.00	-8.03	-0.08	35.18
406	6	15.25	0.00	-8.39	-0.01	41.43
407	1007	18.30	0.00	-8.19	-0.46	34.56
407	7	18.30	0.00	-8.54	-0.43	40.82
408	1008	21.35	0.00	-7.52	-0.85	32.86
408	8	21.35	0.00	-7.90	-0.85	38.69
409	1009	24.40	0.00	-6.45	-1.12	30.23
409	9	24.40	0.00	-6.63	-1.13	35.23
410	1010	27.45	0.00	-4.92	-1.16	27.09
410	10	27.45	0.00	-5.33	-1.27	31.01
411	1011	30.50	0.00	-3.06	-0.70	24.26
411	11	30.50	0.00	-3.85	-1.05	26.90
412	1012	33.55	0.00	-2.82	-0.06	25.33
412	12	33.55	0.00	-2.82	-0.06	27.46
413	1013	37.19	0.00	-3.72	0.80	29.10
413	13	37.19	0.00	-4.46	1.07	32.24
414	1014	40.82	0.00	-6.15	1.26	33.05
414	14	40.82	0.00	-6.65	1.35	37.98
415	1015	44.46	0.00	-8.28	1.08	37.15
415	15	44.46	0.00	-8.28	1.08	43.41
416	1016	48.10	0.00	-9.20	0.64	40.09
416	16	48.10	0.00	-9.60	0.62	47.21
417	1017	51.73	0.00	-9.68	0.11	41.42
417	17	51.73	0.00	-10.54	0.26	49.11
418	1018	55.37	0.00	-9.71	-0.12	41.45
418	18	55.37	0.00	-10.71	-0.23	49.12
419	1019	59.01	0.00	-9.42	-0.64	40.10
419	19	59.01	0.00	-9.63	-0.62	47.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-8.29	-1.09	37.15
420	20	62.64	0.00	-8.29	-1.09	43.42
421	1021	66.28	0.00	-6.38	-1.29	33.02
421	21	66.28	0.00	-6.65	-1.35	37.99
422	1022	69.91	0.00	-3.63	-0.78	28.98
422	22	69.91	0.00	-4.67	-1.18	32.23
423	1023	73.55	0.00	-2.77	0.10	25.28
423	23	73.55	0.00	-2.77	0.10	27.37
424	1024	76.66	0.00	-3.06	0.75	24.36
424	24	76.66	0.00	-3.87	1.10	27.03
425	1025	79.77	0.00	-5.01	1.22	27.41
425	25	79.77	0.00	-5.42	1.32	31.42
426	1026	82.88	0.00	-6.63	1.17	30.77
426	26	82.88	0.00	-6.81	1.18	35.91
427	1027	85.99	0.00	-7.76	0.89	33.57
427	27	85.99	0.00	-8.14	0.89	39.60
428	1028	89.10	0.00	-8.48	0.48	35.38
428	28	89.10	0.00	-8.82	0.45	41.87
429	1029	92.21	0.00	-8.32	0.08	36.03
429	29	92.21	0.00	-8.68	0.01	42.51
430	1030	95.32	0.00	-7.77	-0.32	35.67
430	30	95.32	0.00	-7.77	-0.32	41.54
431	1031	98.43	0.00	-7.04	-0.79	33.93
431	31	98.43	0.00	-7.04	-0.79	39.26
432	1032	101.54	0.00	-5.75	-1.20	30.85
432	32	101.54	0.00	-5.75	-1.20	35.20
433	1033	104.65	0.00	-3.97	-1.50	26.57
433	33	104.65	0.00	-3.97	-1.50	29.57
434	1034	107.76	0.00	-0.92	-0.81	10.73
434	34	107.76	0.00	-1.26	-0.53	11.64

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-104.89	6.24	-1.02
1	2	3.05	0.00	-81.78	4.18	248.43
2	2	3.05	0.00	-83.93	22.73	246.10
2	3	6.10	0.00	-63.72	17.89	381.35
3	3	6.10	0.00	-67.55	39.62	379.83
3	4	9.15	0.00	-50.07	32.28	433.39
4	4	9.15	0.00	-54.79	55.84	432.32
4	5	12.20	0.00	-39.64	45.75	430.67
5	5	12.20	0.00	-44.58	69.12	430.00
5	6	15.25	0.00	-31.40	56.12	393.37
6	6	15.25	0.00	-36.04	77.73	393.03
6	7	18.30	0.00	-24.61	62.02	336.58
7	7	18.30	0.00	-28.61	80.89	336.46
7	8	21.35	0.00	-18.83	63.06	271.92
8	8	21.35	0.00	-22.05	78.75	271.94
8	9	24.40	0.00	-13.94	59.72	209.15
9	9	24.40	0.00	-16.36	75.58	206.21
9	10	27.45	0.00	-10.00	56.44	154.17
10	10	27.45	0.00	-11.93	77.97	137.36
10	11	30.50	0.00	-7.40	59.83	105.18
11	11	30.50	0.00	-9.16	59.44	103.99
11	12	33.55	0.00	-6.44	43.17	100.29
12	10012	33.55	0.00	-157.18	2.15	-1033.55
12	13	37.19	0.00	-128.59	-14.48	-551.20
13	13	37.19	0.00	-130.51	5.39	-552.27
13	14	40.82	0.00	-104.70	-9.12	-208.52
14	14	40.82	0.00	-107.79	1.59	-221.22
14	15	44.46	0.00	-84.70	-12.41	6.66
15	15	44.46	0.00	-88.72	6.42	2.11
15	16	48.10	0.00	-68.15	-8.65	137.46
16	16	48.10	0.00	-72.72	17.50	136.31
16	17	51.73	0.00	-54.46	0.20	200.93
17	17	51.73	0.00	-59.07	25.32	200.03
17	18	55.37	0.00	-43.01	5.19	213.37
18	18	55.37	0.00	-47.24	28.01	212.73
18	19	59.01	0.00	-33.39	5.05	192.54
19	19	59.01	0.00	-36.93	24.62	192.11
19	20	62.64	0.00	-25.40	-0.59	155.29
20	20	62.64	0.00	-28.20	22.32	151.66
20	21	66.28	0.00	-19.18	-3.97	115.34
21	21	66.28	0.00	-21.29	22.15	103.23
21	22	69.91	0.00	-15.00	-3.65	84.96
22	22	69.91	0.00	-16.83	8.42	84.70
22	23	73.55	0.00	-13.32	-15.28	102.05
23	10023	73.55	0.00	-156.46	51.94	-1042.81
23	24	76.66	0.00	-131.80	34.07	-622.90
24	24	76.66	0.00	-133.10	61.28	-624.96
24	25	79.77	0.00	-110.30	45.40	-310.14
25	25	79.77	0.00	-112.52	54.09	-327.82
25	26	82.88	0.00	-91.59	39.28	-105.70
26	26	82.88	0.00	-94.58	57.58	-109.67

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-75.44	42.69	33.19
27	27	85.99	0.00	-78.79	64.74	32.31
27	28	89.10	0.00	-61.34	48.63	108.81
28	28	89.10	0.00	-64.73	70.08	108.12
28	29	92.21	0.00	-48.95	51.79	130.98
29	29	92.21	0.00	-52.08	71.65	130.48
29	30	95.32	0.00	-38.05	50.57	112.93
30	30	95.32	0.00	-40.72	68.17	112.57
30	31	98.43	0.00	-28.70	44.08	69.75
31	31	98.43	0.00	-30.89	59.26	69.43
31	32	101.54	0.00	-21.24	32.33	20.10
32	32	101.54	0.00	-23.10	45.45	19.72
32	33	104.65	0.00	-16.23	15.97	-12.45
33	33	104.65	0.00	-18.09	26.95	-13.37
33	34	107.76	0.00	-14.21	-5.36	0.25
101	101	0.00	0.00	-30.55	-5.09	0.98
101	102	3.05	0.00	-30.55	-5.09	94.15
102	102	3.05	0.00	-27.19	-7.20	95.99
102	103	6.10	0.00	-27.19	-7.20	178.93
103	103	6.10	0.00	-21.67	-2.34	179.16
103	104	9.15	0.00	-21.67	-2.34	245.26
104	104	9.15	0.00	-14.56	8.17	246.41
104	105	12.20	0.00	-14.56	8.17	290.81
105	105	12.20	0.00	-6.97	6.31	229.18
105	106	15.25	0.00	-6.97	6.31	250.43
106	106	15.25	0.00	-2.33	-5.36	105.87
106	107	18.30	0.00	-2.33	-5.36	112.96
107	107	18.30	0.00	-1.68	-9.51	44.49
107	108	21.35	0.00	-1.68	-9.51	49.62
108	108	21.35	0.00	-1.33	-9.70	45.79
108	109	24.40	0.00	-1.33	-9.70	49.86
109	109	24.40	0.00	-1.00	-9.29	48.91
109	110	27.45	0.00	-1.00	-9.29	51.95
110	110	27.45	0.00	-1.35	-52.80	-75.36
110	111	30.50	0.00	-1.35	-52.80	-71.23
111	111	30.50	0.00	-1.99	-65.80	-98.95
111	112	33.55	0.00	-1.99	-65.80	-92.89
112	10112	33.55	0.00	-42.84	-61.40	-234.87
112	113	37.19	0.00	-42.84	-61.40	-79.08
113	113	37.19	0.00	-38.28	-51.11	-89.71
113	114	40.82	0.00	-38.28	-51.11	49.49
114	114	40.82	0.00	-31.65	-26.45	18.78
114	115	44.46	0.00	-31.65	-26.45	133.88
115	115	44.46	0.00	-24.36	11.73	71.47
115	116	48.10	0.00	-24.36	11.73	160.03
116	116	48.10	0.00	-15.65	25.63	161.03
116	117	51.73	0.00	-15.65	25.63	217.94
117	117	51.73	0.00	-8.91	24.30	76.29
117	118	55.37	0.00	-8.91	24.30	108.69
118	118	55.37	0.00	-6.73	33.31	-79.96
118	119	59.01	0.00	-6.73	33.31	-55.50

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17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-7.33	24.85	-55.28
119	120	62.64	0.00	-7.33	24.85	-28.62
120	120	62.64	0.00	-7.75	-13.06	-96.14
120	121	66.28	0.00	-7.75	-13.06	-67.95
121	121	66.28	0.00	-9.24	-42.37	-101.94
121	122	69.91	0.00	-9.24	-42.37	-68.35
122	122	69.91	0.00	-10.17	-61.73	-80.58
122	123	73.55	0.00	-10.17	-61.73	-43.60
123	10123	73.55	0.00	-38.44	-76.25	-183.33
123	124	76.66	0.00	-38.44	-76.25	-63.79
124	124	76.66	0.00	-34.70	-69.71	-82.97
124	125	79.77	0.00	-34.70	-69.71	24.93
125	125	79.77	0.00	-29.99	-30.20	-101.16
125	126	82.88	0.00	-29.99	-30.20	-7.89
126	126	82.88	0.00	-24.83	-31.24	-13.21
126	127	85.99	0.00	-24.83	-31.24	64.02
127	127	85.99	0.00	-18.51	-27.14	61.28
127	128	89.10	0.00	-18.51	-27.14	118.84
128	128	89.10	0.00	-11.64	-16.39	47.72
128	129	92.21	0.00	-11.64	-16.39	83.94
129	129	92.21	0.00	-8.49	3.34	-68.09
129	130	95.32	0.00	-8.49	3.34	-41.67
130	130	95.32	0.00	-8.55	12.43	-106.59
130	131	98.43	0.00	-8.55	12.43	-79.99
131	131	98.43	0.00	-8.84	6.51	-79.59
131	132	101.54	0.00	-8.84	6.51	-52.09
132	132	101.54	0.00	-8.73	2.49	-52.99
132	133	104.65	0.00	-8.73	2.49	-25.84
133	133	104.65	0.00	-8.11	0.22	-25.42
133	134	107.76	0.00	-8.11	0.22	-0.21
301	101	0.00	0.00	-1.64	0.03	0.68
301	2001	0.00	0.00	-1.64	0.03	1.91
302	102	3.05	0.00	-3.96	1.42	4.44
302	2002	3.05	0.00	-3.96	1.42	7.44
303	103	6.10	0.00	-5.73	1.30	-3.14
303	2003	6.10	0.00	-5.73	1.30	1.19
304	104	9.15	0.00	-7.25	1.04	-9.37
304	2004	9.15	0.00	-7.25	1.04	-3.88
305	105	12.20	0.00	-8.33	0.60	-13.45
305	2005	12.20	0.00	-8.33	0.60	-7.15
306	106	15.25	0.00	-8.83	0.09	-15.13
306	2006	15.25	0.00	-8.83	0.09	-8.45
307	107	18.30	0.00	-8.73	-0.42	-14.97
307	2007	18.30	0.00	-8.73	-0.42	-8.37
308	108	21.35	0.00	-8.09	-0.87	-13.12
308	2008	21.35	0.00	-8.09	-0.87	-7.00
309	109	24.40	0.00	-6.98	-1.23	-9.81
309	2009	24.40	0.00	-6.98	-1.23	-4.53
310	110	27.45	0.00	-5.56	-1.38	-4.81
310	2010	27.45	0.00	-5.56	-1.38	-0.60
311	111	30.50	0.00	-4.07	-1.23	0.42

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-4.07	-1.23	3.50
312	112	33.55	0.00	-3.62	0.00	0.78
312	2012	33.55	0.00	-3.62	0.00	3.52
313	113	37.19	0.00	-4.93	1.37	0.60
313	2013	37.19	0.00	-4.93	1.37	4.32
314	114	40.82	0.00	-6.99	1.58	-8.60
314	2014	40.82	0.00	-6.99	1.58	-3.32
315	115	44.46	0.00	-8.99	1.40	-16.51
315	2015	44.46	0.00	-8.99	1.40	-9.71
316	116	48.10	0.00	-10.53	0.93	-21.65
316	2016	48.10	0.00	-10.53	0.93	-13.69
317	117	51.73	0.00	-11.33	0.32	-24.11
317	2017	51.73	0.00	-11.33	0.32	-15.55
318	118	55.37	0.00	-11.34	-0.32	-24.12
318	2018	55.37	0.00	-11.34	-0.32	-15.55
319	119	59.01	0.00	-10.53	-0.93	-21.67
319	2019	59.01	0.00	-10.53	-0.93	-13.70
320	120	62.64	0.00	-9.01	-1.40	-16.55
320	2020	62.64	0.00	-9.01	-1.40	-9.74
321	121	66.28	0.00	-7.01	-1.58	-8.65
321	2021	66.28	0.00	-7.01	-1.58	-3.35
322	122	69.91	0.00	-4.94	-1.36	0.56
322	2022	69.91	0.00	-4.94	-1.36	4.30
323	123	73.55	0.00	-3.63	0.02	0.76
323	2023	73.55	0.00	-3.63	0.02	3.51
324	124	76.66	0.00	-4.08	1.28	0.47
324	2024	76.66	0.00	-4.08	1.28	3.56
325	125	79.77	0.00	-5.67	1.43	-5.02
325	2025	79.77	0.00	-5.67	1.43	-0.74
326	126	82.88	0.00	-7.17	1.28	-10.27
326	2026	82.88	0.00	-7.17	1.28	-4.85
327	127	85.99	0.00	-8.35	0.90	-13.78
327	2027	85.99	0.00	-8.35	0.90	-7.47
328	128	89.10	0.00	-9.02	0.44	-15.74
328	2028	89.10	0.00	-9.02	0.44	-8.92
329	129	92.21	0.00	-9.12	-0.09	-15.91
329	2029	92.21	0.00	-9.12	-0.09	-9.02
330	130	95.32	0.00	-8.60	-0.62	-14.16
330	2030	95.32	0.00	-8.60	-0.62	-7.65
331	131	98.43	0.00	-7.47	-1.08	-9.88
331	2031	98.43	0.00	-7.47	-1.08	-4.23
332	132	101.54	0.00	-5.86	-1.36	-3.37
332	2032	101.54	0.00	-5.86	-1.36	1.06
333	133	104.65	0.00	-3.97	-1.50	4.58
333	2033	104.65	0.00	-3.97	-1.50	7.58
334	134	107.76	0.00	-1.65	-0.05	0.75
334	2034	107.76	0.00	-1.65	-0.05	1.99
201	2001	0.00	0.00	-1.64	0.03	1.91
201	1001	0.00	0.00	-1.64	0.03	9.75
202	2002	3.05	0.00	-3.96	1.42	7.44
202	1002	3.05	0.00	-3.96	1.42	26.41

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-5.73	1.30	1.19
203	1003	6.10	0.00	-5.73	1.30	28.64
204	2004	9.15	0.00	-7.25	1.04	-3.88
204	1004	9.15	0.00	-7.25	1.04	30.85
205	2005	12.20	0.00	-8.33	0.60	-7.15
205	1005	12.20	0.00	-8.33	0.60	32.72
206	2006	15.25	0.00	-8.83	0.09	-8.45
206	1006	15.25	0.00	-8.83	0.09	33.80
207	2007	18.30	0.00	-8.73	-0.42	-8.37
207	1007	18.30	0.00	-8.73	-0.42	33.45
208	2008	21.35	0.00	-8.09	-0.87	-7.00
208	1008	21.35	0.00	-8.09	-0.87	31.75
209	2009	24.40	0.00	-6.98	-1.23	-4.53
209	1009	24.40	0.00	-6.98	-1.23	28.90
210	2010	27.45	0.00	-5.56	-1.38	-0.60
210	1010	27.45	0.00	-5.56	-1.38	26.04
211	2011	30.50	0.00	-4.07	-1.23	3.50
211	1011	30.50	0.00	-4.07	-1.23	22.97
212	2012	33.55	0.00	-3.62	0.00	3.52
212	1012	33.55	0.00	-3.62	0.00	20.83
213	2013	37.19	0.00	-4.93	1.37	4.32
213	1013	37.19	0.00	-4.93	1.37	27.91
214	2014	40.82	0.00	-6.99	1.58	-3.32
214	1014	40.82	0.00	-6.99	1.58	30.16
215	2015	44.46	0.00	-8.99	1.40	-9.71
215	1015	44.46	0.00	-8.99	1.40	33.34
216	2016	48.10	0.00	-10.53	0.93	-13.69
216	1016	48.10	0.00	-10.53	0.93	36.71
217	2017	51.73	0.00	-11.33	0.32	-15.55
217	1017	51.73	0.00	-11.33	0.32	38.72
218	2018	55.37	0.00	-11.34	-0.32	-15.55
218	1018	55.37	0.00	-11.34	-0.32	38.73
219	2019	59.01	0.00	-10.54	-0.93	-13.70
219	1019	59.01	0.00	-10.54	-0.93	36.74
220	2020	62.64	0.00	-9.01	-1.40	-9.74
220	1020	62.64	0.00	-9.01	-1.40	33.38
221	2021	66.28	0.00	-7.01	-1.58	-3.35
221	1021	66.28	0.00	-7.01	-1.58	30.20
222	2022	69.91	0.00	-4.94	-1.36	4.30
222	1022	69.91	0.00	-4.94	-1.36	27.95
223	2023	73.55	0.00	-3.63	0.02	3.51
223	1023	73.55	0.00	-3.63	0.02	20.90
224	2024	76.66	0.00	-4.08	1.28	3.56
224	1024	76.66	0.00	-4.08	1.28	23.10
225	2025	79.77	0.00	-5.67	1.43	-0.74
225	1025	79.77	0.00	-5.67	1.43	26.40
226	2026	82.88	0.00	-7.17	1.28	-4.85
226	1026	82.88	0.00	-7.17	1.28	29.47
227	2027	85.99	0.00	-8.34	0.90	-7.47
227	1027	85.99	0.00	-8.34	0.90	32.49
228	2028	89.10	0.00	-9.02	0.44	-8.92

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-9.02	0.44	34.29
229	2029	92.21	0.00	-9.12	-0.09	-9.02
229	1029	92.21	0.00	-9.12	-0.09	34.67
230	2030	95.32	0.00	-8.60	-0.62	-7.65
230	1030	95.32	0.00	-8.60	-0.62	33.54
231	2031	98.43	0.00	-7.47	-1.08	-4.23
231	1031	98.43	0.00	-7.47	-1.08	31.53
232	2032	101.54	0.00	-5.86	-1.36	1.06
232	1032	101.54	0.00	-5.86	-1.36	29.10
233	2033	104.65	0.00	-3.97	-1.50	7.58
233	1033	104.65	0.00	-3.97	-1.50	26.57
234	2034	107.76	0.00	-1.65	-0.05	1.99
234	1034	107.76	0.00	-1.65	-0.05	9.89
401	1001	0.00	0.00	-1.64	0.03	9.75
401	1	0.00	0.00	-1.64	0.03	10.99
402	1002	3.05	0.00	-3.96	1.42	26.41
402	2	3.05	0.00	-3.96	1.42	29.41
403	1003	6.10	0.00	-5.73	1.30	28.64
403	3	6.10	0.00	-5.73	1.30	32.98
404	1004	9.15	0.00	-7.25	1.04	30.85
404	4	9.15	0.00	-7.25	1.04	36.34
405	1005	12.20	0.00	-8.33	0.60	32.72
405	5	12.20	0.00	-8.33	0.60	39.02
406	1006	15.25	0.00	-8.83	0.09	33.80
406	6	15.25	0.00	-8.83	0.09	40.47
407	1007	18.30	0.00	-8.73	-0.42	33.45
407	7	18.30	0.00	-8.73	-0.42	40.05
408	1008	21.35	0.00	-8.09	-0.87	31.75
408	8	21.35	0.00	-8.09	-0.87	37.87
409	1009	24.40	0.00	-6.98	-1.23	28.90
409	9	24.40	0.00	-6.98	-1.23	34.17
410	1010	27.45	0.00	-5.57	-1.38	26.04
410	10	27.45	0.00	-5.57	-1.38	30.25
411	1011	30.50	0.00	-4.07	-1.23	22.97
411	11	30.50	0.00	-4.07	-1.23	26.04
412	1012	33.55	0.00	-3.62	0.00	20.83
412	12	33.55	0.00	-3.62	0.00	23.56
413	1013	37.19	0.00	-4.93	1.37	27.91
413	13	37.19	0.00	-4.93	1.37	31.63
414	1014	40.82	0.00	-6.99	1.58	30.16
414	14	40.82	0.00	-6.99	1.58	35.44
415	1015	44.46	0.00	-8.99	1.40	33.34
415	15	44.46	0.00	-8.99	1.40	40.14
416	1016	48.10	0.00	-10.53	0.93	36.71
416	16	48.10	0.00	-10.53	0.93	44.67
417	1017	51.73	0.00	-11.33	0.32	38.72
417	17	51.73	0.00	-11.33	0.32	47.29
418	1018	55.37	0.00	-11.34	-0.32	38.73
418	18	55.37	0.00	-11.34	-0.32	47.30
419	1019	59.01	0.00	-10.54	-0.93	36.74
419	19	59.01	0.00	-10.54	-0.93	44.70

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-9.01	-1.40	33.38
420	20	62.64	0.00	-9.01	-1.40	40.19
421	1021	66.28	0.00	-7.01	-1.58	30.20
421	21	66.28	0.00	-7.01	-1.58	35.50
422	1022	69.91	0.00	-4.94	-1.36	27.95
422	22	69.91	0.00	-4.94	-1.36	31.69
423	1023	73.55	0.00	-3.63	0.02	20.90
423	23	73.55	0.00	-3.63	0.02	23.65
424	1024	76.66	0.00	-4.08	1.28	23.10
424	24	76.66	0.00	-4.08	1.28	26.19
425	1025	79.77	0.00	-5.67	1.43	26.40
425	25	79.77	0.00	-5.67	1.43	30.68
426	1026	82.88	0.00	-7.17	1.28	29.47
426	26	82.88	0.00	-7.17	1.28	34.89
427	1027	85.99	0.00	-8.35	0.90	32.49
427	27	85.99	0.00	-8.35	0.90	38.80
428	1028	89.10	0.00	-9.02	0.44	34.29
428	28	89.10	0.00	-9.02	0.44	41.11
429	1029	92.21	0.00	-9.12	-0.09	34.67
429	29	92.21	0.00	-9.12	-0.09	41.57
430	1030	95.32	0.00	-8.60	-0.62	33.54
430	30	95.32	0.00	-8.60	-0.62	40.05
431	1031	98.43	0.00	-7.47	-1.08	31.53
431	31	98.43	0.00	-7.47	-1.08	37.18
432	1032	101.54	0.00	-5.86	-1.36	29.10
432	32	101.54	0.00	-5.86	-1.36	33.53
433	1033	104.65	0.00	-3.97	-1.50	26.57
433	33	104.65	0.00	-3.97	-1.50	29.57
434	1034	107.76	0.00	-1.65	-0.05	9.89
434	34	107.76	0.00	-1.65	-0.05	11.14

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-13.57	-0.13	-0.27
1	2	3.05	0.00	-9.77	-31.83	70.56
2	2	3.05	0.00	2.94	-27.78	29.44
2	3	6.10	0.00	9.64	-56.70	100.18
3	3	6.10	0.00	8.07	-49.48	100.11
3	4	9.15	0.00	17.49	-75.91	186.93
4	4	9.15	0.00	15.10	-65.16	186.86
4	5	12.20	0.00	26.85	-88.84	268.54
5	5	12.20	0.00	23.55	-74.47	268.57
5	6	15.25	0.00	37.28	-95.23	328.31
6	6	15.25	0.00	33.18	-77.66	328.55
6	7	18.30	0.00	48.65	-95.72	352.71
7	7	18.30	0.00	44.03	-75.94	353.25
7	8	21.35	0.00	61.15	-91.87	329.75
8	8	21.35	0.00	56.43	-71.29	330.62
8	9	24.40	0.00	75.22	-86.02	247.52
9	9	24.40	0.00	70.90	-66.26	248.72
9	10	27.45	0.00	91.44	-80.88	93.40
10	10	27.45	0.00	91.21	-63.68	37.42
10	11	30.50	0.00	113.59	-79.31	-213.23
11	11	30.50	0.00	114.47	-65.54	-268.42
11	12	33.55	0.00	138.65	-83.02	-626.94
12	10012	33.55	0.00	-30.94	-71.16	-560.34
12	13	37.19	0.00	-27.45	-94.78	-416.92
13	13	37.19	0.00	-16.79	-84.66	-378.27
13	14	40.82	0.00	-10.53	-110.40	-244.71
14	14	40.82	0.00	-10.99	-99.78	-244.38
14	15	44.46	0.00	-2.00	-126.03	-98.65
15	15	44.46	0.00	-3.30	-112.50	-98.61
15	16	48.10	0.00	8.20	-137.69	42.33
16	16	48.10	0.00	5.66	-119.97	42.29
16	17	51.73	0.00	19.47	-142.93	163.22
17	17	51.73	0.00	15.61	-120.80	163.29
17	18	55.37	0.00	31.63	-140.93	249.66
18	18	55.37	0.00	26.67	-115.14	249.99
18	19	59.01	0.00	44.90	-132.43	286.64
19	19	59.01	0.00	39.33	-104.46	287.33
19	20	62.64	0.00	59.87	-119.51	257.11
20	20	62.64	0.00	54.35	-91.42	258.21
20	21	66.28	0.00	77.41	-105.38	141.12
21	21	66.28	0.00	72.66	-79.46	142.58
21	22	69.91	0.00	98.45	-93.92	-84.27
22	22	69.91	0.00	84.09	-72.15	-45.40
22	23	73.55	0.00	112.65	-88.70	-365.65
23	10023	73.55	0.00	-9.36	-73.13	-299.74
23	24	76.66	0.00	-6.59	-89.70	-246.60
24	24	76.66	0.00	-10.48	-76.91	-301.83
24	25	79.77	0.00	-5.86	-95.45	-212.76
25	25	79.77	0.00	-9.68	-82.77	-269.01
25	26	82.88	0.00	-3.18	-102.39	-153.76
26	26	82.88	0.00	-4.21	-88.35	-153.60

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MX-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	4.07	-107.90	-31.86
27	27	85.99	0.00	2.29	-91.06	-31.84
27	28	89.10	0.00	12.27	-109.37	86.93
28	28	89.10	0.00	9.53	-89.04	86.93
28	29	92.21	0.00	21.18	-105.18	193.09
29	29	92.21	0.00	17.52	-81.33	193.21
29	30	95.32	0.00	30.92	-94.67	275.59
30	30	95.32	0.00	26.57	-67.98	275.95
30	31	98.43	0.00	41.98	-78.31	320.11
31	31	98.43	0.00	37.42	-50.15	320.83
31	32	101.54	0.00	55.20	-57.65	307.20
32	32	101.54	0.00	51.06	-29.89	308.33
32	33	104.65	0.00	71.63	-34.84	210.87
33	33	104.65	0.00	54.81	-9.52	169.95
33	34	107.76	0.00	78.36	-11.64	-0.53
101	101	0.00	0.00	-20.31	-6.81	0.84
101	102	3.05	0.00	-20.31	-6.81	62.80
102	102	3.05	0.00	-13.27	-13.92	46.21
102	103	6.10	0.00	-13.27	-13.92	86.67
103	103	6.10	0.00	-6.40	-17.52	60.28
103	104	9.15	0.00	-6.40	-17.52	79.78
104	104	9.15	0.00	0.48	-21.62	23.74
104	105	12.20	0.00	0.48	-21.62	22.28
105	105	12.20	0.00	4.28	-28.67	-33.78
105	106	15.25	0.00	4.28	-28.67	-46.83
106	106	15.25	0.00	4.91	-38.56	-84.29
106	107	18.30	0.00	4.91	-38.56	-99.27
107	107	18.30	0.00	4.13	-49.50	-99.35
107	108	21.35	0.00	4.13	-49.50	-111.96
108	108	21.35	0.00	2.76	-60.75	-118.72
108	109	24.40	0.00	2.76	-60.75	-127.12
109	109	24.40	0.00	1.82	-72.16	-126.87
109	110	27.45	0.00	1.82	-72.16	-132.43
110	110	27.45	0.00	1.30	-82.65	-131.94
110	111	30.50	0.00	1.30	-82.65	-135.92
111	111	30.50	0.00	1.56	-91.14	-135.12
111	112	33.55	0.00	1.56	-91.14	-139.89
112	10112	33.55	0.00	-32.76	-96.74	-138.63
112	113	37.19	0.00	-32.76	-96.74	-19.49
113	113	37.19	0.00	-26.95	-96.87	-15.04
113	114	40.82	0.00	-26.95	-96.87	82.96
114	114	40.82	0.00	-21.15	-90.70	84.51
114	115	44.46	0.00	-21.15	-90.70	161.42
115	115	44.46	0.00	-12.43	-79.65	146.21
115	116	48.10	0.00	-12.43	-79.65	191.43
116	116	48.10	0.00	-3.18	-67.35	125.78
116	117	51.73	0.00	-3.18	-67.35	137.35
117	117	51.73	0.00	2.97	-59.81	92.75
117	118	55.37	0.00	2.97	-59.81	81.94
118	118	55.37	0.00	5.58	-60.19	-9.29
118	119	59.01	0.00	5.58	-60.19	-29.57

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	4.37	-67.59	-96.33
119	120	62.64	0.00	4.37	-67.59	-112.21
120	120	62.64	0.00	2.36	-77.87	-128.65
120	121	66.28	0.00	2.36	-77.87	-137.23
121	121	66.28	0.00	1.65	-88.33	-136.80
121	122	69.91	0.00	1.65	-88.33	-142.80
122	122	69.91	0.00	-0.55	-97.17	-139.18
122	123	73.55	0.00	-0.55	-97.17	-137.18
123	10123	73.55	0.00	-34.96	-101.59	-135.81
123	124	76.66	0.00	-34.96	-101.59	-27.08
124	124	76.66	0.00	-32.14	-100.48	-25.53
124	125	79.77	0.00	-32.14	-100.48	74.43
125	125	79.77	0.00	-27.42	-93.83	75.98
125	126	82.88	0.00	-27.42	-93.83	161.24
126	126	82.88	0.00	-20.97	-82.16	162.57
126	127	85.99	0.00	-20.97	-82.16	227.77
127	127	85.99	0.00	-12.90	-66.98	221.65
127	128	89.10	0.00	-12.90	-66.98	261.77
128	128	89.10	0.00	-4.59	-49.42	262.26
128	129	92.21	0.00	-4.59	-49.42	276.52
129	129	92.21	0.00	2.66	-31.79	237.49
129	130	95.32	0.00	2.66	-31.79	229.20
130	130	95.32	0.00	6.49	-17.58	169.95
130	131	98.43	0.00	6.49	-17.58	149.75
131	131	98.43	0.00	6.44	-8.69	89.90
131	132	101.54	0.00	6.44	-8.69	69.88
132	132	101.54	0.00	5.20	-4.21	41.23
132	133	104.65	0.00	5.20	-4.21	25.06
133	133	104.65	0.00	2.13	-1.51	6.55
133	134	107.76	0.00	2.13	-1.51	-0.07
301	101	0.00	0.00	-0.84	-0.26	0.32
301	2001	0.00	0.00	-0.84	-0.26	0.95
302	102	3.05	0.00	-1.00	-0.50	2.75
302	2002	3.05	0.00	-1.00	-0.50	3.51
303	103	6.10	0.00	-1.09	-0.48	3.43
303	2003	6.10	0.00	-1.09	-0.48	4.26
304	104	9.15	0.00	-0.43	-0.43	5.51
304	2004	9.15	0.00	-0.43	-0.43	5.84
305	105	12.20	0.00	-1.38	-0.39	3.75
305	2005	12.20	0.00	-1.38	-0.39	4.79
306	106	15.25	0.00	-2.96	-0.49	0.28
306	2006	15.25	0.00	-2.96	-0.49	2.52
307	107	18.30	0.00	-4.32	-0.69	-3.08
307	2007	18.30	0.00	-4.32	-0.69	0.18
308	108	21.35	0.00	-5.33	-0.97	-7.89
308	2008	21.35	0.00	-5.33	-0.97	-3.86
309	109	24.40	0.00	-5.89	-1.31	-10.17
309	2009	24.40	0.00	-5.89	-1.31	-5.72
310	110	27.45	0.00	-4.49	-1.54	-4.99
310	2010	27.45	0.00	-4.49	-1.54	-1.60
311	111	30.50	0.00	-3.25	-1.59	-0.03

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MX-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-3.25	-1.59	2.44
312	112	33.55	0.00	-1.66	-1.50	5.68
312	2012	33.55	0.00	-1.66	-1.50	6.93
313	113	37.19	0.00	0.05	-1.14	11.62
313	2013	37.19	0.00	0.05	-1.14	11.58
314	114	40.82	0.00	0.37	-0.76	13.90
314	2014	40.82	0.00	0.37	-0.76	13.63
315	115	44.46	0.00	1.17	-0.49	16.11
315	2015	44.46	0.00	1.17	-0.49	15.23
316	116	48.10	0.00	-2.05	-0.49	2.12
316	2016	48.10	0.00	-2.05	-0.49	3.67
317	117	51.73	0.00	-4.19	-0.65	-3.56
317	2017	51.73	0.00	-4.19	-0.65	-0.40
318	118	55.37	0.00	-4.52	-0.91	-3.56
318	2018	55.37	0.00	-4.52	-0.91	-0.14
319	119	59.01	0.00	-5.94	-1.22	-7.00
319	2019	59.01	0.00	-5.94	-1.22	-2.51
320	120	62.64	0.00	-7.97	-1.54	-17.33
320	2020	62.64	0.00	-7.97	-1.54	-11.30
321	121	66.28	0.00	-5.57	-1.88	-10.08
321	2021	66.28	0.00	-5.57	-1.88	-5.87
322	122	69.91	0.00	-3.78	-1.94	-3.17
322	2022	69.91	0.00	-3.78	-1.94	-0.31
323	123	73.55	0.00	-1.18	-1.44	3.98
323	2023	73.55	0.00	-1.18	-1.44	4.87
324	124	76.66	0.00	0.21	-0.89	7.38
324	2024	76.66	0.00	0.21	-0.89	7.22
325	125	79.77	0.00	0.39	-0.54	9.06
325	2025	79.77	0.00	0.39	-0.54	8.76
326	126	82.88	0.00	0.53	-0.28	10.44
326	2026	82.88	0.00	0.53	-0.28	10.04
327	127	85.99	0.00	-1.11	-0.11	4.54
327	2027	85.99	0.00	-1.11	-0.11	5.38
328	128	89.10	0.00	-2.99	-0.15	-3.01
328	2028	89.10	0.00	-2.99	-0.15	-0.74
329	129	92.21	0.00	-4.81	-0.36	-7.78
329	2029	92.21	0.00	-4.81	-0.36	-4.15
330	130	95.32	0.00	-6.32	-0.72	-10.98
330	2030	95.32	0.00	-6.32	-0.72	-6.20
331	131	98.43	0.00	-6.59	-1.21	-10.58
331	2031	98.43	0.00	-6.59	-1.21	-5.60
332	132	101.54	0.00	-4.63	-1.67	-4.40
332	2032	101.54	0.00	-4.63	-1.67	-0.90
333	133	104.65	0.00	-2.95	-1.99	1.89
333	2033	104.65	0.00	-2.95	-1.99	4.12
334	134	107.76	0.00	-0.07	-1.07	5.38
334	2034	107.76	0.00	-0.07	-1.07	5.44
201	2001	0.00	0.00	-0.84	-0.26	0.95
201	1001	0.00	0.00	-0.84	-0.26	4.95
202	2002	3.05	0.00	-1.00	-0.50	3.51
202	1002	3.05	0.00	-1.00	-0.50	8.32

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-1.09	-0.48	4.26
203	1003	6.10	0.00	-1.09	-0.48	9.49
204	2004	9.15	0.00	-0.43	-0.43	5.84
204	1004	9.15	0.00	-0.43	-0.43	7.92
205	2005	12.20	0.00	-1.38	-0.39	4.79
205	1005	12.20	0.00	-1.38	-0.39	11.40
206	2006	15.25	0.00	-2.96	-0.49	2.52
206	1006	15.25	0.00	-2.96	-0.49	16.69
207	2007	18.30	0.00	-4.32	-0.69	0.18
207	1007	18.30	0.00	-4.32	-0.69	20.85
208	2008	21.35	0.00	-5.33	-0.97	-3.86
208	1008	21.35	0.00	-5.33	-0.97	21.64
209	2009	24.40	0.00	-5.89	-1.31	-5.72
209	1009	24.40	0.00	-5.89	-1.31	22.49
210	2010	27.45	0.00	-4.49	-1.54	-1.60
210	1010	27.45	0.00	-4.49	-1.54	19.88
211	2011	30.50	0.00	-3.25	-1.59	2.44
211	1011	30.50	0.00	-3.25	-1.59	18.02
212	2012	33.55	0.00	-1.66	-1.50	6.93
212	1012	33.55	0.00	-1.66	-1.50	14.87
213	2013	37.19	0.00	0.05	-1.14	11.58
213	1013	37.19	0.00	0.05	-1.14	11.36
214	2014	40.82	0.00	0.37	-0.76	13.63
214	1014	40.82	0.00	0.37	-0.76	11.88
215	2015	44.46	0.00	1.17	-0.49	15.23
215	1015	44.46	0.00	1.17	-0.49	9.65
216	2016	48.10	0.00	-2.05	-0.49	3.67
216	1016	48.10	0.00	-2.05	-0.49	13.49
217	2017	51.73	0.00	-4.19	-0.65	-0.40
217	1017	51.73	0.00	-4.19	-0.65	19.65
218	2018	55.37	0.00	-4.52	-0.91	-0.14
218	1018	55.37	0.00	-4.52	-0.91	21.49
219	2019	59.01	0.00	-5.94	-1.22	-2.51
219	1019	59.01	0.00	-5.94	-1.22	25.95
220	2020	62.64	0.00	-7.97	-1.54	-11.30
220	1020	62.64	0.00	-7.97	-1.54	26.86
221	2021	66.28	0.00	-5.57	-1.88	-5.87
221	1021	66.28	0.00	-5.57	-1.88	20.78
222	2022	69.91	0.00	-3.78	-1.94	-0.31
222	1022	69.91	0.00	-3.78	-1.94	17.79
223	2023	73.55	0.00	-1.18	-1.44	4.87
223	1023	73.55	0.00	-1.18	-1.44	10.50
224	2024	76.66	0.00	0.21	-0.89	7.22
224	1024	76.66	0.00	0.21	-0.89	6.22
225	2025	79.77	0.00	0.39	-0.54	8.76
225	1025	79.77	0.00	0.39	-0.54	6.87
226	2026	82.88	0.00	0.53	-0.28	10.04
226	1026	82.88	0.00	0.53	-0.28	7.52
227	2027	85.99	0.00	-1.11	-0.11	5.38
227	1027	85.99	0.00	-1.11	-0.11	10.68
228	2028	89.10	0.00	-2.99	-0.15	-0.74

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MX-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-2.99	-0.15	13.60
229	2029	92.21	0.00	-4.81	-0.36	-4.15
229	1029	92.21	0.00	-4.81	-0.36	18.89
230	2030	95.32	0.00	-6.32	-0.72	-6.20
230	1030	95.32	0.00	-6.32	-0.72	24.05
231	2031	98.43	0.00	-6.59	-1.21	-5.60
231	1031	98.43	0.00	-6.59	-1.21	25.97
232	2032	101.54	0.00	-4.63	-1.67	-0.90
232	1032	101.54	0.00	-4.63	-1.67	21.28
233	2033	104.65	0.00	-2.95	-1.99	4.12
233	1033	104.65	0.00	-2.95	-1.99	18.25
234	2034	107.76	0.00	-0.07	-1.07	5.44
234	1034	107.76	0.00	-0.07	-1.07	5.77
401	1001	0.00	0.00	-0.84	-0.26	4.95
401	1	0.00	0.00	-0.84	-0.26	5.58
402	1002	3.05	0.00	-1.00	-0.50	8.32
402	2	3.05	0.00	-1.00	-0.50	9.08
403	1003	6.10	0.00	-1.09	-0.48	9.49
403	3	6.10	0.00	-1.09	-0.48	10.32
404	1004	9.15	0.00	-0.43	-0.43	7.92
404	4	9.15	0.00	-0.43	-0.43	8.24
405	1005	12.20	0.00	-1.38	-0.39	11.40
405	5	12.20	0.00	-1.38	-0.39	12.45
406	1006	15.25	0.00	-2.96	-0.49	16.69
406	6	15.25	0.00	-2.96	-0.49	18.93
407	1007	18.30	0.00	-4.32	-0.69	20.85
407	7	18.30	0.00	-4.32	-0.69	24.11
408	1008	21.35	0.00	-5.33	-0.97	21.64
408	8	21.35	0.00	-5.33	-0.97	25.67
409	1009	24.40	0.00	-5.89	-1.31	22.49
409	9	24.40	0.00	-5.89	-1.31	26.94
410	1010	27.45	0.00	-4.49	-1.54	19.88
410	10	27.45	0.00	-4.49	-1.54	23.27
411	1011	30.50	0.00	-3.25	-1.59	18.02
411	11	30.50	0.00	-3.25	-1.59	20.48
412	1012	33.55	0.00	-1.66	-1.50	14.87
412	12	33.55	0.00	-1.66	-1.50	16.12
413	1013	37.19	0.00	0.05	-1.14	11.36
413	13	37.19	0.00	0.05	-1.14	11.33
414	1014	40.82	0.00	0.37	-0.76	11.88
414	14	40.82	0.00	0.37	-0.76	11.60
415	1015	44.46	0.00	1.17	-0.49	9.65
415	15	44.46	0.00	1.17	-0.49	8.76
416	1016	48.10	0.00	-2.05	-0.49	13.49
416	16	48.10	0.00	-2.05	-0.49	15.04
417	1017	51.73	0.00	-4.19	-0.65	19.65
417	17	51.73	0.00	-4.19	-0.65	22.82
418	1018	55.37	0.00	-4.52	-0.91	21.49
418	18	55.37	0.00	-4.52	-0.91	24.91
419	1019	59.01	0.00	-5.95	-1.22	25.95
419	19	59.01	0.00	-5.95	-1.22	30.45

CÁLCULO TENSIONAL

Hipótesis de cálculo:

SCUNIFI.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-7.97	-1.54	26.86
420	20	62.64	0.00	-7.97	-1.54	32.88
421	1021	66.28	0.00	-5.57	-1.88	20.78
421	21	66.28	0.00	-5.57	-1.88	24.99
422	1022	69.91	0.00	-3.78	-1.94	17.79
422	22	69.91	0.00	-3.78	-1.94	20.65
423	1023	73.55	0.00	-1.18	-1.44	10.50
423	23	73.55	0.00	-1.18	-1.44	11.39
424	1024	76.66	0.00	0.21	-0.89	6.22
424	24	76.66	0.00	0.21	-0.89	6.06
425	1025	79.77	0.00	0.39	-0.54	6.87
425	25	79.77	0.00	0.39	-0.54	6.58
426	1026	82.88	0.00	0.53	-0.28	7.52
426	26	82.88	0.00	0.53	-0.28	7.12
427	1027	85.99	0.00	-1.11	-0.11	10.68
427	27	85.99	0.00	-1.11	-0.11	11.52
428	1028	89.10	0.00	-2.99	-0.15	13.60
428	28	89.10	0.00	-2.99	-0.15	15.86
429	1029	92.21	0.00	-4.81	-0.36	18.89
429	29	92.21	0.00	-4.81	-0.36	22.52
430	1030	95.32	0.00	-6.32	-0.72	24.05
430	30	95.32	0.00	-6.32	-0.72	28.82
431	1031	98.43	0.00	-6.59	-1.21	25.97
431	31	98.43	0.00	-6.59	-1.21	30.95
432	1032	101.54	0.00	-4.63	-1.67	21.28
432	32	101.54	0.00	-4.63	-1.67	24.78
433	1033	104.65	0.00	-2.95	-1.99	18.25
433	33	104.65	0.00	-2.95	-1.99	20.48
434	1034	107.76	0.00	-0.07	-1.07	5.77
434	34	107.76	0.00	-0.07	-1.07	5.82

CÁLCULO TENSIONAL

Hipótesis de cálculo:

SCUNIFI.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-104.85	6.00	-1.02
1	2	3.05	0.00	14.70	5.33	-44.59
2	2	3.05	0.00	13.73	13.92	-44.09
2	3	6.10	0.00	13.73	13.92	-85.96
3	3	6.10	0.00	13.35	20.67	-85.50
3	4	9.15	0.00	13.51	17.95	-126.32
4	4	9.15	0.00	13.80	22.05	-125.92
4	5	12.20	0.00	13.80	22.05	-168.01
5	5	12.20	0.00	14.55	24.83	-167.68
5	6	15.25	0.00	14.55	24.83	-212.05
6	6	15.25	0.00	15.67	26.58	-211.81
6	7	18.30	0.00	15.67	26.58	-259.60
7	7	18.30	0.00	17.05	27.66	-259.48
7	8	21.35	0.00	17.05	27.66	-311.49
8	8	21.35	0.00	18.56	28.57	-311.53
8	9	24.40	0.00	18.92	14.60	-368.74
9	9	24.40	0.00	20.15	17.34	-369.01
9	10	27.45	0.00	45.34	-11.08	-451.44
10	10	27.45	0.00	45.32	-1.42	-451.42
10	11	30.50	0.00	89.23	-19.23	-668.22
11	11	30.50	0.00	88.33	-4.65	-667.94
11	12	33.55	0.00	153.61	-44.28	-1043.52
12	10012	33.55	0.00	-156.31	-21.87	-1043.61
12	13	37.19	0.00	-81.63	-55.11	-602.67
13	13	37.19	0.00	-82.51	-39.04	-603.18
13	14	40.82	0.00	-38.74	-48.02	-367.87
14	14	40.82	0.00	-38.46	-38.53	-368.03
14	15	44.46	0.00	-6.03	-4.58	-291.61
15	15	44.46	0.00	-4.31	1.55	-291.15
15	16	48.10	0.00	-3.96	-6.30	-275.76
16	16	48.10	0.00	-1.75	-2.50	-275.51
16	17	51.73	0.00	-1.75	-2.50	-269.13
17	17	51.73	0.00	0.62	0.69	-269.04
17	18	55.37	0.00	0.62	0.69	-271.29
18	18	55.37	0.00	3.01	3.83	-271.36
18	19	59.01	0.00	3.01	3.83	-282.31
19	19	59.01	0.00	5.27	7.49	-282.55
19	20	62.64	0.00	5.61	-0.33	-302.66
20	20	62.64	0.00	7.41	5.59	-303.11
20	21	66.28	0.00	39.22	38.84	-381.83
21	21	66.28	0.00	39.60	48.11	-381.68
21	22	69.91	0.00	83.27	39.21	-618.34
22	22	69.91	0.00	82.48	55.09	-617.84
22	23	73.55	0.00	157.08	22.06	-1060.46
23	10023	73.55	0.00	-155.58	44.43	-1060.40
23	24	76.66	0.00	-89.06	4.21	-671.99
24	24	76.66	0.00	-89.91	18.75	-672.31
24	25	79.77	0.00	-45.28	1.42	-448.25
25	25	79.77	0.00	-45.28	11.05	-448.29
25	26	82.88	0.00	-19.71	-16.89	-363.82
26	26	82.88	0.00	-18.46	-14.22	-363.56

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-18.08	-28.40	-306.67
27	27	85.99	0.00	-16.56	-27.56	-306.64
27	28	89.10	0.00	-16.56	-27.56	-255.15
28	28	89.10	0.00	-15.16	-26.53	-255.27
28	29	92.21	0.00	-15.16	-26.53	-208.13
29	29	92.21	0.00	-14.03	-24.82	-208.37
29	30	95.32	0.00	-14.03	-24.82	-164.72
30	30	95.32	0.00	-13.28	-22.07	-165.05
30	31	98.43	0.00	-13.28	-22.07	-123.74
31	31	98.43	0.00	-12.99	-17.98	-124.14
31	32	101.54	0.00	-12.83	-20.74	-84.11
32	32	101.54	0.00	-13.22	-13.97	-84.56
32	33	104.65	0.00	-13.22	-13.97	-43.45
33	33	104.65	0.00	-14.21	-5.36	-43.94
33	34	107.76	0.00	106.27	-5.82	-1.07
101	101	0.00	0.00	6.96	-0.32	-0.26
101	102	3.05	0.00	8.32	-0.26	-25.60
102	102	3.05	0.00	8.93	-2.59	-26.02
102	103	6.10	0.00	8.93	-2.59	-53.27
103	103	6.10	0.00	9.02	-6.61	-53.67
103	104	9.15	0.00	9.02	-6.61	-81.17
104	104	9.15	0.00	8.62	-12.21	-81.53
104	105	12.20	0.00	8.62	-12.21	-107.83
105	105	12.20	0.00	7.80	-19.24	-108.13
105	106	15.25	0.00	7.80	-19.24	-131.93
106	106	15.25	0.00	6.62	-27.54	-132.16
106	107	18.30	0.00	6.87	-28.91	-152.89
107	107	18.30	0.00	5.49	-38.72	-153.01
107	108	21.35	0.00	5.49	-38.72	-169.75
108	108	21.35	0.00	3.98	-49.10	-169.71
108	109	24.40	0.00	3.98	-49.10	-181.86
109	109	24.40	0.00	2.56	-59.46	-181.61
109	110	27.45	0.00	2.56	-59.46	-189.43
110	110	27.45	0.00	1.51	-68.94	-188.91
110	111	30.50	0.00	29.79	18.81	-216.26
111	111	30.50	0.00	35.43	20.58	-216.75
111	112	33.55	0.00	35.43	20.58	-324.80
112	10112	33.55	0.00	-39.93	12.34	-324.72
112	113	37.19	0.00	-39.93	12.34	-179.53
113	113	37.19	0.00	-36.55	6.18	-178.50
113	114	40.82	0.00	3.36	78.76	-132.51
114	114	40.82	0.00	3.45	63.86	-133.18
114	115	44.46	0.00	6.79	55.48	-156.98
115	115	44.46	0.00	4.88	39.36	-157.41
115	116	48.10	0.00	4.99	36.68	-175.53
116	116	48.10	0.00	2.74	19.37	-175.75
116	117	51.73	0.00	2.78	17.02	-185.78
117	117	51.73	0.00	0.40	-1.12	-185.87
117	118	55.37	0.00	0.40	-1.12	-187.33
118	118	55.37	0.00	-1.96	-21.64	-187.27
118	119	59.01	0.00	-1.96	-21.64	-180.14

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Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MZ-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ-
Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-4.26	-39.14	-179.93
119	120	62.64	0.00	-4.15	-41.77	-164.48
120	120	62.64	0.00	-6.14	-58.19	-164.06
120	121	66.28	0.00	-4.07	-63.98	-142.31
121	121	66.28	0.00	-5.33	-77.89	-141.60
121	122	69.91	0.00	36.43	-8.83	-184.25
122	122	69.91	0.00	39.72	-15.41	-185.27
122	123	73.55	0.00	39.72	-15.41	-329.71
123	10123	73.55	0.00	-36.21	-23.97	-329.75
123	124	76.66	0.00	-36.21	-23.97	-217.14
124	124	76.66	0.00	-33.62	-30.36	-216.45
124	125	79.77	0.00	-1.23	68.96	-186.81
125	125	79.77	0.00	-2.31	59.40	-187.33
125	126	82.88	0.00	-2.31	59.40	-180.14
126	126	82.88	0.00	-3.76	48.97	-180.38
126	127	85.99	0.00	-3.76	48.97	-168.70
127	127	85.99	0.00	-5.28	38.54	-168.73
127	128	89.10	0.00	-5.28	38.54	-152.31
128	128	89.10	0.00	-6.68	28.71	-152.19
128	129	92.21	0.00	-6.43	27.32	-131.63
129	129	92.21	0.00	-7.62	19.03	-131.40
129	130	95.32	0.00	-7.62	19.03	-107.71
130	130	95.32	0.00	-8.43	12.02	-107.41
130	131	98.43	0.00	-8.43	12.02	-81.18
131	131	98.43	0.00	-8.82	6.47	-80.82
131	132	101.54	0.00	-8.82	6.47	-53.38
132	132	101.54	0.00	-8.73	2.49	-52.99
132	133	104.65	0.00	-8.73	2.49	-25.84
133	133	104.65	0.00	-8.11	0.22	-25.42
133	134	107.76	0.00	-6.75	0.27	-0.26
301	101	0.00	0.00	-1.30	-0.07	-1.47
301	2001	0.00	0.00	-0.88	-0.10	-0.57
302	102	3.05	0.00	-2.85	0.62	-3.16
302	2002	3.05	0.00	-2.11	0.44	-1.52
303	103	6.10	0.00	-4.75	1.43	-7.13
303	2003	6.10	0.00	-4.19	1.06	-3.75
304	104	9.15	0.00	-6.79	1.12	-12.31
304	2004	9.15	0.00	-6.56	1.08	-7.28
305	105	12.20	0.00	-7.85	0.60	-15.80
305	2005	12.20	0.00	-7.85	0.60	-9.87
306	106	15.25	0.00	-8.46	0.07	-17.31
306	2006	15.25	0.00	-7.90	0.07	-11.12
307	107	18.30	0.00	-8.28	-0.45	-16.98
307	2007	18.30	0.00	-7.74	-0.46	-10.93
308	108	21.35	0.00	-7.29	-0.92	-14.94
308	2008	21.35	0.00	-7.29	-0.92	-9.43
309	109	24.40	0.00	-6.06	-1.29	-11.35
309	2009	24.40	0.00	-5.81	-1.23	-6.88
310	110	27.45	0.00	-4.39	-1.29	-6.94
310	2010	27.45	0.00	-3.85	-1.17	-3.86
311	111	30.50	0.00	-2.73	-0.76	-3.66

CÁLCULO TENSIONAL

Hipótesis de cálculo:

SCUNIFI.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-2.40	-0.51	-1.79
312	112	33.55	0.00	-2.05	0.08	-2.87
312	2012	33.55	0.00	-2.05	0.08	-1.32
313	113	37.19	0.00	-3.66	1.14	-5.82
313	2013	37.19	0.00	-3.33	0.83	-3.11
314	114	40.82	0.00	-6.23	1.68	-11.65
314	2014	40.82	0.00	-5.71	1.54	-7.16
315	115	44.46	0.00	-8.51	1.52	-18.14
315	2015	44.46	0.00	-8.30	1.46	-11.84
316	116	48.10	0.00	-10.13	0.97	-23.09
316	2016	48.10	0.00	-10.13	0.97	-15.43
317	117	51.73	0.00	-10.93	0.32	-25.56
317	2017	51.73	0.00	-10.62	0.35	-17.33
318	118	55.37	0.00	-10.93	-0.32	-25.57
318	2018	55.37	0.00	-10.62	-0.34	-17.33
319	119	59.01	0.00	-10.13	-0.97	-23.10
319	2019	59.01	0.00	-10.13	-0.97	-15.44
320	120	62.64	0.00	-8.52	-1.52	-18.17
320	2020	62.64	0.00	-8.31	-1.46	-11.86
321	121	66.28	0.00	-6.25	-1.68	-11.68
321	2021	66.28	0.00	-5.72	-1.54	-7.19
322	122	69.91	0.00	-3.68	-1.14	-5.87
322	2022	69.91	0.00	-3.35	-0.83	-3.14
323	123	73.55	0.00	-2.08	-0.07	-2.92
323	2023	73.55	0.00	-2.08	-0.07	-1.35
324	124	76.66	0.00	-2.78	0.79	-3.74
324	2024	76.66	0.00	-2.45	0.53	-1.85
325	125	79.77	0.00	-4.50	1.34	-7.16
325	2025	79.77	0.00	-3.97	1.21	-4.02
326	126	82.88	0.00	-6.26	1.34	-11.80
326	2026	82.88	0.00	-6.00	1.28	-7.19
327	127	85.99	0.00	-7.56	0.96	-15.59
327	2027	85.99	0.00	-7.56	0.96	-9.88
328	128	89.10	0.00	-8.58	0.47	-17.73
328	2028	89.10	0.00	-8.04	0.49	-11.48
329	129	92.21	0.00	-8.77	-0.07	-18.09
329	2029	92.21	0.00	-8.21	-0.07	-11.68
330	130	95.32	0.00	-8.13	-0.62	-16.50
330	2030	95.32	0.00	-8.13	-0.62	-10.35
331	131	98.43	0.00	-7.02	-1.16	-12.81
331	2031	98.43	0.00	-6.78	-1.12	-7.62
332	132	101.54	0.00	-4.64	-1.32	-7.36
332	2032	101.54	0.00	-4.31	-1.10	-3.90
333	133	104.65	0.00	-2.58	-0.32	-3.24
333	2033	104.65	0.00	-2.16	-0.46	-1.55
334	134	107.76	0.00	-1.32	0.07	-1.51
334	2034	107.76	0.00	-1.01	0.14	-0.61
201	2001	0.00	0.00	-0.88	-0.10	-0.57
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	-2.11	0.44	-1.52
202	1002	3.05	0.00	0.00	0.00	0.00

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MZ-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

SCUNIFI.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-4.19	1.06	-3.75
203	1003	6.10	0.00	0.00	0.00	0.00
204	2004	9.15	0.00	-6.56	1.08	-7.28
204	1004	9.15	0.00	0.00	0.00	0.00
205	2005	12.20	0.00	-7.85	0.60	-9.87
205	1005	12.20	0.00	0.00	0.00	0.00
206	2006	15.25	0.00	-7.90	0.07	-11.12
206	1006	15.25	0.00	0.41	-0.07	-0.01
207	2007	18.30	0.00	-7.74	-0.46	-10.93
207	1007	18.30	0.00	0.96	-0.08	-0.30
208	2008	21.35	0.00	-7.29	-0.92	-9.43
208	1008	21.35	0.00	1.09	-0.01	-0.54
209	2009	24.40	0.00	-5.81	-1.23	-6.88
209	1009	24.40	0.00	1.13	0.10	-0.56
210	2010	27.45	0.00	-3.85	-1.17	-3.86
210	1010	27.45	0.00	0.81	0.16	-0.33
211	2011	30.50	0.00	-2.40	-0.51	-1.79
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	-2.05	0.08	-1.32
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	-3.33	0.83	-3.11
213	1013	37.19	0.00	0.00	0.00	0.00
214	2014	40.82	0.00	-5.71	1.54	-7.16
214	1014	40.82	0.00	0.96	-0.14	-0.41
215	2015	44.46	0.00	-8.30	1.46	-11.84
215	1015	44.46	0.00	1.49	-0.03	-0.66
216	2016	48.10	0.00	-10.13	0.97	-15.43
216	1016	48.10	0.00	1.12	0.08	-0.53
217	2017	51.73	0.00	-10.62	0.35	-17.33
217	1017	51.73	0.00	0.91	0.14	-0.19
218	2018	55.37	0.00	-10.62	-0.34	-17.33
218	1018	55.37	0.00	0.94	-0.15	-0.25
219	2019	59.01	0.00	-10.13	-0.97	-15.44
219	1019	59.01	0.00	1.39	-0.10	-0.62
220	2020	62.64	0.00	-8.31	-1.46	-11.86
220	1020	62.64	0.00	1.56	0.03	-0.79
221	2021	66.28	0.00	-5.72	-1.54	-7.19
221	1021	66.28	0.00	1.28	0.17	-0.53
222	2022	69.91	0.00	-3.35	-0.83	-3.14
222	1022	69.91	0.00	0.00	0.00	0.00
223	2023	73.55	0.00	-2.08	-0.07	-1.35
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	-2.45	0.53	-1.85
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	-3.97	1.21	-4.02
225	1025	79.77	0.00	0.82	-0.16	-0.35
226	2026	82.88	0.00	-6.00	1.28	-7.19
226	1026	82.88	0.00	1.14	-0.10	-0.59
227	2027	85.99	0.00	-7.55	0.96	-9.88
227	1027	85.99	0.00	1.09	0.01	-0.56
228	2028	89.10	0.00	-8.04	0.49	-11.48

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.96	0.08	-0.31
229	2029	92.21	0.00	-8.21	-0.07	-11.68
229	1029	92.21	0.00	0.40	0.07	-0.01
230	2030	95.32	0.00	-8.13	-0.62	-10.35
230	1030	95.32	0.00	0.00	0.00	0.00
231	2031	98.43	0.00	-6.78	-1.12	-7.62
231	1031	98.43	0.00	0.00	0.00	0.00
232	2032	101.54	0.00	-4.31	-1.10	-3.90
232	1032	101.54	0.00	0.00	0.00	0.00
233	2033	104.65	0.00	-2.16	-0.46	-1.55
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	-1.01	0.14	-0.61
234	1034	107.76	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.31	0.27	-0.13
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00	0.00
406	1006	15.25	0.00	0.41	-0.07	-0.01
406	6	15.25	0.00	0.77	-0.13	-0.50
407	1007	18.30	0.00	0.96	-0.08	-0.30
407	7	18.30	0.00	1.30	-0.11	-1.09
408	1008	21.35	0.00	1.09	-0.01	-0.54
408	8	21.35	0.00	1.47	0.00	-1.50
409	1009	24.40	0.00	1.13	0.10	-0.56
409	9	24.40	0.00	1.31	0.11	-1.55
410	1010	27.45	0.00	0.81	0.16	-0.33
410	10	27.45	0.00	1.22	0.27	-1.15
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.79	0.35	-0.33
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.74	-0.27	-0.32
414	1014	40.82	0.00	0.96	-0.14	-0.41
414	14	40.82	0.00	1.45	-0.23	-1.42
415	1015	44.46	0.00	1.49	-0.03	-0.66
415	15	44.46	0.00	1.49	-0.03	-1.79
416	1016	48.10	0.00	1.12	0.08	-0.53
416	16	48.10	0.00	1.52	0.11	-1.54
417	1017	51.73	0.00	0.91	0.14	-0.19
417	17	51.73	0.00	1.76	-0.01	-1.24
418	1018	55.37	0.00	0.94	-0.15	-0.25
418	18	55.37	0.00	1.95	-0.04	-1.29
419	1019	59.01	0.00	1.39	-0.10	-0.62
419	19	59.01	0.00	1.59	-0.11	-1.70

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFI.ENV_TREN_GENERICO.MZ-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra3.Mx+ + [0; 1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	1.56	0.03	-0.79
420	20	62.64	0.00	1.56	0.03	-1.97
421	1021	66.28	0.00	1.28	0.17	-0.53
421	21	66.28	0.00	1.54	0.23	-1.63
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	1.03	0.40	-0.50
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.80	-0.35	-0.35
425	1025	79.77	0.00	0.82	-0.16	-0.35
425	25	79.77	0.00	1.24	-0.27	-1.20
426	1026	82.88	0.00	1.14	-0.10	-0.59
426	26	82.88	0.00	1.32	-0.10	-1.59
427	1027	85.99	0.00	1.09	0.01	-0.56
427	27	85.99	0.00	1.48	0.00	-1.54
428	1028	89.10	0.00	0.96	0.08	-0.31
428	28	89.10	0.00	1.30	0.11	-1.11
429	1029	92.21	0.00	0.40	0.07	-0.01
429	29	92.21	0.00	0.77	0.13	-0.50
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.34	-0.28	-0.22

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	2.74	0.93	0.05
1	2	3.05	0.00	2.74	0.93	-8.32
2	2	3.05	0.00	2.60	2.14	-8.23
2	3	6.10	0.00	2.60	2.14	-16.15
3	3	6.10	0.00	2.57	3.10	-16.06
3	4	9.15	0.00	2.57	3.10	-23.89
4	4	9.15	0.00	2.63	3.74	-23.81
4	5	12.20	0.00	2.87	-16.29	90.87
5	5	12.20	0.00	2.79	4.13	-31.79
5	6	15.25	0.00	9.21	-21.28	83.34
6	6	15.25	0.00	8.24	-17.22	83.39
6	7	18.30	0.00	11.52	-22.55	86.01
7	7	18.30	0.00	10.45	-17.99	86.12
7	8	21.35	0.00	14.22	-18.26	80.58
8	8	21.35	0.00	13.18	-13.86	80.76
8	9	24.40	0.00	17.18	-18.31	61.62
9	9	24.40	0.00	16.22	-14.02	61.87
9	10	27.45	0.00	20.45	-18.52	28.14
10	10	27.45	0.00	19.67	-14.68	28.42
10	11	30.50	0.00	24.15	-19.43	-21.48
11	11	30.50	0.00	23.60	-16.21	-21.20
11	12	33.55	0.00	29.31	-18.00	-92.14
12	10012	33.55	0.00	2.55	8.11	23.17
12	13	37.19	0.00	2.55	8.11	13.90
13	13	37.19	0.00	2.46	9.16	13.95
13	14	40.82	0.00	2.46	9.16	5.01
14	14	40.82	0.00	2.43	10.07	5.08
14	15	44.46	0.00	2.43	10.07	-3.74
15	15	44.46	0.00	2.46	10.83	-3.67
15	16	48.10	0.00	2.46	10.83	-12.63
16	16	48.10	0.00	2.58	11.41	-12.56
16	17	51.73	0.00	4.91	-21.17	97.91
17	17	51.73	0.00	3.37	-14.75	97.92
17	18	55.37	0.00	8.18	-18.39	110.00
18	18	55.37	0.00	6.46	-11.44	110.10
18	19	59.01	0.00	11.55	-14.41	106.46
19	19	59.01	0.00	9.83	-7.46	106.66
19	20	62.64	0.00	15.18	-10.19	85.00
20	20	62.64	0.00	13.65	-3.80	85.30
20	21	66.28	0.00	19.23	-6.86	43.53
21	21	66.28	0.00	18.04	-1.54	43.90
21	22	69.91	0.00	23.76	-5.41	-19.30
22	22	69.91	0.00	22.99	-1.39	-18.94
22	23	73.55	0.00	29.60	-10.13	-101.24
23	10023	73.55	0.00	1.06	-7.10	22.10
23	24	76.66	0.00	1.06	-7.10	18.80
24	24	76.66	0.00	0.95	-6.17	18.79
24	25	79.77	0.00	0.95	-6.17	15.84
25	25	79.77	0.00	0.84	-5.28	15.84
25	26	82.88	0.00	0.84	-5.28	13.24
26	26	82.88	0.00	0.74	-4.46	13.24

f4.rea

Programa DINTEL PACADAR S.A.
TRENI.EnvTrenGen.VY+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	1.89	-16.50	10.77
27	27	85.99	0.00	1.43	-13.70	10.77
27	28	89.10	0.00	4.45	-17.98	45.72
28	28	89.10	0.00	3.71	-14.20	45.72
28	29	92.21	0.00	6.66	-17.33	69.53
29	29	92.21	0.00	5.71	-12.84	69.57
29	30	95.32	0.00	8.99	-15.26	85.91
30	30	95.32	0.00	7.92	-10.32	86.02
30	31	98.43	0.00	11.56	-12.05	91.85
31	31	98.43	0.00	10.51	-7.06	92.05
31	32	101.54	0.00	14.58	-8.23	83.23
32	32	101.54	0.00	13.71	-3.71	83.53
32	33	104.65	0.00	18.29	-4.48	54.66
33	33	104.65	0.00	17.76	-0.90	55.04
33	34	107.76	0.00	23.77	-1.36	-0.19
101	101	0.00	0.00	1.62	-0.06	-0.04
101	102	3.05	0.00	1.62	-0.06	-4.99
102	102	3.05	0.00	1.73	-0.50	-5.07
102	103	6.10	0.00	1.73	-0.50	-10.35
103	103	6.10	0.00	1.74	-1.15	-10.22
103	104	9.15	0.00	1.74	-1.15	-15.54
104	104	9.15	0.00	1.67	-2.23	-15.62
104	105	12.20	0.00	1.67	-2.23	-20.73
105	105	12.20	0.00	1.52	-3.61	-20.79
105	106	15.25	0.00	1.52	-3.61	-25.42
106	106	15.25	0.00	1.29	-5.24	-25.47
106	107	18.30	0.00	1.29	-5.24	-29.39
107	107	18.30	0.00	2.53	12.96	50.46
107	108	21.35	0.00	2.53	12.96	42.74
108	108	21.35	0.00	4.00	15.81	42.57
108	109	24.40	0.00	4.00	15.81	30.37
109	109	24.40	0.00	5.21	17.93	30.20
109	110	27.45	0.00	5.21	17.93	14.30
110	110	27.45	0.00	6.11	19.14	14.02
110	111	30.50	0.00	6.11	19.14	-4.61
111	111	30.50	0.00	6.67	18.88	-4.94
111	112	33.55	0.00	6.67	18.88	-25.28
112	10112	33.55	0.00	1.48	-2.89	11.13
112	113	37.19	0.00	1.48	-2.89	5.74
113	113	37.19	0.00	1.55	-3.71	5.72
113	114	40.82	0.00	1.55	-3.71	0.09
114	114	40.82	0.00	1.57	-4.43	0.03
114	115	44.46	0.00	1.57	-4.43	-5.69
115	115	44.46	0.00	1.53	-5.42	-5.75
115	116	48.10	0.00	1.53	-5.42	-11.31
116	116	48.10	0.00	1.41	-6.72	-11.37
116	117	51.73	0.00	1.41	-6.72	-16.49
117	117	51.73	0.00	1.20	-8.34	-16.55
117	118	55.37	0.00	1.20	-8.34	-20.93
118	118	55.37	0.00	2.15	6.49	56.22
118	119	59.01	0.00	2.15	6.49	48.40

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	4.02	9.91	51.64
119	120	62.64	0.00	4.02	9.91	37.04
120	120	62.64	0.00	5.58	12.30	37.76
120	121	66.28	0.00	5.58	12.30	17.46
121	121	66.28	0.00	6.77	14.48	17.09
121	122	69.91	0.00	6.77	14.48	-7.54
122	122	69.91	0.00	7.44	15.09	-7.92
122	123	73.55	0.00	7.44	15.09	-34.98
123	10123	73.55	0.00	0.15	14.21	-34.30
123	124	76.66	0.00	0.15	14.21	-34.78
124	124	76.66	0.00	0.12	1.81	8.44
124	125	79.77	0.00	0.12	1.81	8.08
125	125	79.77	0.00	0.17	1.92	9.33
125	126	82.88	0.00	0.17	1.92	8.80
126	126	82.88	0.00	0.23	2.00	9.67
126	127	85.99	0.00	0.23	2.00	8.95
127	127	85.99	0.00	0.30	1.80	8.94
127	128	89.10	0.00	0.30	1.80	8.02
128	128	89.10	0.00	0.36	1.79	8.43
128	129	92.21	0.00	0.36	1.79	7.33
129	129	92.21	0.00	0.85	-4.35	50.89
129	130	95.32	0.00	0.85	-4.35	48.26
130	130	95.32	0.00	2.44	-2.40	52.05
130	131	98.43	0.00	2.44	-2.40	44.46
131	131	98.43	0.00	3.84	-0.71	45.55
131	132	101.54	0.00	3.84	-0.71	33.63
132	132	101.54	0.00	4.93	0.73	33.32
132	133	104.65	0.00	4.93	0.73	17.98
133	133	104.65	0.00	5.62	0.73	17.66
133	134	107.76	0.00	5.62	0.73	0.19
301	101	0.00	0.00	0.04	0.15	0.93
301	2001	0.00	0.00	0.04	0.15	0.90
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.01	-0.04	0.69
303	2003	6.10	0.00	0.01	-0.04	0.69
304	104	9.15	0.00	0.08	-0.07	1.05
304	2004	9.15	0.00	0.08	-0.07	0.99
305	105	12.20	0.00	0.16	-0.06	1.32
305	2005	12.20	0.00	0.16	-0.06	1.20
306	106	15.25	0.00	0.23	-0.04	1.57
306	2006	15.25	0.00	0.23	-0.04	1.39
307	107	18.30	0.00	0.29	-0.02	1.77
307	2007	18.30	0.00	0.29	-0.02	1.55
308	108	21.35	0.00	0.32	0.00	1.90
308	2008	21.35	0.00	0.32	0.00	1.66
309	109	24.40	0.00	0.32	0.04	1.95
309	2009	24.40	0.00	0.32	0.04	1.70
310	110	27.45	0.00	0.28	0.09	1.85
310	2010	27.45	0.00	0.28	0.09	1.64
311	111	30.50	0.00	0.17	0.13	1.50

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.17	0.13	1.37
312	112	33.55	0.00	0.04	-0.17	1.04
312	2012	33.55	0.00	0.04	-0.17	1.01
313	113	37.19	0.00	0.22	-0.11	1.61
313	2013	37.19	0.00	0.22	-0.11	1.44
314	114	40.82	0.00	0.32	-0.06	2.02
314	2014	40.82	0.00	0.32	-0.06	1.78
315	115	44.46	0.00	0.34	-0.01	2.19
315	2015	44.46	0.00	0.34	-0.01	1.93
316	116	48.10	0.00	0.32	0.02	2.03
316	2016	48.10	0.00	0.32	0.02	1.79
317	117	51.73	0.00	0.27	0.05	1.77
317	2017	51.73	0.00	0.27	0.05	1.57
318	118	55.37	0.00	0.28	-0.05	1.80
318	2018	55.37	0.00	0.28	-0.05	1.59
319	119	59.01	0.00	0.34	-0.02	2.08
319	2019	59.01	0.00	0.34	-0.02	1.82
320	120	62.64	0.00	0.37	0.01	2.25
320	2020	62.64	0.00	0.37	0.01	1.98
321	121	66.28	0.00	0.34	0.06	2.08
321	2021	66.28	0.00	0.34	0.06	1.82
322	122	69.91	0.00	0.24	0.13	1.86
322	2022	69.91	0.00	0.24	0.13	1.68
323	123	73.55	0.00	0.06	0.17	1.09
323	2023	73.55	0.00	0.06	0.17	1.05
324	124	76.66	0.00	0.18	-0.13	1.51
324	2024	76.66	0.00	0.18	-0.13	1.38
325	125	79.77	0.00	0.28	-0.09	1.86
325	2025	79.77	0.00	0.28	-0.09	1.65
326	126	82.88	0.00	0.33	-0.04	1.96
326	2026	82.88	0.00	0.33	-0.04	1.71
327	127	85.99	0.00	0.32	0.00	1.91
327	2027	85.99	0.00	0.32	0.00	1.67
328	128	89.10	0.00	0.29	0.03	1.84
328	2028	89.10	0.00	0.29	0.03	1.62
329	129	92.21	0.00	0.23	0.05	1.64
329	2029	92.21	0.00	0.23	0.05	1.46
330	130	95.32	0.00	0.16	0.06	1.32
330	2030	95.32	0.00	0.16	0.06	1.20
331	131	98.43	0.00	0.08	0.07	1.05
331	2031	98.43	0.00	0.08	0.07	0.98
332	132	101.54	0.00	0.01	0.04	0.69
332	2032	101.54	0.00	0.01	0.04	0.68
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.06	-0.15	0.99
334	2034	107.76	0.00	0.06	-0.15	0.95
201	2001	0.00	0.00	0.04	0.15	0.90
201	1001	0.00	0.00	0.04	0.15	0.73
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY+
Envolvente de tren de cargas plano genérico. VY+
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.01	-0.04	0.69
203	1003	6.10	0.00	0.01	-0.04	0.65
204	2004	9.15	0.00	0.08	-0.07	0.99
204	1004	9.15	0.00	0.08	-0.07	0.60
205	2005	12.20	0.00	0.16	-0.06	1.20
205	1005	12.20	0.00	0.16	-0.06	0.43
206	2006	15.25	0.00	0.23	-0.04	1.39
206	1006	15.25	0.00	0.23	-0.04	0.28
207	2007	18.30	0.00	0.29	-0.02	1.55
207	1007	18.30	0.00	0.29	-0.02	0.18
208	2008	21.35	0.00	0.32	0.00	1.66
208	1008	21.35	0.00	0.32	0.00	0.13
209	2009	24.40	0.00	0.32	0.04	1.70
209	1009	24.40	0.00	0.32	0.04	0.16
210	2010	27.45	0.00	0.28	0.09	1.64
210	1010	27.45	0.00	0.28	0.09	0.32
211	2011	30.50	0.00	0.17	0.13	1.37
211	1011	30.50	0.00	0.17	0.13	0.55
212	2012	33.55	0.00	0.04	-0.17	1.01
212	1012	33.55	0.00	0.04	-0.17	0.83
213	2013	37.19	0.00	0.22	-0.11	1.44
213	1013	37.19	0.00	0.22	-0.11	0.39
214	2014	40.82	0.00	0.32	-0.06	1.78
214	1014	40.82	0.00	0.32	-0.06	0.26
215	2015	44.46	0.00	0.34	-0.01	1.93
215	1015	44.46	0.00	0.34	-0.01	0.28
216	2016	48.10	0.00	0.32	0.02	1.79
216	1016	48.10	0.00	0.32	0.02	0.24
217	2017	51.73	0.00	0.27	0.05	1.57
217	1017	51.73	0.00	0.27	0.05	0.30
218	2018	55.37	0.00	0.28	-0.05	1.59
218	1018	55.37	0.00	0.28	-0.05	0.26
219	2019	59.01	0.00	0.34	-0.02	1.82
219	1019	59.01	0.00	0.34	-0.02	0.20
220	2020	62.64	0.00	0.37	0.01	1.98
220	1020	62.64	0.00	0.37	0.01	0.22
221	2021	66.28	0.00	0.34	0.06	1.82
221	1021	66.28	0.00	0.34	0.06	0.20
222	2022	69.91	0.00	0.24	0.13	1.68
222	1022	69.91	0.00	0.24	0.13	0.53
223	2023	73.55	0.00	0.06	0.17	1.05
223	1023	73.55	0.00	0.06	0.17	0.78
224	2024	76.66	0.00	0.18	-0.13	1.38
224	1024	76.66	0.00	0.18	-0.13	0.54
225	2025	79.77	0.00	0.28	-0.09	1.65
225	1025	79.77	0.00	0.28	-0.09	0.31
226	2026	82.88	0.00	0.33	-0.04	1.71
226	1026	82.88	0.00	0.33	-0.04	0.15
227	2027	85.99	0.00	0.32	0.00	1.67
227	1027	85.99	0.00	0.32	0.00	0.12
228	2028	89.10	0.00	0.29	0.03	1.62

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.29	0.03	0.25
229	2029	92.21	0.00	0.23	0.05	1.46
229	1029	92.21	0.00	0.23	0.05	0.35
230	2030	95.32	0.00	0.16	0.06	1.20
230	1030	95.32	0.00	0.16	0.06	0.43
231	2031	98.43	0.00	0.08	0.07	0.98
231	1031	98.43	0.00	0.08	0.07	0.60
232	2032	101.54	0.00	0.01	0.04	0.68
232	1032	101.54	0.00	0.01	0.04	0.65
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	0.06	-0.15	0.95
234	1034	107.76	0.00	0.06	-0.15	0.68
401	1001	0.00	0.00	0.04	0.15	0.73
401	1	0.00	0.00	0.04	0.15	0.70
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.01	-0.04	0.65
403	3	6.10	0.00	0.01	-0.04	0.65
404	1004	9.15	0.00	0.08	-0.07	0.60
404	4	9.15	0.00	0.08	-0.07	0.54
405	1005	12.20	0.00	0.16	-0.06	0.43
405	5	12.20	0.00	0.16	-0.06	0.31
406	1006	15.25	0.00	0.23	-0.04	0.28
406	6	15.25	0.00	0.23	-0.04	0.11
407	1007	18.30	0.00	0.29	-0.02	0.18
407	7	18.30	0.00	0.29	-0.02	-0.04
408	1008	21.35	0.00	0.32	0.00	0.13
408	8	21.35	0.00	0.32	0.00	-0.11
409	1009	24.40	0.00	0.32	0.04	0.16
409	9	24.40	0.00	0.32	0.04	-0.08
410	1010	27.45	0.00	0.28	0.09	0.32
410	10	27.45	0.00	0.28	0.09	0.11
411	1011	30.50	0.00	0.17	0.13	0.55
411	11	30.50	0.00	0.17	0.13	0.41
412	1012	33.55	0.00	0.04	-0.17	0.83
412	12	33.55	0.00	0.04	-0.17	0.80
413	1013	37.19	0.00	0.22	-0.11	0.39
413	13	37.19	0.00	0.22	-0.11	0.22
414	1014	40.82	0.00	0.32	-0.06	0.26
414	14	40.82	0.00	0.32	-0.06	0.02
415	1015	44.46	0.00	0.34	-0.01	0.28
415	15	44.46	0.00	0.34	-0.01	0.02
416	1016	48.10	0.00	0.32	0.02	0.24
416	16	48.10	0.00	0.32	0.02	0.00
417	1017	51.73	0.00	0.27	0.05	0.30
417	17	51.73	0.00	0.27	0.05	0.09
418	1018	55.37	0.00	0.28	-0.05	0.26
418	18	55.37	0.00	0.28	-0.05	0.05
419	1019	59.01	0.00	0.34	-0.02	0.20
419	19	59.01	0.00	0.34	-0.02	-0.06

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Programa DINTEL PACADAR S.A.
TRENI.EnvTrenGen.VY+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.37	0.01	0.22
420	20	62.64	0.00	0.37	0.01	-0.05
421	1021	66.28	0.00	0.34	0.06	0.20
421	21	66.28	0.00	0.34	0.06	-0.05
422	1022	69.91	0.00	0.24	0.13	0.53
422	22	69.91	0.00	0.24	0.13	0.35
423	1023	73.55	0.00	0.06	0.17	0.78
423	23	73.55	0.00	0.06	0.17	0.74
424	1024	76.66	0.00	0.18	-0.13	0.54
424	24	76.66	0.00	0.18	-0.13	0.40
425	1025	79.77	0.00	0.28	-0.09	0.31
425	25	79.77	0.00	0.28	-0.09	0.09
426	1026	82.88	0.00	0.33	-0.04	0.15
426	26	82.88	0.00	0.33	-0.04	-0.09
427	1027	85.99	0.00	0.32	0.00	0.12
427	27	85.99	0.00	0.32	0.00	-0.12
428	1028	89.10	0.00	0.29	0.03	0.25
428	28	89.10	0.00	0.29	0.03	0.03
429	1029	92.21	0.00	0.23	0.05	0.35
429	29	92.21	0.00	0.23	0.05	0.17
430	1030	95.32	0.00	0.16	0.06	0.43
430	30	95.32	0.00	0.16	0.06	0.31
431	1031	98.43	0.00	0.08	0.07	0.60
431	31	98.43	0.00	0.08	0.07	0.54
432	1032	101.54	0.00	0.01	0.04	0.65
432	32	101.54	0.00	0.01	0.04	0.65
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.06	-0.15	0.68
434	34	107.76	0.00	0.06	-0.15	0.63

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-23.46	1.41	-0.19
1	2	3.05	0.00	2.36	1.00	-7.16
2	2	3.05	0.00	-18.53	4.66	54.24
2	3	6.10	0.00	-13.93	3.88	83.19
3	3	6.10	0.00	-14.81	8.41	82.90
3	4	9.15	0.00	-10.71	7.23	92.04
4	4	9.15	0.00	-11.76	12.20	91.84
4	5	12.20	0.00	-8.10	10.46	86.39
5	5	12.20	0.00	-9.15	15.38	86.29
5	6	15.25	0.00	-5.86	12.97	70.27
6	6	15.25	0.00	-6.80	17.44	70.23
6	7	18.30	0.00	-3.82	14.35	46.67
7	7	18.30	0.00	-4.57	18.13	46.68
7	8	21.35	0.00	-1.47	13.82	11.05
8	8	21.35	0.00	-1.92	16.63	11.06
8	9	24.40	0.00	0.63	12.05	-25.58
9	9	24.40	0.00	0.42	14.01	-25.60
9	10	27.45	0.00	2.38	9.58	-59.95
10	10	27.45	0.00	2.33	10.99	-60.04
10	11	30.50	0.00	3.64	7.14	-88.71
11	11	30.50	0.00	3.62	8.41	-88.88
11	12	33.55	0.00	3.75	7.94	-101.96
12	10012	33.55	0.00	-29.66	10.21	-102.23
12	13	37.19	0.00	1.92	8.48	9.67
13	13	37.19	0.00	1.81	9.64	9.71
13	14	40.82	0.00	1.81	9.64	3.12
14	14	40.82	0.00	-16.54	11.30	18.64
14	15	44.46	0.00	0.92	10.76	-2.00
15	15	44.46	0.00	-12.41	14.73	44.85
15	16	48.10	0.00	-8.28	13.45	55.16
16	16	48.10	0.00	-9.37	18.23	54.99
16	17	51.73	0.00	-5.63	16.35	50.32
17	17	51.73	0.00	-6.61	20.80	50.22
17	18	55.37	0.00	-3.26	18.16	33.80
18	18	55.37	0.00	-4.01	21.93	33.77
18	19	59.01	0.00	-1.46	19.02	13.66
19	19	59.01	0.00	-1.67	22.23	72.51
19	20	62.64	0.00	0.28	18.64	-12.64
20	20	62.64	0.00	1.59	21.30	36.14
20	21	66.28	0.00	1.89	17.30	-42.47
21	21	66.28	0.00	1.80	19.16	-42.53
21	22	69.91	0.00	3.21	15.65	-72.31
22	22	69.91	0.00	3.14	17.52	-72.47
22	23	73.55	0.00	3.88	15.08	-96.13
23	10023	73.55	0.00	-29.78	17.55	-96.39
23	24	76.66	0.00	-23.57	15.49	-24.41
24	24	76.66	0.00	-24.10	18.66	-24.71
24	25	79.77	0.00	-19.56	14.01	26.61
25	25	79.77	0.00	-20.33	17.85	26.31
25	26	82.88	0.00	-16.05	13.46	60.77
26	26	82.88	0.00	-17.02	17.76	60.51

f4.rea

Programa DINTEL PACADAR S.A.
TRENI.EnvTrenGen.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-9.43	13.86	53.52
27	27	85.99	0.00	-14.04	17.85	79.71
27	28	89.10	0.00	-10.28	17.65	85.32
28	28	89.10	0.00	-11.36	22.24	85.21
28	29	92.21	0.00	-8.07	16.99	82.33
29	29	92.21	0.00	-9.03	21.07	82.28
29	30	95.32	0.00	-1.68	11.81	91.57
30	30	95.32	0.00	-2.71	16.13	91.59
30	31	98.43	0.00	3.99	10.40	120.47
31	31	98.43	0.00	2.55	16.90	120.70
31	32	101.54	0.00	7.09	9.82	81.54
32	32	101.54	0.00	6.16	14.16	81.77
32	33	104.65	0.00	10.20	5.55	45.46
33	33	104.65	0.00	11.31	8.53	56.31
33	34	107.76	0.00	0.00	0.00	0.00
101	101	0.00	0.00	1.31	0.03	-0.05
101	102	3.05	0.00	1.31	0.03	-4.06
102	102	3.05	0.00	-2.84	0.14	10.65
102	103	6.10	0.00	-2.84	0.14	19.32
103	103	6.10	0.00	-2.57	1.48	23.69
103	104	9.15	0.00	-2.57	1.48	31.52
104	104	9.15	0.00	-1.44	3.64	31.67
104	105	12.20	0.00	-1.44	3.64	36.07
105	105	12.20	0.00	-0.74	6.38	51.08
105	106	15.25	0.00	-0.74	6.38	53.33
106	106	15.25	0.00	0.92	9.71	53.34
106	107	18.30	0.00	0.92	9.71	50.54
107	107	18.30	0.00	2.53	12.96	50.46
107	108	21.35	0.00	2.53	12.96	42.74
108	108	21.35	0.00	4.00	15.81	42.57
108	109	24.40	0.00	4.00	15.81	30.37
109	109	24.40	0.00	5.21	17.93	30.13
109	110	27.45	0.00	5.21	17.93	14.24
110	110	27.45	0.00	6.11	19.14	14.02
110	111	30.50	0.00	6.11	19.14	-4.61
111	111	30.50	0.00	6.65	19.34	-4.89
111	112	33.55	0.00	6.65	19.34	-25.18
112	10112	33.55	0.00	0.08	18.50	-25.43
112	113	37.19	0.00	0.08	18.50	-25.71
113	113	37.19	0.00	-0.01	16.71	-25.87
113	114	40.82	0.00	-0.01	16.71	-25.85
114	114	40.82	0.00	-0.26	14.53	-25.93
114	115	44.46	0.00	-0.26	14.53	-25.00
115	115	44.46	0.00	-0.57	12.26	-25.02
115	116	48.10	0.00	-0.57	12.26	-22.96
116	116	48.10	0.00	-0.87	10.13	-22.94
116	117	51.73	0.00	-0.87	10.13	-19.78
117	117	51.73	0.00	-1.13	8.24	-19.73
117	118	55.37	0.00	-1.13	8.24	-15.63
118	118	55.37	0.00	1.22	7.99	26.25
118	119	59.01	0.00	1.22	7.99	21.82

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	3.45	10.47	40.45
119	120	62.64	0.00	3.45	10.47	27.91
120	120	62.64	0.00	5.25	13.23	33.74
120	121	66.28	0.00	5.25	13.23	14.64
121	121	66.28	0.00	6.60	15.03	16.19
121	122	69.91	0.00	6.60	15.03	-7.82
122	122	69.91	0.00	7.11	15.25	-8.18
122	123	73.55	0.00	7.11	15.25	-34.05
123	10123	73.55	0.00	0.01	14.28	-35.26
123	124	76.66	0.00	0.01	14.28	-35.31
124	124	76.66	0.00	-0.09	12.84	-35.47
124	125	79.77	0.00	-0.09	12.84	-35.19
125	125	79.77	0.00	-0.34	11.00	-35.29
125	126	82.88	0.00	-0.34	11.00	-34.24
126	126	82.88	0.00	-0.65	9.02	-34.29
126	127	85.99	0.00	-0.65	9.02	-32.28
127	127	85.99	0.00	-0.96	7.05	-32.29
127	128	89.10	0.00	-0.96	7.05	-29.29
128	128	89.10	0.00	-1.25	5.20	-29.27
128	129	92.21	0.00	-1.25	5.20	-25.38
129	129	92.21	0.00	-1.46	3.60	-25.36
129	130	95.32	0.00	-1.46	3.60	-20.82
130	130	95.32	0.00	-1.50	2.29	-19.29
130	131	98.43	0.00	-1.50	2.29	-14.64
131	131	98.43	0.00	1.80	1.49	20.40
131	132	101.54	0.00	1.80	1.49	14.79
132	132	101.54	0.00	3.83	1.68	25.18
132	133	104.65	0.00	3.83	1.68	13.28
133	133	104.65	0.00	4.82	1.06	15.19
133	134	107.76	0.00	4.82	1.06	0.19
301	101	0.00	0.00	-0.02	0.20	0.90
301	2001	0.00	0.00	-0.02	0.20	0.91
302	102	3.05	0.00	-0.56	0.37	0.15
302	2002	3.05	0.00	-0.56	0.37	0.58
303	103	6.10	0.00	-0.99	0.31	-1.23
303	2003	6.10	0.00	-0.99	0.31	-0.48
304	104	9.15	0.00	-1.33	0.22	-2.31
304	2004	9.15	0.00	-1.33	0.22	-1.30
305	105	12.20	0.00	-1.59	0.12	-3.06
305	2005	12.20	0.00	-1.59	0.12	-1.86
306	106	15.25	0.00	-0.94	0.04	-1.45
306	2006	15.25	0.00	-0.94	0.04	-0.74
307	107	18.30	0.00	-0.40	0.01	0.07
307	2007	18.30	0.00	-0.40	0.01	0.37
308	108	21.35	0.00	0.09	0.01	1.44
308	2008	21.35	0.00	0.09	0.01	1.37
309	109	24.40	0.00	0.22	0.05	1.78
309	2009	24.40	0.00	0.22	0.05	1.62
310	110	27.45	0.00	0.15	0.10	1.62
310	2010	27.45	0.00	0.15	0.10	1.51
311	111	30.50	0.00	0.10	0.17	1.44

f4.rea

Programa DINTEL PACADAR S.A.
TRENI.EnvTrenGen.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX+
Envolvente de tren de cargas plano genérico. MX+
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.10	0.17	1.36
312	112	33.55	0.00	-0.15	0.28	0.81
312	2012	33.55	0.00	-0.15	0.28	0.93
313	113	37.19	0.00	-0.67	0.38	-0.61
313	2013	37.19	0.00	-0.67	0.38	-0.10
314	114	40.82	0.00	-1.19	0.37	-2.18
314	2014	40.82	0.00	-1.19	0.37	-1.28
315	115	44.46	0.00	-1.53	0.30	-3.28
315	2015	44.46	0.00	-1.53	0.30	-2.12
316	116	48.10	0.00	-1.72	0.20	-3.86
316	2016	48.10	0.00	-1.72	0.20	-2.56
317	117	51.73	0.00	-1.38	0.10	-2.87
317	2017	51.73	0.00	-1.38	0.10	-1.82
318	118	55.37	0.00	0.18	0.06	1.60
318	2018	55.37	0.00	0.18	0.06	1.47
319	119	59.01	0.00	0.11	0.07	1.29
319	2019	59.01	0.00	0.11	0.07	1.21
320	120	62.64	0.00	0.03	0.07	0.98
320	2020	62.64	0.00	0.03	0.07	0.96
321	121	66.28	0.00	0.23	0.09	2.17
321	2021	66.28	0.00	0.23	0.09	2.00
322	122	69.91	0.00	0.06	0.18	1.77
322	2022	69.91	0.00	0.06	0.18	1.72
323	123	73.55	0.00	-0.26	0.27	0.75
323	2023	73.55	0.00	-0.26	0.27	0.95
324	124	76.66	0.00	-0.57	0.30	-0.28
324	2024	76.66	0.00	-0.57	0.30	0.16
325	125	79.77	0.00	-0.94	0.30	-1.34
325	2025	79.77	0.00	-0.94	0.30	-0.63
326	126	82.88	0.00	-1.12	0.26	-2.05
326	2026	82.88	0.00	-1.12	0.26	-1.20
327	127	85.99	0.00	-1.25	0.20	-2.59
327	2027	85.99	0.00	-1.25	0.20	-1.64
328	128	89.10	0.00	-1.26	0.12	-2.76
328	2028	89.10	0.00	-1.26	0.12	-1.81
329	129	92.21	0.00	-0.97	0.05	-2.02
329	2029	92.21	0.00	-0.97	0.05	-1.29
330	130	95.32	0.00	0.13	0.06	1.35
330	2030	95.32	0.00	0.13	0.06	1.25
331	131	98.43	0.00	0.04	0.08	1.06
331	2031	98.43	0.00	0.04	0.08	1.02
332	132	101.54	0.00	-0.06	0.09	0.72
332	2032	101.54	0.00	-0.06	0.09	0.76
333	133	104.65	0.00	-0.18	0.09	0.34
333	2033	104.65	0.00	-0.18	0.09	0.48
334	134	107.76	0.00	-0.15	0.05	-0.03
334	2034	107.76	0.00	-0.15	0.05	0.08
201	2001	0.00	0.00	-0.02	0.20	0.91
201	1001	0.00	0.00	-0.02	0.20	0.99
202	2002	3.05	0.00	-0.56	0.37	0.58
202	1002	3.05	0.00	-0.56	0.37	3.24

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.99	0.31	-0.48
203	1003	6.10	0.00	-0.99	0.31	4.28
204	2004	9.15	0.00	-1.33	0.22	-1.30
204	1004	9.15	0.00	-1.33	0.22	5.07
205	2005	12.20	0.00	-1.59	0.12	-1.86
205	1005	12.20	0.00	-1.59	0.12	5.73
206	2006	15.25	0.00	-0.94	0.04	-0.74
206	1006	15.25	0.00	-0.94	0.04	3.76
207	2007	18.30	0.00	-0.40	0.01	0.37
207	1007	18.30	0.00	-0.40	0.01	2.27
208	2008	21.35	0.00	0.09	0.01	1.37
208	1008	21.35	0.00	0.09	0.01	0.94
209	2009	24.40	0.00	0.22	0.05	1.62
209	1009	24.40	0.00	0.22	0.05	0.59
210	2010	27.45	0.00	0.15	0.10	1.51
210	1010	27.45	0.00	0.15	0.10	0.78
211	2011	30.50	0.00	0.10	0.17	1.36
211	1011	30.50	0.00	0.10	0.17	0.87
212	2012	33.55	0.00	-0.15	0.28	0.93
212	1012	33.55	0.00	-0.15	0.28	1.65
213	2013	37.19	0.00	-0.67	0.38	-0.10
213	1013	37.19	0.00	-0.67	0.38	3.09
214	2014	40.82	0.00	-1.19	0.37	-1.28
214	1014	40.82	0.00	-1.19	0.37	4.41
215	2015	44.46	0.00	-1.53	0.30	-2.12
215	1015	44.46	0.00	-1.53	0.30	5.22
216	2016	48.10	0.00	-1.72	0.20	-2.56
216	1016	48.10	0.00	-1.72	0.20	5.66
217	2017	51.73	0.00	-1.38	0.10	-1.82
217	1017	51.73	0.00	-1.38	0.10	4.78
218	2018	55.37	0.00	0.18	0.06	1.47
218	1018	55.37	0.00	0.18	0.06	0.59
219	2019	59.01	0.00	0.11	0.07	1.21
219	1019	59.01	0.00	0.11	0.07	0.69
220	2020	62.64	0.00	0.03	0.07	0.96
220	1020	62.64	0.00	0.03	0.07	0.80
221	2021	66.28	0.00	0.23	0.09	2.00
221	1021	66.28	0.00	0.23	0.09	0.90
222	2022	69.91	0.00	0.06	0.18	1.72
222	1022	69.91	0.00	0.06	0.18	1.43
223	2023	73.55	0.00	-0.26	0.27	0.95
223	1023	73.55	0.00	-0.26	0.27	2.21
224	2024	76.66	0.00	-0.57	0.30	0.16
224	1024	76.66	0.00	-0.57	0.30	2.91
225	2025	79.77	0.00	-0.94	0.30	-0.63
225	1025	79.77	0.00	-0.94	0.30	3.86
226	2026	82.88	0.00	-1.12	0.26	-1.20
226	1026	82.88	0.00	-1.12	0.26	4.18
227	2027	85.99	0.00	-1.25	0.20	-1.64
227	1027	85.99	0.00	-1.25	0.20	4.36
228	2028	89.10	0.00	-1.26	0.12	-1.81

f4.rea

Programa DINTEL PACADAR S.A.
TRENI.EnvTrenGen.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-1.26	0.12	4.21
229	2029	92.21	0.00	-0.97	0.05	-1.29
229	1029	92.21	0.00	-0.97	0.05	3.35
230	2030	95.32	0.00	0.13	0.06	1.25
230	1030	95.32	0.00	0.13	0.06	0.64
231	2031	98.43	0.00	0.04	0.08	1.02
231	1031	98.43	0.00	0.04	0.08	0.83
232	2032	101.54	0.00	-0.06	0.09	0.76
232	1032	101.54	0.00	-0.06	0.09	1.06
233	2033	104.65	0.00	-0.18	0.09	0.48
233	1033	104.65	0.00	-0.18	0.09	1.33
234	2034	107.76	0.00	-0.15	0.05	0.08
234	1034	107.76	0.00	-0.15	0.05	0.82
401	1001	0.00	0.00	-0.02	0.20	0.99
401	1	0.00	0.00	-0.02	0.20	1.00
402	1002	3.05	0.00	-0.56	0.37	3.24
402	2	3.05	0.00	-0.56	0.37	3.66
403	1003	6.10	0.00	-0.99	0.31	4.28
403	3	6.10	0.00	-0.99	0.31	5.03
404	1004	9.15	0.00	-1.33	0.22	5.07
404	4	9.15	0.00	-1.33	0.22	6.08
405	1005	12.20	0.00	-1.59	0.12	5.73
405	5	12.20	0.00	-1.59	0.12	6.93
406	1006	15.25	0.00	-0.94	0.04	3.76
406	6	15.25	0.00	-0.94	0.04	4.47
407	1007	18.30	0.00	-0.40	0.01	2.27
407	7	18.30	0.00	-0.40	0.01	2.57
408	1008	21.35	0.00	0.09	0.01	0.94
408	8	21.35	0.00	0.09	0.01	0.87
409	1009	24.40	0.00	0.22	0.05	0.59
409	9	24.40	0.00	0.22	0.05	0.42
410	1010	27.45	0.00	0.15	0.10	0.78
410	10	27.45	0.00	0.15	0.10	0.66
411	1011	30.50	0.00	0.10	0.17	0.87
411	11	30.50	0.00	0.10	0.17	0.79
412	1012	33.55	0.00	-0.15	0.28	1.65
412	12	33.55	0.00	-0.15	0.28	1.77
413	1013	37.19	0.00	-0.67	0.38	3.09
413	13	37.19	0.00	-0.67	0.38	3.60
414	1014	40.82	0.00	-1.19	0.37	4.41
414	14	40.82	0.00	-1.19	0.37	5.31
415	1015	44.46	0.00	-1.53	0.30	5.22
415	15	44.46	0.00	-1.53	0.30	6.38
416	1016	48.10	0.00	-1.72	0.20	5.66
416	16	48.10	0.00	-1.72	0.20	6.96
417	1017	51.73	0.00	-1.38	0.10	4.78
417	17	51.73	0.00	-1.38	0.10	5.83
418	1018	55.37	0.00	0.18	0.06	0.59
418	18	55.37	0.00	0.18	0.06	0.46
419	1019	59.01	0.00	0.11	0.07	0.69
419	19	59.01	0.00	0.11	0.07	0.61

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.03	0.07	0.80
420	20	62.64	0.00	0.03	0.07	0.78
421	1021	66.28	0.00	0.23	0.09	0.90
421	21	66.28	0.00	0.23	0.09	0.73
422	1022	69.91	0.00	0.06	0.18	1.43
422	22	69.91	0.00	0.06	0.18	1.38
423	1023	73.55	0.00	-0.26	0.27	2.21
423	23	73.55	0.00	-0.26	0.27	2.41
424	1024	76.66	0.00	-0.57	0.30	2.91
424	24	76.66	0.00	-0.57	0.30	3.34
425	1025	79.77	0.00	-0.94	0.30	3.86
425	25	79.77	0.00	-0.94	0.30	4.57
426	1026	82.88	0.00	-1.12	0.26	4.18
426	26	82.88	0.00	-1.12	0.26	5.03
427	1027	85.99	0.00	-1.25	0.20	4.36
427	27	85.99	0.00	-1.25	0.20	5.30
428	1028	89.10	0.00	-1.26	0.12	4.21
428	28	89.10	0.00	-1.26	0.12	5.16
429	1029	92.21	0.00	-0.97	0.05	3.35
429	29	92.21	0.00	-0.97	0.05	4.08
430	1030	95.32	0.00	0.13	0.06	0.64
430	30	95.32	0.00	0.13	0.06	0.55
431	1031	98.43	0.00	0.04	0.08	0.83
431	31	98.43	0.00	0.04	0.08	0.80
432	1032	101.54	0.00	-0.06	0.09	1.06
432	32	101.54	0.00	-0.06	0.09	1.11
433	1033	104.65	0.00	-0.18	0.09	1.33
433	33	104.65	0.00	-0.18	0.09	1.47
434	1034	107.76	0.00	-0.15	0.05	0.82
434	34	107.76	0.00	-0.15	0.05	0.94

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	2.74	0.93	0.05
1	2	3.05	0.00	-17.97	1.00	54.61
2	2	3.05	0.00	-18.53	4.66	54.24
2	3	6.10	0.00	-6.81	-13.80	92.45
3	3	6.10	0.00	-7.82	-8.80	92.15
3	4	9.15	0.00	-7.82	-8.80	116.01
4	4	9.15	0.00	-9.15	-2.84	115.79
4	5	12.20	0.00	1.58	-12.15	132.09
5	5	12.20	0.00	0.03	-5.41	131.98
5	6	15.25	0.00	-0.36	-5.26	132.53
6	6	15.25	0.00	-2.00	1.75	132.51
6	7	18.30	0.00	2.42	-8.11	123.92
7	7	18.30	0.00	0.88	-1.60	124.01
7	8	21.35	0.00	5.25	-7.86	106.68
8	8	21.35	0.00	3.79	-1.47	106.85
8	9	24.40	0.00	9.61	-3.52	75.72
9	9	24.40	0.00	8.37	2.07	75.97
9	10	27.45	0.00	17.69	-14.59	31.30
10	10	27.45	0.00	16.80	-10.17	31.59
10	11	30.50	0.00	-0.99	6.17	19.75
11	11	30.50	0.00	-1.11	7.10	19.76
11	12	33.55	0.00	-1.11	7.10	23.13
12	10012	33.55	0.00	2.55	8.11	23.17
12	13	37.19	0.00	2.55	8.11	13.90
13	13	37.19	0.00	2.46	9.16	13.95
13	14	40.82	0.00	-18.09	1.59	43.29
14	14	40.82	0.00	-19.28	6.90	42.92
14	15	44.46	0.00	-11.93	-2.36	87.70
15	15	44.46	0.00	-13.57	4.39	87.41
15	16	48.10	0.00	-6.22	-4.87	116.21
16	16	48.10	0.00	-8.16	2.89	116.02
16	17	51.73	0.00	-0.81	-6.37	129.93
17	17	51.73	0.00	-2.91	1.88	129.87
17	18	55.37	0.00	2.85	-1.85	129.97
18	18	55.37	0.00	0.76	6.40	130.03
18	19	59.01	0.00	8.11	-2.86	116.30
19	19	59.01	0.00	6.16	4.91	116.48
19	20	62.64	0.00	13.51	-4.35	87.87
20	20	62.64	0.00	11.88	2.40	88.16
20	21	66.28	0.00	19.23	-6.86	43.53
21	21	66.28	0.00	18.04	-1.54	43.90
21	22	69.91	0.00	-2.36	-9.18	13.26
22	22	69.91	0.00	-2.46	-8.12	13.20
22	23	73.55	0.00	-2.46	-8.12	22.13
23	10023	73.55	0.00	1.06	-7.10	22.10
23	24	76.66	0.00	1.06	-7.10	18.80
24	24	76.66	0.00	0.95	-6.17	18.79
24	25	79.77	0.00	-14.76	1.94	31.58
25	25	79.77	0.00	-15.70	6.51	31.28
25	26	82.88	0.00	-8.35	-2.76	78.56
26	26	82.88	0.00	-9.62	2.94	78.30

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-4.19	0.92	109.87
27	27	85.99	0.00	-5.70	7.45	109.69
27	28	89.10	0.00	-0.81	1.10	127.75
28	28	89.10	0.00	-2.40	7.75	127.65
28	29	92.21	0.00	1.90	-2.02	136.64
29	29	92.21	0.00	0.20	5.16	136.66
29	30	95.32	0.00	0.20	5.16	136.02
30	30	95.32	0.00	-1.40	12.07	136.14
30	31	98.43	0.00	3.99	10.40	120.47
31	31	98.43	0.00	2.55	16.90	120.70
31	32	101.54	0.00	7.72	8.87	95.80
32	32	101.54	0.00	6.69	13.93	96.11
32	33	104.65	0.00	11.81	5.36	55.94
33	33	104.65	0.00	11.31	8.53	56.31
33	34	107.76	0.00	-2.65	-0.94	0.05
101	101	0.00	0.00	-5.24	-0.90	0.20
101	102	3.05	0.00	-5.51	-0.66	16.98
102	102	3.05	0.00	-4.81	-0.51	17.34
102	103	6.10	0.00	-4.81	-0.51	32.02
103	103	6.10	0.00	-3.72	0.91	32.31
103	104	9.15	0.00	-3.72	0.91	43.66
104	104	9.15	0.00	-2.32	3.33	43.87
104	105	12.20	0.00	-2.33	3.27	50.98
105	105	12.20	0.00	-0.75	6.33	51.10
105	106	15.25	0.00	-0.75	6.33	53.37
106	106	15.25	0.00	0.91	9.67	53.39
106	107	18.30	0.00	0.91	9.67	50.60
107	107	18.30	0.00	2.53	12.93	50.52
107	108	21.35	0.00	2.53	12.93	42.80
108	108	21.35	0.00	4.00	15.79	42.63
108	109	24.40	0.00	4.00	15.79	30.44
109	109	24.40	0.00	5.21	17.93	30.20
109	110	27.45	0.00	5.21	17.93	14.30
110	110	27.45	0.00	6.11	19.14	14.02
110	111	30.50	0.00	-0.06	-2.70	11.30
111	111	30.50	0.00	0.04	-2.92	11.28
111	112	33.55	0.00	-0.02	-2.60	11.16
112	10112	33.55	0.00	1.48	-2.89	11.13
112	113	37.19	0.00	1.47	-3.23	5.77
113	113	37.19	0.00	1.55	-3.71	5.72
113	114	40.82	0.00	-6.81	-14.48	16.62
114	114	40.82	0.00	-5.62	-12.30	16.98
114	115	44.46	0.00	-5.62	-12.30	37.41
115	115	44.46	0.00	-3.99	-8.77	37.70
115	116	48.10	0.00	-3.99	-8.77	52.20
116	116	48.10	0.00	-2.04	-4.29	52.39
116	117	51.73	0.00	-2.04	-4.29	59.81
117	117	51.73	0.00	0.06	0.67	59.87
117	118	55.37	0.00	-0.09	-0.69	59.95
118	118	55.37	0.00	2.00	4.27	59.89
118	119	59.01	0.00	2.00	4.27	52.61

f4.rea Programa DINTEL PACADAR S.A. 17/11/02
TRENI.EnvTrenGen.MZ+

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.16	0.15	1.42
312	112	33.55	0.00	0.01	0.21	1.13
312	2012	33.55	0.00	0.01	0.21	1.12
313	113	37.19	0.00	0.17	-0.15	1.86
313	2013	37.19	0.00	0.17	-0.15	1.73
314	114	40.82	0.00	0.25	-0.08	2.19
314	2014	40.82	0.00	0.25	-0.08	2.00
315	115	44.46	0.00	0.31	-0.02	2.26
315	2015	44.46	0.00	0.31	-0.02	2.03
316	116	48.10	0.00	0.30	0.02	2.13
316	2016	48.10	0.00	0.30	0.02	1.90
317	117	51.73	0.00	0.25	0.05	1.89
317	2017	51.73	0.00	0.25	0.05	1.71
318	118	55.37	0.00	0.26	-0.05	1.95
318	2018	55.37	0.00	0.26	-0.05	1.75
319	119	59.01	0.00	0.33	-0.02	2.20
319	2019	59.01	0.00	0.31	-0.02	1.96
320	120	62.64	0.00	0.34	0.02	2.34
320	2020	62.64	0.00	0.34	0.02	2.09
321	121	66.28	0.00	0.28	0.08	2.28
321	2021	66.28	0.00	0.28	0.08	2.07
322	122	69.91	0.00	0.20	0.15	1.95
322	2022	69.91	0.00	0.12	0.17	1.81
323	123	73.55	0.00	0.01	0.21	1.15
323	2023	73.55	0.00	-0.07	0.24	1.15
324	124	76.66	0.00	0.17	-0.15	1.55
324	2024	76.66	0.00	0.17	-0.15	1.43
325	125	79.77	0.00	0.28	-0.09	1.86
325	2025	79.77	0.00	0.28	-0.09	1.65
326	126	82.88	0.00	0.31	-0.04	1.99
326	2026	82.88	0.00	0.31	-0.04	1.75
327	127	85.99	0.00	0.32	0.00	1.97
327	2027	85.99	0.00	0.32	0.00	1.73
328	128	89.10	0.00	0.29	0.03	1.84
328	2028	89.10	0.00	0.29	0.03	1.62
329	129	92.21	0.00	0.23	0.05	1.64
329	2029	92.21	0.00	0.23	0.05	1.46
330	130	95.32	0.00	0.16	0.06	1.38
330	2030	95.32	0.00	0.16	0.06	1.26
331	131	98.43	0.00	0.07	0.08	1.08
331	2031	98.43	0.00	0.07	0.08	1.02
332	132	101.54	0.00	-0.01	0.07	0.75
332	2032	101.54	0.00	-0.03	0.08	0.77
333	133	104.65	0.00	-0.24	-0.22	0.74
333	2033	104.65	0.00	-0.24	-0.22	0.93
334	134	107.76	0.00	0.06	-0.19	1.06
334	2034	107.76	0.00	0.06	-0.19	1.01
201	2001	0.00	0.00	0.03	0.18	0.95
201	1001	0.00	0.00	-0.12	0.19	1.32
202	2002	3.05	0.00	-0.26	0.21	0.89
202	1002	3.05	0.00	-0.70	0.35	3.71

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.03	-0.09	0.78
203	1003	6.10	0.00	-1.09	0.29	4.63
204	2004	9.15	0.00	0.07	-0.08	1.03
204	1004	9.15	0.00	-1.40	0.21	5.33
205	2005	12.20	0.00	0.16	-0.06	1.26
205	1005	12.20	0.00	-1.59	0.12	5.74
206	2006	15.25	0.00	0.23	-0.05	1.46
206	1006	15.25	0.00	-1.66	0.02	5.86
207	2007	18.30	0.00	0.29	-0.02	1.62
207	1007	18.30	0.00	-1.62	-0.08	5.70
208	2008	21.35	0.00	0.31	0.01	1.73
208	1008	21.35	0.00	-1.47	-0.17	5.28
209	2009	24.40	0.00	0.30	0.05	1.74
209	1009	24.40	0.00	-1.24	-0.25	4.65
210	2010	27.45	0.00	0.28	0.09	1.64
210	1010	27.45	0.00	-0.93	-0.28	3.83
211	2011	30.50	0.00	0.16	0.15	1.42
211	1011	30.50	0.00	-0.62	-0.24	3.05
212	2012	33.55	0.00	0.01	0.21	1.12
212	1012	33.55	0.00	-0.52	0.00	2.87
213	2013	37.19	0.00	0.17	-0.15	1.73
213	1013	37.19	0.00	-0.80	0.26	3.61
214	2014	40.82	0.00	0.25	-0.08	2.00
214	1014	40.82	0.00	-1.24	0.35	4.59
215	2015	44.46	0.00	0.31	-0.02	2.03
215	1015	44.46	0.00	-1.64	0.28	5.57
216	2016	48.10	0.00	0.30	0.02	1.90
216	1016	48.10	0.00	-1.94	0.19	6.29
217	2017	51.73	0.00	0.25	0.05	1.71
217	1017	51.73	0.00	-2.10	0.06	6.67
218	2018	55.37	0.00	0.26	-0.05	1.75
218	1018	55.37	0.00	-2.10	-0.06	6.67
219	2019	59.01	0.00	0.31	-0.02	1.96
219	1019	59.01	0.00	-1.95	-0.19	6.30
220	2020	62.64	0.00	0.34	0.02	2.09
220	1020	62.64	0.00	-1.64	-0.28	5.57
221	2021	66.28	0.00	0.28	0.08	2.07
221	1021	66.28	0.00	-1.24	-0.35	4.60
222	2022	69.91	0.00	0.12	0.17	1.81
222	1022	69.91	0.00	-0.80	-0.26	3.62
223	2023	73.55	0.00	-0.07	0.24	1.15
223	1023	73.55	0.00	-0.52	0.00	2.88
224	2024	76.66	0.00	0.17	-0.15	1.43
224	1024	76.66	0.00	-0.63	0.25	3.06
225	2025	79.77	0.00	0.28	-0.09	1.65
225	1025	79.77	0.00	-0.94	0.29	3.88
226	2026	82.88	0.00	0.31	-0.04	1.75
226	1026	82.88	0.00	-1.27	0.26	4.73
227	2027	85.99	0.00	0.32	0.00	1.73
227	1027	85.99	0.00	-1.51	0.18	5.39
228	2028	89.10	0.00	0.29	0.03	1.62

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-1.67	0.09	5.83
229	2029	92.21	0.00	0.23	0.05	1.46
229	1029	92.21	0.00	-1.71	-0.01	5.99
230	2030	95.32	0.00	0.16	0.06	1.26
230	1030	95.32	0.00	-1.64	-0.12	5.88
231	2031	98.43	0.00	0.07	0.08	1.02
231	1031	98.43	0.00	-1.43	-0.22	5.43
232	2032	101.54	0.00	-0.03	0.08	0.77
232	1032	101.54	0.00	-1.11	-0.31	4.69
233	2033	104.65	0.00	-0.24	-0.22	0.93
233	1033	104.65	0.00	-0.69	-0.37	3.71
234	2034	107.76	0.00	0.06	-0.19	1.01
234	1034	107.76	0.00	-0.10	-0.19	1.28
401	1001	0.00	0.00	-0.12	0.19	1.32
401	1	0.00	0.00	-0.12	0.19	1.41
402	1002	3.05	0.00	-0.70	0.35	3.71
402	2	3.05	0.00	-0.70	0.35	4.23
403	1003	6.10	0.00	-1.09	0.29	4.63
403	3	6.10	0.00	-1.09	0.29	5.45
404	1004	9.15	0.00	-1.40	0.21	5.33
404	4	9.15	0.00	-1.40	0.21	6.39
405	1005	12.20	0.00	-1.59	0.12	5.74
405	5	12.20	0.00	-1.59	0.12	6.94
406	1006	15.25	0.00	-1.66	0.02	5.86
406	6	15.25	0.00	-1.66	0.02	7.11
407	1007	18.30	0.00	-1.62	-0.08	5.70
407	7	18.30	0.00	-1.62	-0.08	6.93
408	1008	21.35	0.00	-1.47	-0.17	5.28
408	8	21.35	0.00	-1.47	-0.17	6.39
409	1009	24.40	0.00	-1.24	-0.25	4.65
409	9	24.40	0.00	-1.24	-0.25	5.59
410	1010	27.45	0.00	-0.93	-0.28	3.83
410	10	27.45	0.00	-0.93	-0.28	4.54
411	1011	30.50	0.00	-0.62	-0.24	3.05
411	11	30.50	0.00	-0.62	-0.24	3.52
412	1012	33.55	0.00	-0.52	0.00	2.87
412	12	33.55	0.00	-0.52	0.00	3.27
413	1013	37.19	0.00	-0.80	0.26	3.61
413	13	37.19	0.00	-0.80	0.26	4.21
414	1014	40.82	0.00	-1.24	0.35	4.59
414	14	40.82	0.00	-1.24	0.35	5.53
415	1015	44.46	0.00	-1.64	0.28	5.57
415	15	44.46	0.00	-1.64	0.28	6.80
416	1016	48.10	0.00	-1.94	0.19	6.29
416	16	48.10	0.00	-1.94	0.19	7.76
417	1017	51.73	0.00	-2.10	0.06	6.67
417	17	51.73	0.00	-2.10	0.06	8.25
418	1018	55.37	0.00	-2.10	-0.06	6.67
418	18	55.37	0.00	-2.10	-0.06	8.25
419	1019	59.01	0.00	-1.95	-0.19	6.30
419	19	59.01	0.00	-1.95	-0.19	7.77

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-1.64	-0.28	5.57
420	20	62.64	0.00	-1.64	-0.28	6.81
421	1021	66.28	0.00	-1.24	-0.35	4.60
421	21	66.28	0.00	-1.24	-0.35	5.54
422	1022	69.91	0.00	-0.80	-0.26	3.62
422	22	69.91	0.00	-0.80	-0.26	4.22
423	1023	73.55	0.00	-0.52	0.00	2.88
423	23	73.55	0.00	-0.52	0.00	3.27
424	1024	76.66	0.00	-0.63	0.25	3.06
424	24	76.66	0.00	-0.63	0.25	3.53
425	1025	79.77	0.00	-0.94	0.29	3.88
425	25	79.77	0.00	-0.94	0.29	4.59
426	1026	82.88	0.00	-1.27	0.26	4.73
426	26	82.88	0.00	-1.27	0.26	5.69
427	1027	85.99	0.00	-1.51	0.18	5.39
427	27	85.99	0.00	-1.51	0.18	6.53
428	1028	89.10	0.00	-1.67	0.09	5.83
428	28	89.10	0.00	-1.67	0.09	7.10
429	1029	92.21	0.00	-1.71	-0.01	5.99
429	29	92.21	0.00	-1.71	-0.01	7.29
430	1030	95.32	0.00	-1.64	-0.12	5.88
430	30	95.32	0.00	-1.64	-0.12	7.11
431	1031	98.43	0.00	-1.43	-0.22	5.43
431	31	98.43	0.00	-1.43	-0.22	6.52
432	1032	101.54	0.00	-1.11	-0.31	4.69
432	32	101.54	0.00	-1.11	-0.31	5.53
433	1033	104.65	0.00	-0.69	-0.37	3.71
433	33	104.65	0.00	-0.69	-0.37	4.23
434	1034	107.76	0.00	-0.10	-0.19	1.28
434	34	107.76	0.00	-0.10	-0.19	1.36

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-23.46	1.41	-0.19
1	2	3.05	0.00	-17.97	1.00	54.61
2	2	3.05	0.00	-18.53	4.66	54.24
2	3	6.10	0.00	-13.93	3.88	83.19
3	3	6.10	0.00	-14.81	8.41	82.90
3	4	9.15	0.00	-10.71	7.23	92.04
4	4	9.15	0.00	-11.76	12.20	91.84
4	5	12.20	0.00	-8.10	10.46	86.39
5	5	12.20	0.00	-9.15	15.38	86.29
5	6	15.25	0.00	-5.86	12.97	70.27
6	6	15.25	0.00	-6.80	17.44	70.23
6	7	18.30	0.00	-3.82	14.35	46.67
7	7	18.30	0.00	-4.57	18.13	46.68
7	8	21.35	0.00	-1.47	13.82	11.05
8	8	21.35	0.00	-1.92	16.63	11.06
8	9	24.40	0.00	-0.78	4.47	14.03
9	9	24.40	0.00	-0.88	5.29	14.03
9	10	27.45	0.00	-0.88	5.29	16.72
10	10	27.45	0.00	-0.99	6.17	16.73
10	11	30.50	0.00	-0.99	6.17	19.75
11	11	30.50	0.00	-1.11	7.10	19.76
11	12	33.55	0.00	-1.11	7.10	23.13
12	10012	33.55	0.00	-29.66	10.21	-102.23
12	13	37.19	0.00	-23.05	1.47	-19.70
13	13	37.19	0.00	-23.82	5.48	-20.06
13	14	40.82	0.00	-18.09	1.59	43.29
14	14	40.82	0.00	-19.28	6.90	42.92
14	15	44.46	0.00	-13.70	3.84	84.90
15	15	44.46	0.00	-15.24	10.22	84.60
15	16	48.10	0.00	-9.88	7.49	106.47
16	16	48.10	0.00	-11.60	14.45	106.26
16	17	51.73	0.00	-6.50	11.47	110.07
17	17	51.73	0.00	-8.21	18.43	109.97
17	18	55.37	0.00	-3.40	14.79	97.96
18	18	55.37	0.00	-4.94	21.22	97.96
18	19	59.01	0.00	-2.47	-11.50	-12.16
19	19	59.01	0.00	-2.36	-10.89	-12.23
19	20	62.64	0.00	-2.36	-10.89	-3.66
20	20	62.64	0.00	-2.33	-10.11	-3.73
20	21	66.28	0.00	-2.33	-10.11	4.73
21	21	66.28	0.00	-2.36	-9.18	4.66
21	22	69.91	0.00	-2.36	-9.18	13.26
22	22	69.91	0.00	-2.46	-8.12	13.20
22	23	73.55	0.00	-2.46	-8.12	22.13
23	10023	73.55	0.00	-29.78	17.55	-96.39
23	24	76.66	0.00	-23.57	15.49	-24.41
24	24	76.66	0.00	-24.10	18.66	-24.71
24	25	79.77	0.00	-19.56	14.01	26.61
25	25	79.77	0.00	-20.33	17.85	26.31
25	26	82.88	0.00	-16.05	13.46	60.77
26	26	82.88	0.00	-17.02	17.76	60.51

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-13.00	13.42	79.90
27	27	85.99	0.00	-14.04	17.85	79.71
27	28	89.10	0.00	-10.28	17.65	85.32
28	28	89.10	0.00	-11.36	22.24	85.21
28	29	92.21	0.00	-8.07	16.99	82.33
29	29	92.21	0.00	-9.03	21.07	82.28
29	30	95.32	0.00	-2.69	-4.14	-31.22
30	30	95.32	0.00	-2.71	16.13	91.59
30	31	98.43	0.00	-2.54	-3.75	-23.40
31	31	98.43	0.00	-2.47	-3.10	-23.47
31	32	101.54	0.00	-2.47	-3.10	-15.80
32	32	101.54	0.00	-2.50	-2.15	-15.88
32	33	104.65	0.00	-2.50	-2.15	-8.10
33	33	104.65	0.00	-2.65	-0.94	-8.20
33	34	107.76	0.00	-2.65	-0.94	0.05
101	101	0.00	0.00	-5.51	-0.66	0.19
101	102	3.05	0.00	-5.51	-0.66	16.98
102	102	3.05	0.00	-4.81	-0.56	17.31
102	103	6.10	0.00	-4.81	-0.56	31.99
103	103	6.10	0.00	-3.73	0.85	32.29
103	104	9.15	0.00	-3.73	0.85	43.66
104	104	9.15	0.00	-2.36	2.49	42.64
104	105	12.20	0.00	-2.36	2.49	49.85
105	105	12.20	0.00	-0.81	5.44	49.78
105	106	15.25	0.00	-0.81	5.44	52.25
106	106	15.25	0.00	-0.39	-1.79	7.71
106	107	18.30	0.00	-0.39	-1.79	8.89
107	107	18.30	0.00	-0.33	-1.80	8.40
107	108	21.35	0.00	-0.33	-1.80	9.39
108	108	21.35	0.00	-0.26	-2.01	9.40
108	109	24.40	0.00	-0.26	-2.01	10.20
109	109	24.40	0.00	-0.20	-1.94	9.23
109	110	27.45	0.00	-0.20	-1.94	9.83
110	110	27.45	0.00	-0.14	-1.83	8.46
110	111	30.50	0.00	-0.14	-1.83	8.90
111	111	30.50	0.00	-0.10	-14.21	-35.32
111	112	33.55	0.00	-0.10	-14.21	-35.01
112	10112	33.55	0.00	-7.47	-15.09	-35.68
112	113	37.19	0.00	-7.47	-15.09	-8.51
113	113	37.19	0.00	-6.81	-14.48	-8.13
113	114	40.82	0.00	-6.81	-14.48	16.62
114	114	40.82	0.00	-5.62	-12.30	16.98
114	115	44.46	0.00	-5.62	-12.30	37.41
115	115	44.46	0.00	-4.05	-9.93	36.71
115	116	48.10	0.00	-4.05	-9.93	51.45
116	116	48.10	0.00	-2.19	-6.51	48.24
116	117	51.73	0.00	-2.19	-6.51	56.19
117	117	51.73	0.00	-1.13	8.24	-19.73
117	118	55.37	0.00	-1.13	8.24	-15.63
118	118	55.37	0.00	-1.32	6.65	-15.57
118	119	59.01	0.00	-1.32	6.65	-10.79

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-1.43	5.37	-10.72
119	120	62.64	0.00	-1.43	5.37	-5.52
120	120	62.64	0.00	-1.47	4.39	-5.46
120	121	66.28	0.00	-1.47	4.39	-0.12
121	121	66.28	0.00	-1.45	3.30	-0.05
121	122	69.91	0.00	-1.45	3.30	5.21
122	122	69.91	0.00	-1.39	2.86	5.26
122	123	73.55	0.00	-1.39	2.86	10.30
123	10123	73.55	0.00	-6.82	-19.48	-26.56
123	124	76.66	0.00	-6.82	-19.48	-5.34
124	124	76.66	0.00	-6.26	-19.78	-5.08
124	125	79.77	0.00	-6.26	-19.78	14.40
125	125	79.77	0.00	-5.36	-18.55	14.70
125	126	82.88	0.00	-5.36	-18.55	31.38
126	126	82.88	0.00	-4.12	-16.33	31.63
126	127	85.99	0.00	-4.12	-16.33	44.45
127	127	85.99	0.00	-2.62	-13.41	44.43
127	128	89.10	0.00	-2.62	-13.41	52.57
128	128	89.10	0.00	-1.25	5.20	-29.27
128	129	92.21	0.00	-1.25	5.20	-25.38
129	129	92.21	0.00	-1.48	3.57	-25.33
129	130	95.32	0.00	-1.48	3.57	-20.72
130	130	95.32	0.00	-1.64	2.19	-20.66
130	131	98.43	0.00	-1.64	2.19	-15.56
131	131	98.43	0.00	-1.71	1.12	-15.48
131	132	101.54	0.00	-1.71	1.12	-10.17
132	132	101.54	0.00	-1.69	0.48	-10.30
132	133	104.65	0.00	-1.69	0.48	-5.04
133	133	104.65	0.00	-1.58	0.05	-4.96
133	134	107.76	0.00	-1.58	0.05	-0.04
301	101	0.00	0.00	-0.16	-0.04	0.00
301	2001	0.00	0.00	-0.16	-0.04	0.12
302	102	3.05	0.00	-0.70	0.35	-0.15
302	2002	3.05	0.00	-0.70	0.35	0.38
303	103	6.10	0.00	-1.09	0.29	-1.42
303	2003	6.10	0.00	-1.09	0.29	-0.60
304	104	9.15	0.00	-1.40	0.21	-2.42
304	2004	9.15	0.00	-1.40	0.21	-1.36
305	105	12.20	0.00	-1.59	0.12	-3.06
305	2005	12.20	0.00	-1.59	0.12	-1.86
306	106	15.25	0.00	-1.66	0.02	-3.33
306	2006	15.25	0.00	-1.66	0.02	-2.08
307	107	18.30	0.00	-1.62	-0.08	-3.26
307	2007	18.30	0.00	-1.62	-0.08	-2.04
308	108	21.35	0.00	-1.47	-0.18	-2.90
308	2008	21.35	0.00	-1.47	-0.18	-1.79
309	109	24.40	0.00	-1.24	-0.25	-2.22
309	2009	24.40	0.00	-1.24	-0.25	-1.28
310	110	27.45	0.00	-0.93	-0.28	-1.31
310	2010	27.45	0.00	-0.93	-0.28	-0.60
311	111	30.50	0.00	-0.62	-0.24	-0.40

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.62	-0.24	0.07
312	112	33.55	0.00	-0.52	0.00	0.00
312	2012	33.55	0.00	-0.52	0.00	0.39
313	113	37.19	0.00	-0.81	0.32	-0.90
313	2013	37.19	0.00	-0.81	0.32	-0.28
314	114	40.82	0.00	-1.24	0.35	-2.27
314	2014	40.82	0.00	-1.24	0.35	-1.34
315	115	44.46	0.00	-1.64	0.28	-3.51
315	2015	44.46	0.00	-1.64	0.28	-2.28
316	116	48.10	0.00	-1.94	0.19	-4.49
316	2016	48.10	0.00	-1.94	0.19	-3.02
317	117	51.73	0.00	-2.10	0.06	-4.96
317	2017	51.73	0.00	-2.10	0.06	-3.38
318	118	55.37	0.00	-2.10	-0.06	-4.96
318	2018	55.37	0.00	-2.10	-0.06	-3.38
319	119	59.01	0.00	-1.95	-0.19	-4.49
319	2019	59.01	0.00	-1.95	-0.19	-3.02
320	120	62.64	0.00	-1.64	-0.28	-3.52
320	2020	62.64	0.00	-1.64	-0.28	-2.28
321	121	66.28	0.00	-1.24	-0.35	-2.28
321	2021	66.28	0.00	-1.24	-0.35	-1.34
322	122	69.91	0.00	-0.81	-0.32	-0.91
322	2022	69.91	0.00	-0.81	-0.32	-0.29
323	123	73.55	0.00	-0.52	0.00	-0.01
323	2023	73.55	0.00	-0.52	0.00	0.39
324	124	76.66	0.00	-0.63	0.25	-0.41
324	2024	76.66	0.00	-0.63	0.25	0.06
325	125	79.77	0.00	-0.94	0.29	-1.35
325	2025	79.77	0.00	-0.94	0.29	-0.64
326	126	82.88	0.00	-1.27	0.26	-2.31
326	2026	82.88	0.00	-1.27	0.26	-1.35
327	127	85.99	0.00	-1.52	0.19	-3.03
327	2027	85.99	0.00	-1.52	0.19	-1.89
328	128	89.10	0.00	-1.67	0.09	-3.42
328	2028	89.10	0.00	-1.67	0.09	-2.16
329	129	92.21	0.00	-1.71	-0.01	-3.50
329	2029	92.21	0.00	-1.71	-0.01	-2.20
330	130	95.32	0.00	-1.64	-0.12	-3.19
330	2030	95.32	0.00	-1.64	-0.12	-1.96
331	131	98.43	0.00	-1.43	-0.22	-2.51
331	2031	98.43	0.00	-1.43	-0.22	-1.43
332	132	101.54	0.00	-1.11	-0.31	-1.46
332	2032	101.54	0.00	-1.11	-0.31	-0.62
333	133	104.65	0.00	-0.69	-0.37	-0.11
333	2033	104.65	0.00	-0.69	-0.37	0.41
334	134	107.76	0.00	-0.16	0.04	-0.01
334	2034	107.76	0.00	-0.16	0.04	0.11
201	2001	0.00	0.00	-0.16	-0.04	0.12
201	1001	0.00	0.00	-0.16	-0.04	0.88
202	2002	3.05	0.00	-0.70	0.35	0.38
202	1002	3.05	0.00	-0.70	0.35	3.71

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-1.09	0.29	-0.60
203	1003	6.10	0.00	-1.09	0.29	4.63
204	2004	9.15	0.00	-1.40	0.21	-1.36
204	1004	9.15	0.00	-1.40	0.21	5.33
205	2005	12.20	0.00	-1.59	0.12	-1.86
205	1005	12.20	0.00	-1.59	0.12	5.74
206	2006	15.25	0.00	-1.66	0.02	-2.08
206	1006	15.25	0.00	-1.66	0.02	5.86
207	2007	18.30	0.00	-1.62	-0.08	-2.04
207	1007	18.30	0.00	-1.62	-0.08	5.70
208	2008	21.35	0.00	-1.47	-0.18	-1.79
208	1008	21.35	0.00	-1.47	-0.18	5.27
209	2009	24.40	0.00	-1.24	-0.25	-1.28
209	1009	24.40	0.00	-1.24	-0.25	4.65
210	2010	27.45	0.00	-0.93	-0.28	-0.60
210	1010	27.45	0.00	-0.93	-0.28	3.83
211	2011	30.50	0.00	-0.62	-0.24	0.07
211	1011	30.50	0.00	-0.62	-0.24	3.05
212	2012	33.55	0.00	-0.52	0.00	0.39
212	1012	33.55	0.00	-0.52	0.00	2.87
213	2013	37.19	0.00	-0.81	0.32	-0.28
213	1013	37.19	0.00	-0.81	0.32	3.59
214	2014	40.82	0.00	-1.24	0.35	-1.34
214	1014	40.82	0.00	-1.24	0.35	4.59
215	2015	44.46	0.00	-1.64	0.28	-2.28
215	1015	44.46	0.00	-1.64	0.28	5.57
216	2016	48.10	0.00	-1.94	0.19	-3.02
216	1016	48.10	0.00	-1.94	0.19	6.29
217	2017	51.73	0.00	-2.10	0.06	-3.38
217	1017	51.73	0.00	-2.10	0.06	6.67
218	2018	55.37	0.00	-2.10	-0.06	-3.38
218	1018	55.37	0.00	-2.10	-0.06	6.67
219	2019	59.01	0.00	-1.95	-0.19	-3.02
219	1019	59.01	0.00	-1.95	-0.19	6.30
220	2020	62.64	0.00	-1.64	-0.28	-2.28
220	1020	62.64	0.00	-1.64	-0.28	5.57
221	2021	66.28	0.00	-1.24	-0.35	-1.34
221	1021	66.28	0.00	-1.24	-0.35	4.60
222	2022	69.91	0.00	-0.81	-0.32	-0.29
222	1022	69.91	0.00	-0.81	-0.32	3.60
223	2023	73.55	0.00	-0.52	0.00	0.39
223	1023	73.55	0.00	-0.52	0.00	2.88
224	2024	76.66	0.00	-0.63	0.25	0.06
224	1024	76.66	0.00	-0.63	0.25	3.06
225	2025	79.77	0.00	-0.94	0.29	-0.64
225	1025	79.77	0.00	-0.94	0.29	3.88
226	2026	82.88	0.00	-1.27	0.26	-1.35
226	1026	82.88	0.00	-1.27	0.26	4.73
227	2027	85.99	0.00	-1.52	0.19	-1.89
227	1027	85.99	0.00	-1.52	0.19	5.38
228	2028	89.10	0.00	-1.67	0.09	-2.16

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-1.67	0.09	5.83
229	2029	92.21	0.00	-1.71	-0.01	-2.20
229	1029	92.21	0.00	-1.71	-0.01	5.99
230	2030	95.32	0.00	-1.64	-0.12	-1.96
230	1030	95.32	0.00	-1.64	-0.12	5.88
231	2031	98.43	0.00	-1.43	-0.22	-1.43
231	1031	98.43	0.00	-1.43	-0.22	5.43
232	2032	101.54	0.00	-1.11	-0.31	-0.62
232	1032	101.54	0.00	-1.11	-0.31	4.69
233	2033	104.65	0.00	-0.69	-0.37	0.41
233	1033	104.65	0.00	-0.69	-0.37	3.71
234	2034	107.76	0.00	-0.16	0.04	0.11
234	1034	107.76	0.00	-0.16	0.04	0.88
401	1001	0.00	0.00	-0.16	-0.04	0.88
401	1	0.00	0.00	-0.16	-0.04	1.00
402	1002	3.05	0.00	-0.70	0.35	3.71
402	2	3.05	0.00	-0.70	0.35	4.23
403	1003	6.10	0.00	-1.09	0.29	4.63
403	3	6.10	0.00	-1.09	0.29	5.45
404	1004	9.15	0.00	-1.40	0.21	5.33
404	4	9.15	0.00	-1.40	0.21	6.39
405	1005	12.20	0.00	-1.59	0.12	5.74
405	5	12.20	0.00	-1.59	0.12	6.94
406	1006	15.25	0.00	-1.66	0.02	5.86
406	6	15.25	0.00	-1.66	0.02	7.11
407	1007	18.30	0.00	-1.62	-0.08	5.70
407	7	18.30	0.00	-1.62	-0.08	6.93
408	1008	21.35	0.00	-1.47	-0.18	5.27
408	8	21.35	0.00	-1.47	-0.18	6.38
409	1009	24.40	0.00	-1.24	-0.25	4.65
409	9	24.40	0.00	-1.24	-0.25	5.59
410	1010	27.45	0.00	-0.93	-0.28	3.83
410	10	27.45	0.00	-0.93	-0.28	4.54
411	1011	30.50	0.00	-0.62	-0.24	3.05
411	11	30.50	0.00	-0.62	-0.24	3.52
412	1012	33.55	0.00	-0.52	0.00	2.87
412	12	33.55	0.00	-0.52	0.00	3.27
413	1013	37.19	0.00	-0.81	0.32	3.59
413	13	37.19	0.00	-0.81	0.32	4.20
414	1014	40.82	0.00	-1.24	0.35	4.59
414	14	40.82	0.00	-1.24	0.35	5.53
415	1015	44.46	0.00	-1.64	0.28	5.57
415	15	44.46	0.00	-1.64	0.28	6.80
416	1016	48.10	0.00	-1.94	0.19	6.29
416	16	48.10	0.00	-1.94	0.19	7.76
417	1017	51.73	0.00	-2.10	0.06	6.67
417	17	51.73	0.00	-2.10	0.06	8.25
418	1018	55.37	0.00	-2.10	-0.06	6.67
418	18	55.37	0.00	-2.10	-0.06	8.25
419	1019	59.01	0.00	-1.95	-0.19	6.30
419	19	59.01	0.00	-1.95	-0.19	7.77

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-1.64	-0.28	5.57
420	20	62.64	0.00	-1.64	-0.28	6.81
421	1021	66.28	0.00	-1.24	-0.35	4.60
421	21	66.28	0.00	-1.24	-0.35	5.54
422	1022	69.91	0.00	-0.81	-0.32	3.60
422	22	69.91	0.00	-0.81	-0.32	4.21
423	1023	73.55	0.00	-0.52	0.00	2.88
423	23	73.55	0.00	-0.52	0.00	3.27
424	1024	76.66	0.00	-0.63	0.25	3.06
424	24	76.66	0.00	-0.63	0.25	3.53
425	1025	79.77	0.00	-0.94	0.29	3.88
425	25	79.77	0.00	-0.94	0.29	4.59
426	1026	82.88	0.00	-1.27	0.26	4.73
426	26	82.88	0.00	-1.27	0.26	5.69
427	1027	85.99	0.00	-1.52	0.19	5.38
427	27	85.99	0.00	-1.52	0.19	6.53
428	1028	89.10	0.00	-1.67	0.09	5.83
428	28	89.10	0.00	-1.67	0.09	7.10
429	1029	92.21	0.00	-1.71	-0.01	5.99
429	29	92.21	0.00	-1.71	-0.01	7.29
430	1030	95.32	0.00	-1.64	-0.12	5.88
430	30	95.32	0.00	-1.64	-0.12	7.11
431	1031	98.43	0.00	-1.43	-0.22	5.43
431	31	98.43	0.00	-1.43	-0.22	6.52
432	1032	101.54	0.00	-1.11	-0.31	4.69
432	32	101.54	0.00	-1.11	-0.31	5.53
433	1033	104.65	0.00	-0.69	-0.37	3.71
433	33	104.65	0.00	-0.69	-0.37	4.23
434	1034	107.76	0.00	-0.16	0.04	0.88
434	34	107.76	0.00	-0.16	0.04	1.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00	0.00
1	2	3.05	0.00	-11.33	-8.47	54.35
2	2	3.05	0.00	-10.08	-5.57	44.52
2	3	6.10	0.00	-6.09	-14.15	79.72
3	3	6.10	0.00	-7.00	-9.87	79.49
3	4	9.15	0.00	-2.77	-16.80	115.75
4	4	9.15	0.00	-4.17	-10.42	115.54
4	5	12.20	0.00	2.87	-16.29	90.87
5	5	12.20	0.00	1.86	-12.02	90.84
5	6	15.25	0.00	9.21	-21.28	83.34
6	6	15.25	0.00	8.24	-17.22	83.39
6	7	18.30	0.00	11.52	-22.55	86.01
7	7	18.30	0.00	10.45	-17.99	86.12
7	8	21.35	0.00	14.22	-18.26	80.58
8	8	21.35	0.00	9.61	-14.21	54.40
8	9	24.40	0.00	17.18	-18.31	61.62
9	9	24.40	0.00	16.22	-14.02	61.87
9	10	27.45	0.00	20.45	-18.52	28.14
10	10	27.45	0.00	19.67	-14.68	28.42
10	11	30.50	0.00	24.15	-19.43	-21.48
11	11	30.50	0.00	23.60	-16.21	-21.20
11	12	33.55	0.00	29.31	-18.00	-92.14
12	10012	33.55	0.00	-3.66	-15.47	-91.88
12	13	37.19	0.00	-2.87	-18.07	-68.32
13	13	37.19	0.00	-2.97	-16.10	-68.17
13	14	40.82	0.00	-1.58	-19.54	-39.39
14	14	40.82	0.00	-1.70	-17.58	-39.33
14	15	44.46	0.00	-1.58	-21.27	36.47
15	15	44.46	0.00	-0.14	-18.78	-10.56
15	16	48.10	0.00	1.66	-22.18	72.55
16	16	48.10	0.00	1.54	-19.05	14.74
16	17	51.73	0.00	4.03	-21.89	34.00
17	17	51.73	0.00	3.28	-18.13	34.03
17	18	55.37	0.00	6.60	-20.76	50.33
18	18	55.37	0.00	5.62	-16.31	50.42
18	19	59.01	0.00	9.34	-18.19	55.13
19	19	59.01	0.00	8.26	-13.41	55.30
19	20	62.64	0.00	12.37	-14.69	45.14
20	20	62.64	0.00	-0.83	-10.72	-1.90
20	21	66.28	0.00	16.49	-11.26	19.18
21	21	66.28	0.00	-1.72	-9.60	2.82
21	22	69.91	0.00	-1.72	-9.60	9.07
22	22	69.91	0.00	-1.83	-8.44	9.03
22	23	73.55	0.00	29.60	-10.13	-101.24
23	10023	73.55	0.00	-3.68	-7.86	-100.97
23	24	76.66	0.00	-3.55	-8.33	-87.90
24	24	76.66	0.00	-3.57	-7.06	-87.74
24	25	79.77	0.00	-2.28	-10.89	-59.30
25	25	79.77	0.00	-2.32	-9.50	-59.22
25	26	82.88	0.00	-0.40	-13.90	-25.30
26	26	82.88	0.00	-0.61	-11.95	-25.28

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	1.89	-16.50	10.77
27	27	85.99	0.00	1.43	-13.70	10.77
27	28	89.10	0.00	4.45	-17.98	45.72
28	28	89.10	0.00	3.71	-14.20	45.72
28	29	92.21	0.00	6.66	-17.33	69.53
29	29	92.21	0.00	5.71	-12.84	69.57
29	30	95.32	0.00	8.99	-15.26	85.91
30	30	95.32	0.00	7.92	-10.32	86.02
30	31	98.43	0.00	11.56	-12.05	91.85
31	31	98.43	0.00	10.51	-7.06	92.05
31	32	101.54	0.00	14.58	-8.23	83.23
32	32	101.54	0.00	13.71	-3.71	83.53
32	33	104.65	0.00	18.29	-4.48	54.66
33	33	104.65	0.00	-2.29	-1.00	-7.07
33	34	107.76	0.00	23.77	-1.36	-0.19
101	101	0.00	0.00	-4.76	-0.97	0.18
101	102	3.05	0.00	-4.76	-0.97	14.69
102	102	3.05	0.00	-3.76	-1.54	12.89
102	103	6.10	0.00	-3.76	-1.54	24.35
103	103	6.10	0.00	-1.77	-1.40	14.44
103	104	9.15	0.00	-1.77	-1.40	19.84
104	104	9.15	0.00	1.53	-2.32	-14.71
104	105	12.20	0.00	1.53	-2.32	-19.38
105	105	12.20	0.00	1.50	-3.64	-20.91
105	106	15.25	0.00	1.50	-3.64	-25.47
106	106	15.25	0.00	1.29	-5.24	-25.47
106	107	18.30	0.00	1.29	-5.24	-29.39
107	107	18.30	0.00	1.00	-7.08	-29.41
107	108	21.35	0.00	1.00	-7.08	-32.47
108	108	21.35	0.00	0.69	-9.05	-32.46
108	109	24.40	0.00	0.69	-9.05	-34.55
109	109	24.40	0.00	0.38	-11.02	-34.51
109	110	27.45	0.00	0.38	-11.02	-35.67
110	110	27.45	0.00	0.14	-12.84	-35.58
110	111	30.50	0.00	0.14	-12.84	-36.01
111	111	30.50	0.00	0.04	-14.27	-35.84
111	112	33.55	0.00	0.04	-14.27	-35.96
112	10112	33.55	0.00	-7.15	-15.25	-34.76
112	113	37.19	0.00	-7.15	-15.25	-8.77
113	113	37.19	0.00	-6.64	-15.04	-8.41
113	114	40.82	0.00	-6.64	-15.04	15.73
114	114	40.82	0.00	-5.29	-13.24	14.22
114	115	44.46	0.00	-5.29	-13.24	33.45
115	115	44.46	0.00	-3.48	-10.49	27.68
115	116	48.10	0.00	-3.48	-10.49	40.32
116	116	48.10	0.00	-1.22	-8.00	21.72
116	117	51.73	0.00	-1.22	-8.00	26.17
117	117	51.73	0.00	1.20	-8.34	-16.55
117	118	55.37	0.00	1.20	-8.34	-20.93
118	118	55.37	0.00	0.93	-10.28	-20.98
118	119	59.01	0.00	0.93	-10.28	-24.37

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	0.61	-12.48	-24.39
119	120	62.64	0.00	0.61	-12.48	-26.60
120	120	62.64	0.00	0.27	-14.82	-26.58
120	121	66.28	0.00	0.27	-14.82	-27.55
121	121	66.28	0.00	-0.02	-17.11	-27.47
121	122	69.91	0.00	-0.02	-17.11	-27.41
122	122	69.91	0.00	-0.13	-19.00	-27.25
122	123	73.55	0.00	-0.13	-19.00	-26.76
123	10123	73.55	0.00	-6.79	-19.94	-26.50
123	124	76.66	0.00	-6.79	-19.94	-5.38
124	124	76.66	0.00	-6.26	-19.78	-5.08
124	125	79.77	0.00	-6.26	-19.78	14.40
125	125	79.77	0.00	-5.35	-18.55	14.55
125	126	82.88	0.00	-5.35	-18.55	31.19
126	126	82.88	0.00	-4.12	-16.36	31.44
126	127	85.99	0.00	-4.12	-16.36	44.25
127	127	85.99	0.00	-2.62	-13.41	44.43
127	128	89.10	0.00	-2.62	-13.41	52.57
128	128	89.10	0.00	-0.96	-10.02	52.66
128	129	92.21	0.00	-0.96	-10.02	55.64
129	129	92.21	0.00	0.75	-6.55	55.63
129	130	95.32	0.00	0.75	-6.55	53.30
130	130	95.32	0.00	1.45	-3.71	37.22
130	131	98.43	0.00	1.45	-3.71	32.71
131	131	98.43	0.00	2.06	-1.51	26.48
131	132	101.54	0.00	2.06	-1.51	20.08
132	132	101.54	0.00	2.87	-0.13	19.89
132	133	104.65	0.00	2.87	-0.13	10.96
133	133	104.65	0.00	-1.28	-0.04	-4.03
133	134	107.76	0.00	-1.28	-0.04	-0.05
301	101	0.00	0.00	-0.15	-0.05	-0.03
301	2001	0.00	0.00	-0.15	-0.05	0.09
302	102	3.05	0.00	-0.18	-0.10	0.35
302	2002	3.05	0.00	-0.18	-0.10	0.49
303	103	6.10	0.00	-0.06	-0.09	0.73
303	2003	6.10	0.00	-0.06	-0.09	0.77
304	104	9.15	0.00	0.04	-0.08	1.06
304	2004	9.15	0.00	0.04	-0.08	1.03
305	105	12.20	0.00	0.16	-0.06	1.38
305	2005	12.20	0.00	0.16	-0.06	1.26
306	106	15.25	0.00	0.23	-0.05	1.64
306	2006	15.25	0.00	0.23	-0.05	1.46
307	107	18.30	0.00	-1.23	-0.11	-2.68
307	2007	18.30	0.00	-1.23	-0.11	-1.75
308	108	21.35	0.00	-1.23	-0.19	-2.52
308	2008	21.35	0.00	-1.23	-0.19	-1.59
309	109	24.40	0.00	-1.11	-0.25	-2.00
309	2009	24.40	0.00	-1.11	-0.25	-1.16
310	110	27.45	0.00	-0.92	-0.29	-1.30
310	2010	27.45	0.00	-0.92	-0.29	-0.60
311	111	30.50	0.00	-0.58	-0.29	-0.30

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.58	-0.29	0.14
312	112	33.55	0.00	-0.29	-0.26	0.67
312	2012	33.55	0.00	-0.29	-0.26	0.89
313	113	37.19	0.00	0.03	-0.17	1.66
313	2013	37.19	0.00	0.03	-0.17	1.64
314	114	40.82	0.00	0.21	-0.09	2.11
314	2014	40.82	0.00	0.21	-0.09	1.95
315	115	44.46	0.00	0.04	-0.07	1.00
315	2015	44.46	0.00	0.04	-0.07	0.97
316	116	48.10	0.00	0.12	-0.07	1.31
316	2016	48.10	0.00	0.12	-0.07	1.23
317	117	51.73	0.00	0.20	-0.07	1.64
317	2017	51.73	0.00	0.20	-0.07	1.49
318	118	55.37	0.00	-1.38	-0.10	-2.86
318	2018	55.37	0.00	-1.38	-0.10	-1.82
319	119	59.01	0.00	-1.72	-0.20	-3.86
319	2019	59.01	0.00	-1.72	-0.20	-2.56
320	120	62.64	0.00	-1.53	-0.30	-3.28
320	2020	62.64	0.00	-1.53	-0.30	-2.12
321	121	66.28	0.00	-1.19	-0.37	-2.19
321	2021	66.28	0.00	-1.19	-0.37	-1.29
322	122	69.91	0.00	-0.67	-0.38	-0.61
322	2022	69.91	0.00	-0.67	-0.38	-0.11
323	123	73.55	0.00	-0.15	-0.28	0.81
323	2023	73.55	0.00	-0.15	-0.28	0.92
324	124	76.66	0.00	0.11	-0.17	1.45
324	2024	76.66	0.00	0.11	-0.17	1.37
325	125	79.77	0.00	0.16	-0.10	1.64
325	2025	79.77	0.00	0.16	-0.10	1.52
326	126	82.88	0.00	0.22	-0.05	1.80
326	2026	82.88	0.00	0.22	-0.05	1.63
327	127	85.99	0.00	0.09	-0.01	1.45
327	2027	85.99	0.00	0.09	-0.01	1.38
328	128	89.10	0.00	-0.39	-0.01	0.08
328	2028	89.10	0.00	-0.39	-0.01	0.38
329	129	92.21	0.00	-0.95	-0.04	-1.48
329	2029	92.21	0.00	-0.95	-0.04	-0.76
330	130	95.32	0.00	-1.59	-0.12	-3.14
330	2030	95.32	0.00	-1.59	-0.12	-1.94
331	131	98.43	0.00	-1.36	-0.23	-2.40
331	2031	98.43	0.00	-1.36	-0.23	-1.37
332	132	101.54	0.00	-1.00	-0.32	-1.25
332	2032	101.54	0.00	-1.00	-0.32	-0.49
333	133	104.65	0.00	-0.53	-0.39	0.24
333	2033	104.65	0.00	-0.53	-0.39	0.64
334	134	107.76	0.00	-0.02	-0.21	0.86
334	2034	107.76	0.00	-0.02	-0.21	0.87
201	2001	0.00	0.00	-0.15	-0.05	0.09
201	1001	0.00	0.00	-0.15	-0.05	0.82
202	2002	3.05	0.00	-0.18	-0.10	0.49
202	1002	3.05	0.00	-0.18	-0.10	1.33

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.06	-0.09	0.77
203	1003	6.10	0.00	-0.06	-0.09	1.06
204	2004	9.15	0.00	0.04	-0.08	1.03
204	1004	9.15	0.00	0.04	-0.08	0.83
205	2005	12.20	0.00	0.16	-0.06	1.26
205	1005	12.20	0.00	0.16	-0.06	0.51
206	2006	15.25	0.00	0.23	-0.05	1.46
206	1006	15.25	0.00	0.23	-0.05	0.36
207	2007	18.30	0.00	-1.23	-0.11	-1.75
207	1007	18.30	0.00	-1.23	-0.11	4.15
208	2008	21.35	0.00	-1.23	-0.19	-1.59
208	1008	21.35	0.00	-1.23	-0.19	4.30
209	2009	24.40	0.00	-1.11	-0.25	-1.16
209	1009	24.40	0.00	-1.11	-0.25	4.14
210	2010	27.45	0.00	-0.92	-0.29	-0.60
210	1010	27.45	0.00	-0.92	-0.29	3.83
211	2011	30.50	0.00	-0.58	-0.29	0.14
211	1011	30.50	0.00	-0.58	-0.29	2.93
212	2012	33.55	0.00	-0.29	-0.26	0.89
212	1012	33.55	0.00	-0.29	-0.26	2.28
213	2013	37.19	0.00	0.03	-0.17	1.64
213	1013	37.19	0.00	0.03	-0.17	1.52
214	2014	40.82	0.00	0.21	-0.09	1.95
214	1014	40.82	0.00	0.21	-0.09	0.94
215	2015	44.46	0.00	0.04	-0.07	0.97
215	1015	44.46	0.00	0.04	-0.07	0.79
216	2016	48.10	0.00	0.12	-0.07	1.23
216	1016	48.10	0.00	0.12	-0.07	0.67
217	2017	51.73	0.00	0.20	-0.07	1.49
217	1017	51.73	0.00	0.20	-0.07	0.56
218	2018	55.37	0.00	-1.38	-0.10	-1.82
218	1018	55.37	0.00	-1.38	-0.10	4.78
219	2019	59.01	0.00	-1.72	-0.20	-2.56
219	1019	59.01	0.00	-1.72	-0.20	5.66
220	2020	62.64	0.00	-1.53	-0.30	-2.12
220	1020	62.64	0.00	-1.53	-0.30	5.23
221	2021	66.28	0.00	-1.19	-0.37	-1.29
221	1021	66.28	0.00	-1.19	-0.37	4.42
222	2022	69.91	0.00	-0.67	-0.38	-0.11
222	1022	69.91	0.00	-0.67	-0.38	3.10
223	2023	73.55	0.00	-0.15	-0.28	0.92
223	1023	73.55	0.00	-0.15	-0.28	1.66
224	2024	76.66	0.00	0.11	-0.17	1.37
224	1024	76.66	0.00	0.11	-0.17	0.86
225	2025	79.77	0.00	0.16	-0.10	1.52
225	1025	79.77	0.00	0.16	-0.10	0.76
226	2026	82.88	0.00	0.22	-0.05	1.63
226	1026	82.88	0.00	0.22	-0.05	0.57
227	2027	85.99	0.00	0.09	-0.01	1.38
227	1027	85.99	0.00	0.09	-0.01	0.92
228	2028	89.10	0.00	-0.39	-0.01	0.38

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.39	-0.01	2.26
229	2029	92.21	0.00	-0.95	-0.04	-0.76
229	1029	92.21	0.00	-0.95	-0.04	3.77
230	2030	95.32	0.00	-1.59	-0.12	-1.94
230	1030	95.32	0.00	-1.59	-0.12	5.65
231	2031	98.43	0.00	-1.36	-0.23	-1.37
231	1031	98.43	0.00	-1.36	-0.23	5.15
232	2032	101.54	0.00	-1.00	-0.32	-0.49
232	1032	101.54	0.00	-1.00	-0.32	4.29
233	2033	104.65	0.00	-0.53	-0.39	0.64
233	1033	104.65	0.00	-0.53	-0.39	3.18
234	2034	107.76	0.00	-0.02	-0.21	0.87
234	1034	107.76	0.00	-0.02	-0.21	0.96
401	1001	0.00	0.00	-0.15	-0.05	0.82
401	1	0.00	0.00	-0.15	-0.05	0.93
402	1002	3.05	0.00	-0.18	-0.10	1.33
402	2	3.05	0.00	-0.18	-0.10	1.47
403	1003	6.10	0.00	-0.06	-0.09	1.06
403	3	6.10	0.00	-0.06	-0.09	1.11
404	1004	9.15	0.00	0.04	-0.08	0.83
404	4	9.15	0.00	0.04	-0.08	0.80
405	1005	12.20	0.00	0.16	-0.06	0.51
405	5	12.20	0.00	0.16	-0.06	0.39
406	1006	15.25	0.00	0.23	-0.05	0.36
406	6	15.25	0.00	0.23	-0.05	0.18
407	1007	18.30	0.00	-1.23	-0.11	4.15
407	7	18.30	0.00	-1.23	-0.11	5.08
408	1008	21.35	0.00	-1.23	-0.19	4.30
408	8	21.35	0.00	-1.23	-0.19	5.22
409	1009	24.40	0.00	-1.11	-0.25	4.14
409	9	24.40	0.00	-1.11	-0.25	4.97
410	1010	27.45	0.00	-0.93	-0.29	3.83
410	10	27.45	0.00	-0.93	-0.29	4.53
411	1011	30.50	0.00	-0.58	-0.29	2.93
411	11	30.50	0.00	-0.58	-0.29	3.37
412	1012	33.55	0.00	-0.29	-0.26	2.28
412	12	33.55	0.00	-0.29	-0.26	2.50
413	1013	37.19	0.00	0.03	-0.17	1.52
413	13	37.19	0.00	0.03	-0.17	1.50
414	1014	40.82	0.00	0.21	-0.09	0.94
414	14	40.82	0.00	0.21	-0.09	0.78
415	1015	44.46	0.00	0.04	-0.07	0.79
415	15	44.46	0.00	0.04	-0.07	0.76
416	1016	48.10	0.00	0.12	-0.07	0.67
416	16	48.10	0.00	0.12	-0.07	0.58
417	1017	51.73	0.00	0.20	-0.07	0.56
417	17	51.73	0.00	0.20	-0.07	0.41
418	1018	55.37	0.00	-1.38	-0.10	4.78
418	18	55.37	0.00	-1.38	-0.10	5.82
419	1019	59.01	0.00	-1.72	-0.20	5.66
419	19	59.01	0.00	-1.72	-0.20	6.96

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-1.53	-0.30	5.23
420	20	62.64	0.00	-1.53	-0.30	6.39
421	1021	66.28	0.00	-1.19	-0.37	4.42
421	21	66.28	0.00	-1.19	-0.37	5.32
422	1022	69.91	0.00	-0.67	-0.38	3.10
422	22	69.91	0.00	-0.67	-0.38	3.60
423	1023	73.55	0.00	-0.15	-0.28	1.66
423	23	73.55	0.00	-0.15	-0.28	1.77
424	1024	76.66	0.00	0.11	-0.17	0.86
424	24	76.66	0.00	0.11	-0.17	0.78
425	1025	79.77	0.00	0.16	-0.10	0.76
425	25	79.77	0.00	0.16	-0.10	0.65
426	1026	82.88	0.00	0.22	-0.05	0.57
426	26	82.88	0.00	0.22	-0.05	0.41
427	1027	85.99	0.00	0.09	-0.01	0.92
427	27	85.99	0.00	0.09	-0.01	0.85
428	1028	89.10	0.00	-0.39	-0.01	2.26
428	28	89.10	0.00	-0.39	-0.01	2.56
429	1029	92.21	0.00	-0.95	-0.04	3.77
429	29	92.21	0.00	-0.95	-0.04	4.49
430	1030	95.32	0.00	-1.59	-0.12	5.65
430	30	95.32	0.00	-1.59	-0.12	6.85
431	1031	98.43	0.00	-1.36	-0.23	5.15
431	31	98.43	0.00	-1.36	-0.23	6.18
432	1032	101.54	0.00	-1.00	-0.32	4.29
432	32	101.54	0.00	-1.00	-0.32	5.05
433	1033	104.65	0.00	-0.53	-0.39	3.18
433	33	104.65	0.00	-0.53	-0.39	3.58
434	1034	107.76	0.00	-0.02	-0.21	0.96
434	34	107.76	0.00	-0.02	-0.21	0.97

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-17.97	1.00	-0.20
1	2	3.05	0.00	2.74	0.84	-8.32
2	2	3.05	0.00	2.60	2.14	-8.23
2	3	6.10	0.00	2.60	2.14	-16.15
3	3	6.10	0.00	2.57	3.10	-16.06
3	4	9.15	0.00	2.57	3.10	-23.89
4	4	9.15	0.00	2.63	3.74	-23.81
4	5	12.20	0.00	2.63	3.74	-31.85
5	5	12.20	0.00	2.79	4.13	-31.79
5	6	15.25	0.00	2.79	4.13	-40.30
6	6	15.25	0.00	3.02	4.32	-40.25
6	7	18.30	0.00	3.02	4.32	-49.47
7	7	18.30	0.00	3.31	4.35	-49.45
7	8	21.35	0.00	3.31	4.35	-59.54
8	8	21.35	0.00	3.62	4.34	-59.55
8	9	24.40	0.00	3.62	4.34	-70.60
9	9	24.40	0.00	3.93	4.39	-70.64
9	10	27.45	0.00	3.93	4.39	-82.62
10	10	27.45	0.00	4.17	4.70	-82.72
10	11	30.50	0.00	4.17	4.70	-95.43
11	11	30.50	0.00	4.27	5.49	-95.60
11	12	33.55	0.00	22.21	-4.66	-114.25
12	10012	33.55	0.00	-22.21	-1.39	-114.25
12	13	37.19	0.00	-3.83	-13.98	-78.99
13	13	37.19	0.00	-3.75	-12.71	-78.83
13	14	40.82	0.00	-3.68	-13.82	-65.43
14	14	40.82	0.00	-3.47	-13.04	-65.34
14	15	44.46	0.00	-3.47	-13.04	-52.74
15	15	44.46	0.00	-3.18	-12.61	-52.71
15	16	48.10	0.00	-3.18	-12.61	-41.14
16	16	48.10	0.00	-2.89	-12.30	-41.16
16	17	51.73	0.00	-2.89	-12.30	-30.64
17	17	51.73	0.00	-2.65	-11.96	-30.69
17	18	55.37	0.00	2.77	11.82	-31.96
18	18	55.37	0.00	3.04	12.10	-31.91
18	19	59.01	0.00	3.04	12.10	-42.97
19	19	59.01	0.00	3.35	12.33	-42.94
19	20	62.64	0.00	3.35	12.33	-55.13
20	20	62.64	0.00	3.67	12.66	-55.15
20	21	66.28	0.00	3.67	12.66	-68.48
21	21	66.28	0.00	3.91	13.33	-68.57
21	22	69.91	0.00	3.91	13.33	-82.79
22	22	69.91	0.00	3.97	14.71	-82.97
22	23	73.55	0.00	22.22	1.42	-114.83
23	10023	73.55	0.00	-22.29	4.70	-114.83
23	24	76.66	0.00	-4.19	-5.42	-94.55
24	24	76.66	0.00	-4.08	-4.64	-94.38
24	25	79.77	0.00	-4.08	-4.64	-81.68
25	25	79.77	0.00	-3.84	-4.35	-81.58
25	26	82.88	0.00	-3.84	-4.35	-69.64
26	26	82.88	0.00	-3.53	-4.31	-69.59

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-3.53	-4.31	-58.61
27	27	85.99	0.00	-3.21	-4.34	-58.61
27	28	89.10	0.00	-3.21	-4.34	-48.62
28	28	89.10	0.00	-2.92	-4.31	-48.64
28	29	92.21	0.00	-2.92	-4.31	-39.55
29	29	92.21	0.00	-2.69	-4.14	-39.59
29	30	95.32	0.00	-2.69	-4.14	-31.22
30	30	95.32	0.00	-2.54	-3.75	-31.28
30	31	98.43	0.00	-2.54	-3.75	-23.40
31	31	98.43	0.00	-2.47	-3.10	-23.47
31	32	101.54	0.00	-2.47	-3.10	-15.80
32	32	101.54	0.00	-2.50	-2.15	-15.88
32	33	104.65	0.00	-2.47	-2.41	-8.10
33	33	104.65	0.00	-2.65	-0.94	-8.20
33	34	107.76	0.00	20.82	-0.97	-0.21
101	101	0.00	0.00	1.36	0.03	-0.05
101	102	3.05	0.00	1.62	-0.06	-4.99
102	102	3.05	0.00	1.73	-0.50	-5.07
102	103	6.10	0.00	1.73	-0.50	-10.35
103	103	6.10	0.00	1.74	-1.26	-10.42
103	104	9.15	0.00	1.74	-1.26	-15.73
104	104	9.15	0.00	1.66	-2.31	-15.79
104	105	12.20	0.00	1.66	-2.31	-20.85
105	105	12.20	0.00	1.50	-3.64	-20.91
105	106	15.25	0.00	1.50	-3.64	-25.47
106	106	15.25	0.00	1.26	-5.20	-25.51
106	107	18.30	0.00	1.29	-5.24	-29.39
107	107	18.30	0.00	1.00	-7.08	-29.41
107	108	21.35	0.00	1.00	-7.08	-32.47
108	108	21.35	0.00	0.69	-9.05	-32.46
108	109	24.40	0.00	0.69	-9.05	-34.55
109	109	24.40	0.00	0.38	-11.02	-34.51
109	110	27.45	0.00	0.38	-11.02	-35.67
110	110	27.45	0.00	0.14	-12.84	-35.58
110	111	30.50	0.00	0.14	-12.84	-36.01
111	111	30.50	0.00	0.04	-14.27	-35.84
111	112	33.55	0.00	0.04	-14.27	-35.96
112	10112	33.55	0.00	-7.47	-15.09	-35.68
112	113	37.19	0.00	0.08	18.50	-25.71
113	113	37.19	0.00	-0.01	16.71	-25.87
113	114	40.82	0.00	-0.01	16.71	-25.85
114	114	40.82	0.00	-0.26	14.53	-25.93
114	115	44.46	0.00	-0.26	14.53	-25.00
115	115	44.46	0.00	-0.57	12.26	-25.02
115	116	48.10	0.00	-0.57	12.26	-22.96
116	116	48.10	0.00	-0.87	10.13	-22.94
116	117	51.73	0.00	-0.87	10.13	-19.78
117	117	51.73	0.00	-1.13	8.24	-19.73
117	118	55.37	0.00	1.20	-8.34	-20.93
118	118	55.37	0.00	0.93	-10.28	-20.98
118	119	59.01	0.00	0.93	-10.28	-24.37

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	0.61	-12.48	-24.39
119	120	62.64	0.00	0.61	-12.48	-26.60
120	120	62.64	0.00	0.27	-14.82	-26.58
120	121	66.28	0.00	0.27	-14.82	-27.55
121	121	66.28	0.00	-0.02	-17.11	-27.47
121	122	69.91	0.00	-0.02	-17.11	-27.41
122	122	69.91	0.00	-0.13	-19.00	-27.25
122	123	73.55	0.00	7.44	15.09	-34.98
123	10123	73.55	0.00	0.01	14.28	-35.26
123	124	76.66	0.00	0.01	14.28	-35.31
124	124	76.66	0.00	-0.09	12.84	-35.47
124	125	79.77	0.00	-0.09	12.84	-35.19
125	125	79.77	0.00	-0.34	11.00	-35.29
125	126	82.88	0.00	-0.34	11.00	-34.24
126	126	82.88	0.00	-0.65	9.02	-34.29
126	127	85.99	0.00	-0.65	9.02	-32.28
127	127	85.99	0.00	-0.96	7.05	-32.29
127	128	89.10	0.00	-0.96	7.05	-29.29
128	128	89.10	0.00	-1.25	5.20	-29.27
128	129	92.21	0.00	-1.23	5.16	-25.41
129	129	92.21	0.00	-1.46	3.60	-25.36
129	130	95.32	0.00	-1.46	3.60	-20.82
130	130	95.32	0.00	-1.62	2.28	-20.76
130	131	98.43	0.00	-1.62	2.28	-15.72
131	131	98.43	0.00	-1.70	1.23	-15.66
131	132	101.54	0.00	-1.70	1.23	-10.37
132	132	101.54	0.00	-1.69	0.48	-10.30
132	133	104.65	0.00	-1.69	0.48	-5.04
133	133	104.65	0.00	-1.58	0.05	-4.96
133	134	107.76	0.00	-1.32	-0.03	-0.05
301	101	0.00	0.00	-0.15	-0.05	-0.03
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	-0.52	0.25	-0.46
302	2002	3.05	0.00	-0.52	0.25	-0.07
303	103	6.10	0.00	-0.91	0.23	-1.45
303	2003	6.10	0.00	-0.91	0.23	-0.76
304	104	9.15	0.00	-1.33	0.22	-2.42
304	2004	9.15	0.00	-1.24	0.21	-1.42
305	105	12.20	0.00	-1.52	0.11	-3.07
305	2005	12.20	0.00	-1.52	0.11	-1.92
306	106	15.25	0.00	-1.64	0.01	-3.35
306	2006	15.25	0.00	-1.60	0.01	-2.14
307	107	18.30	0.00	-1.61	-0.09	-3.29
307	2007	18.30	0.00	-1.61	-0.09	-2.07
308	108	21.35	0.00	-1.47	-0.18	-2.90
308	2008	21.35	0.00	-1.47	-0.18	-1.79
309	109	24.40	0.00	-1.24	-0.25	-2.22
309	2009	24.40	0.00	-1.24	-0.25	-1.28
310	110	27.45	0.00	-0.93	-0.28	-1.31
310	2010	27.45	0.00	-0.93	-0.28	-0.60
311	111	30.50	0.00	-0.62	-0.24	-0.40

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	-0.51	0.08	-0.01
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	-0.81	0.32	-0.90
313	2013	37.19	0.00	-0.81	0.32	-0.28
314	114	40.82	0.00	-1.24	0.35	-2.27
314	2014	40.82	0.00	-1.24	0.35	-1.34
315	115	44.46	0.00	-1.63	0.30	-3.53
315	2015	44.46	0.00	-1.63	0.30	-2.29
316	116	48.10	0.00	-1.94	0.19	-4.49
316	2016	48.10	0.00	-1.94	0.19	-3.02
317	117	51.73	0.00	-2.10	0.06	-4.96
317	2017	51.73	0.00	-2.10	0.06	-3.38
318	118	55.37	0.00	-2.10	-0.06	-4.96
318	2018	55.37	0.00	-2.10	-0.06	-3.38
319	119	59.01	0.00	-1.95	-0.19	-4.49
319	2019	59.01	0.00	-1.95	-0.19	-3.02
320	120	62.64	0.00	-1.63	-0.30	-3.53
320	2020	62.64	0.00	-1.63	-0.30	-2.30
321	121	66.28	0.00	-1.24	-0.35	-2.28
321	2021	66.28	0.00	-1.24	-0.35	-1.34
322	122	69.91	0.00	-0.81	-0.32	-0.91
322	2022	69.91	0.00	-0.81	-0.32	-0.29
323	123	73.55	0.00	-0.52	-0.08	-0.02
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	-0.63	0.25	-0.41
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	-0.94	0.29	-1.35
325	2025	79.77	0.00	-0.94	0.29	-0.64
326	126	82.88	0.00	-1.27	0.26	-2.31
326	2026	82.88	0.00	-1.27	0.26	-1.35
327	127	85.99	0.00	-1.52	0.19	-3.03
327	2027	85.99	0.00	-1.52	0.19	-1.89
328	128	89.10	0.00	-1.66	0.09	-3.45
328	2028	89.10	0.00	-1.66	0.09	-2.19
329	129	92.21	0.00	-1.70	-0.01	-3.50
329	2029	92.21	0.00	-1.65	-0.01	-2.24
330	130	95.32	0.00	-1.63	-0.12	-3.20
330	2030	95.32	0.00	-1.57	-0.12	-2.01
331	131	98.43	0.00	-1.43	-0.22	-2.52
331	2031	98.43	0.00	-1.36	-0.22	-1.48
332	132	101.54	0.00	-0.93	-0.23	-1.49
332	2032	101.54	0.00	-0.93	-0.23	-0.79
333	133	104.65	0.00	-0.53	-0.25	-0.47
333	2033	104.65	0.00	-0.53	-0.25	-0.07
334	134	107.76	0.00	-0.16	0.05	-0.04
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	-0.52	0.25	-0.07
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.91	0.23	-0.76
203	1003	6.10	0.00	0.00	0.00	0.00
204	2004	9.15	0.00	-1.24	0.21	-1.42
204	1004	9.15	0.00	0.00	0.00	0.00
205	2005	12.20	0.00	-1.52	0.11	-1.92
205	1005	12.20	0.00	0.00	0.00	0.00
206	2006	15.25	0.00	-1.60	0.01	-2.14
206	1006	15.25	0.00	0.00	0.00	0.00
207	2007	18.30	0.00	-1.61	-0.09	-2.07
207	1007	18.30	0.00	0.00	0.00	0.00
208	2008	21.35	0.00	-1.47	-0.18	-1.79
208	1008	21.35	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	-1.24	-0.25	-1.28
209	1009	24.40	0.00	0.00	0.00	0.00
210	2010	27.45	0.00	-0.93	-0.28	-0.60
210	1010	27.45	0.00	0.00	0.00	0.00
211	2011	30.50	0.00	0.00	0.00	0.00
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	-0.81	0.32	-0.28
213	1013	37.19	0.00	0.00	0.00	0.00
214	2014	40.82	0.00	-1.24	0.35	-1.34
214	1014	40.82	0.00	0.00	0.00	0.00
215	2015	44.46	0.00	-1.63	0.30	-2.29
215	1015	44.46	0.00	0.00	0.00	0.00
216	2016	48.10	0.00	-1.94	0.19	-3.02
216	1016	48.10	0.00	0.00	0.00	0.00
217	2017	51.73	0.00	-2.10	0.06	-3.38
217	1017	51.73	0.00	0.00	0.00	0.00
218	2018	55.37	0.00	-2.10	-0.06	-3.38
218	1018	55.37	0.00	0.00	0.00	0.00
219	2019	59.01	0.00	-1.95	-0.19	-3.02
219	1019	59.01	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	-1.63	-0.30	-2.30
220	1020	62.64	0.00	0.00	0.00	0.00
221	2021	66.28	0.00	-1.24	-0.35	-1.34
221	1021	66.28	0.00	0.00	0.00	0.00
222	2022	69.91	0.00	-0.81	-0.32	-0.29
222	1022	69.91	0.00	0.00	0.00	0.00
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00	0.00
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	-0.94	0.29	-0.64
225	1025	79.77	0.00	0.00	0.00	0.00
226	2026	82.88	0.00	-1.27	0.26	-1.35
226	1026	82.88	0.00	0.00	0.00	0.00
227	2027	85.99	0.00	-1.52	0.19	-1.89
227	1027	85.99	0.00	0.00	0.00	0.00
228	2028	89.10	0.00	-1.66	0.09	-2.19

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00	0.00
229	2029	92.21	0.00	-1.65	-0.01	-2.24
229	1029	92.21	0.00	0.00	0.00	0.00
230	2030	95.32	0.00	-1.57	-0.12	-2.01
230	1030	95.32	0.00	0.00	0.00	0.00
231	2031	98.43	0.00	-1.36	-0.22	-1.48
231	1031	98.43	0.00	0.00	0.00	0.00
232	2032	101.54	0.00	-0.93	-0.23	-0.79
232	1032	101.54	0.00	-0.00	0.00	0.00
233	2033	104.65	0.00	-0.53	-0.25	-0.07
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	0.00	0.00	0.00
234	1034	107.76	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00	0.00
407	7	18.30	0.00	0.29	-0.02	-0.04
408	1008	21.35	0.00	0.00	0.00	0.00
408	8	21.35	0.00	0.32	0.00	-0.11
409	1009	24.40	0.00	0.00	0.00	0.00
409	9	24.40	0.00	0.32	0.04	-0.08
410	1010	27.45	0.00	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00	0.00
414	14	40.82	0.00	0.29	-0.05	-0.09
415	1015	44.46	0.00	0.00	0.00	0.00
415	15	44.46	0.00	0.30	-0.01	-0.18
416	1016	48.10	0.00	0.00	0.00	0.00
416	16	48.10	0.00	0.27	0.02	-0.14
417	1017	51.73	0.00	0.00	0.00	0.00
417	17	51.73	0.00	0.22	0.03	-0.04
418	1018	55.37	0.00	0.00	0.00	0.00
418	18	55.37	0.00	0.22	-0.03	-0.06
419	1019	59.01	0.00	0.00	0.00	0.00
419	19	59.01	0.00	0.28	-0.02	-0.17

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TRENI.EnvTrenGen.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ + [0; 1]TRENI.PaseoTren.Nudo2.Pos2.M:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	0.00
420	20	62.64	0.00	0.31	0.01	-0.22
421	1021	66.28	0.00	0.00	0.00	0.00
421	21	66.28	0.00	0.31	0.05	-0.14
422	1022	69.91	0.00	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00	0.00
426	26	82.88	0.00	0.33	-0.04	-0.09
427	1027	85.99	0.00	0.00	0.00	0.00
427	27	85.99	0.00	0.32	0.00	-0.12
428	1028	89.10	0.00	0.00	0.00	0.00
428	28	89.10	0.00	0.29	-0.02	-0.05
429	1029	92.21	0.00	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	1.35	-8.27	49.69
27	27	85.99	0.00	1.69	-7.52	49.67
27	28	89.10	0.00	1.69	-7.52	44.42
28	28	89.10	0.00	2.44	-3.50	123.50
28	29	92.21	0.00	2.44	-3.50	115.91
29	29	92.21	0.00	7.42	7.52	260.06
29	30	95.32	0.00	7.42	7.52	236.99
30	30	95.32	0.00	15.26	6.41	298.34
30	31	98.43	0.00	15.26	6.41	250.87
31	31	98.43	0.00	22.23	-5.45	249.51
31	32	101.54	0.00	22.23	-5.45	180.37
32	32	101.54	0.00	27.12	-10.39	179.20
32	33	104.65	0.00	27.12	-10.39	94.85
33	33	104.65	0.00	29.40	-6.79	92.61
33	34	107.76	0.00	29.40	-6.79	1.19
101	101	0.00	0.00	14.81	-4.59	0.25
101	102	3.05	0.00	18.41	22.01	-12.37
102	102	3.05	0.00	17.02	12.97	-11.88
102	103	6.10	0.00	23.87	37.40	22.86
103	103	6.10	0.00	22.44	26.81	23.22
103	104	9.15	0.00	32.31	49.12	75.41
104	104	9.15	0.00	30.58	36.77	75.72
104	105	12.20	0.00	43.02	56.50	120.41
105	105	12.20	0.00	40.83	41.96	120.77
105	106	15.25	0.00	55.42	58.82	138.12
106	106	15.25	0.00	52.80	42.25	138.65
106	107	18.30	0.00	69.30	56.38	112.55
107	107	18.30	0.00	66.47	38.55	113.31
107	108	21.35	0.00	84.77	50.55	29.60
108	108	21.35	0.00	82.09	32.59	30.58
108	109	24.40	0.00	102.20	43.43	-124.47
109	109	24.40	0.00	100.03	26.51	-123.34
109	110	27.45	0.00	122.06	37.38	-363.70
110	110	27.45	0.00	120.64	22.28	-362.61
110	111	30.50	0.00	144.69	34.39	-702.24
111	111	30.50	0.00	144.21	35.43	-679.25
111	112	33.55	0.00	170.25	49.72	-1131.14
112	10112	33.55	0.00	13.54	-15.29	107.70
112	113	37.19	0.00	16.82	4.96	90.35
113	113	37.19	0.00	15.47	-15.43	103.27
113	114	40.82	0.00	21.82	7.31	124.24
114	114	40.82	0.00	20.10	-9.44	128.17
114	115	44.46	0.00	29.44	13.99	168.40
115	115	44.46	0.00	27.00	0.17	168.67
115	116	48.10	0.00	39.09	22.51	208.90
116	116	48.10	0.00	35.82	5.11	209.33
116	117	51.73	0.00	50.43	25.05	231.02
117	117	51.73	0.00	46.50	4.63	231.71
117	118	55.37	0.00	63.50	21.49	216.31
118	118	55.37	0.00	59.27	-0.80	217.31
118	119	59.01	0.00	78.66	12.97	145.19

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	9.35	0.09	-0.22
1	2	3.05	0.00	9.35	0.09	-28.72
2	2	3.05	0.00	9.83	2.12	-29.16
2	3	6.10	0.00	9.83	2.12	-59.14
3	3	6.10	0.00	9.85	5.91	-58.86
3	4	9.15	0.00	9.85	5.91	-88.91
4	4	9.15	0.00	9.36	11.67	-89.32
4	5	12.20	0.00	9.36	11.67	-117.86
5	5	12.20	0.00	8.83	4.45	-59.11
5	6	15.25	0.00	8.83	4.45	-86.04
6	6	15.25	0.00	11.21	-14.59	57.55
6	7	18.30	0.00	11.21	-14.59	23.36
7	7	18.30	0.00	17.24	-26.08	91.05
7	8	21.35	0.00	17.24	-26.08	38.48
8	8	21.35	0.00	22.68	-30.88	37.43
8	9	24.40	0.00	22.68	-30.88	-31.73
9	9	24.40	0.00	27.05	-61.78	72.02
9	10	27.45	0.00	27.05	-61.78	-10.49
10	10	27.45	0.00	31.25	-76.81	42.09
10	11	30.50	0.00	31.25	-76.81	-53.23
11	11	30.50	0.00	34.12	-81.07	-30.55
11	12	33.55	0.00	34.12	-81.07	-134.63
12	10012	33.55	0.00	13.54	-62.75	-16.17
12	13	37.19	0.00	13.54	-62.75	-65.42
13	13	37.19	0.00	12.05	-56.93	-74.31
13	14	40.82	0.00	12.05	-56.93	-118.12
14	14	40.82	0.00	9.80	-29.30	-98.48
14	15	44.46	0.00	9.80	-29.30	-134.13
15	15	44.46	0.00	8.53	22.96	-33.62
15	16	48.10	0.00	8.53	22.96	-64.63
16	16	48.10	0.00	7.71	29.52	-65.01
16	17	51.73	0.00	7.71	29.52	-93.05
17	17	51.73	0.00	9.46	22.27	50.75
17	18	55.37	0.00	9.46	22.27	16.33
18	18	55.37	0.00	15.76	20.87	207.65
18	19	59.01	0.00	15.76	20.87	150.33
19	19	59.01	0.00	23.88	8.33	149.06
19	20	62.64	0.00	23.88	8.33	62.21
20	20	62.64	0.00	30.81	-46.60	167.82
20	21	66.28	0.00	30.81	-46.60	55.77
21	21	66.28	0.00	36.95	-69.95	75.38
21	22	69.91	0.00	36.95	-69.95	-59.00
22	22	69.91	0.00	40.57	-65.31	-69.37
22	23	73.55	0.00	40.57	-65.31	-216.92
23	10023	73.55	0.00	3.94	-72.17	-100.57
23	24	76.66	0.00	3.94	-72.17	-112.83
24	24	76.66	0.00	2.73	-59.09	-90.14
24	25	79.77	0.00	2.73	-59.09	-98.63
25	25	79.77	0.00	1.42	-39.25	-45.88
25	26	82.88	0.00	1.42	-39.25	-50.28
26	26	82.88	0.00	1.35	-8.27	53.90

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	74.64	-9.63	146.51
119	120	62.64	0.00	96.55	1.72	-4.05
120	120	62.64	0.00	93.26	-19.51	-2.50
120	121	66.28	0.00	117.93	-9.26	-255.80
121	121	66.28	0.00	115.87	-21.32	-250.35
121	122	69.91	0.00	143.54	-10.40	-632.85
122	122	69.91	0.00	142.88	-13.07	-618.35
122	123	73.55	0.00	173.62	0.32	-1155.72
123	10123	73.55	0.00	5.54	44.37	95.49
123	124	76.66	0.00	8.10	58.61	102.83
124	124	76.66	0.00	6.85	38.10	124.70
124	125	79.77	0.00	11.44	54.64	163.38
125	125	79.77	0.00	9.87	46.12	163.26
125	126	82.88	0.00	16.53	63.99	223.76
126	126	82.88	0.00	14.20	52.55	223.65
126	127	85.99	0.00	22.82	70.48	296.21
127	127	85.99	0.00	19.62	55.73	296.16
127	128	89.10	0.00	30.08	72.48	370.63
128	128	89.10	0.00	26.01	54.39	370.74
128	129	92.21	0.00	38.29	68.94	436.19
129	129	92.21	0.00	33.53	48.04	436.56
129	130	95.32	0.00	47.73	59.76	479.91
130	130	95.32	0.00	42.69	37.30	480.67
130	131	98.43	0.00	59.07	46.05	484.85
131	131	98.43	0.00	54.41	24.01	486.10
131	132	101.54	0.00	73.41	30.10	427.97
132	132	101.54	0.00	69.97	11.08	429.77
132	133	104.65	0.00	92.05	15.00	278.59
133	133	104.65	0.00	90.70	1.12	280.89
133	134	107.76	0.00	116.14	2.84	-1.23
301	101	0.00	0.00	1.26	0.11	7.91
301	2001	0.00	0.00	1.26	0.11	6.95
302	102	3.05	0.00	2.94	-0.89	19.90
302	2002	3.05	0.00	2.94	-0.89	17.68
303	103	6.10	0.00	4.99	-1.63	27.53
303	2003	6.10	0.00	4.99	-1.63	23.75
304	104	9.15	0.00	6.83	-1.27	32.29
304	2004	9.15	0.00	6.83	-1.27	27.13
305	105	12.20	0.00	8.11	-0.69	36.26
305	2005	12.20	0.00	8.11	-0.69	30.12
306	106	15.25	0.00	8.69	-0.08	37.99
306	2006	15.25	0.00	8.69	-0.08	31.42
307	107	18.30	0.00	8.59	0.50	37.55
307	2007	18.30	0.00	8.59	0.50	31.05
308	108	21.35	0.00	7.85	1.03	35.09
308	2008	21.35	0.00	7.85	1.03	29.16
309	109	24.40	0.00	6.58	1.44	30.93
309	2009	24.40	0.00	6.58	1.44	25.95
310	110	27.45	0.00	4.91	1.69	25.50
310	2010	27.45	0.00	4.91	1.69	21.78
311	111	30.50	0.00	3.19	1.41	19.98

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	3.19	1.41	17.57
312	112	33.55	0.00	2.70	0.29	17.66
312	2012	33.55	0.00	2.70	0.29	15.62
313	113	37.19	0.00	3.97	-1.47	23.78
313	2013	37.19	0.00	3.97	-1.47	20.78
314	114	40.82	0.00	6.36	-1.90	30.39
314	2014	40.82	0.00	6.36	-1.90	25.58
315	115	44.46	0.00	8.70	-1.66	36.91
315	2015	44.46	0.00	8.70	-1.66	30.33
316	116	48.10	0.00	10.44	-1.07	42.54
316	2016	48.10	0.00	10.44	-1.07	34.64
317	117	51.73	0.00	11.36	-0.37	45.48
317	2017	51.73	0.00	11.36	-0.37	36.90
318	118	55.37	0.00	11.36	0.37	45.49
318	2018	55.37	0.00	11.36	0.37	36.90
319	119	59.01	0.00	10.45	1.07	42.56
319	2019	59.01	0.00	10.45	1.07	34.66
320	120	62.64	0.00	8.71	1.66	36.95
320	2020	62.64	0.00	8.71	1.66	30.37
321	121	66.28	0.00	6.38	1.89	30.71
321	2021	66.28	0.00	6.38	1.89	25.88
322	122	69.91	0.00	3.99	1.47	23.84
322	2022	69.91	0.00	3.99	1.47	20.83
323	123	73.55	0.00	2.71	-0.26	17.18
323	2023	73.55	0.00	2.71	-0.26	15.13
324	124	76.66	0.00	3.20	-1.46	20.08
324	2024	76.66	0.00	3.20	-1.46	17.66
325	125	79.77	0.00	5.01	-1.75	25.91
325	2025	79.77	0.00	5.01	-1.75	22.12
326	126	82.88	0.00	6.77	-1.50	31.64
326	2026	82.88	0.00	6.77	-1.50	26.52
327	127	85.99	0.00	8.12	-1.07	36.05
327	2027	85.99	0.00	8.12	-1.07	29.91
328	128	89.10	0.00	8.90	-0.53	38.65
328	2028	89.10	0.00	8.90	-0.53	31.92
329	129	92.21	0.00	9.01	0.08	39.13
329	2029	92.21	0.00	9.01	0.08	32.32
330	130	95.32	0.00	8.41	0.71	37.32
330	2030	95.32	0.00	8.41	0.71	30.96
331	131	98.43	0.00	7.06	1.32	33.14
331	2031	98.43	0.00	7.06	1.32	27.81
332	132	101.54	0.00	5.11	1.70	28.02
332	2032	101.54	0.00	5.11	1.70	24.16
333	133	104.65	0.00	2.97	0.91	20.41
333	2033	104.65	0.00	2.97	0.91	18.16
334	134	107.76	0.00	1.28	-0.10	8.05
334	2034	107.76	0.00	1.28	-0.10	7.08
201	2001	0.00	0.00	1.26	0.11	6.95
201	1001	0.00	0.00	1.26	0.11	0.90
202	2002	3.05	0.00	2.94	-0.89	17.68
202	1002	3.05	0.00	2.94	-0.89	3.59

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	4.99	-1.63	23.75
203	1003	6.10	0.00	4.99	-1.63	-0.15
204	2004	9.15	0.00	6.83	-1.27	27.13
204	1004	9.15	0.00	6.83	-1.27	-5.58
205	2005	12.20	0.00	8.11	-0.69	30.12
205	1005	12.20	0.00	8.11	-0.69	-8.71
206	2006	15.25	0.00	8.69	-0.08	31.42
206	1006	15.25	0.00	8.69	-0.08	-10.19
207	2007	18.30	0.00	8.59	0.50	31.05
207	1007	18.30	0.00	8.59	0.50	-10.06
208	2008	21.35	0.00	7.85	1.03	29.16
208	1008	21.35	0.00	7.85	1.03	-8.43
209	2009	24.40	0.00	6.58	1.44	25.95
209	1009	24.40	0.00	6.58	1.44	-5.55
210	2010	27.45	0.00	4.91	1.69	21.78
210	1010	27.45	0.00	4.91	1.69	-1.75
211	2011	30.50	0.00	3.19	1.41	17.57
211	1011	30.50	0.00	3.19	1.41	2.30
212	2012	33.55	0.00	2.70	0.29	15.62
212	1012	33.55	0.00	2.70	0.29	2.68
213	2013	37.19	0.00	3.97	-1.47	20.78
213	1013	37.19	0.00	3.97	-1.47	1.77
214	2014	40.82	0.00	6.36	-1.90	25.58
214	1014	40.82	0.00	6.36	-1.90	-4.89
215	2015	44.46	0.00	8.70	-1.66	30.33
215	1015	44.46	0.00	8.70	-1.66	-11.31
216	2016	48.10	0.00	10.44	-1.07	34.64
216	1016	48.10	0.00	10.44	-1.07	-15.36
217	2017	51.73	0.00	11.36	-0.37	36.90
217	1017	51.73	0.00	11.36	-0.37	-17.49
218	2018	55.37	0.00	11.36	0.37	36.90
218	1018	55.37	0.00	11.36	0.37	-17.49
219	2019	59.01	0.00	10.45	1.07	34.66
219	1019	59.01	0.00	10.45	1.07	-15.37
220	2020	62.64	0.00	8.71	1.66	30.37
220	1020	62.64	0.00	8.71	1.66	-11.33
221	2021	66.28	0.00	6.38	1.89	25.88
221	1021	66.28	0.00	6.38	1.89	-4.66
222	2022	69.91	0.00	3.99	1.47	20.83
222	1022	69.91	0.00	3.99	1.47	1.71
223	2023	73.55	0.00	2.71	-0.26	15.13
223	1023	73.55	0.00	2.71	-0.26	2.14
224	2024	76.66	0.00	3.20	-1.46	17.66
224	1024	76.66	0.00	3.20	-1.46	2.35
225	2025	79.77	0.00	5.01	-1.75	22.12
225	1025	79.77	0.00	5.01	-1.75	-1.89
226	2026	82.88	0.00	6.77	-1.50	26.52
226	1026	82.88	0.00	6.77	-1.50	-5.90
227	2027	85.99	0.00	8.12	-1.07	29.91
227	1027	85.99	0.00	8.12	-1.07	-8.96
228	2028	89.10	0.00	8.90	-0.53	31.92

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY+
Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	8.90	-0.53	-10.68
229	2029	92.21	0.00	9.01	0.08	32.32
229	1029	92.21	0.00	9.01	0.08	-10.83
230	2030	95.32	0.00	8.41	0.71	30.96
230	1030	95.32	0.00	8.41	0.71	-9.28
231	2031	98.43	0.00	7.06	1.32	27.81
231	1031	98.43	0.00	7.06	1.32	-5.97
232	2032	101.54	0.00	5.11	1.70	24.16
232	1032	101.54	0.00	5.11	1.70	-0.28
233	2033	104.65	0.00	2.97	0.91	18.16
233	1033	104.65	0.00	2.97	0.91	3.92
234	2034	107.76	0.00	1.28	-0.10	7.08
234	1034	107.76	0.00	1.28	-0.10	0.94
401	1001	0.00	0.00	1.26	0.11	0.90
401	1	0.00	0.00	1.26	0.11	-0.06
402	1002	3.05	0.00	2.94	-0.89	3.59
402	2	3.05	0.00	2.94	-0.89	1.36
403	1003	6.10	0.00	4.99	-1.63	-0.15
403	3	6.10	0.00	4.99	-1.63	-3.93
404	1004	9.15	0.00	6.83	-1.27	-5.58
404	4	9.15	0.00	6.83	-1.27	-10.74
405	1005	12.20	0.00	8.11	-0.69	-8.71
405	5	12.20	0.00	8.11	-0.69	-14.85
406	1006	15.25	0.00	8.69	-0.08	-10.19
406	6	15.25	0.00	8.69	-0.08	-16.76
407	1007	18.30	0.00	8.59	0.50	-10.06
407	7	18.30	0.00	8.59	0.50	-16.55
408	1008	21.35	0.00	7.85	1.03	-8.43
408	8	21.35	0.00	7.85	1.03	-14.37
409	1009	24.40	0.00	6.58	1.44	-5.55
409	9	24.40	0.00	6.58	1.44	-10.52
410	1010	27.45	0.00	4.91	1.69	-1.75
410	10	27.45	0.00	4.91	1.69	-5.46
411	1011	30.50	0.00	3.19	1.41	2.30
411	11	30.50	0.00	3.19	1.41	-0.11
412	1012	33.55	0.00	2.70	0.29	2.68
412	12	33.55	0.00	2.70	0.29	0.63
413	1013	37.19	0.00	3.97	-1.47	1.77
413	13	37.19	0.00	3.97	-1.47	-1.23
414	1014	40.82	0.00	6.36	-1.90	-4.89
414	14	40.82	0.00	6.36	-1.90	-9.70
415	1015	44.46	0.00	8.70	-1.66	-11.31
415	15	44.46	0.00	8.70	-1.66	-17.89
416	1016	48.10	0.00	10.44	-1.07	-15.36
416	16	48.10	0.00	10.44	-1.07	-23.26
417	1017	51.73	0.00	11.36	-0.37	-17.49
417	17	51.73	0.00	11.36	-0.37	-26.08
418	1018	55.37	0.00	11.36	0.37	-17.49
418	18	55.37	0.00	11.36	0.37	-26.08
419	1019	59.01	0.00	10.45	1.07	-15.37
419	19	59.01	0.00	10.45	1.07	-23.28

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	8.71	1.66	-11.33
420	20	62.64	0.00	8.71	1.66	-17.91
421	1021	66.28	0.00	6.38	1.89	-4.66
421	21	66.28	0.00	6.38	1.89	-9.49
422	1022	69.91	0.00	3.99	1.47	1.71
422	22	69.91	0.00	3.99	1.47	-1.31
423	1023	73.55	0.00	2.71	-0.26	2.14
423	23	73.55	0.00	2.71	-0.26	0.09
424	1024	76.66	0.00	3.20	-1.46	2.35
424	24	76.66	0.00	3.20	-1.46	-0.07
425	1025	79.77	0.00	5.01	-1.75	-1.89
425	25	79.77	0.00	5.01	-1.75	-5.68
426	1026	82.88	0.00	6.77	-1.50	-5.90
426	26	82.88	0.00	6.77	-1.50	-11.02
427	1027	85.99	0.00	8.12	-1.07	-8.96
427	27	85.99	0.00	8.12	-1.07	-15.09
428	1028	89.10	0.00	8.90	-0.53	-10.68
428	28	89.10	0.00	8.90	-0.53	-17.41
429	1029	92.21	0.00	9.01	0.08	-10.83
429	29	92.21	0.00	9.01	0.08	-17.65
430	1030	95.32	0.00	8.41	0.71	-9.28
430	30	95.32	0.00	8.41	0.71	-15.64
431	1031	98.43	0.00	7.06	1.32	-5.97
431	31	98.43	0.00	7.06	1.32	-11.31
432	1032	101.54	0.00	5.11	1.70	-0.28
432	32	101.54	0.00	5.11	1.70	-4.14
433	1033	104.65	0.00	2.97	0.91	3.92
433	33	104.65	0.00	2.97	0.91	1.67
434	1034	107.76	0.00	1.28	-0.10	0.94
434	34	107.76	0.00	1.28	-0.10	-0.03

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-21.44	7.67	1.09
1	2	3.05	0.00	-21.44	7.67	66.47
2	2	3.05	0.00	-15.05	15.03	51.53
2	3	6.10	0.00	-15.05	15.03	97.43
3	3	6.10	0.00	-5.75	17.42	51.82
3	4	9.15	0.00	-5.75	17.42	69.35
4	4	9.15	0.00	0.86	20.04	14.07
4	5	12.20	0.00	0.86	20.04	11.44
5	5	12.20	0.00	5.24	26.16	-64.04
5	6	15.25	0.00	5.24	26.16	-80.01
6	6	15.25	0.00	4.78	35.83	-94.95
6	7	18.30	0.00	4.78	35.83	-109.54
7	7	18.30	0.00	3.58	46.72	-109.65
7	8	21.35	0.00	3.58	46.72	-120.59
8	8	21.35	0.00	1.76	58.37	-127.00
8	9	24.40	0.00	1.76	58.37	-132.37
9	9	24.40	0.00	0.24	70.26	-132.13
9	10	27.45	0.00	0.24	70.26	-132.85
10	10	27.45	0.00	-0.95	81.43	-132.34
10	11	30.50	0.00	-0.95	81.43	-129.43
11	11	30.50	0.00	-1.43	90.71	-128.57
11	12	33.55	0.00	-1.43	90.71	-124.22
12	10012	33.55	0.00	-30.58	97.09	-122.81
12	13	37.19	0.00	-30.58	97.09	-11.62
13	13	37.19	0.00	-25.66	97.00	-7.66
13	14	40.82	0.00	-25.66	97.00	85.66
14	14	40.82	0.00	-20.31	90.27	87.45
14	15	44.46	0.00	-20.31	90.27	161.30
15	15	44.46	0.00	-11.88	77.37	146.14
15	16	48.10	0.00	-11.88	77.37	189.35
16	16	48.10	0.00	-3.39	63.00	160.27
16	17	51.73	0.00	-3.39	63.00	172.58
17	17	51.73	0.00	3.24	53.69	87.06
17	18	55.37	0.00	3.24	53.69	75.29
18	18	55.37	0.00	4.85	54.25	-58.09
18	19	59.01	0.00	4.85	54.25	-75.71
19	19	59.01	0.00	3.67	62.64	-105.87
19	20	62.64	0.00	3.67	62.64	-119.21
20	20	62.64	0.00	0.97	74.54	-135.83
20	21	66.28	0.00	0.97	74.54	-139.37
21	21	66.28	0.00	-0.61	86.42	-138.94
21	22	69.91	0.00	-0.61	86.42	-136.72
22	22	69.91	0.00	-3.54	97.30	-133.77
22	23	73.55	0.00	-3.54	97.30	-120.91
23	10023	73.55	0.00	-32.79	103.01	-119.38
23	24	76.66	0.00	-32.79	103.01	-17.40
24	24	76.66	0.00	-30.61	102.66	-15.63
24	25	79.77	0.00	-30.61	102.66	79.58
25	25	79.77	0.00	-26.35	96.14	81.36
25	26	82.88	0.00	-26.35	96.14	163.32
26	26	82.88	0.00	-20.20	83.98	164.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-20.20	83.98	227.66
27	27	85.99	0.00	-12.32	67.62	222.07
27	28	89.10	0.00	-12.32	67.62	260.38
28	28	89.10	0.00	-4.04	48.77	260.95
28	29	92.21	0.00	-4.04	48.77	273.52
29	29	92.21	0.00	3.12	29.76	234.94
29	30	95.32	0.00	3.12	29.76	225.24
30	30	95.32	0.00	6.74	15.03	166.07
30	31	98.43	0.00	6.74	15.03	145.10
31	31	98.43	0.00	5.63	6.67	80.86
31	32	101.54	0.00	5.63	6.67	63.37
32	32	101.54	0.00	1.78	3.31	16.88
32	33	104.65	0.00	1.78	3.31	11.34
33	33	104.65	0.00	-1.79	1.25	-5.72
33	34	107.76	0.00	-1.79	1.25	-0.16
101	101	0.00	0.00	-44.78	1.15	-0.77
101	102	3.05	0.00	-41.19	27.75	168.37
102	102	3.05	0.00	2.88	23.33	32.53
102	103	6.10	0.00	9.74	47.76	110.37
103	103	6.10	0.00	8.37	41.51	110.27
103	104	9.15	0.00	18.24	63.83	205.38
104	104	9.15	0.00	16.02	54.13	205.27
104	105	12.20	0.00	28.46	73.86	294.37
105	105	12.20	0.00	25.27	60.49	294.38
105	106	15.25	0.00	39.87	77.35	359.17
106	106	15.25	0.00	35.82	60.71	359.44
106	107	18.30	0.00	52.32	74.84	385.13
107	107	18.30	0.00	50.31	56.02	350.75
107	108	21.35	0.00	68.60	68.02	316.35
108	108	21.35	0.00	69.89	50.03	234.03
108	109	24.40	0.00	90.01	60.87	116.17
109	109	24.40	0.00	92.50	45.07	25.92
109	110	27.45	0.00	114.53	55.94	-191.47
110	110	27.45	0.00	112.97	43.30	-190.13
110	111	30.50	0.00	137.02	55.41	-506.37
111	111	30.50	0.00	136.56	45.86	-505.23
111	112	33.55	0.00	162.61	60.15	-933.79
112	10112	33.55	0.00	-85.86	51.74	-933.24
112	113	37.19	0.00	-82.59	72.00	-589.11
113	113	37.19	0.00	-63.33	62.60	-565.31
113	114	40.82	0.00	-56.98	85.35	-257.79
114	114	40.82	0.00	-13.32	75.51	-265.09
114	115	44.46	0.00	-3.98	98.94	-103.36
115	115	44.46	0.00	-4.52	89.32	-103.38
115	116	48.10	0.00	7.57	111.66	51.46
116	116	48.10	0.00	5.56	97.22	51.36
116	117	51.73	0.00	20.17	117.16	183.05
117	117	51.73	0.00	16.65	97.72	183.10
117	118	55.37	0.00	33.65	114.58	276.23
118	118	55.37	0.00	28.89	91.05	276.59
118	119	59.01	0.00	48.28	104.82	314.95

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	42.85	78.98	315.74
119	120	62.64	0.00	64.76	90.34	280.76
120	120	62.64	0.00	59.44	64.62	282.03
120	121	66.28	0.00	84.11	74.87	151.71
121	121	66.28	0.00	36.67	55.51	144.04
121	122	69.91	0.00	64.33	66.43	49.55
122	122	69.91	0.00	50.46	52.54	-48.64
122	123	73.55	0.00	81.21	65.92	-249.97
123	10123	73.55	0.00	-26.03	54.97	-249.87
123	124	76.66	0.00	-23.48	69.20	-144.34
124	124	76.66	0.00	-0.67	58.89	-68.97
124	125	79.77	0.00	3.93	75.43	-6.93
125	125	79.77	0.00	2.50	64.49	-6.80
125	126	82.88	0.00	9.16	82.36	76.60
126	126	82.88	0.00	2.32	69.87	-13.55
126	127	85.99	0.00	10.93	87.80	95.97
127	127	85.99	0.00	1.42	73.20	-28.18
127	128	89.10	0.00	11.88	89.95	102.89
128	128	89.10	0.00	9.59	72.90	102.85
128	129	92.21	0.00	21.87	87.45	219.38
129	129	92.21	0.00	18.53	66.64	219.49
129	130	95.32	0.00	32.73	78.36	309.48
130	130	95.32	0.00	28.68	54.73	309.89
130	131	98.43	0.00	45.06	63.48	357.65
131	131	98.43	0.00	40.89	38.78	358.49
131	132	101.54	0.00	59.88	44.86	342.43
132	132	101.54	0.00	56.37	21.48	343.77
132	133	104.65	0.00	78.45	25.41	234.89
133	133	104.65	0.00	31.04	7.15	96.38
133	134	107.76	0.00	56.47	8.87	-0.17
301	101	0.00	0.00	0.74	0.25	4.80
301	2001	0.00	0.00	0.74	0.25	4.24
302	102	3.05	0.00	0.80	0.50	7.26
302	2002	3.05	0.00	0.80	0.50	6.66
303	103	6.10	0.00	0.80	0.47	8.27
303	2003	6.10	0.00	0.80	0.47	7.67
304	104	9.15	0.00	0.01	0.43	5.13
304	2004	9.15	0.00	0.01	0.43	5.12
305	105	12.20	0.00	1.04	0.41	10.07
305	2005	12.20	0.00	1.04	0.41	9.28
306	106	15.25	0.00	2.61	0.53	16.26
306	2006	15.25	0.00	2.61	0.53	14.29
307	107	18.30	0.00	3.95	0.79	21.23
307	2007	18.30	0.00	3.95	0.79	18.25
308	108	21.35	0.00	5.19	1.11	24.75
308	2008	21.35	0.00	5.19	1.11	20.82
309	109	24.40	0.00	5.66	1.49	25.04
309	2009	24.40	0.00	5.66	1.49	20.76
310	110	27.45	0.00	4.49	1.75	22.44
310	2010	27.45	0.00	4.49	1.75	19.04
311	111	30.50	0.00	2.55	1.79	16.28

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	2.55	1.79	14.35
312	112	33.55	0.00	0.82	1.65	11.70
312	2012	33.55	0.00	0.82	1.65	11.08
313	113	37.19	0.00	-0.86	1.20	7.44
313	2013	37.19	0.00	-0.86	1.20	8.08
314	114	40.82	0.00	-1.94	0.76	3.73
314	2014	40.82	0.00	-1.94	0.76	5.20
315	115	44.46	0.00	-1.82	0.47	3.73
315	2015	44.46	0.00	-1.82	0.47	5.10
316	116	48.10	0.00	1.75	0.49	12.69
316	2016	48.10	0.00	1.75	0.49	11.37
317	117	51.73	0.00	3.96	0.69	20.90
317	2017	51.73	0.00	3.96	0.69	17.90
318	118	55.37	0.00	4.19	1.01	21.80
318	2018	55.37	0.00	4.19	1.01	18.63
319	119	59.01	0.00	5.55	1.38	27.29
319	2019	59.01	0.00	5.55	1.38	23.10
320	120	62.64	0.00	7.06	1.74	30.65
320	2020	62.64	0.00	7.06	1.74	25.31
321	121	66.28	0.00	5.85	2.12	25.51
321	2021	66.28	0.00	5.85	2.12	21.09
322	122	69.91	0.00	2.98	2.17	16.19
322	2022	69.91	0.00	2.98	2.17	13.93
323	123	73.55	0.00	0.42	1.58	7.75
323	2023	73.55	0.00	0.42	1.58	7.43
324	124	76.66	0.00	-0.86	0.94	3.23
324	2024	76.66	0.00	-0.86	0.94	3.88
325	125	79.77	0.00	-1.55	0.54	1.01
325	2025	79.77	0.00	-1.55	0.54	2.18
326	126	82.88	0.00	-1.25	0.25	3.05
326	2026	82.88	0.00	-1.25	0.25	3.99
327	127	85.99	0.00	0.94	0.08	8.24
327	2027	85.99	0.00	0.94	0.08	7.53
328	128	89.10	0.00	2.89	0.14	14.49
328	2028	89.10	0.00	2.89	0.14	12.30
329	129	92.21	0.00	4.77	0.38	21.20
329	2029	92.21	0.00	4.77	0.38	17.60
330	130	95.32	0.00	6.24	0.80	27.13
330	2030	95.32	0.00	6.24	0.80	22.41
331	131	98.43	0.00	6.45	1.38	29.52
331	2031	98.43	0.00	6.45	1.38	24.65
332	132	101.54	0.00	4.10	1.91	21.44
332	2032	101.54	0.00	4.10	1.91	18.35
333	133	104.65	0.00	1.94	2.30	15.49
333	2033	104.65	0.00	1.94	2.30	14.02
334	134	107.76	0.00	-0.65	1.23	2.64
334	2034	107.76	0.00	-0.65	1.23	3.13
201	2001	0.00	0.00	0.74	0.25	4.24
201	1001	0.00	0.00	0.74	0.25	0.70
202	2002	3.05	0.00	0.80	0.50	6.66
202	1002	3.05	0.00	0.80	0.50	2.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.80	0.47	7.67
203	1003	6.10	0.00	0.80	0.47	3.84
204	2004	9.15	0.00	0.01	0.43	5.12
204	1004	9.15	0.00	0.01	0.43	5.07
205	2005	12.20	0.00	1.04	0.41	9.28
205	1005	12.20	0.00	1.04	0.41	4.28
206	2006	15.25	0.00	2.61	0.53	14.29
206	1006	15.25	0.00	2.61	0.53	1.80
207	2007	18.30	0.00	3.95	0.79	18.25
207	1007	18.30	0.00	3.95	0.79	-0.65
208	2008	21.35	0.00	5.19	1.11	20.82
208	1008	21.35	0.00	5.19	1.11	-4.03
209	2009	24.40	0.00	5.67	1.49	20.76
209	1009	24.40	0.00	5.67	1.49	-6.37
210	2010	27.45	0.00	4.49	1.75	19.04
210	1010	27.45	0.00	4.49	1.75	-2.48
211	2011	30.50	0.00	2.55	1.79	14.35
211	1011	30.50	0.00	2.55	1.79	2.13
212	2012	33.55	0.00	0.82	1.65	11.08
212	1012	33.55	0.00	0.82	1.65	7.17
213	2013	37.19	0.00	-0.86	1.20	8.09
213	1013	37.19	0.00	-0.86	1.20	12.18
214	2014	40.82	0.00	-1.94	0.76	5.20
214	1014	40.82	0.00	-1.94	0.76	14.50
215	2015	44.46	0.00	-1.82	0.47	5.10
215	1015	44.46	0.00	-1.82	0.47	13.81
216	2016	48.10	0.00	1.75	0.49	11.37
216	1016	48.10	0.00	1.75	0.49	3.00
217	2017	51.73	0.00	3.96	0.69	17.90
217	1017	51.73	0.00	3.96	0.69	-1.08
218	2018	55.37	0.00	4.19	1.01	18.63
218	1018	55.37	0.00	4.19	1.01	-1.43
219	2019	59.01	0.00	5.55	1.38	23.10
219	1019	59.01	0.00	5.55	1.38	-3.46
220	2020	62.64	0.00	7.06	1.74	25.31
220	1020	62.64	0.00	7.06	1.74	-8.49
221	2021	66.28	0.00	5.85	2.12	21.09
221	1021	66.28	0.00	5.85	2.12	-6.94
222	2022	69.91	0.00	2.98	2.17	13.93
222	1022	69.91	0.00	2.98	2.17	-0.35
223	2023	73.55	0.00	0.42	1.58	7.43
223	1023	73.55	0.00	0.42	1.58	5.44
224	2024	76.66	0.00	-0.86	0.94	3.88
224	1024	76.66	0.00	-0.86	0.94	8.02
225	2025	79.77	0.00	-1.55	0.54	2.18
225	1025	79.77	0.00	-1.55	0.54	9.62
226	2026	82.88	0.00	-1.25	0.25	3.99
226	1026	82.88	0.00	-1.25	0.25	9.97
227	2027	85.99	0.00	0.94	0.08	7.53
227	1027	85.99	0.00	0.94	0.08	3.02
228	2028	89.10	0.00	2.89	0.14	12.30

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	2.89	0.14	-1.54
229	2029	92.21	0.00	4.77	0.38	17.60
229	1029	92.21	0.00	4.77	0.38	-5.25
230	2030	95.32	0.00	6.24	0.80	22.41
230	1030	95.32	0.00	6.24	0.80	-7.47
231	2031	98.43	0.00	6.45	1.38	24.65
231	1031	98.43	0.00	6.45	1.38	-6.25
232	2032	101.54	0.00	4.10	1.91	18.35
232	1032	101.54	0.00	4.10	1.91	-1.28
233	2033	104.65	0.00	1.94	2.30	14.02
233	1033	104.65	0.00	1.94	2.30	4.72
234	2034	107.76	0.00	-0.65	1.23	3.13
234	1034	107.76	0.00	-0.65	1.23	6.25
401	1001	0.00	0.00	0.74	0.25	0.70
401	1	0.00	0.00	0.74	0.25	0.14
402	1002	3.05	0.00	0.80	0.50	2.85
402	2	3.05	0.00	0.80	0.50	2.25
403	1003	6.10	0.00	0.80	0.47	3.84
403	3	6.10	0.00	0.80	0.47	3.24
404	1004	9.15	0.00	0.01	0.43	5.07
404	4	9.15	0.00	0.01	0.43	5.06
405	1005	12.20	0.00	1.04	0.41	4.28
405	5	12.20	0.00	1.04	0.41	3.50
406	1006	15.25	0.00	2.61	0.53	1.80
406	6	15.25	0.00	2.61	0.53	-0.17
407	1007	18.30	0.00	3.95	0.79	-0.65
407	7	18.30	0.00	3.95	0.79	-3.63
408	1008	21.35	0.00	5.19	1.11	-4.03
408	8	21.35	0.00	5.19	1.11	-7.95
409	1009	24.40	0.00	5.67	1.49	-6.37
409	9	24.40	0.00	5.67	1.49	-10.65
410	1010	27.45	0.00	4.49	1.75	-2.48
410	10	27.45	0.00	4.49	1.75	-5.88
411	1011	30.50	0.00	2.55	1.79	2.13
411	11	30.50	0.00	2.55	1.79	0.20
412	1012	33.55	0.00	0.82	1.65	7.17
412	12	33.55	0.00	0.82	1.65	6.55
413	1013	37.19	0.00	-0.86	1.20	12.18
413	13	37.19	0.00	-0.86	1.20	12.82
414	1014	40.82	0.00	-1.94	0.76	14.50
414	14	40.82	0.00	-1.94	0.76	15.97
415	1015	44.46	0.00	-1.82	0.47	13.81
415	15	44.46	0.00	-1.82	0.47	15.18
416	1016	48.10	0.00	1.75	0.49	3.00
416	16	48.10	0.00	1.75	0.49	1.68
417	1017	51.73	0.00	3.96	0.69	-1.08
417	17	51.73	0.00	3.96	0.69	-4.08
418	1018	55.37	0.00	4.19	1.01	-1.43
418	18	55.37	0.00	4.19	1.01	-4.60
419	1019	59.01	0.00	5.55	1.38	-3.46
419	19	59.01	0.00	5.55	1.38	-7.66

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	7.06	1.74	-8.49
420	20	62.64	0.00	7.06	1.74	-13.83
421	1021	66.28	0.00	5.85	2.12	-6.94
421	21	66.28	0.00	5.85	2.12	-11.37
422	1022	69.91	0.00	2.98	2.17	-0.35
422	22	69.91	0.00	2.98	2.17	-2.61
423	1023	73.55	0.00	0.42	1.58	5.44
423	23	73.55	0.00	0.42	1.58	5.12
424	1024	76.66	0.00	-0.86	0.94	8.02
424	24	76.66	0.00	-0.86	0.94	8.67
425	1025	79.77	0.00	-1.55	0.54	9.62
425	25	79.77	0.00	-1.55	0.54	10.80
426	1026	82.88	0.00	-1.25	0.25	9.97
426	26	82.88	0.00	-1.25	0.25	10.91
427	1027	85.99	0.00	0.94	0.08	3.02
427	27	85.99	0.00	0.94	0.08	2.30
428	1028	89.10	0.00	2.89	0.14	-1.54
428	28	89.10	0.00	2.89	0.14	-3.73
429	1029	92.21	0.00	4.77	0.38	-5.25
429	29	92.21	0.00	4.77	0.38	-8.86
430	1030	95.32	0.00	6.24	0.80	-7.47
430	30	95.32	0.00	6.24	0.80	-12.18
431	1031	98.43	0.00	6.45	1.38	-6.25
431	31	98.43	0.00	6.45	1.38	-11.13
432	1032	101.54	0.00	4.10	1.91	-1.28
432	32	101.54	0.00	4.10	1.91	-4.38
433	1033	104.65	0.00	1.94	2.30	4.72
433	33	104.65	0.00	1.94	2.30	3.25
434	1034	107.76	0.00	-0.65	1.23	6.25
434	34	107.76	0.00	-0.65	1.23	6.74

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-27.71	6.31	1.18
1	2	3.05	0.00	-28.86	6.36	89.16
2	2	3.05	0.00	-26.54	9.69	91.31
2	3	6.10	0.00	-26.54	9.69	172.27
3	3	6.10	0.00	-21.68	4.95	174.05
3	4	9.15	0.00	-21.68	4.95	240.18
4	4	9.15	0.00	-14.86	-6.00	241.45
4	5	12.20	0.00	-15.02	-6.33	286.86
5	5	12.20	0.00	-6.97	-21.83	287.57
5	6	15.25	0.00	-6.97	-21.83	308.82
6	6	15.25	0.00	1.68	-39.29	308.91
6	7	18.30	0.00	1.68	-39.29	303.80
7	7	18.30	0.00	10.20	-56.52	303.29
7	8	21.35	0.00	10.20	-56.52	272.18
8	8	21.35	0.00	17.95	-71.48	271.14
8	9	24.40	0.00	17.95	-71.48	216.39
9	9	24.40	0.00	24.36	-82.43	214.92
9	10	27.45	0.00	24.36	-82.43	140.62
10	10	27.45	0.00	29.01	-88.06	138.87
10	11	30.50	0.00	11.67	-26.16	65.60
11	11	30.50	0.00	13.57	-27.28	64.65
11	12	33.55	0.00	-0.28	10.59	63.65
12	10012	33.55	0.00	8.64	11.74	63.51
12	13	37.19	0.00	8.64	11.74	32.09
13	13	37.19	0.00	8.90	13.74	31.86
13	14	40.82	0.00	-32.30	90.98	90.60
14	14	40.82	0.00	-27.66	79.38	92.65
14	15	44.46	0.00	-30.11	70.86	201.37
15	15	44.46	0.00	-21.65	51.99	203.09
15	16	48.10	0.00	-21.65	51.99	281.83
16	16	48.10	0.00	-11.36	27.49	282.94
16	17	51.73	0.00	-11.36	27.49	324.25
17	17	51.73	0.00	-0.11	0.05	324.64
17	18	55.37	0.00	-0.11	0.05	325.03
18	18	55.37	0.00	11.15	-27.40	324.64
18	19	59.01	0.00	11.15	-27.40	284.11
19	19	59.01	0.00	21.45	-51.91	283.00
19	20	62.64	0.00	21.45	-51.91	205.01
20	20	62.64	0.00	29.91	-70.81	203.29
20	21	66.28	0.00	28.61	-77.00	95.05
21	21	66.28	0.00	33.53	-89.10	92.97
21	22	69.91	0.00	-5.58	-17.47	29.10
22	22	69.91	0.00	-8.09	-11.38	29.30
22	23	73.55	0.00	-8.09	-11.38	58.70
23	10023	73.55	0.00	0.11	-10.29	58.84
23	24	76.66	0.00	-10.21	15.91	59.79
24	24	76.66	0.00	-8.46	14.67	60.51
24	25	79.77	0.00	-30.28	92.17	137.20
25	25	79.77	0.00	-25.52	86.31	139.01
25	26	82.88	0.00	-25.52	86.31	218.39
26	26	82.88	0.00	-18.92	74.86	219.92

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-18.92	74.86	278.75
27	27	85.99	0.00	-10.90	59.16	279.84
27	28	89.10	0.00	-10.90	59.16	313.73
28	28	89.10	0.00	-2.06	41.06	314.26
28	29	92.21	0.00	-2.06	41.06	320.66
29	29	92.21	0.00	6.91	22.70	320.56
29	30	95.32	0.00	6.91	22.70	299.08
30	30	95.32	0.00	15.26	6.41	298.34
30	31	98.43	0.00	15.10	6.08	251.26
31	31	98.43	0.00	22.15	-5.44	249.94
31	32	101.54	0.00	22.15	-5.44	181.06
32	32	101.54	0.00	27.12	-10.39	179.20
32	33	104.65	0.00	27.12	-10.39	94.85
33	33	104.65	0.00	29.40	-6.79	92.61
33	34	107.76	0.00	28.25	-6.74	1.23
101	101	0.00	0.00	14.75	-4.80	0.25
101	102	3.05	0.00	-86.05	25.15	304.80
102	102	3.05	0.00	-88.05	9.27	302.59
102	103	6.10	0.00	-59.62	36.20	527.93
103	103	6.10	0.00	-64.36	11.25	526.10
103	104	9.15	0.00	-35.81	39.52	678.85
104	104	9.15	0.00	-42.55	8.32	677.53
104	105	12.20	0.00	-14.00	36.59	763.78
105	105	12.20	0.00	-22.06	1.35	763.06
105	106	15.25	0.00	6.49	29.62	786.80
106	106	15.25	0.00	-2.15	-7.36	786.70
106	107	18.30	0.00	26.40	20.92	749.72
107	107	18.30	0.00	17.88	-15.55	750.23
107	108	21.35	0.00	46.42	12.73	652.17
108	108	21.35	0.00	38.67	-21.13	653.22
108	109	24.40	0.00	66.63	-4.19	491.83
109	109	24.40	0.00	60.38	-32.51	493.31
109	110	27.45	0.00	61.16	-20.68	288.38
110	110	27.45	0.00	57.42	-38.62	289.49
110	111	30.50	0.00	16.99	-26.25	157.50
111	111	30.50	0.00	36.44	-28.56	157.79
111	112	33.55	0.00	-5.52	-30.47	122.28
112	10112	33.55	0.00	13.15	-34.78	122.43
112	113	37.19	0.00	-33.39	-25.09	145.46
113	113	37.19	0.00	-12.29	-32.83	145.14
113	114	40.82	0.00	-49.19	-5.03	283.02
114	114	40.82	0.00	-54.26	-29.22	281.90
114	115	44.46	0.00	-54.89	39.41	484.68
115	115	44.46	0.00	-63.24	5.85	482.97
115	116	48.10	0.00	-29.65	33.17	651.97
116	116	48.10	0.00	-39.94	-7.18	650.86
116	117	51.73	0.00	-5.90	26.52	734.21
117	117	51.73	0.00	-17.16	-16.93	733.83
117	118	55.37	0.00	16.88	16.78	734.32
118	118	55.37	0.00	5.63	-26.67	734.70
118	119	59.01	0.00	39.66	7.04	652.36

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	29.36	-33.33	653.47
119	120	62.64	0.00	62.96	-5.99	485.46
120	120	62.64	0.00	54.60	-39.59	487.17
120	121	66.28	0.00	54.62	28.48	282.51
121	121	66.28	0.00	49.54	4.27	283.63
121	122	69.91	0.00	36.32	37.94	142.56
122	122	69.91	0.00	33.83	24.37	142.91
122	123	73.55	0.00	-12.62	34.23	116.78
123	10123	73.55	0.00	5.27	29.96	116.63
123	124	76.66	0.00	-16.16	34.24	153.96
124	124	76.66	0.00	-17.67	25.81	153.70
124	125	79.77	0.00	-58.70	39.49	289.23
125	125	79.77	0.00	-62.55	21.17	288.08
125	126	82.88	0.00	-61.61	34.35	499.80
126	126	82.88	0.00	-68.06	5.32	498.26
126	127	85.99	0.00	-39.55	22.66	666.40
127	127	85.99	0.00	-47.57	-12.16	665.31
127	128	89.10	0.00	-18.46	16.67	768.00
128	128	89.10	0.00	-27.30	-20.92	767.47
128	129	92.21	0.00	1.81	7.91	807.10
129	129	92.21	0.00	-7.16	-30.23	807.20
129	130	95.32	0.00	21.95	-1.40	784.20
130	130	95.32	0.00	13.60	-37.71	784.94
130	131	98.43	0.00	42.71	-8.88	697.38
131	131	98.43	0.00	35.74	-40.95	698.74
131	132	101.54	0.00	64.85	-12.12	542.32
132	132	101.54	0.00	60.00	-37.58	544.22
132	133	104.65	0.00	88.99	-10.10	312.40
133	133	104.65	0.00	87.03	-25.99	314.69
133	134	107.76	0.00	-14.24	4.82	0.25
301	101	0.00	0.00	1.15	-0.15	8.87
301	2001	0.00	0.00	1.01	-0.34	8.08
302	102	3.05	0.00	2.80	-1.71	22.99
302	2002	3.05	0.00	2.80	-1.71	20.87
303	103	6.10	0.00	4.80	-1.37	29.30
303	2003	6.10	0.00	4.80	-1.37	25.67
304	104	9.15	0.00	6.25	-0.90	33.86
304	2004	9.15	0.00	6.25	-0.90	29.14
305	105	12.20	0.00	7.83	-0.56	36.94
305	2005	12.20	0.00	7.41	-0.45	31.13
306	106	15.25	0.00	8.47	-0.03	38.41
306	2006	15.25	0.00	8.26	0.01	32.02
307	107	18.30	0.00	8.41	0.52	37.84
307	2007	18.30	0.00	8.31	0.53	31.55
308	108	21.35	0.00	7.67	1.01	35.41
308	2008	21.35	0.00	7.55	1.02	29.65
309	109	24.40	0.00	6.43	1.39	31.38
309	2009	24.40	0.00	6.30	1.39	26.54
310	110	27.45	0.00	4.85	1.60	26.26
310	2010	27.45	0.00	4.51	1.49	22.72
311	111	30.50	0.00	3.08	1.41	21.14

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.MZ+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ+
Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	2.76	1.23	18.96
312	112	33.55	0.00	1.96	0.35	19.64
312	2012	33.55	0.00	1.23	0.08	18.49
313	113	37.19	0.00	3.82	-1.59	25.54
313	2013	37.19	0.00	3.42	-1.40	22.83
314	114	40.82	0.00	6.16	-1.68	32.61
314	2014	40.82	0.00	5.96	-1.61	28.05
315	115	44.46	0.00	8.11	-1.31	39.06
315	2015	44.46	0.00	8.11	-1.31	32.93
316	116	48.10	0.00	9.92	-0.93	43.61
316	2016	48.10	0.00	9.23	-0.74	36.30
317	117	51.73	0.00	10.96	-0.33	46.24
317	2017	51.73	0.00	10.52	-0.27	38.07
318	118	55.37	0.00	10.96	0.34	46.25
318	2018	55.37	0.00	10.53	0.28	38.08
319	119	59.01	0.00	9.93	0.93	43.64
319	2019	59.01	0.00	9.43	0.74	36.34
320	120	62.64	0.00	8.13	1.31	39.11
320	2020	62.64	0.00	8.13	1.31	32.96
321	121	66.28	0.00	6.18	1.68	32.65
321	2021	66.28	0.00	5.96	1.62	28.05
322	122	69.91	0.00	3.83	1.58	25.56
322	2022	69.91	0.00	3.39	1.39	22.79
323	123	73.55	0.00	2.07	-0.25	19.52
323	2023	73.55	0.00	1.14	-0.11	18.36
324	124	76.66	0.00	3.08	-1.47	21.21
324	2024	76.66	0.00	2.75	-1.29	19.02
325	125	79.77	0.00	4.95	-1.66	26.65
325	2025	79.77	0.00	4.60	-1.56	23.03
326	126	82.88	0.00	6.62	-1.45	32.08
326	2026	82.88	0.00	6.49	-1.45	27.09
327	127	85.99	0.00	7.93	-1.06	36.35
327	2027	85.99	0.00	7.81	-1.06	30.39
328	128	89.10	0.00	8.72	-0.54	38.93
328	2028	89.10	0.00	8.62	-0.55	32.41
329	129	92.21	0.00	8.79	0.03	39.54
329	2029	92.21	0.00	8.45	-0.03	32.91
330	130	95.32	0.00	8.12	0.59	37.99
330	2030	95.32	0.00	7.71	0.48	31.97
331	131	98.43	0.00	6.49	0.95	34.73
331	2031	98.43	0.00	6.49	0.95	29.82
332	132	101.54	0.00	4.93	1.45	29.82
332	2032	101.54	0.00	4.93	1.45	26.09
333	133	104.65	0.00	2.77	1.81	23.03
333	2033	104.65	0.00	2.77	1.81	20.94
334	134	107.76	0.00	1.14	0.17	8.87
334	2034	107.76	0.00	0.98	0.37	8.05
201	2001	0.00	0.00	1.01	-0.34	8.08
201	1001	0.00	0.00	-0.65	-1.06	7.15
202	2002	3.05	0.00	2.80	-1.71	20.87
202	1002	3.05	0.00	1.09	-1.19	8.61

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	4.80	-1.37	25.67
203	1003	6.10	0.00	1.07	-0.15	6.35
204	2004	9.15	0.00	6.25	-0.90	29.14
204	1004	9.15	0.00	0.01	0.33	7.10
205	2005	12.20	0.00	7.41	-0.45	31.13
205	1005	12.20	0.00	-0.63	0.32	8.22
206	2006	15.25	0.00	8.26	0.01	32.02
206	1006	15.25	0.00	-0.97	0.23	9.21
207	2007	18.30	0.00	8.31	0.53	31.55
207	1007	18.30	0.00	-1.19	0.14	10.10
208	2008	21.35	0.00	7.55	1.02	29.65
208	1008	21.35	0.00	-1.38	-0.03	10.75
209	2009	24.40	0.00	6.30	1.39	26.54
209	1009	24.40	0.00	-1.12	-0.16	10.99
210	2010	27.45	0.00	4.51	1.49	22.72
210	1010	27.45	0.00	-0.56	-0.11	11.02
211	2011	30.50	0.00	2.76	1.23	18.96
211	1011	30.50	0.00	-0.32	0.27	11.65
212	2012	33.55	0.00	1.23	0.08	18.49
212	1012	33.55	0.00	-0.44	0.16	13.60
213	2013	37.19	0.00	3.42	-1.40	22.83
213	1013	37.19	0.00	-0.78	-0.04	14.71
214	2014	40.82	0.00	5.96	-1.61	28.05
214	1014	40.82	0.00	-1.48	0.37	15.02
215	2015	44.46	0.00	8.11	-1.31	32.93
215	1015	44.46	0.00	-2.31	0.37	15.72
216	2016	48.10	0.00	9.23	-0.74	36.30
216	1016	48.10	0.00	-2.75	0.22	16.13
217	2017	51.73	0.00	10.52	-0.27	38.07
217	1017	51.73	0.00	-2.81	0.06	16.24
218	2018	55.37	0.00	10.53	0.28	38.08
218	1018	55.37	0.00	-2.83	-0.04	16.30
219	2019	59.01	0.00	9.43	0.74	36.34
219	1019	59.01	0.00	-2.81	-0.21	16.30
220	2020	62.64	0.00	8.13	1.31	32.96
220	1020	62.64	0.00	-2.40	-0.37	15.99
221	2021	66.28	0.00	5.96	1.62	28.05
221	1021	66.28	0.00	-1.60	-0.37	15.35
222	2022	69.91	0.00	3.39	1.39	22.79
222	1022	69.91	0.00	-0.91	0.03	15.07
223	2023	73.55	0.00	1.14	-0.11	18.36
223	1023	73.55	0.00	-0.55	-0.19	13.90
224	2024	76.66	0.00	2.75	-1.29	19.02
224	1024	76.66	0.00	-0.38	-0.30	11.83
225	2025	79.77	0.00	4.60	-1.56	23.03
225	1025	79.77	0.00	-0.59	0.10	11.10
226	2026	82.88	0.00	6.49	-1.45	27.09
226	1026	82.88	0.00	-1.15	0.16	11.02
227	2027	85.99	0.00	7.81	-1.06	30.39
227	1027	85.99	0.00	-1.40	0.02	10.76
228	2028	89.10	0.00	8.62	-0.55	32.41

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-1.20	-0.14	10.09
229	2029	92.21	0.00	8.45	-0.03	32.91
229	1029	92.21	0.00	-0.98	-0.23	9.18
230	2030	95.32	0.00	7.71	0.48	31.97
230	1030	95.32	0.00	-0.63	-0.32	8.17
231	2031	98.43	0.00	6.49	0.95	29.82
231	1031	98.43	0.00	0.01	-0.33	7.04
232	2032	101.54	0.00	4.93	1.45	26.09
232	1032	101.54	0.00	1.08	0.18	6.33
233	2033	104.65	0.00	2.77	1.81	20.94
233	1033	104.65	0.00	1.02	1.26	8.82
234	2034	107.76	0.00	0.98	0.37	8.05
234	1034	107.76	0.00	-0.77	1.10	7.49
401	1001	0.00	0.00	-0.65	-1.06	7.15
401	1	0.00	0.00	-0.72	-1.09	7.67
402	1002	3.05	0.00	1.09	-1.19	8.61
402	2	3.05	0.00	0.73	-1.32	7.87
403	1003	6.10	0.00	1.07	-0.15	6.35
403	3	6.10	0.00	0.59	0.27	5.73
404	1004	9.15	0.00	0.01	0.33	7.10
404	4	9.15	0.00	-0.20	0.39	7.21
405	1005	12.20	0.00	-0.63	0.32	8.22
405	5	12.20	0.00	-0.63	0.32	8.70
406	1006	15.25	0.00	-0.97	0.23	9.21
406	6	15.25	0.00	-1.17	0.24	10.02
407	1007	18.30	0.00	-1.19	0.14	10.10
407	7	18.30	0.00	-1.44	0.13	11.09
408	1008	21.35	0.00	-1.38	-0.03	10.75
408	8	21.35	0.00	-1.38	-0.03	11.79
409	1009	24.40	0.00	-1.12	-0.16	10.99
409	9	24.40	0.00	-1.50	-0.24	11.99
410	1010	27.45	0.00	-0.56	-0.11	11.02
410	10	27.45	0.00	-1.21	-0.27	11.57
411	1011	30.50	0.00	-0.32	0.27	11.65
411	11	30.50	0.00	-0.49	0.25	11.95
412	1012	33.55	0.00	-0.44	0.16	13.60
412	12	33.55	0.00	-0.53	0.14	13.94
413	1013	37.19	0.00	-0.78	-0.04	14.71
413	13	37.19	0.00	-1.04	0.30	15.43
414	1014	40.82	0.00	-1.48	0.37	15.02
414	14	40.82	0.00	-1.70	0.58	16.25
415	1015	44.46	0.00	-2.31	0.37	15.72
415	15	44.46	0.00	-2.51	0.44	17.56
416	1016	48.10	0.00	-2.75	0.22	16.13
416	16	48.10	0.00	-2.75	0.22	18.21
417	1017	51.73	0.00	-2.81	0.06	16.24
417	17	51.73	0.00	-3.02	0.08	18.44
418	1018	55.37	0.00	-2.83	-0.04	16.30
418	18	55.37	0.00	-3.04	-0.06	18.51
419	1019	59.01	0.00	-2.81	-0.21	16.30
419	19	59.01	0.00	-2.81	-0.21	18.43

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-2.40	-0.37	15.99
420	20	62.64	0.00	-2.60	-0.44	17.89
421	1021	66.28	0.00	-1.60	-0.37	15.35
421	21	66.28	0.00	-1.82	-0.58	16.68
422	1022	69.91	0.00	-0.91	0.03	15.07
422	22	69.91	0.00	-1.17	-0.32	15.89
423	1023	73.55	0.00	-0.55	-0.19	13.90
423	23	73.55	0.00	-0.64	-0.17	14.32
424	1024	76.66	0.00	-0.38	-0.30	11.83
424	24	76.66	0.00	-0.62	-0.27	12.17
425	1025	79.77	0.00	-0.59	0.10	11.10
425	25	79.77	0.00	-1.24	0.26	11.66
426	1026	82.88	0.00	-1.15	0.16	11.02
426	26	82.88	0.00	-1.53	0.23	12.03
427	1027	85.99	0.00	-1.40	0.02	10.76
427	27	85.99	0.00	-1.40	0.02	11.82
428	1028	89.10	0.00	-1.20	-0.14	10.09
428	28	89.10	0.00	-1.46	-0.13	11.08
429	1029	92.21	0.00	-0.98	-0.23	9.18
429	29	92.21	0.00	-1.17	-0.24	9.98
430	1030	95.32	0.00	-0.63	-0.32	8.17
430	30	95.32	0.00	-0.63	-0.32	8.65
431	1031	98.43	0.00	0.01	-0.33	7.04
431	31	98.43	0.00	-0.20	-0.38	7.15
432	1032	101.54	0.00	1.08	0.18	6.33
432	32	101.54	0.00	0.80	-0.07	5.70
433	1033	104.65	0.00	1.02	1.26	8.82
433	33	104.65	0.00	0.66	1.39	8.14
434	1034	107.76	0.00	-0.77	1.10	7.49
434	34	107.76	0.00	-0.84	1.14	8.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-28.86	6.36	1.15
1	2	3.05	0.00	-28.86	6.36	89.16
2	2	3.05	0.00	-26.54	9.69	91.31
2	3	6.10	0.00	-26.54	9.69	172.27
3	3	6.10	0.00	-21.76	4.95	173.36
3	4	9.15	0.00	-21.76	4.95	239.74
4	4	9.15	0.00	-15.02	-6.33	241.05
4	5	12.20	0.00	-15.02	-6.33	286.86
5	5	12.20	0.00	-7.43	-7.18	228.46
5	6	15.25	0.00	-7.43	-7.18	251.13
6	6	15.25	0.00	-2.59	3.31	107.36
6	7	18.30	0.00	-2.59	3.31	115.28
7	7	18.30	0.00	-1.86	7.68	46.93
7	8	21.35	0.00	-1.86	7.68	52.61
8	8	21.35	0.00	-1.52	8.46	52.62
8	9	24.40	0.00	-1.52	8.46	57.27
9	9	24.40	0.00	-1.46	39.56	-47.73
9	10	27.45	0.00	-1.46	39.56	-43.27
10	10	27.45	0.00	-2.70	59.43	-97.06
10	11	30.50	0.00	-2.70	59.43	-88.84
11	11	30.50	0.00	-3.86	72.49	-112.37
11	12	33.55	0.00	-3.86	72.49	-100.59
12	10012	33.55	0.00	-40.72	65.85	-219.13
12	13	37.19	0.00	-40.72	65.85	-71.06
13	13	37.19	0.00	-37.10	70.28	-61.20
13	14	40.82	0.00	-37.10	70.28	73.71
14	14	40.82	0.00	-30.96	47.28	55.43
14	15	44.46	0.00	-30.96	47.28	168.01
15	15	44.46	0.00	-23.84	-6.45	68.78
15	16	48.10	0.00	-23.84	-6.45	155.47
16	16	48.10	0.00	-15.63	-19.37	156.73
16	17	51.73	0.00	-15.63	-19.37	213.57
17	17	51.73	0.00	-9.15	-21.13	70.08
17	18	55.37	0.00	-9.15	-21.13	103.35
18	18	55.37	0.00	-7.23	-28.67	-88.29
18	19	59.01	0.00	-7.23	-28.67	-61.99
19	19	59.01	0.00	-8.01	-22.29	-61.62
19	20	62.64	0.00	-8.01	-22.29	-32.48
20	20	62.64	0.00	-9.19	31.47	-139.37
20	21	66.28	0.00	-9.19	31.47	-105.95
21	21	66.28	0.00	-11.54	59.85	-126.92
21	22	69.91	0.00	-11.54	59.85	-84.96
22	22	69.91	0.00	-13.15	65.88	-75.53
22	23	73.55	0.00	-13.15	65.88	-27.70
23	10023	73.55	0.00	-35.18	84.77	-143.93
23	24	76.66	0.00	-35.18	84.77	-34.51
24	24	76.66	0.00	-32.28	80.64	-56.30
24	25	79.77	0.00	-32.28	80.64	44.10
25	25	79.77	0.00	-27.93	65.48	-7.37
25	26	82.88	0.00	-27.93	65.48	79.48
26	26	82.88	0.00	-23.26	34.26	-23.40

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-23.26	34.26	48.93
27	27	85.99	0.00	-17.56	28.79	50.03
27	28	89.10	0.00	-17.56	28.79	104.64
28	28	89.10	0.00	-11.25	16.81	26.25
28	29	92.21	0.00	-11.25	16.81	61.22
29	29	92.21	0.00	-8.68	-3.69	-82.75
29	30	95.32	0.00	-8.68	-3.69	-55.76
30	30	95.32	0.00	-9.16	-11.47	-117.49
30	31	98.43	0.00	-9.16	-11.47	-89.00
31	31	98.43	0.00	-9.65	-5.75	-88.59
31	32	101.54	0.00	-9.65	-5.75	-58.59
32	32	101.54	0.00	-9.61	-2.03	-58.87
32	33	104.65	0.00	-9.61	-2.03	-28.98
33	33	104.65	0.00	-9.11	-0.06	-28.55
33	34	107.76	0.00	-9.11	-0.06	-0.22
101	101	0.00	0.00	-114.59	-3.13	-1.18
101	102	3.05	0.00	-89.64	-1.46	272.25
102	102	3.05	0.00	-91.05	-15.40	270.03
102	103	6.10	0.00	-69.36	-11.55	417.56
103	103	6.10	0.00	-72.72	-30.27	415.83
103	104	9.15	0.00	-54.05	-24.30	473.47
104	104	9.15	0.00	-58.57	-45.81	472.26
104	105	12.20	0.00	-42.46	-37.27	469.41
105	105	12.20	0.00	-47.33	-59.14	468.68
105	106	15.25	0.00	-33.38	-47.73	427.62
106	106	15.25	0.00	-37.97	-68.07	427.26
106	107	18.30	0.00	-25.92	-53.92	364.59
107	107	18.30	0.00	-29.85	-71.56	364.49
107	108	21.35	0.00	-19.60	-55.29	292.98
108	108	21.35	0.00	-22.70	-69.71	293.03
108	109	24.40	0.00	-14.27	-52.27	223.40
109	109	24.40	0.00	-16.53	-63.50	223.51
109	110	27.45	0.00	-10.02	-46.11	165.66
110	110	27.45	0.00	-11.56	-54.53	165.78
110	111	30.50	0.00	-7.06	-38.37	129.18
111	111	30.50	0.00	-8.29	-58.96	107.03
111	112	33.55	0.00	-5.78	-44.98	100.82
112	10112	33.55	0.00	-172.73	0.62	-1137.95
112	113	37.19	0.00	-141.97	14.08	-603.63
113	113	37.19	0.00	-142.74	10.88	-617.51
113	114	40.82	0.00	-115.05	21.84	-237.57
114	114	40.82	0.00	-117.23	9.39	-242.86
114	115	44.46	0.00	-92.53	19.67	8.23
115	115	44.46	0.00	-95.93	-1.84	6.68
115	116	48.10	0.00	-73.99	9.53	155.25
116	116	48.10	0.00	-78.11	-13.29	153.94
116	117	51.73	0.00	-58.68	0.48	224.16
117	117	51.73	0.00	-62.99	-21.98	223.17
117	118	55.37	0.00	-45.95	-5.13	236.66
118	118	55.37	0.00	-49.94	-25.66	235.98
118	119	59.01	0.00	-35.30	-5.72	212.29

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-38.61	-23.19	211.86
119	120	62.64	0.00	-26.49	-0.84	169.53
120	120	62.64	0.00	-28.96	-14.69	169.27
120	121	66.28	0.00	-19.58	8.76	126.84
121	121	66.28	0.00	-21.32	-8.09	122.73
121	122	69.91	0.00	-14.95	14.71	99.53
122	122	69.91	0.00	-16.29	-5.93	85.97
122	123	73.55	0.00	-13.00	14.40	101.15
123	10123	73.55	0.00	-172.38	-48.88	-1150.18
123	124	76.66	0.00	-145.83	-34.28	-683.91
124	124	76.66	0.00	-146.26	-33.35	-706.69
124	125	79.77	0.00	-121.75	-21.06	-357.04
125	125	79.77	0.00	-123.22	-36.39	-358.20
125	126	82.88	0.00	-100.77	-25.43	-111.46
126	126	82.88	0.00	-103.05	-42.79	-112.65
126	127	85.99	0.00	-82.55	-31.89	45.85
127	127	85.99	0.00	-85.39	-50.43	44.81
127	128	89.10	0.00	-66.74	-38.34	129.62
128	128	89.10	0.00	-69.74	-56.80	128.83
128	129	92.21	0.00	-52.91	-42.52	154.11
129	129	92.21	0.00	-55.69	-59.67	153.56
129	130	95.32	0.00	-40.78	-42.56	133.86
130	130	95.32	0.00	-43.10	-57.58	133.49
130	131	98.43	0.00	-30.38	-37.50	85.32
131	131	98.43	0.00	-32.20	-50.19	85.02
131	132	101.54	0.00	-22.09	-27.45	28.81
132	132	101.54	0.00	-23.58	-38.25	28.46
132	133	104.65	0.00	-16.55	-13.34	-9.92
133	133	104.65	0.00	-17.97	-22.50	-10.41
133	134	107.76	0.00	-14.30	4.62	0.25
301	101	0.00	0.00	-1.06	-1.03	-0.27
301	2001	0.00	0.00	-1.06	-1.03	0.53
302	102	3.05	0.00	-0.15	-0.83	3.08
302	2002	3.05	0.00	-0.15	-0.83	3.19
303	103	6.10	0.00	-0.19	0.26	1.77
303	2003	6.10	0.00	-0.19	0.26	1.92
304	104	9.15	0.00	-0.58	0.38	1.57
304	2004	9.15	0.00	-0.58	0.38	2.01
305	105	12.20	0.00	-1.05	0.33	0.16
305	2005	12.20	0.00	-1.05	0.33	0.95
306	106	15.25	0.00	-1.47	0.26	-1.08
306	2006	15.25	0.00	-1.47	0.26	0.03
307	107	18.30	0.00	-1.83	0.15	-2.08
307	2007	18.30	0.00	-1.83	0.15	-0.70
308	108	21.35	0.00	-2.07	0.01	-2.71
308	2008	21.35	0.00	-2.07	0.01	-1.14
309	109	24.40	0.00	-2.14	-0.20	-2.77
309	2009	24.40	0.00	-2.14	-0.20	-1.15
310	110	27.45	0.00	-1.95	-0.48	-1.97
310	2010	27.45	0.00	-1.95	-0.48	-0.50
311	111	30.50	0.00	-1.48	-0.73	-0.96

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-1.48	-0.73	0.16
312	112	33.55	0.00	-1.48	-0.21	1.75
312	2012	33.55	0.00	-1.48	-0.21	2.87
313	113	37.19	0.00	-1.85	0.51	-0.20
313	2013	37.19	0.00	-1.85	0.51	1.20
314	114	40.82	0.00	-2.46	0.54	-1.18
314	2014	40.82	0.00	-2.46	0.54	0.68
315	115	44.46	0.00	-2.86	0.39	-1.59
315	2015	44.46	0.00	-2.86	0.39	0.57
316	116	48.10	0.00	-3.05	0.20	-2.32
316	2016	48.10	0.00	-3.05	0.20	-0.01
317	117	51.73	0.00	-3.12	0.07	-2.60
317	2017	51.73	0.00	-3.12	0.07	-0.24
318	118	55.37	0.00	-3.14	-0.05	-2.66
318	2018	55.37	0.00	-3.14	-0.05	-0.29
319	119	59.01	0.00	-3.11	-0.18	-2.50
319	2019	59.01	0.00	-3.11	-0.18	-0.14
320	120	62.64	0.00	-2.95	-0.38	-1.87
320	2020	62.64	0.00	-2.95	-0.38	0.37
321	121	66.28	0.00	-2.59	-0.54	-1.79
321	2021	66.28	0.00	-2.59	-0.54	0.16
322	122	69.91	0.00	-1.99	-0.53	-0.55
322	2022	69.91	0.00	-1.99	-0.53	0.96
323	123	73.55	0.00	-1.57	0.14	2.04
323	2023	73.55	0.00	-1.57	0.14	3.23
324	124	76.66	0.00	-1.51	0.56	-0.50
324	2024	76.66	0.00	-1.51	0.56	0.64
325	125	79.77	0.00	-1.97	0.48	-2.06
325	2025	79.77	0.00	-1.97	0.48	-0.56
326	126	82.88	0.00	-2.16	0.19	-2.84
326	2026	82.88	0.00	-2.16	0.19	-1.21
327	127	85.99	0.00	-2.08	-0.01	-2.76
327	2027	85.99	0.00	-2.08	-0.01	-1.18
328	128	89.10	0.00	-1.83	-0.16	-2.10
328	2028	89.10	0.00	-1.83	-0.16	-0.72
329	129	92.21	0.00	-1.47	-0.26	-1.08
329	2029	92.21	0.00	-1.47	-0.26	0.03
330	130	95.32	0.00	-1.04	-0.32	0.17
330	2030	95.32	0.00	-1.04	-0.32	0.96
331	131	98.43	0.00	-0.57	-0.37	1.59
331	2031	98.43	0.00	-0.57	-0.37	2.02
332	132	101.54	0.00	-0.18	-0.25	1.80
332	2032	101.54	0.00	-0.18	-0.25	1.93
333	133	104.65	0.00	-0.20	0.90	2.63
333	2033	104.65	0.00	-0.20	0.90	2.78
334	134	107.76	0.00	-1.18	1.07	-0.59
334	2034	107.76	0.00	-1.18	1.07	0.30
201	2001	0.00	0.00	-1.06	-1.03	0.53
201	1001	0.00	0.00	-1.06	-1.03	5.63
202	2002	3.05	0.00	-0.15	-0.83	3.19
202	1002	3.05	0.00	-0.15	-0.83	3.89

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.19	0.26	1.92
203	1003	6.10	0.00	-0.19	0.26	2.83
204	2004	9.15	0.00	-0.58	0.38	2.01
204	1004	9.15	0.00	-0.58	0.38	4.79
205	2005	12.20	0.00	-1.05	0.33	0.95
205	1005	12.20	0.00	-1.05	0.33	5.98
206	2006	15.25	0.00	-1.47	0.26	0.03
206	1006	15.25	0.00	-1.47	0.26	7.09
207	2007	18.30	0.00	-1.83	0.15	-0.70
207	1007	18.30	0.00	-1.83	0.15	8.05
208	2008	21.35	0.00	-2.07	0.01	-1.14
208	1008	21.35	0.00	-2.07	0.01	8.77
209	2009	24.40	0.00	-2.14	-0.20	-1.15
209	1009	24.40	0.00	-2.14	-0.20	9.10
210	2010	27.45	0.00	-1.95	-0.48	-0.50
210	1010	27.45	0.00	-1.95	-0.48	8.83
211	2011	30.50	0.00	-1.48	-0.73	0.16
211	1011	30.50	0.00	-1.48	-0.73	7.26
212	2012	33.55	0.00	-1.48	-0.21	2.87
212	1012	33.55	0.00	-1.48	-0.21	9.93
213	2013	37.19	0.00	-1.85	0.51	1.20
213	1013	37.19	0.00	-1.85	0.51	10.07
214	2014	40.82	0.00	-2.46	0.54	0.68
214	1014	40.82	0.00	-2.46	0.54	12.48
215	2015	44.46	0.00	-2.86	0.39	0.57
215	1015	44.46	0.00	-2.86	0.39	14.25
216	2016	48.10	0.00	-3.05	0.20	-0.01
216	1016	48.10	0.00	-3.05	0.20	14.59
217	2017	51.73	0.00	-3.12	0.07	-0.24
217	1017	51.73	0.00	-3.12	0.07	14.71
218	2018	55.37	0.00	-3.14	-0.05	-0.29
218	1018	55.37	0.00	-3.14	-0.05	14.77
219	2019	59.01	0.00	-3.11	-0.18	-0.14
219	1019	59.01	0.00	-3.11	-0.18	14.76
220	2020	62.64	0.00	-2.95	-0.38	0.37
220	1020	62.64	0.00	-2.95	-0.38	14.51
221	2021	66.28	0.00	-2.59	-0.54	0.16
221	1021	66.28	0.00	-2.59	-0.54	12.56
222	2022	69.91	0.00	-1.99	-0.53	0.96
222	1022	69.91	0.00	-1.99	-0.53	10.47
223	2023	73.55	0.00	-1.57	0.14	3.23
223	1023	73.55	0.00	-1.57	0.14	10.75
224	2024	76.66	0.00	-1.51	0.56	0.64
224	1024	76.66	0.00	-1.51	0.56	7.87
225	2025	79.77	0.00	-1.97	0.48	-0.56
225	1025	79.77	0.00	-1.97	0.48	8.88
226	2026	82.88	0.00	-2.16	0.19	-1.21
226	1026	82.88	0.00	-2.16	0.19	9.15
227	2027	85.99	0.00	-2.08	-0.01	-1.18
227	1027	85.99	0.00	-2.08	-0.01	8.80
228	2028	89.10	0.00	-1.83	-0.16	-0.72

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-1.83	-0.16	8.05
229	2029	92.21	0.00	-1.47	-0.26	0.03
229	1029	92.21	0.00	-1.47	-0.26	7.07
230	2030	95.32	0.00	-1.04	-0.32	0.96
230	1030	95.32	0.00	-1.04	-0.32	5.95
231	2031	98.43	0.00	-0.57	-0.37	2.02
231	1031	98.43	0.00	-0.57	-0.37	4.75
232	2032	101.54	0.00	-0.18	-0.25	1.93
232	1032	101.54	0.00	-0.18	-0.25	2.79
233	2033	104.65	0.00	-0.20	0.90	2.78
233	1033	104.65	0.00	-0.20	0.90	3.74
234	2034	107.76	0.00	-1.18	1.07	0.30
234	1034	107.76	0.00	-1.18	1.07	5.98
401	1001	0.00	0.00	-1.06	-1.03	5.63
401	1	0.00	0.00	-1.06	-1.03	6.43
402	1002	3.05	0.00	-0.15	-0.83	3.89
402	2	3.05	0.00	-0.15	-0.83	4.00
403	1003	6.10	0.00	-0.19	0.26	2.83
403	3	6.10	0.00	-0.19	0.26	2.97
404	1004	9.15	0.00	-0.58	0.38	4.79
404	4	9.15	0.00	-0.58	0.38	5.23
405	1005	12.20	0.00	-1.05	0.33	5.98
405	5	12.20	0.00	-1.05	0.33	6.78
406	1006	15.25	0.00	-1.47	0.26	7.09
406	6	15.25	0.00	-1.47	0.26	8.20
407	1007	18.30	0.00	-1.83	0.15	8.05
407	7	18.30	0.00	-1.83	0.15	9.43
408	1008	21.35	0.00	-2.07	0.01	8.77
408	8	21.35	0.00	-2.07	0.01	10.34
409	1009	24.40	0.00	-2.14	-0.20	9.10
409	9	24.40	0.00	-2.14	-0.20	10.72
410	1010	27.45	0.00	-1.95	-0.48	8.83
410	10	27.45	0.00	-1.95	-0.48	10.30
411	1011	30.50	0.00	-1.48	-0.73	7.26
411	11	30.50	0.00	-1.48	-0.73	8.38
412	1012	33.55	0.00	-1.48	-0.21	9.93
412	12	33.55	0.00	-1.48	-0.21	11.05
413	1013	37.19	0.00	-1.85	0.51	10.07
413	13	37.19	0.00	-1.85	0.51	11.47
414	1014	40.82	0.00	-2.46	0.54	12.48
414	14	40.82	0.00	-2.46	0.54	14.34
415	1015	44.46	0.00	-2.86	0.39	14.25
415	15	44.46	0.00	-2.86	0.39	16.41
416	1016	48.10	0.00	-3.05	0.20	14.59
416	16	48.10	0.00	-3.05	0.20	16.90
417	1017	51.73	0.00	-3.12	0.07	14.71
417	17	51.73	0.00	-3.12	0.07	17.07
418	1018	55.37	0.00	-3.14	-0.05	14.77
418	18	55.37	0.00	-3.14	-0.05	17.14
419	1019	59.01	0.00	-3.11	-0.18	14.76
419	19	59.01	0.00	-3.11	-0.18	17.11

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-2.95	-0.38	14.51
420	20	62.64	0.00	-2.95	-0.38	16.75
421	1021	66.28	0.00	-2.59	-0.54	12.56
421	21	66.28	0.00	-2.59	-0.54	14.51
422	1022	69.91	0.00	-1.99	-0.53	10.47
422	22	69.91	0.00	-1.99	-0.53	11.98
423	1023	73.55	0.00	-1.57	0.14	10.75
423	23	73.55	0.00	-1.57	0.14	11.94
424	1024	76.66	0.00	-1.51	0.56	7.87
424	24	76.66	0.00	-1.51	0.56	9.02
425	1025	79.77	0.00	-1.97	0.48	8.88
425	25	79.77	0.00	-1.97	0.48	10.37
426	1026	82.88	0.00	-2.16	0.19	9.15
426	26	82.88	0.00	-2.16	0.19	10.78
427	1027	85.99	0.00	-2.08	-0.01	8.80
427	27	85.99	0.00	-2.08	-0.01	10.37
428	1028	89.10	0.00	-1.83	-0.16	8.05
428	28	89.10	0.00	-1.83	-0.16	9.44
429	1029	92.21	0.00	-1.47	-0.26	7.07
429	29	92.21	0.00	-1.47	-0.26	8.18
430	1030	95.32	0.00	-1.04	-0.32	5.95
430	30	95.32	0.00	-1.04	-0.32	6.74
431	1031	98.43	0.00	-0.57	-0.37	4.75
431	31	98.43	0.00	-0.57	-0.37	5.18
432	1032	101.54	0.00	-0.18	-0.25	2.79
432	32	101.54	0.00	-0.18	-0.25	2.92
433	1033	104.65	0.00	-0.20	0.90	3.74
433	33	104.65	0.00	-0.20	0.90	3.89
434	1034	107.76	0.00	-1.18	1.07	5.98
434	34	107.76	0.00	-1.18	1.07	6.87

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	1.93	-1.21	-0.16
1	2	3.05	0.00	1.93	-1.21	-6.04
2	2	3.05	0.00	-1.67	-3.21	10.62
2	3	6.10	0.00	-1.67	-3.21	15.70
3	3	6.10	0.00	-6.17	-6.56	62.67
3	4	9.15	0.00	-6.17	-6.56	81.48
4	4	9.15	0.00	-6.52	-14.69	137.66
4	5	12.20	0.00	-6.52	-14.69	157.55
5	5	12.20	0.00	-3.84	-28.88	233.39
5	6	15.25	0.00	-3.84	-28.88	245.10
6	6	15.25	0.00	3.83	-47.12	259.87
6	7	18.30	0.00	3.83	-47.12	248.18
7	7	18.30	0.00	11.79	-65.12	247.63
7	8	21.35	0.00	11.79	-65.12	211.67
8	8	21.35	0.00	19.40	-80.80	217.05
8	9	24.40	0.00	19.40	-80.80	157.90
9	9	24.40	0.00	25.36	-92.48	156.42
9	10	27.45	0.00	25.36	-92.48	79.09
10	10	27.45	0.00	29.51	-98.81	77.37
10	11	30.50	0.00	29.51	-98.81	-12.64
11	11	30.50	0.00	31.69	-99.29	-14.34
11	12	33.55	0.00	31.69	-99.29	-111.00
12	10012	33.55	0.00	3.40	-93.98	-112.49
12	13	37.19	0.00	3.40	-93.98	-124.86
13	13	37.19	0.00	0.61	-83.65	-127.85
13	14	40.82	0.00	0.61	-83.65	-130.07
14	14	40.82	0.00	-0.84	-72.29	-130.49
14	15	44.46	0.00	-0.84	-72.29	-127.42
15	15	44.46	0.00	-3.43	-60.86	-110.99
15	16	48.10	0.00	-3.43	-60.86	-98.50
16	16	48.10	0.00	-4.53	-52.85	-68.55
16	17	51.73	0.00	-4.53	-52.85	-52.06
17	17	51.73	0.00	-2.92	-52.55	33.77
17	18	55.37	0.00	-2.92	-52.55	44.39
18	18	55.37	0.00	3.69	-62.05	177.45
18	19	59.01	0.00	3.69	-62.05	164.04
19	19	59.01	0.00	12.20	-76.60	193.31
19	20	62.64	0.00	12.20	-76.60	148.94
20	20	62.64	0.00	20.65	-89.67	164.28
20	21	66.28	0.00	20.65	-89.67	89.19
21	21	66.28	0.00	26.03	-96.52	87.40
21	22	69.91	0.00	26.03	-96.52	-7.24
22	22	69.91	0.00	30.96	-96.73	-11.13
22	23	73.55	0.00	30.96	-96.73	-123.70
23	10023	73.55	0.00	1.55	-90.41	-125.12
23	24	76.66	0.00	1.55	-90.41	-129.95
24	24	76.66	0.00	1.06	-81.11	-130.81
24	25	79.77	0.00	1.06	-81.11	-134.10
25	25	79.77	0.00	-0.16	-69.90	-134.61
25	26	82.88	0.00	-0.16	-69.90	-134.12
26	26	82.88	0.00	-1.71	-57.98	-134.35

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.MX-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-1.71	-57.98	-129.04
27	27	85.99	0.00	-3.55	-46.34	-122.37
27	28	89.10	0.00	-3.55	-46.34	-111.32
28	28	89.10	0.00	-4.76	-35.47	-111.21
28	29	92.21	0.00	-4.76	-35.47	-96.39
29	29	92.21	0.00	-4.38	-25.92	-57.63
29	30	95.32	0.00	-4.38	-25.92	-44.01
30	30	95.32	0.00	-0.64	-20.09	14.77
30	31	98.43	0.00	-0.64	-20.09	16.77
31	31	98.43	0.00	6.96	-17.87	80.06
31	32	101.54	0.00	6.96	-17.87	58.41
32	32	101.54	0.00	15.73	-15.72	103.46
32	33	104.65	0.00	15.73	-15.72	54.53
33	33	104.65	0.00	22.07	-8.10	69.78
33	34	107.76	0.00	22.07	-8.10	1.14
101	101	0.00	0.00	-55.00	-8.87	-0.15
101	102	3.05	0.00	-30.04	-7.20	91.51
102	102	3.05	0.00	-76.91	-25.76	225.63
102	103	6.10	0.00	-55.22	-21.91	330.05
103	103	6.10	0.00	-58.65	-44.97	328.78
103	104	9.15	0.00	-39.98	-39.01	343.51
104	104	9.15	0.00	-44.01	-63.17	342.72
104	105	12.20	0.00	-27.90	-54.63	295.45
105	105	12.20	0.00	-31.77	-77.67	295.07
105	106	15.25	0.00	-17.82	-66.26	206.57
106	106	15.25	0.00	-20.99	-86.53	206.48
106	107	18.30	0.00	-8.94	-72.39	92.02
107	107	18.30	0.00	-13.68	-89.03	127.05
107	108	21.35	0.00	-3.43	-72.75	6.22
108	108	21.35	0.00	-10.50	-87.14	89.58
108	109	24.40	0.00	-2.07	-69.71	-17.23
109	109	24.40	0.00	-9.00	-82.07	74.25
109	110	27.45	0.00	-2.49	-64.67	-6.57
110	110	27.45	0.00	-3.89	-75.55	-6.70
110	111	30.50	0.00	0.61	-59.39	-66.69
111	111	30.50	0.00	-0.64	-69.39	-66.99
111	112	33.55	0.00	1.87	-55.41	-96.53
112	10112	33.55	0.00	-73.32	-66.42	-97.01
112	113	37.19	0.00	-42.56	-52.96	75.84
113	113	37.19	0.00	-63.94	-67.16	51.07
113	114	40.82	0.00	-36.25	-56.19	144.46
114	114	40.82	0.00	-83.81	-75.56	150.40
114	115	44.46	0.00	-59.12	-65.28	279.99
115	115	44.46	0.00	-64.42	-90.99	278.73
115	116	48.10	0.00	-42.47	-79.62	312.69
116	116	48.10	0.00	-47.86	-105.40	311.91
116	117	51.73	0.00	-28.43	-91.63	272.13
117	117	51.73	0.00	-33.14	-115.07	271.78
117	118	55.37	0.00	-16.10	-98.22	176.73
118	118	55.37	0.00	-19.56	-117.51	176.70
118	119	59.01	0.00	-4.91	-97.57	42.53

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-6.83	-111.81	42.63
119	120	62.64	0.00	5.30	-89.45	-115.27
120	120	62.64	0.00	4.87	-98.82	-115.26
120	121	66.28	0.00	14.24	-75.36	-280.68
121	121	66.28	0.00	57.89	-84.92	-271.65
121	122	69.91	0.00	64.26	-62.13	-582.88
122	122	69.91	0.00	76.12	-71.53	-483.73
122	123	73.55	0.00	79.42	-51.21	-804.60
123	10123	73.55	0.00	-140.81	-59.47	-804.81
123	124	76.66	0.00	-114.25	-44.88	-436.74
124	124	76.66	0.00	-138.75	-54.14	-513.01
124	125	79.77	0.00	-114.24	-41.86	-186.73
125	125	79.77	0.00	-115.85	-54.77	-188.14
125	126	82.88	0.00	-93.40	-43.80	35.70
126	126	82.88	0.00	-91.16	-60.11	124.55
126	127	85.99	0.00	-70.67	-49.21	246.09
127	127	85.99	0.00	-67.19	-67.90	369.15
127	128	89.10	0.00	-48.54	-55.81	397.36
128	128	89.10	0.00	-53.31	-75.30	396.72
128	129	92.21	0.00	-36.48	-61.02	370.91
129	129	92.21	0.00	-40.69	-78.27	370.63
129	130	95.32	0.00	-25.78	-61.16	304.29
130	130	95.32	0.00	-29.09	-75.01	304.27
130	131	98.43	0.00	-16.36	-54.93	212.53
131	131	98.43	0.00	-18.67	-64.96	212.64
131	132	101.54	0.00	-8.56	-42.22	114.35
132	132	101.54	0.00	-9.97	-48.65	114.45
132	133	104.65	0.00	-2.95	-23.75	33.78
133	133	104.65	0.00	41.69	-28.52	174.11
133	134	107.76	0.00	45.37	-1.41	-0.80
301	101	0.00	0.00	-0.54	-1.18	2.92
301	2001	0.00	0.00	-0.54	-1.18	3.33
302	102	3.05	0.00	2.00	-2.21	15.72
302	2002	3.05	0.00	2.00	-2.21	14.21
303	103	6.10	0.00	4.00	-1.84	21.03
303	2003	6.10	0.00	4.00	-1.84	18.00
304	104	9.15	0.00	6.24	-1.33	28.73
304	2004	9.15	0.00	6.24	-1.33	24.01
305	105	12.20	0.00	6.02	-0.77	26.35
305	2005	12.20	0.00	6.02	-0.77	21.80
306	106	15.25	0.00	4.61	-0.36	20.65
306	2006	15.25	0.00	4.61	-0.36	17.16
307	107	18.30	0.00	2.81	-0.14	14.23
307	2007	18.30	0.00	2.81	-0.14	12.10
308	108	21.35	0.00	0.59	-0.08	7.64
308	2008	21.35	0.00	0.59	-0.08	7.19
309	109	24.40	0.00	-1.23	-0.25	3.11
309	2009	24.40	0.00	-1.23	-0.25	4.04
310	110	27.45	0.00	-1.53	-0.55	1.09
310	2010	27.45	0.00	-1.53	-0.55	2.25
311	111	30.50	0.00	-0.85	-0.94	3.28

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.MX-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.85	-0.94	3.92
312	112	33.55	0.00	0.41	-1.57	7.71
312	2012	33.55	0.00	0.41	-1.57	7.40
313	113	37.19	0.00	2.97	-2.17	16.15
313	2013	37.19	0.00	2.97	-2.17	13.90
314	114	40.82	0.00	5.84	-2.12	25.48
314	2014	40.82	0.00	5.84	-2.12	21.06
315	115	44.46	0.00	7.66	-1.74	31.59
315	2015	44.46	0.00	7.66	-1.74	25.80
316	116	48.10	0.00	5.65	-1.37	27.53
316	2016	48.10	0.00	5.65	-1.37	23.26
317	117	51.73	0.00	4.27	-1.00	21.98
317	2017	51.73	0.00	4.27	-1.00	18.75
318	118	55.37	0.00	4.03	-0.69	21.03
318	2018	55.37	0.00	4.03	-0.69	17.98
319	119	59.01	0.00	1.79	-0.49	12.78
319	2019	59.01	0.00	1.79	-0.49	11.43
320	120	62.64	0.00	-1.31	-0.46	4.44
320	2020	62.64	0.00	-1.31	-0.46	5.42
321	121	66.28	0.00	-2.06	-0.76	3.40
321	2021	66.28	0.00	-2.06	-0.76	4.96
322	122	69.91	0.00	-0.98	-1.22	7.11
322	2022	69.91	0.00	-0.98	-1.22	7.85
323	123	73.55	0.00	0.73	-1.69	11.47
323	2023	73.55	0.00	0.73	-1.69	10.93
324	124	76.66	0.00	2.55	-1.85	16.35
324	2024	76.66	0.00	2.55	-1.85	14.42
325	125	79.77	0.00	4.60	-1.82	22.84
325	2025	79.77	0.00	4.60	-1.82	19.37
326	126	82.88	0.00	5.86	-1.55	25.74
326	2026	82.88	0.00	5.86	-1.55	21.31
327	127	85.99	0.00	5.09	-1.16	25.05
327	2027	85.99	0.00	5.09	-1.16	21.20
328	128	89.10	0.00	4.18	-0.83	22.06
328	2028	89.10	0.00	4.18	-0.83	18.90
329	129	92.21	0.00	2.77	-0.55	16.85
329	2029	92.21	0.00	2.77	-0.55	14.75
330	130	95.32	0.00	1.12	-0.41	10.36
330	2030	95.32	0.00	1.12	-0.41	9.51
331	131	98.43	0.00	0.03	-0.43	5.20
331	2031	98.43	0.00	0.03	-0.43	5.18
332	132	101.54	0.00	0.83	-0.46	8.37
332	2032	101.54	0.00	0.83	-0.46	7.75
333	133	104.65	0.00	0.83	-0.49	7.54
333	2033	104.65	0.00	0.83	-0.49	6.92
334	134	107.76	0.00	0.75	-0.25	4.82
334	2034	107.76	0.00	0.75	-0.25	4.25
201	2001	0.00	0.00	-0.54	-1.18	3.33
201	1001	0.00	0.00	-0.54	-1.18	5.91
202	2002	3.05	0.00	2.00	-2.21	14.21
202	1002	3.05	0.00	2.00	-2.21	4.62

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	4.00	-1.84	18.00
203	1003	6.10	0.00	4.00	-1.84	-1.17
204	2004	9.15	0.00	6.24	-1.33	24.01
204	1004	9.15	0.00	6.24	-1.33	-5.86
205	2005	12.20	0.00	6.02	-0.77	21.80
205	1005	12.20	0.00	6.02	-0.77	-7.01
206	2006	15.25	0.00	4.61	-0.36	17.16
206	1006	15.25	0.00	4.61	-0.36	-4.90
207	2007	18.30	0.00	2.81	-0.14	12.10
207	1007	18.30	0.00	2.81	-0.14	-1.36
208	2008	21.35	0.00	0.59	-0.08	7.19
208	1008	21.35	0.00	0.59	-0.08	4.37
209	2009	24.40	0.00	-1.23	-0.25	4.04
209	1009	24.40	0.00	-1.23	-0.25	9.92
210	2010	27.45	0.00	-1.53	-0.55	2.25
210	1010	27.45	0.00	-1.53	-0.55	9.56
211	2011	30.50	0.00	-0.85	-0.94	3.92
211	1011	30.50	0.00	-0.85	-0.94	7.97
212	2012	33.55	0.00	0.41	-1.57	7.40
212	1012	33.55	0.00	0.41	-1.57	5.44
213	2013	37.19	0.00	2.97	-2.17	13.90
213	1013	37.19	0.00	2.97	-2.17	-0.34
214	2014	40.82	0.00	5.84	-2.12	21.06
214	1014	40.82	0.00	5.84	-2.12	-6.92
215	2015	44.46	0.00	7.66	-1.74	25.80
215	1015	44.46	0.00	7.66	-1.74	-10.86
216	2016	48.10	0.00	5.65	-1.37	23.26
216	1016	48.10	0.00	5.65	-1.37	-3.77
217	2017	51.73	0.00	4.27	-1.00	18.75
217	1017	51.73	0.00	4.27	-1.00	-1.70
218	2018	55.37	0.00	4.03	-0.69	17.98
218	1018	55.37	0.00	4.03	-0.69	-1.29
219	2019	59.01	0.00	1.79	-0.49	11.43
219	1019	59.01	0.00	1.79	-0.49	2.85
220	2020	62.64	0.00	-1.31	-0.46	5.42
220	1020	62.64	0.00	-1.31	-0.46	11,68
221	2021	66.28	0.00	-2.06	-0.76	4.96
221	1021	66.28	0.00	-2.06	-0.76	14.84
222	2022	69.91	0.00	-0.98	-1.22	7.85
222	1022	69.91	0.00	-0.98	-1.22	12.54
223	2023	73.55	0.00	0.73	-1.69	10.93
223	1023	73.55	0.00	0.73	-1.69	7.45
224	2024	76.66	0.00	2.55	-1.85	14.42
224	1024	76.66	0.00	2.55	-1.85	2.20
225	2025	79.77	0.00	4.60	-1.82	19.37
225	1025	79.77	0.00	4.60	-1.82	-2.63
226	2026	82.88	0.00	5.86	-1.55	21.31
226	1026	82.88	0.00	5.86	-1.55	-6.72
227	2027	85.99	0.00	5.09	-1.16	21.20
227	1027	85.99	0.00	5.09	-1.16	-3.18
228	2028	89.10	0.00	4.17	-0.83	18.90

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.MX-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	4.17	-0.83	-1.09
229	2029	92.21	0.00	2.77	-0.55	14.75
229	1029	92.21	0.00	2.77	-0.55	1.49
230	2030	95.32	0.00	1.12	-0.41	9.51
230	1030	95.32	0.00	1.12	-0.41	4.14
231	2031	98.43	0.00	0.03	-0.43	5.18
231	1031	98.43	0.00	0.03	-0.43	5.02
232	2032	101.54	0.00	0.83	-0.46	7.75
232	1032	101.54	0.00	0.83	-0.46	3.78
233	2033	104.65	0.00	0.83	-0.49	6.92
233	1033	104.65	0.00	0.83	-0.49	2.95
234	2034	107.76	0.00	0.75	-0.25	4.25
234	1034	107.76	0.00	0.75	-0.25	0.67
401	1001	0.00	0.00	-0.54	-1.18	5.91
401	1	0.00	0.00	-0.54	-1.18	6.31
402	1002	3.05	0.00	2.00	-2.21	4.62
402	2	3.05	0.00	2.00	-2.21	3.11
403	1003	6.10	0.00	4.00	-1.84	-1.17
403	3	6.10	0.00	4.00	-1.84	-4.19
404	1004	9.15	0.00	6.24	-1.33	-5.86
404	4	9.15	0.00	6.24	-1.33	-10.58
405	1005	12.20	0.00	6.02	-0.77	-7.01
405	5	12.20	0.00	6.02	-0.77	-11.56
406	1006	15.25	0.00	4.61	-0.36	-4.90
406	6	15.25	0.00	4.61	-0.36	-8.39
407	1007	18.30	0.00	2.81	-0.14	-1.36
407	7	18.30	0.00	2.81	-0.14	-3.48
408	1008	21.35	0.00	0.59	-0.08	4.37
408	8	21.35	0.00	0.59	-0.08	3.92
409	1009	24.40	0.00	-1.23	-0.25	9.92
409	9	24.40	0.00	-1.23	-0.25	10.85
410	1010	27.45	0.00	-1.53	-0.55	9.56
410	10	27.45	0.00	-1.53	-0.55	10.71
411	1011	30.50	0.00	-0.85	-0.94	7.97
411	11	30.50	0.00	-0.85	-0.94	8.60
412	1012	33.55	0.00	0.41	-1.57	5.44
412	12	33.55	0.00	0.41	-1.57	5.13
413	1013	37.19	0.00	2.97	-2.17	-0.34
413	13	37.19	0.00	2.97	-2.17	-2.58
414	1014	40.82	0.00	5.84	-2.12	-6.92
414	14	40.82	0.00	5.84	-2.12	-11.34
415	1015	44.46	0.00	7.66	-1.74	-10.86
415	15	44.46	0.00	7.66	-1.74	-16.65
416	1016	48.10	0.00	5.65	-1.37	-3.77
416	16	48.10	0.00	5.65	-1.37	-8.04
417	1017	51.73	0.00	4.27	-1.00	-1.70
417	17	51.73	0.00	4.27	-1.00	-4.93
418	1018	55.37	0.00	4.03	-0.69	-1.29
418	18	55.37	0.00	4.03	-0.69	-4.33
419	1019	59.01	0.00	1.79	-0.49	2.85
419	19	59.01	0.00	1.79	-0.49	1.49

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-1.31	-0.46	11.68
420	20	62.64	0.00	-1.31	-0.46	12.67
421	1021	66.28	0.00	-2.06	-0.76	14.84
421	21	66.28	0.00	-2.06	-0.76	16.40
422	1022	69.91	0.00	-0.98	-1.22	12.54
422	22	69.91	0.00	-0.98	-1.22	13.28
423	1023	73.55	0.00	0.73	-1.69	7.45
423	23	73.55	0.00	0.73	-1.69	6.90
424	1024	76.66	0.00	2.55	-1.85	2.20
424	24	76.66	0.00	2.55	-1.85	0.27
425	1025	79.77	0.00	4.60	-1.82	-2.63
425	25	79.77	0.00	4.60	-1.82	-6.11
426	1026	82.88	0.00	5.86	-1.55	-6.72
426	26	82.88	0.00	5.86	-1.55	-11.15
427	1027	85.99	0.00	5.09	-1.16	-3.18
427	27	85.99	0.00	5.09	-1.16	-7.03
428	1028	89.10	0.00	4.17	-0.83	-1.09
428	28	89.10	0.00	4.17	-0.83	-4.24
429	1029	92.21	0.00	2.77	-0.55	1.49
429	29	92.21	0.00	2.77	-0.55	-0.61
430	1030	95.32	0.00	1.12	-0.41	4.14
430	30	95.32	0.00	1.12	-0.41	3.29
431	1031	98.43	0.00	0.03	-0.43	5.02
431	31	98.43	0.00	0.03	-0.43	5.00
432	1032	101.54	0.00	0.83	-0.46	3.78
432	32	101.54	0.00	0.83	-0.46	3.16
433	1033	104.65	0.00	0.83	-0.49	2.95
433	33	104.65	0.00	0.83	-0.49	2.32
434	1034	107.76	0.00	0.75	-0.25	0.67
434	34	107.76	0.00	0.75	-0.25	0.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	8.20	0.14	-0.25
1	2	3.05	0.00	9.35	0.09	-28.72
2	2	3.05	0.00	9.83	2.12	-29.16
2	3	6.10	0.00	9.83	2.12	-59.14
3	3	6.10	0.00	9.77	5.91	-59.55
3	4	9.15	0.00	9.77	5.91	-89.35
4	4	9.15	0.00	9.20	11.35	-89.73
4	5	12.20	0.00	9.36	11.67	-117.86
5	5	12.20	0.00	8.36	19.10	-118.22
5	6	15.25	0.00	8.36	19.10	-143.73
6	6	15.25	0.00	6.94	28.00	-144.00
6	7	18.30	0.00	6.94	28.00	-165.16
7	7	18.30	0.00	5.18	38.12	-165.31
7	8	21.35	0.00	5.18	38.12	-181.10
8	8	21.35	0.00	3.21	49.06	-181.09
8	9	24.40	0.00	3.21	49.06	-190.86
9	9	24.40	0.00	1.23	60.21	-190.62
9	10	27.45	0.00	1.23	60.21	-194.38
10	10	27.45	0.00	-0.45	70.67	-193.84
10	11	30.50	0.00	16.89	8.77	-207.67
11	11	30.50	0.00	16.69	18.70	-207.56
11	12	33.55	0.00	30.55	-19.17	-298.87
12	10012	33.55	0.00	-35.81	-8.63	-298.80
12	13	37.19	0.00	-35.81	-8.63	-168.57
13	13	37.19	0.00	-33.96	-0.40	-167.37
13	14	40.82	0.00	7.25	-77.63	-135.00
14	14	40.82	0.00	6.51	-61.40	-135.69
14	15	44.46	0.00	8.96	-52.88	-167.48
15	15	44.46	0.00	6.34	-35.48	-167.94
15	16	48.10	0.00	6.34	-35.48	-190.99
16	16	48.10	0.00	3.44	-17.35	-191.22
16	17	51.73	0.00	3.44	-17.35	-203.73
17	17	51.73	0.00	0.42	1.09	-203.81
17	18	55.37	0.00	0.42	1.09	-205.35
18	18	55.37	0.00	-2.62	19.60	-205.29
18	19	59.01	0.00	-2.62	19.60	-195.77
19	19	59.01	0.00	-5.58	37.95	-195.56
19	20	62.64	0.00	-5.58	37.95	-175.28
20	20	62.64	0.00	-8.29	55.68	-174.84
20	21	66.28	0.00	-6.99	61.88	-145.23
21	21	66.28	0.00	-8.12	79.00	-144.50
21	22	69.91	0.00	31.00	7.37	-173.06
22	22	69.91	0.00	35.51	11.95	-174.21
22	23	73.55	0.00	35.51	11.95	-303.32
23	10023	73.55	0.00	-31.35	22.89	-303.34
23	24	76.66	0.00	-21.03	-3.31	-207.14
24	24	76.66	0.00	-21.09	6.88	-206.95
24	25	79.77	0.00	0.72	-70.63	-191.73
25	25	79.77	0.00	-0.99	-60.08	-192.26
25	26	82.88	0.00	-0.99	-60.08	-189.19
26	26	82.88	0.00	-2.99	-48.86	-189.42

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-2.99	-48.86	-180.13
27	27	85.99	0.00	-4.97	-37.88	-180.13
27	28	89.10	0.00	-4.97	-37.88	-164.67
28	28	89.10	0.00	-6.75	-27.75	-164.51
28	29	92.21	0.00	-6.75	-27.75	-143.53
29	29	92.21	0.00	-8.17	-18.86	-143.26
29	30	95.32	0.00	-8.17	-18.86	-117.84
30	30	95.32	0.00	-9.16	-11.47	-117.49
30	31	98.43	0.00	-9.00	-11.14	-89.39
31	31	98.43	0.00	-9.56	-5.75	-89.01
31	32	101.54	0.00	-9.56	-5.75	-59.27
32	32	101.54	0.00	-9.61	-2.03	-58.87
32	33	104.65	0.00	-9.61	-2.03	-28.98
33	33	104.65	0.00	-9.11	-0.06	-28.55
33	34	107.76	0.00	-7.97	-0.10	-0.25
101	101	0.00	0.00	-114.53	-2.92	-1.18
101	102	3.05	0.00	14.81	-4.59	-44.93
102	102	3.05	0.00	14.02	-11.69	-44.43
102	103	6.10	0.00	14.13	-10.36	-87.51
103	103	6.10	0.00	14.07	-14.70	-87.05
103	104	9.15	0.00	14.07	-14.70	-129.96
104	104	9.15	0.00	14.56	-17.36	-129.55
104	105	12.20	0.00	14.56	-17.36	-173.96
105	105	12.20	0.00	15.56	-18.53	-173.61
105	106	15.25	0.00	15.56	-18.53	-221.06
106	106	15.25	0.00	16.98	-18.46	-220.79
106	107	18.30	0.00	16.98	-18.46	-272.58
107	107	18.30	0.00	18.74	-17.46	-272.43
107	108	21.35	0.00	18.74	-17.46	-329.60
108	108	21.35	0.00	20.71	-15.99	-329.61
108	109	24.40	0.00	21.31	-4.65	-392.89
109	109	24.40	0.00	23.12	-4.49	-393.13
109	110	27.45	0.00	50.88	11.95	-486.42
110	110	27.45	0.00	51.66	6.37	-486.32
110	111	30.50	0.00	120.64	22.28	-730.57
111	111	30.50	0.00	99.49	5.02	-730.01
111	112	33.55	0.00	170.00	35.21	-1152.60
112	10112	33.55	0.00	-172.34	20.10	-1152.68
112	113	37.19	0.00	-91.76	44.12	-658.74
113	113	37.19	0.00	-114.97	28.27	-659.39
113	114	40.82	0.00	-44.04	34.19	-396.35
114	114	40.82	0.00	-42.88	29.17	-396.59
114	115	44.46	0.00	-8.21	-5.76	-308.05
115	115	44.46	0.00	-5.70	-7.52	-307.61
115	116	48.10	0.00	-5.25	-1.12	-287.82
116	116	48.10	0.00	-2.35	-0.99	-287.59
116	117	51.73	0.00	-2.35	-0.99	-279.03
117	117	51.73	0.00	0.66	-0.42	-278.95
117	118	55.37	0.00	0.66	-0.42	-281.36
118	118	55.37	0.00	3.70	0.21	-281.42
118	119	59.01	0.00	3.70	0.21	-294.88

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.MZ-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	6.66	0.51	-295.09
119	120	62.64	0.00	7.10	6.88	-319.97
120	120	62.64	0.00	9.71	5.39	-320.41
120	121	66.28	0.00	43.72	-28.97	-411.47
121	121	66.28	0.00	45.01	-33.67	-411.25
121	122	69.91	0.00	92.27	-33.64	-675.88
122	122	69.91	0.00	92.75	-43.36	-675.29
122	123	73.55	0.00	173.24	-19.52	-1171.35
123	10123	73.55	0.00	-172.11	-34.47	-1171.31
123	124	76.66	0.00	-121.57	-9.92	-735.04
124	124	76.66	0.00	-121.75	-21.06	-735.69
124	125	79.77	0.00	-51.61	-5.91	-482.90
125	125	79.77	0.00	-50.80	-11.45	-483.02
125	126	82.88	0.00	-22.62	4.21	-387.50
126	126	82.88	0.00	-20.79	4.44	-387.26
126	127	85.99	0.00	-20.19	15.93	-324.35
127	127	85.99	0.00	-18.20	17.47	-324.34
127	128	89.10	0.00	-18.20	17.47	-267.74
128	128	89.10	0.00	-16.43	18.51	-267.89
128	129	92.21	0.00	-16.43	18.51	-216.81
129	129	92.21	0.00	-15.00	18.60	-217.08
129	130	95.32	0.00	-15.00	18.60	-170.43
130	130	95.32	0.00	-14.01	17.43	-170.78
130	131	98.43	0.00	-14.01	17.43	-127.20
131	131	98.43	0.00	-13.53	14.76	-127.61
131	132	101.54	0.00	-13.53	14.76	-85.54
132	132	101.54	0.00	-13.60	10.40	-86.00
132	133	104.65	0.00	-13.49	11.75	-43.72
133	133	104.65	0.00	-14.30	4.62	-44.21
133	134	107.76	0.00	116.08	2.64	-1.23
301	101	0.00	0.00	-0.95	-0.77	-1.15
301	2001	0.00	0.00	-0.81	-0.58	-0.52
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	-0.77	0.20	-0.52
305	2005	12.20	0.00	-0.35	0.09	-0.05
306	106	15.25	0.00	-1.25	0.21	-1.50
306	2006	15.25	0.00	-1.05	0.16	-0.57
307	107	18.30	0.00	-1.65	0.14	-2.38
307	2007	18.30	0.00	-1.55	0.13	-1.20
308	108	21.35	0.00	-1.89	0.02	-3.03
308	2008	21.35	0.00	-1.77	0.02	-1.63
309	109	24.40	0.00	-2.00	-0.15	-3.23
309	2009	24.40	0.00	-1.86	-0.15	-1.74
310	110	27.45	0.00	-1.88	-0.39	-2.73
310	2010	27.45	0.00	-1.55	-0.28	-1.44
311	111	30.50	0.00	-1.38	-0.56	-1.59

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-1.05	-0.38	-0.69
312	112	33.55	0.00	-0.73	-0.28	-0.23
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	-1.70	0.62	-1.95
313	2013	37.19	0.00	-1.30	0.43	-0.84
314	114	40.82	0.00	-2.26	0.32	-3.41
314	2014	40.82	0.00	-2.06	0.26	-1.79
315	115	44.46	0.00	-2.27	0.03	-3.74
315	2015	44.46	0.00	-2.27	0.03	-2.02
316	116	48.10	0.00	-2.53	0.05	-3.39
316	2016	48.10	0.00	-1.84	-0.13	-1.67
317	117	51.73	0.00	-2.73	0.03	-3.36
317	2017	51.73	0.00	-2.29	-0.03	-1.41
318	118	55.37	0.00	-2.75	-0.01	-3.42
318	2018	55.37	0.00	-2.32	0.05	-1.47
319	119	59.01	0.00	-2.59	-0.04	-3.57
319	2019	59.01	0.00	-2.09	0.15	-1.82
320	120	62.64	0.00	-2.38	-0.03	-4.02
320	2020	62.64	0.00	-2.38	-0.03	-2.22
321	121	66.28	0.00	-2.39	-0.33	-3.74
321	2021	66.28	0.00	-2.17	-0.26	-2.00
322	122	69.91	0.00	-1.82	-0.63	-2.26
322	2022	69.91	0.00	-1.38	-0.44	-1.01
323	123	73.55	0.00	-0.93	0.14	-0.30
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	-1.39	0.56	-1.64
324	2024	76.66	0.00	-1.06	0.38	-0.72
325	125	79.77	0.00	-1.90	0.39	-2.80
325	2025	79.77	0.00	-1.56	0.28	-1.48
326	126	82.88	0.00	-2.01	0.15	-3.28
326	2026	82.88	0.00	-1.88	0.14	-1.78
327	127	85.99	0.00	-1.90	-0.02	-3.06
327	2027	85.99	0.00	-1.78	-0.02	-1.66
328	128	89.10	0.00	-1.65	-0.14	-2.39
328	2028	89.10	0.00	-1.55	-0.13	-1.21
329	129	92.21	0.00	-1.24	-0.21	-1.49
329	2029	92.21	0.00	-0.90	-0.14	-0.56
330	130	95.32	0.00	-0.76	-0.20	-0.50
330	2030	95.32	0.00	-0.35	-0.09	-0.05
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	-1.04	0.80	-1.41
334	2034	107.76	0.00	-0.88	0.61	-0.67
201	2001	0.00	0.00	-0.81	-0.58	-0.52
201	1001	0.00	0.00	0.86	0.13	-0.54
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	1.71	-0.53	-1.13

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.MZ-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00	0.00
203	1003	6.10	0.00	3.73	-1.21	-3.67
204	2004	9.15	0.00	0.00	0.00	0.00
204	1004	9.15	0.00	6.24	-1.23	-7.89
205	2005	12.20	0.00	-0.35	0.09	-0.05
205	1005	12.20	0.00	7.69	-0.68	-10.95
206	2006	15.25	0.00	-1.05	0.16	-0.57
206	1006	15.25	0.00	8.19	-0.05	-12.31
207	2007	18.30	0.00	-1.55	0.13	-1.20
207	1007	18.30	0.00	7.95	0.52	-12.11
208	2008	21.35	0.00	-1.77	0.02	-1.63
208	1008	21.35	0.00	7.16	1.06	-10.41
209	2009	24.40	0.00	-1.86	-0.15	-1.74
209	1009	24.40	0.00	5.56	1.40	-7.43
210	2010	27.45	0.00	-1.55	-0.28	-1.44
210	1010	27.45	0.00	3.52	1.32	-3.94
211	2011	30.50	0.00	-1.05	-0.38	-0.69
211	1011	30.50	0.00	2.03	0.58	-1.55
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	1.67	-0.08	-0.99
213	2013	37.19	0.00	-1.30	0.43	-0.84
213	1013	37.19	0.00	2.90	-0.92	-2.87
214	2014	40.82	0.00	-2.06	0.26	-1.79
214	1014	40.82	0.00	5.38	-1.73	-7.43
215	2015	44.46	0.00	-2.27	0.03	-2.02
215	1015	44.46	0.00	8.15	-1.65	-12.78
216	2016	48.10	0.00	-1.84	-0.13	-1.67
216	1016	48.10	0.00	10.14	-1.10	-16.90
217	2017	51.73	0.00	-2.29	-0.03	-1.41
217	1017	51.73	0.00	11.04	-0.36	-19.02
218	2018	55.37	0.00	-2.32	0.05	-1.47
218	1018	55.37	0.00	11.05	0.36	-19.03
219	2019	59.01	0.00	-2.09	0.15	-1.82
219	1019	59.01	0.00	10.15	1.10	-16.92
220	2020	62.64	0.00	-2.38	-0.03	-2.22
220	1020	62.64	0.00	8.16	1.65	-12.80
221	2021	66.28	0.00	-2.17	-0.26	-2.00
221	1021	66.28	0.00	5.39	1.73	-7.46
222	2022	69.91	0.00	-1.38	-0.44	-1.01
222	1022	69.91	0.00	2.92	0.92	-2.89
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	1.69	0.07	-1.01
224	2024	76.66	0.00	-1.06	0.38	-0.72
224	1024	76.66	0.00	2.07	-0.61	-1.60
225	2025	79.77	0.00	-1.56	0.28	-1.48
225	1025	79.77	0.00	3.63	-1.37	-4.11
226	2026	82.88	0.00	-1.88	0.14	-1.78
226	1026	82.88	0.00	5.76	-1.46	-7.78
227	2027	85.99	0.00	-1.78	-0.02	-1.66
227	1027	85.99	0.00	7.43	-1.10	-10.92
228	2028	89.10	0.00	-1.55	-0.13	-1.21

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	8.27	-0.55	-12.72
229	2029	92.21	0.00	-0.90	-0.14	-0.56
229	1029	92.21	0.00	8.52	0.05	-12.94
230	2030	95.32	0.00	-0.35	-0.09	-0.05
230	1030	95.32	0.00	8.00	0.70	-11.50
231	2031	98.43	0.00	0.00	0.00	0.00
231	1031	98.43	0.00	6.47	1.28	-8.27
232	2032	101.54	0.00	0.00	0.00	0.00
232	1032	101.54	0.00	3.85	1.27	-3.83
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	1.75	0.55	-1.16
234	2034	107.76	0.00	-0.88	0.61	-0.67
234	1034	107.76	0.00	0.87	-0.13	-0.57
401	1001	0.00	0.00	0.86	0.13	-0.54
401	1	0.00	0.00	0.92	0.16	-1.21
402	1002	3.05	0.00	1.71	-0.53	-1.13
402	2	3.05	0.00	2.07	-0.39	-2.51
403	1003	6.10	0.00	3.73	-1.21	-3.67
403	3	6.10	0.00	4.21	-1.64	-6.69
404	1004	9.15	0.00	6.24	-1.23	-7.89
404	4	9.15	0.00	6.45	-1.28	-12.72
405	1005	12.20	0.00	7.69	-0.68	-10.95
405	5	12.20	0.00	7.69	-0.68	-16.76
406	1006	15.25	0.00	8.19	-0.05	-12.31
406	6	15.25	0.00	8.38	-0.07	-18.58
407	1007	18.30	0.00	7.95	0.52	-12.11
407	7	18.30	0.00	8.20	0.53	-18.21
408	1008	21.35	0.00	7.16	1.06	-10.41
408	8	21.35	0.00	7.16	1.06	-15.82
409	1009	24.40	0.00	5.56	1.40	-7.43
409	9	24.40	0.00	5.94	1.48	-11.78
410	1010	27.45	0.00	3.52	1.32	-3.94
410	10	27.45	0.00	4.18	1.48	-6.73
411	1011	30.50	0.00	2.03	0.58	-1.55
411	11	30.50	0.00	2.20	0.60	-3.14
412	1012	33.55	0.00	1.67	-0.08	-0.99
412	12	33.55	0.00	1.76	-0.06	-2.25
413	1013	37.19	0.00	2.90	-0.92	-2.87
413	13	37.19	0.00	3.16	-1.27	-5.19
414	1014	40.82	0.00	5.38	-1.73	-7.43
414	14	40.82	0.00	5.60	-1.93	-11.62
415	1015	44.46	0.00	8.15	-1.65	-12.78
415	15	44.46	0.00	8.35	-1.72	-19.03
416	1016	48.10	0.00	10.14	-1.10	-16.90
416	16	48.10	0.00	10.14	-1.10	-24.57
417	1017	51.73	0.00	11.04	-0.36	-19.02
417	17	51.73	0.00	11.25	-0.38	-27.44
418	1018	55.37	0.00	11.05	0.36	-19.03
418	18	55.37	0.00	11.25	0.38	-27.45
419	1019	59.01	0.00	10.15	1.10	-16.92
419	19	59.01	0.00	10.15	1.10	-24.59

f4.rea

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.MZ-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra103.Mx-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	8.16	1.65	-12.80
420	20	62.64	0.00	8.36	1.72	-19.06
421	1021	66.28	0.00	5.39	1.73	-7.46
421	21	66.28	0.00	5.61	1.93	-11.65
422	1022	69.91	0.00	2.92	0.92	-2.89
422	22	69.91	0.00	3.18	1.27	-5.23
423	1023	73.55	0.00	1.69	0.07	-1.01
423	23	73.55	0.00	1.78	0.05	-2.29
424	1024	76.66	0.00	2.07	-0.61	-1.60
424	24	76.66	0.00	2.31	-0.64	-3.23
425	1025	79.77	0.00	3.63	-1.37	-4.11
425	25	79.77	0.00	4.28	-1.53	-6.96
426	1026	82.88	0.00	5.76	-1.46	-7.78
426	26	82.88	0.00	6.14	-1.54	-12.27
427	1027	85.99	0.00	7.43	-1.10	-10.92
427	27	85.99	0.00	7.43	-1.10	-16.54
428	1028	89.10	0.00	8.27	-0.55	-12.72
428	28	89.10	0.00	8.52	-0.56	-19.05
429	1029	92.21	0.00	8.52	0.05	-12.94
429	29	92.21	0.00	8.71	0.07	-19.45
430	1030	95.32	0.00	8.00	0.70	-11.50
430	30	95.32	0.00	8.00	0.70	-17.55
431	1031	98.43	0.00	6.47	1.28	-8.27
431	31	98.43	0.00	6.69	1.33	-13.28
432	1032	101.54	0.00	3.85	1.27	-3.83
432	32	101.54	0.00	4.13	1.52	-6.92
433	1033	104.65	0.00	1.75	0.55	-1.16
433	33	104.65	0.00	2.11	0.42	-2.58
434	1034	107.76	0.00	0.87	-0.13	-0.57
434	34	107.76	0.00	0.94	-0.16	-1.25

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	1.82	0.02	-0.04
1	2	3.05	0.00	1.82	0.02	-5.58
2	2	3.05	0.00	1.90	0.41	-5.66
2	3	6.10	0.00	1.90	0.41	-11.46
3	3	6.10	0.00	1.90	1.02	-11.43
3	4	9.15	0.00	1.90	1.02	-17.22
4	4	9.15	0.00	1.79	2.07	-17.30
4	5	12.20	0.00	1.79	2.07	-22.76
5	5	12.20	0.00	1.59	3.45	-22.83
5	6	15.25	0.00	1.59	3.45	-27.67
6	6	15.25	0.00	1.30	5.11	-27.73
6	7	18.30	0.00	1.30	5.11	-31.70
7	7	18.30	0.00	2.39	-12.97	49.85
7	8	21.35	0.00	2.39	-12.97	42.56
8	8	21.35	0.00	3.82	-16.00	42.44
8	9	24.40	0.00	3.82	-16.00	30.78
9	9	24.40	0.00	4.98	-18.24	30.50
9	10	27.45	0.00	4.98	-18.24	15.31
10	10	27.45	0.00	5.78	-19.43	14.98
10	11	30.50	0.00	5.78	-19.43	-2.65
11	11	30.50	0.00	6.22	-19.11	-3.03
11	12	33.55	0.00	6.22	-19.11	-21.99
12	10012	33.55	0.00	1.67	2.51	12.35
12	13	37.19	0.00	1.67	2.51	6.27
13	13	37.19	0.00	1.73	2.93	6.22
13	14	40.82	0.00	1.73	2.93	-0.09
14	14	40.82	0.00	1.74	3.58	-0.15
14	15	44.46	0.00	1.74	3.58	-6.47
15	15	44.46	0.00	1.67	4.51	-6.54
15	16	48.10	0.00	1.67	4.51	-12.60
16	16	48.10	0.00	1.51	5.78	-12.67
16	17	51.73	0.00	1.51	5.78	-18.15
17	17	51.73	0.00	1.25	7.41	-18.22
17	18	55.37	0.00	1.25	7.41	-22.77
18	18	55.37	0.00	2.17	-6.57	57.12
18	19	59.01	0.00	2.17	-6.57	49.24
19	19	59.01	0.00	4.05	-10.45	52.57
19	20	62.64	0.00	4.05	-10.45	37.85
20	20	62.64	0.00	5.58	-13.19	38.54
20	21	66.28	0.00	5.58	-13.19	18.25
21	21	66.28	0.00	6.70	-15.40	17.84
21	22	69.91	0.00	6.70	-15.40	-6.52
22	22	69.91	0.00	7.25	-15.89	-6.94
22	23	73.55	0.00	7.25	-15.89	-33.29
23	10023	73.55	0.00	0.59	-14.71	-32.87
23	24	76.66	0.00	0.59	-14.71	-34.70
24	24	76.66	0.00	0.31	-12.98	-34.87
24	25	79.77	0.00	0.31	-12.98	-35.84
25	25	79.77	0.00	0.20	-1.53	10.01
25	26	82.88	0.00	0.20	-1.53	9.37
26	26	82.88	0.00	0.27	-1.60	10.31

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.VY+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	0.27	-1.60	9.48
27	27	85.99	0.00	0.33	-1.45	9.48
27	28	89.10	0.00	0.33	-1.45	8.46
28	28	89.10	0.00	0.39	-1.46	8.89
28	29	92.21	0.00	0.39	-1.46	7.69
29	29	92.21	0.00	0.93	5.10	53.64
29	30	95.32	0.00	0.93	5.10	50.73
30	30	95.32	0.00	2.50	1.88	51.05
30	31	98.43	0.00	2.50	1.88	43.27
31	31	98.43	0.00	3.83	-0.04	44.11
31	32	101.54	0.00	3.83	-0.04	32.21
32	32	101.54	0.00	4.79	-1.38	31.85
32	33	104.65	0.00	4.79	-1.38	16.96
33	33	104.65	0.00	5.25	-1.04	16.56
33	34	107.76	0.00	5.25	-1.04	0.23
101	101	0.00	0.00	2.80	-0.73	0.05
101	102	3.05	0.00	2.80	-0.73	-8.48
102	102	3.05	0.00	2.68	-1.81	-8.39
102	103	6.10	0.00	2.68	-1.81	-16.55
103	103	6.10	0.00	2.68	-2.52	-16.47
103	104	9.15	0.00	2.68	-2.52	-24.63
104	104	9.15	0.00	2.78	-2.91	-24.55
104	105	12.20	0.00	3.02	13.51	99.03
105	105	12.20	0.00	2.98	-3.02	-32.97
105	106	15.25	0.00	9.83	17.23	90.85
106	106	15.25	0.00	8.88	13.39	90.90
106	107	18.30	0.00	12.38	17.68	93.78
107	107	18.30	0.00	11.32	13.35	93.90
107	108	21.35	0.00	15.31	13.36	87.38
108	108	21.35	0.00	14.28	9.19	87.59
108	109	24.40	0.00	18.57	12.64	66.59
109	109	24.40	0.00	17.65	8.69	66.87
109	110	27.45	0.00	22.20	12.25	29.74
110	110	27.45	0.00	21.50	8.88	30.07
110	111	30.50	0.00	26.32	12.76	-25.04
111	111	30.50	0.00	25.90	10.18	-24.71
111	112	33.55	0.00	31.97	11.69	-102.62
112	10112	33.55	0.00	2.58	-6.95	23.92
112	113	37.19	0.00	2.58	-6.95	14.55
113	113	37.19	0.00	2.51	-7.81	14.60
113	114	40.82	0.00	2.51	-7.81	5.50
114	114	40.82	0.00	2.49	-8.53	5.56
114	115	44.46	0.00	2.49	-8.53	-3.51
115	115	44.46	0.00	2.56	-9.05	-3.43
115	116	48.10	0.00	2.56	-9.05	-12.74
116	116	48.10	0.00	2.71	-9.35	-12.67
116	117	51.73	0.00	5.15	18.19	106.15
117	117	51.73	0.00	3.61	12.05	106.16
117	118	55.37	0.00	8.70	15.19	119.08
118	118	55.37	0.00	6.98	8.46	119.18
118	119	59.01	0.00	12.37	10.88	115.07

CÁLCULO TENSIONAL

Hipótesis de cálculo:

TREND.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	10.65	4.17	115.30
119	120	62.64	0.00	16.33	6.32	91.65
120	120	62.64	0.00	14.82	0.27	91.99
120	121	66.28	0.00	20.75	2.80	46.48
121	121	66.28	0.00	19.63	-2.03	46.89
121	122	69.91	0.00	25.73	1.41	-22.06
122	122	69.91	0.00	25.09	-1.93	-21.65
122	123	73.55	0.00	32.10	5.32	-111.48
123	10123	73.55	0.00	1.05	6.09	22.79
123	124	76.66	0.00	1.05	6.09	19.53
124	124	76.66	0.00	0.94	5.29	19.52
124	125	79.77	0.00	0.94	5.29	16.58
125	125	79.77	0.00	0.84	4.52	16.58
125	126	82.88	0.00	0.84	4.52	13.95
126	126	82.88	0.00	0.75	3.80	13.95
126	127	85.99	0.00	1.75	13.60	12.71
127	127	85.99	0.00	1.38	11.27	12.69
127	128	89.10	0.00	4.56	15.36	50.65
128	128	89.10	0.00	3.87	11.98	50.64
128	129	92.21	0.00	6.99	14.91	76.51
129	129	92.21	0.00	6.07	10.77	76.55
129	130	95.32	0.00	9.54	12.97	94.28
130	130	95.32	0.00	8.50	8.38	94.40
130	131	98.43	0.00	12.36	9.87	100.68
131	131	98.43	0.00	11.36	5.32	100.91
131	132	101.54	0.00	15.70	6.26	91.22
132	132	101.54	0.00	14.94	2.37	91.57
132	133	104.65	0.00	19.83	2.97	59.94
133	133	104.65	0.00	19.49	0.32	60.38
133	134	107.76	0.00	25.93	0.70	-0.23
301	101	0.00	0.00	0.14	0.05	0.82
301	2001	0.00	0.00	0.14	0.05	0.71
302	102	3.05	0.00	0.48	-0.41	3.22
302	2002	3.05	0.00	0.48	-0.41	2.86
303	103	6.10	0.00	0.95	-0.34	4.68
303	2003	6.10	0.00	0.95	-0.34	3.96
304	104	9.15	0.00	1.32	-0.25	5.80
304	2004	9.15	0.00	1.32	-0.25	4.80
305	105	12.20	0.00	1.55	-0.13	6.49
305	2005	12.20	0.00	1.55	-0.13	5.32
306	106	15.25	0.00	1.64	-0.02	6.73
306	2006	15.25	0.00	1.64	-0.02	5.49
307	107	18.30	0.00	1.60	0.10	6.56
307	2007	18.30	0.00	1.60	0.10	5.36
308	108	21.35	0.00	1.44	0.21	5.99
308	2008	21.35	0.00	1.44	0.21	4.90
309	109	24.40	0.00	1.18	0.29	5.11
309	2009	24.40	0.00	1.18	0.29	4.22
310	110	27.45	0.00	0.83	0.33	3.95
310	2010	27.45	0.00	0.83	0.33	3.33
311	111	30.50	0.00	0.48	0.27	2.81

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.VY+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

TREND.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.48	0.27	2.45
312	112	33.55	0.00	0.34	0.00	2.44
312	2012	33.55	0.00	0.34	0.00	2.18
313	113	37.19	0.00	0.66	-0.36	3.47
313	2013	37.19	0.00	0.66	-0.36	2.97
314	114	40.82	0.00	1.15	-0.39	4.99
314	2014	40.82	0.00	1.15	-0.39	4.12
315	115	44.46	0.00	1.60	-0.33	6.39
315	2015	44.46	0.00	1.60	-0.33	5.18
316	116	48.10	0.00	1.95	-0.21	7.51
316	2016	48.10	0.00	1.95	-0.21	6.03
317	117	51.73	0.00	2.12	-0.07	8.05
317	2017	51.73	0.00	2.12	-0.07	6.45
318	118	55.37	0.00	2.12	0.07	8.06
318	2018	55.37	0.00	2.12	0.07	6.45
319	119	59.01	0.00	1.95	0.21	7.51
319	2019	59.01	0.00	1.95	0.21	6.04
320	120	62.64	0.00	1.60	0.33	6.39
320	2020	62.64	0.00	1.60	0.33	5.18
321	121	66.28	0.00	1.15	0.39	5.00
321	2021	66.28	0.00	1.15	0.39	4.12
322	122	69.91	0.00	0.67	0.36	3.48
322	2022	69.91	0.00	0.67	0.36	2.98
323	123	73.55	0.00	0.34	0.00	2.44
323	2023	73.55	0.00	0.34	0.00	2.18
324	124	76.66	0.00	0.48	-0.28	2.82
324	2024	76.66	0.00	0.48	-0.28	2.45
325	125	79.77	0.00	0.84	-0.35	4.00
325	2025	79.77	0.00	0.84	-0.35	3.36
326	126	82.88	0.00	1.21	-0.30	5.22
326	2026	82.88	0.00	1.21	-0.30	4.31
327	127	85.99	0.00	1.49	-0.22	6.14
327	2027	85.99	0.00	1.49	-0.22	5.02
328	128	89.10	0.00	1.65	-0.11	6.75
328	2028	89.10	0.00	1.65	-0.11	5.50
329	129	92.21	0.00	1.70	0.01	6.93
329	2029	92.21	0.00	1.70	0.01	5.64
330	130	95.32	0.00	1.60	0.14	6.66
330	2030	95.32	0.00	1.60	0.14	5.45
331	131	98.43	0.00	1.36	0.26	5.93
331	2031	98.43	0.00	1.36	0.26	4.90
332	132	101.54	0.00	0.97	0.36	4.76
332	2032	101.54	0.00	0.97	0.36	4.02
333	133	104.65	0.00	0.47	0.43	3.20
333	2033	104.65	0.00	0.47	0.43	2.85
334	134	107.76	0.00	0.14	-0.05	0.82
334	2034	107.76	0.00	0.14	-0.05	0.71
201	2001	0.00	0.00	0.14	0.05	0.71
201	1001	0.00	0.00	0.14	0.05	0.05
202	2002	3.05	0.00	0.48	-0.41	2.86
202	1002	3.05	0.00	0.48	-0.41	0.55

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.95	-0.34	3.96
203	1003	6.10	0.00	0.95	-0.34	-0.60
204	2004	9.15	0.00	1.32	-0.25	4.80
204	1004	9.15	0.00	1.32	-0.25	-1.50
205	2005	12.20	0.00	1.55	-0.13	5.32
205	1005	12.20	0.00	1.55	-0.13	-2.08
206	2006	15.25	0.00	1.64	-0.02	5.49
206	1006	15.25	0.00	1.64	-0.02	-2.34
207	2007	18.30	0.00	1.60	0.10	5.36
207	1007	18.30	0.00	1.60	0.10	-2.30
208	2008	21.35	0.00	1.44	0.21	4.90
208	1008	21.35	0.00	1.44	0.21	-1.99
209	2009	24.40	0.00	1.18	0.29	4.22
209	1009	24.40	0.00	1.18	0.29	-1.41
210	2010	27.45	0.00	0.83	0.33	3.33
210	1010	27.45	0.00	0.83	0.33	-0.64
211	2011	30.50	0.00	0.48	0.27	2.45
211	1011	30.50	0.00	0.48	0.27	0.15
212	2012	33.55	0.00	0.34	0.00	2.18
212	1012	33.55	0.00	0.34	0.00	0.55
213	2013	37.19	0.00	0.66	-0.36	2.97
213	1013	37.19	0.00	0.66	-0.36	-0.21
214	2014	40.82	0.00	1.15	-0.39	4.12
214	1014	40.82	0.00	1.15	-0.39	-1.40
215	2015	44.46	0.00	1.60	-0.33	5.18
215	1015	44.46	0.00	1.60	-0.33	-2.49
216	2016	48.10	0.00	1.95	-0.21	6.03
216	1016	48.10	0.00	1.95	-0.21	-3.30
217	2017	51.73	0.00	2.12	-0.07	6.45
217	1017	51.73	0.00	2.12	-0.07	-3.70
218	2018	55.37	0.00	2.12	0.07	6.45
218	1018	55.37	0.00	2.12	0.07	-3.71
219	2019	59.01	0.00	1.95	0.21	6.04
219	1019	59.01	0.00	1.95	0.21	-3.30
220	2020	62.64	0.00	1.60	0.33	5.18
220	1020	62.64	0.00	1.60	0.33	-2.49
221	2021	66.28	0.00	1.15	0.39	4.12
221	1021	66.28	0.00	1.15	0.39	-1.40
222	2022	69.91	0.00	0.67	0.36	2.98
222	1022	69.91	0.00	0.67	0.36	-0.22
223	2023	73.55	0.00	0.34	0.00	2.18
223	1023	73.55	0.00	0.34	0.00	0.55
224	2024	76.66	0.00	0.48	-0.28	2.45
224	1024	76.66	0.00	0.48	-0.28	0.15
225	2025	79.77	0.00	0.84	-0.35	3.36
225	1025	79.77	0.00	0.84	-0.35	-0.67
226	2026	82.88	0.00	1.21	-0.30	4.31
226	1026	82.88	0.00	1.21	-0.30	-1.49
227	2027	85.99	0.00	1.49	-0.22	5.02
227	1027	85.99	0.00	1.49	-0.22	-2.10
228	2028	89.10	0.00	1.65	-0.11	5.50

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.VY+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	1.65	-0.11	-2.43
229	2029	92.21	0.00	1.70	0.01	5.64
229	1029	92.21	0.00	1.70	0.01	-2.48
230	2030	95.32	0.00	1.60	0.14	5.45
230	1030	95.32	0.00	1.60	0.14	-2.20
231	2031	98.43	0.00	1.36	0.26	4.90
231	1031	98.43	0.00	1.36	0.26	-1.58
232	2032	101.54	0.00	0.97	0.36	4.02
232	1032	101.54	0.00	0.97	0.36	-0.63
233	2033	104.65	0.00	0.47	0.43	2.85
233	1033	104.65	0.00	0.47	0.43	0.59
234	2034	107.76	0.00	0.14	-0.05	0.71
234	1034	107.76	0.00	0.14	-0.05	0.05
401	1001	0.00	0.00	0.14	0.05	0.05
401	1	0.00	0.00	0.14	0.05	-0.05
402	1002	3.05	0.00	0.48	-0.41	0.55
402	2	3.05	0.00	0.48	-0.41	0.19
403	1003	6.10	0.00	0.95	-0.34	-0.60
403	3	6.10	0.00	0.95	-0.34	-1.32
404	1004	9.15	0.00	1.32	-0.25	-1.50
404	4	9.15	0.00	1.32	-0.25	-2.50
405	1005	12.20	0.00	1.55	-0.13	-2.08
405	5	12.20	0.00	1.55	-0.13	-3.25
406	1006	15.25	0.00	1.64	-0.02	-2.34
406	6	15.25	0.00	1.64	-0.02	-3.58
407	1007	18.30	0.00	1.60	0.10	-2.30
407	7	18.30	0.00	1.60	0.10	-3.51
408	1008	21.35	0.00	1.44	0.21	-1.99
408	8	21.35	0.00	1.44	0.21	-3.08
409	1009	24.40	0.00	1.18	0.29	-1.41
409	9	24.40	0.00	1.18	0.29	-2.30
410	1010	27.45	0.00	0.83	0.33	-0.64
410	10	27.45	0.00	0.83	0.33	-1.26
411	1011	30.50	0.00	0.48	0.27	0.15
411	11	30.50	0.00	0.48	0.27	-0.21
412	1012	33.55	0.00	0.34	0.00	0.55
412	12	33.55	0.00	0.34	0.00	0.29
413	1013	37.19	0.00	0.66	-0.36	-0.21
413	13	37.19	0.00	0.66	-0.36	-0.71
414	1014	40.82	0.00	1.15	-0.39	-1.40
414	14	40.82	0.00	1.15	-0.39	-2.27
415	1015	44.46	0.00	1.60	-0.33	-2.49
415	15	44.46	0.00	1.60	-0.33	-3.70
416	1016	48.10	0.00	1.95	-0.21	-3.30
416	16	48.10	0.00	1.95	-0.21	-4.77
417	1017	51.73	0.00	2.12	-0.07	-3.70
417	17	51.73	0.00	2.12	-0.07	-5.31
418	1018	55.37	0.00	2.12	0.07	-3.71
418	18	55.37	0.00	2.12	0.07	-5.31
419	1019	59.01	0.00	1.95	0.21	-3.30
419	19	59.01	0.00	1.95	0.21	-4.78

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY+

Envolvente de tren de cargas plano genérico. VY+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	1.60	0.33	-2.49
420	20	62.64	0.00	1.60	0.33	-3.70
421	1021	66.28	0.00	1.15	0.39	-1.40
421	21	66.28	0.00	1.15	0.39	-2.28
422	1022	69.91	0.00	0.67	0.36	-0.22
422	22	69.91	0.00	0.67	0.36	-0.72
423	1023	73.55	0.00	0.34	0.00	0.55
423	23	73.55	0.00	0.34	0.00	0.29
424	1024	76.66	0.00	0.48	-0.28	0.15
424	24	76.66	0.00	0.48	-0.28	-0.21
425	1025	79.77	0.00	0.84	-0.35	-0.67
425	25	79.77	0.00	0.84	-0.35	-1.30
426	1026	82.88	0.00	1.21	-0.30	-1.49
426	26	82.88	0.00	1.21	-0.30	-2.40
427	1027	85.99	0.00	1.49	-0.22	-2.10
427	27	85.99	0.00	1.49	-0.22	-3.22
428	1028	89.10	0.00	1.65	-0.11	-2.43
428	28	89.10	0.00	1.65	-0.11	-3.68
429	1029	92.21	0.00	1.70	0.01	-2.48
429	29	92.21	0.00	1.70	0.01	-3.76
430	1030	95.32	0.00	1.60	0.14	-2.20
430	30	95.32	0.00	1.60	0.14	-3.41
431	1031	98.43	0.00	1.36	0.26	-1.58
431	31	98.43	0.00	1.36	0.26	-2.61
432	1032	101.54	0.00	0.97	0.36	-0.63
432	32	101.54	0.00	0.97	0.36	-1.36
433	1033	104.65	0.00	0.47	0.43	0.59
433	33	104.65	0.00	0.47	0.43	0.24
434	1034	107.76	0.00	0.14	-0.05	0.05
434	34	107.76	0.00	0.14	-0.05	-0.06

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-4.47	1.20	0.21
1	2	3.05	0.00	-4.47	1.20	13.84
2	2	3.05	0.00	-3.64	1.91	12.16
2	3	6.10	0.00	-3.64	1.91	23.26
3	3	6.10	0.00	-1.71	1.59	13.39
3	4	9.15	0.00	-1.71	1.59	18.60
4	4	9.15	0.00	1.77	2.15	-17.34
4	5	12.20	0.00	1.77	2.15	-22.73
5	5	12.20	0.00	1.56	3.47	-22.80
5	6	15.25	0.00	1.56	3.47	-27.57
6	6	15.25	0.00	1.30	5.11	-27.73
6	7	18.30	0.00	1.30	5.11	-31.70
7	7	18.30	0.00	0.95	7.02	-31.73
7	8	21.35	0.00	0.95	7.02	-34.61
8	8	21.35	0.00	0.55	9.09	-34.61
8	9	24.40	0.00	0.55	9.09	-36.27
9	9	24.40	0.00	0.14	11.22	-36.23
9	10	27.45	0.00	0.14	11.22	-36.65
10	10	27.45	0.00	-0.22	13.23	-36.55
10	11	30.50	0.00	-0.22	13.23	-35.88
11	11	30.50	0.00	-0.44	14.87	-35.70
11	12	33.55	0.00	-0.44	14.87	-34.35
12	10012	33.55	0.00	-6.99	15.93	-33.34
12	13	37.19	0.00	-6.99	15.93	-7.93
13	13	37.19	0.00	-6.58	15.81	-7.52
13	14	40.82	0.00	-6.58	15.81	16.41
14	14	40.82	0.00	-5.59	13.93	16.82
14	15	44.46	0.00	-5.59	13.93	37.16
15	15	44.46	0.00	-3.92	10.81	33.86
15	16	48.10	0.00	-3.92	10.81	48.10
16	16	48.10	0.00	-1.71	7.59	31.79
16	17	51.73	0.00	-1.71	7.59	38.01
17	17	51.73	0.00	1.25	7.41	-18.22
17	18	55.37	0.00	1.25	7.41	-22.77
18	18	55.37	0.00	0.91	9.40	-22.83
18	19	59.01	0.00	0.91	9.40	-26.12
19	19	59.01	0.00	0.48	11.72	-26.15
19	20	62.64	0.00	0.48	11.72	-27.89
20	20	62.64	0.00	0.01	14.26	-27.88
20	21	66.28	0.00	0.01	14.26	-27.93
21	21	66.28	0.00	-0.42	16.80	-27.85
21	22	69.91	0.00	-0.42	16.80	-26.30
22	22	69.91	0.00	-0.71	18.98	-26.12
22	23	73.55	0.00	-0.71	18.98	-23.52
23	10023	73.55	0.00	-6.36	20.16	-23.23
23	24	76.66	0.00	-6.36	20.16	-3.46
24	24	76.66	0.00	-5.95	20.14	-3.12
24	25	79.77	0.00	-5.95	20.14	15.40
25	25	79.77	0.00	-5.14	18.93	15.74
25	26	82.88	0.00	-5.14	18.93	31.74
26	26	82.88	0.00	-3.95	16.61	31.83

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-3.95	16.61	44.12
27	27	85.99	0.00	-2.48	13.46	44.33
27	28	89.10	0.00	-2.48	13.46	52.05
28	28	89.10	0.00	-0.84	9.81	52.15
28	29	92.21	0.00	-0.84	9.81	54.75
29	29	92.21	0.00	0.86	6.08	54.74
29	30	95.32	0.00	0.86	6.08	52.08
30	30	95.32	0.00	1.50	3.13	36.29
30	31	98.43	0.00	1.50	3.13	31.61
31	31	98.43	0.00	2.05	0.99	25.55
31	32	101.54	0.00	2.05	0.99	19.16
32	32	101.54	0.00	0.00	0.00	0.00
32	33	104.65	0.00	0.00	0.00	0.00
33	33	104.65	0.00	-1.54	0.06	-4.84
33	34	107.76	0.00	-1.54	0.06	-0.05
101	101	0.00	0.00	0.00	0.00	0.00
101	102	3.05	0.00	-12.59	7.46	59.40
102	102	3.05	0.00	-12.93	5.07	58.98
102	103	6.10	0.00	-6.79	12.32	87.17
103	103	6.10	0.00	-7.60	8.60	86.91
103	104	9.15	0.00	-3.19	14.61	127.02
104	104	9.15	0.00	-4.50	8.81	126.77
104	105	12.20	0.00	3.02	13.51	99.03
105	105	12.20	0.00	2.03	9.50	98.99
105	106	15.25	0.00	9.83	17.23	90.85
106	106	15.25	0.00	8.88	13.39	90.90
106	107	18.30	0.00	12.38	17.68	93.78
107	107	18.30	0.00	11.32	13.35	93.90
107	108	21.35	0.00	15.31	13.36	87.38
108	108	21.35	0.00	10.49	9.80	59.56
108	109	24.40	0.00	18.57	12.64	66.59
109	109	24.40	0.00	17.65	8.69	66.87
109	110	27.45	0.00	22.20	12.25	29.74
110	110	27.45	0.00	21.50	8.88	30.07
110	111	30.50	0.00	26.32	12.76	-25.04
111	111	30.50	0.00	25.90	10.18	-24.71
111	112	33.55	0.00	31.97	11.69	-102.62
112	10112	33.55	0.00	-4.48	9.95	-102.33
112	113	37.19	0.00	-3.67	12.35	-75.07
113	113	37.19	0.00	-3.59	11.24	-74.91
113	114	40.82	0.00	-2.13	14.51	-42.61
114	114	40.82	0.00	-2.09	13.33	-42.56
114	115	44.46	0.00	-1.99	18.01	39.62
115	115	44.46	0.00	-0.31	14.99	-10.78
115	116	48.10	0.00	1.58	19.19	78.78
116	116	48.10	0.00	1.58	15.54	16.88
116	117	51.73	0.00	5.15	18.19	106.15
117	117	51.73	0.00	3.51	14.72	37.79
117	118	55.37	0.00	7.04	16.97	55.24
118	118	55.37	0.00	6.08	12.78	55.34
118	119	59.01	0.00	10.04	14.20	60.18

f4.rea Programa DINTEL PACADAR S.A. 17/11/02
TREND.EnvTrenGen.MX+

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-0.69	9.72	-3.91
119	120	62.64	0.00	13.34	10.42	49.07
120	120	62.64	0.00	-1.63	8.87	-2.76
120	121	66.28	0.00	-1.63	8.87	3.18
121	121	66.28	0.00	-2.19	8.03	4.46
121	122	69.91	0.00	-2.19	8.03	12.43
122	122	69.91	0.00	-2.27	7.12	12.38
122	123	73.55	0.00	-2.27	7.12	20.65
123	10123	73.55	0.00	0.98	6.22	20.62
123	124	76.66	0.00	0.98	6.22	17.58
124	124	76.66	0.00	0.87	5.40	17.57
124	125	79.77	0.00	-13.04	7.51	3.50
125	125	79.77	0.00	-2.78	6.37	-63.85
125	126	82.88	0.00	-0.78	10.60	-26.62
126	126	82.88	0.00	-0.87	9.21	-26.61
126	127	85.99	0.00	1.75	13.60	12.71
127	127	85.99	0.00	1.38	11.27	12.69
127	128	89.10	0.00	4.56	15.36	50.65
128	128	89.10	0.00	3.87	11.98	50.64
128	129	92.21	0.00	6.99	14.91	76.51
129	129	92.21	0.00	6.07	10.77	76.55
129	130	95.32	0.00	9.54	12.97	94.28
130	130	95.32	0.00	8.50	8.38	94.40
130	131	98.43	0.00	12.36	9.87	100.68
131	131	98.43	0.00	11.36	5.32	100.91
131	132	101.54	0.00	15.70	6.26	91.22
132	132	101.54	0.00	14.94	2.37	91.57
132	133	104.65	0.00	19.83	2.97	59.94
133	133	104.65	0.00	-2.26	0.85	-6.97
133	134	107.76	0.00	-2.26	0.85	0.04
301	101	0.00	0.00	0.14	0.05	0.81
301	2001	0.00	0.00	0.14	0.05	0.71
302	102	3.05	0.00	0.14	0.10	1.21
302	2002	3.05	0.00	0.14	0.10	1.11
303	103	6.10	0.00	0.03	0.09	0.85
303	2003	6.10	0.00	0.03	0.09	0.83
304	104	9.15	0.00	-0.08	0.08	0.53
304	2004	9.15	0.00	-0.08	0.08	0.59
305	105	12.20	0.00	-0.20	0.07	0.10
305	2005	12.20	0.00	-0.20	0.07	0.25
306	106	15.25	0.00	-0.29	0.05	-0.15
306	2006	15.25	0.00	-0.29	0.05	0.07
307	107	18.30	0.00	1.23	0.12	4.87
307	2007	18.30	0.00	1.23	0.12	3.94
308	108	21.35	0.00	1.21	0.21	4.94
308	2008	21.35	0.00	1.21	0.21	4.03
309	109	24.40	0.00	1.06	0.29	4.58
309	2009	24.40	0.00	1.06	0.29	3.78
310	110	27.45	0.00	0.83	0.33	3.95
310	2010	27.45	0.00	0.83	0.33	3.33
311	111	30.50	0.00	0.45	0.33	2.70

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.45	0.33	2.36
312	112	33.55	0.00	0.12	0.29	1.72
312	2012	33.55	0.00	0.12	0.29	1.62
313	113	37.19	0.00	-0.20	0.18	0.68
313	2013	37.19	0.00	-0.20	0.18	0.83
314	114	40.82	0.00	-0.37	0.09	0.05
314	2014	40.82	0.00	-0.37	0.09	0.33
315	115	44.46	0.00	-0.07	0.07	0.52
315	2015	44.46	0.00	-0.07	0.07	0.57
316	116	48.10	0.00	-0.15	0.08	0.30
316	2016	48.10	0.00	-0.15	0.08	0.42
317	117	51.73	0.00	-0.25	0.07	0.07
317	2017	51.73	0.00	-0.25	0.07	0.26
318	118	55.37	0.00	1.38	0.11	5.58
318	2018	55.37	0.00	1.38	0.11	4.54
319	119	59.01	0.00	1.72	0.23	6.72
319	2019	59.01	0.00	1.72	0.23	5.42
320	120	62.64	0.00	1.51	0.34	6.05
320	2020	62.64	0.00	1.51	0.34	4.91
321	121	66.28	0.00	1.12	0.41	4.82
321	2021	66.28	0.00	1.12	0.41	3.98
322	122	69.91	0.00	0.55	0.42	2.98
322	2022	69.91	0.00	0.55	0.42	2.57
323	123	73.55	0.00	0.02	0.31	1.14
323	2023	73.55	0.00	0.02	0.31	1.12
324	124	76.66	0.00	-0.23	0.18	0.21
324	2024	76.66	0.00	-0.23	0.18	0.38
325	125	79.77	0.00	-0.28	0.10	0.07
325	2025	79.77	0.00	-0.28	0.10	0.28
326	126	82.88	0.00	-0.33	0.05	-0.12
326	2026	82.88	0.00	-0.33	0.05	0.13
327	127	85.99	0.00	-0.18	0.01	0.38
327	2027	85.99	0.00	-0.18	0.01	0.52
328	128	89.10	0.00	0.06	0.01	0.60
328	2028	89.10	0.00	0.06	0.01	0.55
329	129	92.21	0.00	0.92	0.04	4.14
329	2029	92.21	0.00	0.92	0.04	3.45
330	130	95.32	0.00	1.56	0.14	6.45
330	2030	95.32	0.00	1.56	0.14	5.28
331	131	98.43	0.00	1.30	0.26	5.66
331	2031	98.43	0.00	1.30	0.26	4.68
332	132	101.54	0.00	0.88	0.37	4.36
332	2032	101.54	0.00	0.88	0.37	3.69
333	133	104.65	0.00	0.34	0.44	2.65
333	2033	104.65	0.00	0.34	0.44	2.40
334	134	107.76	0.00	-0.15	0.24	0.32
334	2034	107.76	0.00	-0.15	0.24	0.43
201	2001	0.00	0.00	0.14	0.05	0.71
201	1001	0.00	0.00	0.14	0.05	0.05
202	2002	3.05	0.00	0.14	0.10	1.11
202	1002	3.05	0.00	0.14	0.10	0.41

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX+

Envolvente de tren de cargas plano genérico. MX+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.03	0.09	0.83
203	1003	6.10	0.00	0.03	0.09	0.70
204	2004	9.15	0.00	-0.08	0.08	0.59
204	1004	9.15	0.00	-0.08	0.08	0.97
205	2005	12.20	0.00	-0.20	0.07	0.25
205	1005	12.20	0.00	-0.20	0.07	1.22
206	2006	15.25	0.00	-0.29	0.05	0.07
206	1006	15.25	0.00	-0.29	0.05	1.45
207	2007	18.30	0.00	1.23	0.12	3.94
207	1007	18.30	0.00	1.23	0.12	-1.94
208	2008	21.35	0.00	1.21	0.21	4.03
208	1008	21.35	0.00	1.21	0.21	-1.77
209	2009	24.40	0.00	1.06	0.29	3.78
209	1009	24.40	0.00	1.06	0.29	-1.29
210	2010	27.45	0.00	0.83	0.33	3.33
210	1010	27.45	0.00	0.83	0.33	-0.64
211	2011	30.50	0.00	0.45	0.33	2.36
211	1011	30.50	0.00	0.45	0.33	0.20
212	2012	33.55	0.00	0.12	0.29	1.62
212	1012	33.55	0.00	0.12	0.29	1.02
213	2013	37.19	0.00	-0.20	0.18	0.83
213	1013	37.19	0.00	-0.20	0.18	1.80
214	2014	40.82	0.00	-0.37	0.09	0.33
214	1014	40.82	0.00	-0.37	0.09	2.09
215	2015	44.46	0.00	-0.07	0.07	0.57
215	1015	44.46	0.00	-0.07	0.07	0.89
216	2016	48.10	0.00	-0.15	0.08	0.42
216	1016	48.10	0.00	-0.15	0.08	1.16
217	2017	51.73	0.00	-0.25	0.07	0.26
217	1017	51.73	0.00	-0.25	0.07	1.45
218	2018	55.37	0.00	1.38	0.11	4.54
218	1018	55.37	0.00	1.38	0.11	-2.07
219	2019	59.01	0.00	1.72	0.23	5.42
219	1019	59.01	0.00	1.72	0.23	-2.83
220	2020	62.64	0.00	1.51	0.34	4.91
220	1020	62.64	0.00	1.51	0.34	-2.32
221	2021	66.28	0.00	1.12	0.41	3.98
221	1021	66.28	0.00	1.12	0.41	-1.37
222	2022	69.91	0.00	0.55	0.42	2.57
222	1022	69.91	0.00	0.55	0.42	-0.07
223	2023	73.55	0.00	0.02	0.31	1.12
223	1023	73.55	0.00	0.02	0.31	1.03
224	2024	76.66	0.00	-0.23	0.18	0.38
224	1024	76.66	0.00	-0.23	0.18	1.48
225	2025	79.77	0.00	-0.28	0.10	0.28
225	1025	79.77	0.00	-0.28	0.10	1.63
226	2026	82.88	0.00	-0.33	0.05	0.13
226	1026	82.88	0.00	-0.33	0.05	1.71
227	2027	85.99	0.00	-0.18	0.01	0.52
227	1027	85.99	0.00	-0.18	0.01	1.40
228	2028	89.10	0.00	0.06	0.01	0.55

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.06	0.01	0.24
229	2029	92.21	0.00	0.92	0.04	3.45
229	1029	92.21	0.00	0.92	0.04	-0.93
230	2030	95.32	0.00	1.56	0.14	5.28
230	1030	95.32	0.00	1.56	0.14	-2.17
231	2031	98.43	0.00	1.30	0.26	4.68
231	1031	98.43	0.00	1.30	0.26	-1.52
232	2032	101.54	0.00	0.88	0.37	3.69
232	1032	101.54	0.00	0.88	0.37	-0.52
233	2033	104.65	0.00	0.34	0.44	2.40
233	1033	104.65	0.00	0.34	0.44	0.79
234	2034	107.76	0.00	-0.15	0.24	0.43
234	1034	107.76	0.00	-0.15	0.24	1.16
401	1001	0.00	0.00	0.14	0.05	0.05
401	1	0.00	0.00	0.14	0.05	-0.05
402	1002	3.05	0.00	0.14	0.10	0.41
402	2	3.05	0.00	0.14	0.10	0.30
403	1003	6.10	0.00	0.03	0.09	0.70
403	3	6.10	0.00	0.03	0.09	0.68
404	1004	9.15	0.00	-0.08	0.08	0.97
404	4	9.15	0.00	-0.08	0.08	1.03
405	1005	12.20	0.00	-0.20	0.07	1.22
405	5	12.20	0.00	-0.20	0.07	1.38
406	1006	15.25	0.00	-0.29	0.05	1.45
406	6	15.25	0.00	-0.29	0.05	1.66
407	1007	18.30	0.00	1.23	0.12	-1.94
407	7	18.30	0.00	1.23	0.12	-2.87
408	1008	21.35	0.00	1.21	0.21	-1.77
408	8	21.35	0.00	1.21	0.21	-2.68
409	1009	24.40	0.00	1.06	0.29	-1.29
409	9	24.40	0.00	1.06	0.29	-2.09
410	1010	27.45	0.00	0.83	0.33	-0.64
410	10	27.45	0.00	0.83	0.33	-1.26
411	1011	30.50	0.00	0.45	0.33	0.20
411	11	30.50	0.00	0.45	0.33	-0.15
412	1012	33.55	0.00	0.12	0.29	1.02
412	12	33.55	0.00	0.12	0.29	0.93
413	1013	37.19	0.00	-0.20	0.18	1.80
413	13	37.19	0.00	-0.20	0.18	1.96
414	1014	40.82	0.00	-0.37	0.09	2.09
414	14	40.82	0.00	-0.37	0.09	2.36
415	1015	44.46	0.00	-0.07	0.07	0.89
415	15	44.46	0.00	-0.07	0.07	0.94
416	1016	48.10	0.00	-0.15	0.08	1.16
416	16	48.10	0.00	-0.15	0.08	1.28
417	1017	51.73	0.00	-0.25	0.07	1.45
417	17	51.73	0.00	-0.25	0.07	1.64
418	1018	55.37	0.00	1.38	0.11	-2.07
418	18	55.37	0.00	1.38	0.11	-3.11
419	1019	59.01	0.00	1.72	0.23	-2.83
419	19	59.01	0.00	1.72	0.23	-4.13

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.MX+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX+
Envolvente de tren de cargas plano genérico. MX+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	1.51	0.34	-2.32
420	20	62.64	0.00	1.51	0.34	-3.46
421	1021	66.28	0.00	1.12	0.41	-1.37
421	21	66.28	0.00	1.12	0.41	-2.21
422	1022	69.91	0.00	0.55	0.42	-0.07
422	22	69.91	0.00	0.55	0.42	-0.49
423	1023	73.55	0.00	0.02	0.31	1.03
423	23	73.55	0.00	0.02	0.31	1.02
424	1024	76.66	0.00	-0.23	0.18	1.48
424	24	76.66	0.00	-0.23	0.18	1.66
425	1025	79.77	0.00	-0.28	0.10	1.63
425	25	79.77	0.00	-0.28	0.10	1.84
426	1026	82.88	0.00	-0.33	0.05	1.71
426	26	82.88	0.00	-0.33	0.05	1.95
427	1027	85.99	0.00	-0.18	0.01	1.40
427	27	85.99	0.00	-0.18	0.01	1.54
428	1028	89.10	0.00	0.06	0.01	0.24
428	28	89.10	0.00	0.06	0.01	0.19
429	1029	92.21	0.00	0.92	0.04	-0.93
429	29	92.21	0.00	0.92	0.04	-1.63
430	1030	95.32	0.00	1.56	0.14	-2.17
430	30	95.32	0.00	1.56	0.14	-3.35
431	1031	98.43	0.00	1.30	0.26	-1.52
431	31	98.43	0.00	1.30	0.26	-2.50
432	1032	101.54	0.00	0.88	0.37	-0.52
432	32	101.54	0.00	0.88	0.37	-1.18
433	1033	104.65	0.00	0.34	0.44	0.79
433	33	104.65	0.00	0.34	0.44	0.53
434	1034	107.76	0.00	-0.15	0.24	1.16
434	34	107.76	0.00	-0.15	0.24	1.27

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-4.92	1.17	0.23
1	2	3.05	0.00	-5.14	0.96	15.89
2	2	3.05	0.00	-4.66	1.15	16.30
2	3	6.10	0.00	-4.66	1.15	30.50
3	3	6.10	0.00	-3.70	-0.17	30.84
3	4	9.15	0.00	-3.71	-0.13	42.15
4	4	9.15	0.00	-2.39	-2.62	42.40
4	5	12.20	0.00	-2.39	-2.62	49.70
5	5	12.20	0.00	-0.85	-5.87	49.83
5	6	15.25	0.00	-0.85	-5.87	52.42
6	6	15.25	0.00	0.79	-9.46	52.43
6	7	18.30	0.00	0.79	-9.46	50.02
7	7	18.30	0.00	2.39	-12.96	49.92
7	8	21.35	0.00	2.39	-12.96	42.64
8	8	21.35	0.00	3.82	-16.00	42.44
8	9	24.40	0.00	3.82	-16.00	30.78
9	9	24.40	0.00	4.98	-18.24	30.50
9	10	27.45	0.00	4.98	-18.24	15.31
10	10	27.45	0.00	5.78	-19.43	14.98
10	11	30.50	0.00	-0.11	2.11	12.33
11	11	30.50	0.00	-0.02	2.28	12.32
11	12	33.55	0.00	-0.02	2.28	12.38
12	10012	33.55	0.00	1.67	2.51	12.35
12	13	37.19	0.00	1.67	2.51	6.27
13	13	37.19	0.00	1.73	2.93	6.22
13	14	40.82	0.00	-6.73	15.40	17.33
14	14	40.82	0.00	-5.62	13.20	17.74
14	15	44.46	0.00	-5.62	13.20	38.17
15	15	44.46	0.00	-4.02	9.50	38.51
15	16	48.10	0.00	-4.02	9.50	53.11
16	16	48.10	0.00	-2.07	4.73	53.32
16	17	51.73	0.00	-2.07	4.73	60.84
17	17	51.73	0.00	0.05	-0.58	60.91
17	18	55.37	0.00	-0.09	0.60	60.99
18	18	55.37	0.00	2.03	-4.71	60.93
18	19	59.01	0.00	2.03	-4.71	53.55
19	19	59.01	0.00	3.98	-9.49	53.34
19	20	62.64	0.00	3.98	-9.49	38.88
20	20	62.64	0.00	5.58	-13.19	38.54
20	21	66.28	0.00	5.58	-13.19	18.25
21	21	66.28	0.00	6.70	-15.40	17.84
21	22	69.91	0.00	-1.62	-2.90	5.64
22	22	69.91	0.00	-1.55	-2.50	5.69
22	23	73.55	0.00	-1.56	-2.23	11.36
23	10023	73.55	0.00	0.04	-2.01	11.39
23	24	76.66	0.00	-0.02	-2.26	11.44
24	24	76.66	0.00	0.07	-2.11	11.45
24	25	79.77	0.00	-5.95	20.14	15.40
25	25	79.77	0.00	-5.14	18.93	15.74
25	26	82.88	0.00	-5.14	18.93	31.74
26	26	82.88	0.00	-3.96	16.61	32.03

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.MZ+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-3.96	16.61	44.34
27	27	85.99	0.00	-2.48	13.43	44.56
27	28	89.10	0.00	-2.48	13.43	52.26
28	28	89.10	0.00	-0.82	9.75	52.37
28	29	92.21	0.00	-0.82	9.75	54.93
29	29	92.21	0.00	0.87	5.98	54.92
29	30	95.32	0.00	0.87	5.98	52.20
30	30	95.32	0.00	2.47	2.57	52.06
30	31	98.43	0.00	2.47	2.57	44.37
31	31	98.43	0.00	3.83	-0.04	44.11
31	32	101.54	0.00	3.83	-0.04	32.21
32	32	101.54	0.00	4.78	-1.28	31.85
32	33	104.65	0.00	4.78	-1.28	16.99
33	33	104.65	0.00	5.25	-1.04	16.56
33	34	107.76	0.00	5.02	-1.27	0.24
101	101	0.00	0.00	2.77	-0.81	0.05
101	102	3.05	0.00	-19.71	-0.42	59.90
102	102	3.05	0.00	-20.08	-3.16	59.47
102	103	6.10	0.00	-7.63	12.23	101.26
103	103	6.10	0.00	-8.53	7.92	100.91
103	104	9.15	0.00	-3.19	14.61	127.02
104	104	9.15	0.00	-4.50	8.81	126.77
104	105	12.20	0.00	1.59	10.25	144.29
105	105	12.20	0.00	0.07	3.92	144.16
105	106	15.25	0.00	-0.34	3.80	144.64
106	106	15.25	0.00	-1.96	-2.86	144.63
106	107	18.30	0.00	2.74	5.38	134.84
107	107	18.30	0.00	1.20	-0.81	134.95
107	108	21.35	0.00	5.87	4.40	116.01
108	108	21.35	0.00	4.44	-1.59	116.21
108	109	24.40	0.00	10.60	0.10	81.83
109	109	24.40	0.00	9.43	-5.01	82.12
109	110	27.45	0.00	19.33	8.90	33.08
110	110	27.45	0.00	18.52	5.03	33.41
110	111	30.50	0.00	-0.99	-5.29	20.54
111	111	30.50	0.00	-1.09	-6.09	20.56
111	112	33.55	0.00	-1.09	-6.09	23.89
112	10112	33.55	0.00	2.58	-6.95	23.92
112	113	37.19	0.00	2.58	-6.95	14.55
113	113	37.19	0.00	2.51	-7.81	14.60
113	114	40.82	0.00	-19.69	1.99	46.24
114	114	40.82	0.00	-20.81	-2.83	45.83
114	115	44.46	0.00	-13.01	4.90	94.60
115	115	44.46	0.00	-14.61	-1.49	94.27
115	116	48.10	0.00	-6.81	6.24	125.61
116	116	48.10	0.00	-8.76	-1.26	125.39
116	117	51.73	0.00	-0.96	6.47	140.52
117	117	51.73	0.00	-3.08	-1.59	140.45
117	118	55.37	0.00	3.02	1.57	140.56
118	118	55.37	0.00	0.90	-6.49	140.63
118	119	59.01	0.00	8.70	1.24	125.69

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	6.75	-6.27	125.90
119	120	62.64	0.00	14.55	1.46	94.76
120	120	62.64	0.00	12.95	-4.93	95.09
120	121	66.28	0.00	20.75	2.80	46.48
121	121	66.28	0.00	19.63	-2.03	46.89
121	122	69.91	0.00	-2.40	7.83	13.86
122	122	69.91	0.00	-2.48	6.96	13.81
122	123	73.55	0.00	-2.48	6.96	22.82
123	10123	73.55	0.00	1.05	6.09	22.79
123	124	76.66	0.00	1.05	6.09	19.53
124	124	76.66	0.00	0.94	5.29	19.52
124	125	79.77	0.00	-16.35	2.01	33.39
125	125	79.77	0.00	-17.20	-1.99	33.05
125	126	82.88	0.00	-9.40	5.74	84.89
126	126	82.88	0.00	-10.60	0.52	84.59
126	127	85.99	0.00	-4.86	2.21	119.42
127	127	85.99	0.00	-6.34	-3.93	119.21
127	128	89.10	0.00	-1.13	1.34	138.95
128	128	89.10	0.00	-2.71	-5.02	138.83
128	129	92.21	0.00	1.86	3.14	149.05
129	129	92.21	0.00	0.17	-3.69	149.06
129	130	95.32	0.00	0.17	-3.69	148.52
130	130	95.32	0.00	-1.40	-10.20	148.66
130	131	98.43	0.00	4.31	-8.81	132.06
131	131	98.43	0.00	2.95	-14.74	132.32
131	132	101.54	0.00	8.41	-8.01	104.83
132	132	101.54	0.00	7.51	-12.38	105.19
132	133	104.65	0.00	12.90	-5.18	61.08
133	133	104.65	0.00	12.57	-7.53	61.51
133	134	107.76	0.00	-2.68	0.81	0.05
301	101	0.00	0.00	0.14	0.04	0.85
301	2001	0.00	0.00	-0.03	-0.22	0.79
302	102	3.05	0.00	0.48	-0.41	3.22
302	2002	3.05	0.00	0.48	-0.41	2.86
303	103	6.10	0.00	0.95	-0.34	4.68
303	2003	6.10	0.00	0.95	-0.34	3.96
304	104	9.15	0.00	1.32	-0.25	5.80
304	2004	9.15	0.00	1.32	-0.25	4.81
305	105	12.20	0.00	1.55	-0.13	6.49
305	2005	12.20	0.00	1.55	-0.13	5.32
306	106	15.25	0.00	1.64	-0.02	6.73
306	2006	15.25	0.00	1.64	-0.02	5.49
307	107	18.30	0.00	1.60	0.10	6.56
307	2007	18.30	0.00	1.60	0.10	5.36
308	108	21.35	0.00	1.43	0.20	5.99
308	2008	21.35	0.00	1.43	0.20	4.91
309	109	24.40	0.00	1.18	0.29	5.11
309	2009	24.40	0.00	1.18	0.29	4.22
310	110	27.45	0.00	0.83	0.33	3.95
310	2010	27.45	0.00	0.83	0.33	3.33
311	111	30.50	0.00	0.48	0.27	2.81

f4.rea Programa DINTEL PACADAR S.A. 17/11/02
TREND.EnvTrenGen.MZ+

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.48	0.27	2.45
312	112	33.55	0.00	0.34	0.00	2.44
312	2012	33.55	0.00	0.34	0.00	2.18
313	113	37.19	0.00	0.66	-0.36	3.47
313	2013	37.19	0.00	0.66	-0.36	2.97
314	114	40.82	0.00	1.15	-0.39	4.99
314	2014	40.82	0.00	1.15	-0.39	4.12
315	115	44.46	0.00	1.60	-0.32	6.41
315	2015	44.46	0.00	1.60	-0.32	5.20
316	116	48.10	0.00	1.95	-0.21	7.51
316	2016	48.10	0.00	1.95	-0.21	6.03
317	117	51.73	0.00	2.12	-0.07	8.05
317	2017	51.73	0.00	2.12	-0.07	6.45
318	118	55.37	0.00	2.12	0.07	8.06
318	2018	55.37	0.00	2.12	0.07	6.45
319	119	59.01	0.00	1.95	0.21	7.51
319	2019	59.01	0.00	1.95	0.21	6.04
320	120	62.64	0.00	1.60	0.31	6.42
320	2020	62.64	0.00	1.60	0.31	5.21
321	121	66.28	0.00	1.15	0.39	5.00
321	2021	66.28	0.00	1.15	0.39	4.12
322	122	69.91	0.00	0.67	0.36	3.48
322	2022	69.91	0.00	0.67	0.36	2.98
323	123	73.55	0.00	0.34	0.00	2.44
323	2023	73.55	0.00	0.34	0.00	2.18
324	124	76.66	0.00	0.48	-0.28	2.82
324	2024	76.66	0.00	0.48	-0.28	2.45
325	125	79.77	0.00	0.84	-0.35	4.00
325	2025	79.77	0.00	0.84	-0.35	3.36
326	126	82.88	0.00	1.21	-0.30	5.22
326	2026	82.88	0.00	1.21	-0.30	4.31
327	127	85.99	0.00	1.48	-0.21	6.14
327	2027	85.99	0.00	1.48	-0.21	5.03
328	128	89.10	0.00	1.65	-0.11	6.75
328	2028	89.10	0.00	1.65	-0.11	5.50
329	129	92.21	0.00	1.70	0.01	6.93
329	2029	92.21	0.00	1.70	0.01	5.64
330	130	95.32	0.00	1.60	0.14	6.67
330	2030	95.32	0.00	1.60	0.14	5.46
331	131	98.43	0.00	1.35	0.25	5.94
331	2031	98.43	0.00	1.35	0.25	4.91
332	132	101.54	0.00	0.97	0.36	4.76
332	2032	101.54	0.00	0.97	0.36	4.02
333	133	104.65	0.00	0.47	0.43	3.20
333	2033	104.65	0.00	0.47	0.43	2.85
334	134	107.76	0.00	0.14	-0.04	0.85
334	2034	107.76	0.00	0.14	-0.04	0.74
201	2001	0.00	0.00	-0.03	-0.22	0.79
201	1001	0.00	0.00	-0.15	-0.21	1.09
202	2002	3.05	0.00	0.48	-0.41	2.86
202	1002	3.05	0.00	0.18	-0.33	0.93

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.95	-0.34	3.96
203	1003	6.10	0.00	0.00	0.09	0.71
204	2004	9.15	0.00	1.32	-0.25	4.81
204	1004	9.15	0.00	-0.11	0.08	0.98
205	2005	12.20	0.00	1.55	-0.13	5.32
205	1005	12.20	0.00	-0.20	0.07	1.22
206	2006	15.25	0.00	1.64	-0.02	5.49
206	1006	15.25	0.00	-0.29	0.05	1.45
207	2007	18.30	0.00	1.60	0.10	5.36
207	1007	18.30	0.00	-0.36	0.03	1.64
208	2008	21.35	0.00	1.43	0.20	4.91
208	1008	21.35	0.00	-0.40	0.00	1.77
209	2009	24.40	0.00	1.18	0.29	4.22
209	1009	24.40	0.00	-0.41	-0.04	1.82
210	2010	27.45	0.00	0.83	0.33	3.33
210	1010	27.45	0.00	-0.36	-0.10	1.74
211	2011	30.50	0.00	0.48	0.27	2.45
211	1011	30.50	0.00	-0.27	-0.16	1.51
212	2012	33.55	0.00	0.34	0.00	2.18
212	1012	33.55	0.00	-0.03	0.27	1.18
213	2013	37.19	0.00	0.66	-0.36	2.97
213	1013	37.19	0.00	-0.25	0.18	1.88
214	2014	40.82	0.00	1.15	-0.39	4.12
214	1014	40.82	0.00	-0.40	0.08	2.13
215	2015	44.46	0.00	1.60	-0.32	5.20
215	1015	44.46	0.00	-0.44	0.02	2.11
216	2016	48.10	0.00	1.95	-0.21	6.03
216	1016	48.10	0.00	-0.40	-0.03	1.94
217	2017	51.73	0.00	2.12	-0.07	6.45
217	1017	51.73	0.00	-0.32	-0.05	1.70
218	2018	55.37	0.00	2.12	0.07	6.45
218	1018	55.37	0.00	-0.34	0.06	1.75
219	2019	59.01	0.00	1.95	0.21	6.04
219	1019	59.01	0.00	-0.41	0.03	2.00
220	2020	62.64	0.00	1.60	0.31	5.21
220	1020	62.64	0.00	-0.47	-0.01	2.18
221	2021	66.28	0.00	1.15	0.39	4.12
221	1021	66.28	0.00	-0.44	-0.08	2.21
222	2022	69.91	0.00	0.67	0.36	2.98
222	1022	69.91	0.00	-0.29	-0.18	1.97
223	2023	73.55	0.00	0.34	0.00	2.18
223	1023	73.55	0.00	-0.07	-0.27	1.25
224	2024	76.66	0.00	0.48	-0.28	2.45
224	1024	76.66	0.00	-0.28	0.16	1.52
225	2025	79.77	0.00	0.84	-0.35	3.36
225	1025	79.77	0.00	-0.36	0.10	1.75
226	2026	82.88	0.00	1.21	-0.30	4.31
226	1026	82.88	0.00	-0.41	0.04	1.83
227	2027	85.99	0.00	1.48	-0.21	5.03
227	1027	85.99	0.00	-0.40	0.00	1.78
228	2028	89.10	0.00	1.65	-0.11	5.50

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.36	-0.03	1.64
229	2029	92.21	0.00	1.70	0.01	5.64
229	1029	92.21	0.00	-0.29	-0.05	1.44
230	2030	95.32	0.00	1.60	0.14	5.46
230	1030	95.32	0.00	-0.20	-0.07	1.22
231	2031	98.43	0.00	1.35	0.25	4.91
231	1031	98.43	0.00	-0.10	-0.08	0.97
232	2032	101.54	0.00	0.97	0.36	4.02
232	1032	101.54	0.00	0.00	-0.09	0.70
233	2033	104.65	0.00	0.47	0.43	2.85
233	1033	104.65	0.00	0.16	0.34	0.99
234	2034	107.76	0.00	0.14	-0.04	0.74
234	1034	107.76	0.00	-0.16	0.23	1.17
401	1001	0.00	0.00	-0.15	-0.21	1.09
401	1	0.00	0.00	-0.15	-0.21	1.20
402	1002	3.05	0.00	0.18	-0.33	0.93
402	2	3.05	0.00	0.14	-0.25	0.82
403	1003	6.10	0.00	0.00	0.09	0.71
403	3	6.10	0.00	-0.02	0.08	0.72
404	1004	9.15	0.00	-0.11	0.08	0.98
404	4	9.15	0.00	-0.11	0.08	1.05
405	1005	12.20	0.00	-0.20	0.07	1.22
405	5	12.20	0.00	-0.20	0.07	1.38
406	1006	15.25	0.00	-0.29	0.05	1.45
406	6	15.25	0.00	-0.29	0.05	1.66
407	1007	18.30	0.00	-0.36	0.03	1.64
407	7	18.30	0.00	-0.36	0.03	1.90
408	1008	21.35	0.00	-0.40	0.00	1.77
408	8	21.35	0.00	-0.40	0.00	2.07
409	1009	24.40	0.00	-0.41	-0.04	1.82
409	9	24.40	0.00	-0.41	-0.04	2.13
410	1010	27.45	0.00	-0.36	-0.10	1.74
410	10	27.45	0.00	-0.38	-0.09	2.02
411	1011	30.50	0.00	-0.27	-0.16	1.51
411	11	30.50	0.00	-0.27	-0.16	1.72
412	1012	33.55	0.00	-0.03	0.27	1.18
412	12	33.55	0.00	-0.11	-0.24	1.26
413	1013	37.19	0.00	-0.25	0.18	1.88
413	13	37.19	0.00	-0.32	0.17	2.11
414	1014	40.82	0.00	-0.40	0.08	2.13
414	14	40.82	0.00	-0.40	0.08	2.43
415	1015	44.46	0.00	-0.44	0.02	2.11
415	15	44.46	0.00	-0.44	0.02	2.44
416	1016	48.10	0.00	-0.40	-0.03	1.94
416	16	48.10	0.00	-0.40	-0.03	2.25
417	1017	51.73	0.00	-0.32	-0.05	1.70
417	17	51.73	0.00	-0.32	-0.05	1.94
418	1018	55.37	0.00	-0.34	0.06	1.75
418	18	55.37	0.00	-0.34	0.06	2.00
419	1019	59.01	0.00	-0.41	0.03	2.00
419	19	59.01	0.00	-0.43	0.03	2.32

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.MZ+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ+

Envolvente de tren de cargas plano genérico. MZ+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.47	-0.01	2.18
420	20	62.64	0.00	-0.47	-0.01	2.54
421	1021	66.28	0.00	-0.44	-0.08	2.21
421	21	66.28	0.00	-0.44	-0.08	2.54
422	1022	69.91	0.00	-0.29	-0.18	1.97
422	22	69.91	0.00	-0.35	-0.17	2.21
423	1023	73.55	0.00	-0.07	-0.27	1.25
423	23	73.55	0.00	-0.13	-0.24	1.33
424	1024	76.66	0.00	-0.28	0.16	1.52
424	24	76.66	0.00	-0.28	0.16	1.73
425	1025	79.77	0.00	-0.36	0.10	1.75
425	25	79.77	0.00	-0.39	0.09	2.03
426	1026	82.88	0.00	-0.41	0.04	1.83
426	26	82.88	0.00	-0.41	0.04	2.14
427	1027	85.99	0.00	-0.40	0.00	1.78
427	27	85.99	0.00	-0.40	0.00	2.08
428	1028	89.10	0.00	-0.36	-0.03	1.64
428	28	89.10	0.00	-0.36	-0.03	1.91
429	1029	92.21	0.00	-0.29	-0.05	1.44
429	29	92.21	0.00	-0.29	-0.05	1.66
430	1030	95.32	0.00	-0.20	-0.07	1.22
430	30	95.32	0.00	-0.20	-0.07	1.37
431	1031	98.43	0.00	-0.10	-0.08	0.97
431	31	98.43	0.00	-0.10	-0.08	1.05
432	1032	101.54	0.00	0.00	-0.09	0.70
432	32	101.54	0.00	-0.02	-0.08	0.70
433	1033	104.65	0.00	0.16	0.34	0.99
433	33	104.65	0.00	0.12	0.26	0.88
434	1034	107.76	0.00	-0.16	0.23	1.17
434	34	107.76	0.00	-0.18	0.21	1.29

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-5.14	0.96	0.22
1	2	3.05	0.00	-5.14	0.96	15.89
2	2	3.05	0.00	-4.66	1.19	16.29
2	3	6.10	0.00	-4.66	1.19	30.49
3	3	6.10	0.00	-3.71	-0.13	30.84
3	4	9.15	0.00	-3.71	-0.13	42.15
4	4	9.15	0.00	-2.42	-1.97	41.39
4	5	12.20	0.00	-2.42	-1.97	48.76
5	5	12.20	0.00	-0.90	-5.14	48.72
5	6	15.25	0.00	-0.90	-5.14	51.46
6	6	15.25	0.00	-0.42	1.46	8.09
6	7	18.30	0.00	-0.42	1.46	9.37
7	7	18.30	0.00	-0.36	1.65	9.38
7	8	21.35	0.00	-0.36	1.65	10.48
8	8	21.35	0.00	-0.30	1.61	9.96
8	9	24.40	0.00	-0.30	1.61	10.87
9	9	24.40	0.00	-0.23	1.54	9.82
9	10	27.45	0.00	-0.23	1.54	10.54
10	10	27.45	0.00	-0.27	13.00	-36.24
10	11	30.50	0.00	-0.27	13.00	-35.43
11	11	30.50	0.00	-0.54	14.72	-35.27
11	12	33.55	0.00	-0.54	14.72	-33.62
12	10012	33.55	0.00	-7.28	15.89	-34.04
12	13	37.19	0.00	-7.28	15.89	-7.57
13	13	37.19	0.00	-6.73	15.40	-7.15
13	14	40.82	0.00	-6.73	15.40	17.33
14	14	40.82	0.00	-5.62	13.20	17.74
14	15	44.46	0.00	-5.62	13.20	38.17
15	15	44.46	0.00	-4.09	10.47	37.51
15	16	48.10	0.00	-4.09	10.47	52.36
16	16	48.10	0.00	-2.20	6.59	49.07
16	17	51.73	0.00	-2.20	6.59	57.09
17	17	51.73	0.00	-1.17	-7.29	-21.50
17	18	55.37	0.00	-1.17	-7.29	-17.25
18	18	55.37	0.00	-1.41	-5.70	-17.18
18	19	59.01	0.00	-1.41	-5.70	-12.05
19	19	59.01	0.00	-1.56	-4.46	-11.97
19	20	62.64	0.00	-1.56	-4.46	-6.29
20	20	62.64	0.00	-1.63	-3.54	-6.22
20	21	66.28	0.00	-1.63	-3.54	-0.31
21	21	66.28	0.00	-1.62	-2.90	-0.25
21	22	69.91	0.00	-1.62	-2.90	5.64
22	22	69.91	0.00	-1.56	-2.23	5.68
22	23	73.55	0.00	-1.56	-2.23	11.36
23	10023	73.55	0.00	-6.38	19.78	-23.28
23	24	76.66	0.00	-6.38	19.78	-3.43
24	24	76.66	0.00	-5.95	20.14	-3.12
24	25	79.77	0.00	-5.95	20.14	15.40
25	25	79.77	0.00	-5.14	18.93	15.74
25	26	82.88	0.00	-5.14	18.93	31.74
26	26	82.88	0.00	-3.96	16.61	32.03

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-3.96	16.61	44.34
27	27	85.99	0.00	-2.48	13.46	44.33
27	28	89.10	0.00	-2.48	13.46	52.05
28	28	89.10	0.00	-1.27	-5.06	-31.58
28	29	92.21	0.00	-1.27	-5.06	-27.65
29	29	92.21	0.00	-1.55	-3.40	-27.59
29	30	95.32	0.00	-1.55	-3.40	-22.76
30	30	95.32	0.00	-1.75	-2.03	-22.70
30	31	98.43	0.00	-1.75	-2.03	-17.24
31	31	98.43	0.00	-1.86	-0.99	-17.16
31	32	101.54	0.00	-1.86	-0.99	-11.38
32	32	101.54	0.00	-1.86	-0.40	-11.41
32	33	104.65	0.00	-1.86	-0.40	-5.63
33	33	104.65	0.00	-1.77	-0.02	-5.55
33	34	107.76	0.00	-1.77	-0.02	-0.04
101	101	0.00	0.00	-25.60	-0.76	-0.22
101	102	3.05	0.00	-19.71	-0.42	59.90
102	102	3.05	0.00	-20.08	-3.16	59.47
102	103	6.10	0.00	-15.18	-2.55	91.18
103	103	6.10	0.00	-15.94	-6.45	90.84
103	104	9.15	0.00	-11.58	-5.49	100.88
104	104	9.15	0.00	-12.57	-10.01	100.66
104	105	12.20	0.00	-8.69	-8.52	94.78
105	105	12.20	0.00	-9.71	-13.07	94.67
105	106	15.25	0.00	-6.22	-10.89	77.30
106	106	15.25	0.00	-7.13	-15.00	77.26
106	107	18.30	0.00	-3.99	-12.11	51.65
107	107	18.30	0.00	-4.68	-15.48	51.66
107	108	21.35	0.00	-1.41	-11.36	12.99
108	108	21.35	0.00	-1.78	-13.69	13.00
108	109	24.40	0.00	-0.80	-3.82	14.80
109	109	24.40	0.00	-0.89	-4.53	14.80
109	110	27.45	0.00	-0.89	-4.53	17.51
110	110	27.45	0.00	-0.99	-5.29	17.52
110	111	30.50	0.00	-0.99	-5.29	20.54
111	111	30.50	0.00	-1.09	-6.09	20.56
111	112	33.55	0.00	-1.09	-6.09	23.89
112	10112	33.55	0.00	-32.16	-5.38	-112.52
112	113	37.19	0.00	-25.15	1.87	-22.46
113	113	37.19	0.00	-25.79	-1.46	-22.87
113	114	40.82	0.00	-19.69	1.99	46.24
114	114	40.82	0.00	-20.81	-2.83	45.83
114	115	44.46	0.00	-14.88	-0.30	91.57
115	115	44.46	0.00	-16.38	-6.35	91.22
115	116	48.10	0.00	-10.70	-4.19	115.10
116	116	48.10	0.00	-12.42	-10.91	114.87
116	117	51.73	0.00	-7.02	-8.49	119.16
117	117	51.73	0.00	-8.74	-15.22	119.05
117	118	55.37	0.00	-3.64	-12.08	106.20
118	118	55.37	0.00	-5.17	-18.22	106.20
118	119	59.01	0.00	-2.59	9.45	-12.25

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-2.45	9.11	-12.33
119	120	62.64	0.00	-2.45	9.11	-3.43
120	120	62.64	0.00	-2.39	8.56	-3.50
120	121	66.28	0.00	-2.39	8.56	5.19
121	121	66.28	0.00	-2.40	7.83	5.12
121	122	69.91	0.00	-2.40	7.83	13.86
122	122	69.91	0.00	-2.48	6.96	13.81
122	123	73.55	0.00	-2.48	6.96	22.82
123	10123	73.55	0.00	-32.46	-11.16	-107.20
123	124	76.66	0.00	-25.86	-9.41	-28.16
124	124	76.66	0.00	-26.27	-11.94	-28.50
124	125	79.77	0.00	-21.37	-8.18	28.14
125	125	79.77	0.00	-22.07	-11.54	27.79
125	126	82.88	0.00	-17.47	-8.10	65.70
126	126	82.88	0.00	-18.39	-12.08	65.41
126	127	85.99	0.00	-14.08	-8.73	86.68
127	127	85.99	0.00	-15.12	-12.95	86.47
127	128	89.10	0.00	-11.13	-13.00	93.07
128	128	89.10	0.00	-12.20	-17.37	92.94
128	129	92.21	0.00	-8.69	-13.16	89.79
129	129	92.21	0.00	-9.65	-17.04	89.73
129	130	95.32	0.00	-2.88	3.03	-32.36
130	130	95.32	0.00	-2.86	-13.38	99.82
130	131	98.43	0.00	-2.68	2.93	-24.10
131	131	98.43	0.00	-2.57	2.54	-24.18
131	132	101.54	0.00	-2.57	2.54	-16.18
132	132	101.54	0.00	-2.58	1.82	-16.26
132	133	104.65	0.00	-2.58	1.82	-8.25
133	133	104.65	0.00	-2.70	0.74	-8.34
133	134	107.76	0.00	-2.70	0.74	0.05
301	101	0.00	0.00	-0.15	-0.21	0.27
301	2001	0.00	0.00	-0.15	-0.21	0.38
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	-0.03	0.06	0.52
303	2003	6.10	0.00	-0.03	0.06	0.54
304	104	9.15	0.00	-0.11	0.07	0.31
304	2004	9.15	0.00	-0.11	0.07	0.39
305	105	12.20	0.00	-0.20	0.06	0.04
305	2005	12.20	0.00	-0.20	0.06	0.19
306	106	15.25	0.00	-0.29	0.05	-0.15
306	2006	15.25	0.00	-0.29	0.05	0.07
307	107	18.30	0.00	-0.36	0.03	-0.34
307	2007	18.30	0.00	-0.36	0.03	-0.07
308	108	21.35	0.00	-0.40	0.00	-0.45
308	2008	21.35	0.00	-0.40	0.00	-0.15
309	109	24.40	0.00	-0.41	-0.04	-0.53
309	2009	24.40	0.00	-0.41	-0.04	-0.21
310	110	27.45	0.00	-0.38	-0.09	-0.38
310	2010	27.45	0.00	-0.38	-0.09	-0.10
311	111	30.50	0.00	-0.27	-0.16	-0.01

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Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.27	-0.16	0.20
312	112	33.55	0.00	-0.13	0.20	0.35
312	2012	33.55	0.00	-0.13	0.20	0.45
313	113	37.19	0.00	-0.34	0.14	-0.15
313	2013	37.19	0.00	-0.34	0.14	0.11
314	114	40.82	0.00	-0.44	0.07	-0.38
314	2014	40.82	0.00	-0.44	0.07	-0.05
315	115	44.46	0.00	-0.46	0.01	-0.52
315	2015	44.46	0.00	-0.46	0.01	-0.17
316	116	48.10	0.00	-0.41	-0.03	-0.45
316	2016	48.10	0.00	-0.41	-0.03	-0.14
317	117	51.73	0.00	-0.33	-0.05	-0.27
317	2017	51.73	0.00	-0.33	-0.05	-0.02
318	118	55.37	0.00	-0.35	0.06	-0.19
318	2018	55.37	0.00	-0.35	0.06	0.07
319	119	59.01	0.00	-0.43	0.03	-0.51
319	2019	59.01	0.00	-0.43	0.03	-0.18
320	120	62.64	0.00	-0.48	-0.01	-0.59
320	2020	62.64	0.00	-0.48	-0.01	-0.23
321	121	66.28	0.00	-0.47	-0.07	-0.48
321	2021	66.28	0.00	-0.47	-0.07	-0.12
322	122	69.91	0.00	-0.37	-0.14	-0.24
322	2022	69.91	0.00	-0.37	-0.14	0.04
323	123	73.55	0.00	-0.15	-0.20	0.28
323	2023	73.55	0.00	-0.15	-0.20	0.40
324	124	76.66	0.00	-0.28	0.16	-0.02
324	2024	76.66	0.00	-0.28	0.16	0.19
325	125	79.77	0.00	-0.39	0.09	-0.40
325	2025	79.77	0.00	-0.39	0.09	-0.11
326	126	82.88	0.00	-0.42	0.04	-0.54
326	2026	82.88	0.00	-0.42	0.04	-0.22
327	127	85.99	0.00	-0.40	0.00	-0.46
327	2027	85.99	0.00	-0.40	0.00	-0.15
328	128	89.10	0.00	-0.36	-0.03	-0.35
328	2028	89.10	0.00	-0.36	-0.03	-0.08
329	129	92.21	0.00	-0.29	-0.05	-0.15
329	2029	92.21	0.00	-0.29	-0.05	0.07
330	130	95.32	0.00	-0.20	-0.07	0.10
330	2030	95.32	0.00	-0.20	-0.07	0.25
331	131	98.43	0.00	-0.11	-0.07	0.31
331	2031	98.43	0.00	-0.11	-0.07	0.40
332	132	101.54	0.00	-0.03	-0.04	0.48
332	2032	101.54	0.00	-0.03	-0.04	0.50
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	-0.18	0.21	0.18
334	2034	107.76	0.00	-0.18	0.21	0.31
201	2001	0.00	0.00	-0.15	-0.21	0.38
201	1001	0.00	0.00	-0.15	-0.21	1.09
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.03	0.06	0.54
203	1003	6.10	0.00	-0.03	0.06	0.67
204	2004	9.15	0.00	-0.11	0.07	0.39
204	1004	9.15	0.00	-0.11	0.07	0.94
205	2005	12.20	0.00	-0.20	0.06	0.19
205	1005	12.20	0.00	-0.20	0.06	1.17
206	2006	15.25	0.00	-0.29	0.05	0.07
206	1006	15.25	0.00	-0.29	0.05	1.45
207	2007	18.30	0.00	-0.36	0.03	-0.07
207	1007	18.30	0.00	-0.36	0.03	1.64
208	2008	21.35	0.00	-0.40	0.00	-0.15
208	1008	21.35	0.00	-0.40	0.00	1.77
209	2009	24.40	0.00	-0.41	-0.04	-0.21
209	1009	24.40	0.00	-0.41	-0.04	1.77
210	2010	27.45	0.00	-0.38	-0.09	-0.10
210	1010	27.45	0.00	-0.38	-0.09	1.73
211	2011	30.50	0.00	-0.27	-0.16	0.20
211	1011	30.50	0.00	-0.27	-0.16	1.51
212	2012	33.55	0.00	-0.13	0.20	0.45
212	1012	33.55	0.00	-0.13	0.20	1.08
213	2013	37.19	0.00	-0.34	0.14	0.11
213	1013	37.19	0.00	-0.34	0.14	1.75
214	2014	40.82	0.00	-0.44	0.07	-0.05
214	1014	40.82	0.00	-0.44	0.07	2.06
215	2015	44.46	0.00	-0.46	0.01	-0.17
215	1015	44.46	0.00	-0.46	0.01	2.02
216	2016	48.10	0.00	-0.41	-0.03	-0.14
216	1016	48.10	0.00	-0.41	-0.03	1.83
217	2017	51.73	0.00	-0.33	-0.05	-0.02
217	1017	51.73	0.00	-0.33	-0.05	1.57
218	2018	55.37	0.00	-0.35	0.06	0.07
218	1018	55.37	0.00	-0.35	0.06	1.73
219	2019	59.01	0.00	-0.43	0.03	-0.18
219	1019	59.01	0.00	-0.43	0.03	1.87
220	2020	62.64	0.00	-0.48	-0.01	-0.23
220	1020	62.64	0.00	-0.48	-0.01	2.07
221	2021	66.28	0.00	-0.47	-0.07	-0.12
221	1021	66.28	0.00	-0.47	-0.07	2.13
222	2022	69.91	0.00	-0.37	-0.14	0.04
222	1022	69.91	0.00	-0.37	-0.14	1.81
223	2023	73.55	0.00	-0.15	-0.20	0.40
223	1023	73.55	0.00	-0.15	-0.20	1.13
224	2024	76.66	0.00	-0.28	0.16	0.19
224	1024	76.66	0.00	-0.28	0.16	1.52
225	2025	79.77	0.00	-0.39	0.09	-0.11
225	1025	79.77	0.00	-0.39	0.09	1.74
226	2026	82.88	0.00	-0.42	0.04	-0.22
226	1026	82.88	0.00	-0.42	0.04	1.78
227	2027	85.99	0.00	-0.40	0.00	-0.15
227	1027	85.99	0.00	-0.40	0.00	1.78
228	2028	89.10	0.00	-0.36	-0.03	-0.08

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY-
Envolvente de tren de cargas plano genérico. VY-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.36	-0.03	1.64
229	2029	92.21	0.00	-0.29	-0.05	0.07
229	1029	92.21	0.00	-0.29	-0.05	1.44
230	2030	95.32	0.00	-0.20	-0.07	0.25
230	1030	95.32	0.00	-0.20	-0.07	1.22
231	2031	98.43	0.00	-0.11	-0.07	0.40
231	1031	98.43	0.00	-0.11	-0.07	0.93
232	2032	101.54	0.00	-0.03	-0.04	0.50
232	1032	101.54	0.00	-0.03	-0.04	0.62
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	-0.18	0.21	0.31
234	1034	107.76	0.00	-0.18	0.21	1.16
401	1001	0.00	0.00	-0.15	-0.21	1.09
401	1	0.00	0.00	-0.15	-0.21	1.20
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00	0.00
403	1003	6.10	0.00	-0.03	0.06	0.67
403	3	6.10	0.00	-0.03	0.06	0.69
404	1004	9.15	0.00	-0.11	0.07	0.94
404	4	9.15	0.00	-0.11	0.07	1.03
405	1005	12.20	0.00	-0.20	0.06	1.17
405	5	12.20	0.00	-0.20	0.06	1.32
406	1006	15.25	0.00	-0.29	0.05	1.45
406	6	15.25	0.00	-0.29	0.05	1.66
407	1007	18.30	0.00	-0.36	0.03	1.64
407	7	18.30	0.00	-0.36	0.03	1.90
408	1008	21.35	0.00	-0.40	0.00	1.77
408	8	21.35	0.00	-0.40	0.00	2.07
409	1009	24.40	0.00	-0.42	-0.04	1.77
409	9	24.40	0.00	-0.42	-0.04	2.09
410	1010	27.45	0.00	-0.38	-0.09	1.73
410	10	27.45	0.00	-0.38	-0.09	2.02
411	1011	30.50	0.00	-0.27	-0.16	1.51
411	11	30.50	0.00	-0.27	-0.16	1.72
412	1012	33.55	0.00	-0.13	0.20	1.08
412	12	33.55	0.00	-0.13	0.20	1.18
413	1013	37.19	0.00	-0.34	0.14	1.75
413	13	37.19	0.00	-0.34	0.14	2.01
414	1014	40.82	0.00	-0.44	0.07	2.06
414	14	40.82	0.00	-0.44	0.07	2.40
415	1015	44.46	0.00	-0.46	0.01	2.02
415	15	44.46	0.00	-0.46	0.01	2.36
416	1016	48.10	0.00	-0.41	-0.03	1.83
416	16	48.10	0.00	-0.41	-0.03	2.14
417	1017	51.73	0.00	-0.33	-0.05	1.57
417	17	51.73	0.00	-0.33	-0.05	1.82
418	1018	55.37	0.00	-0.35	0.06	1.73
418	18	55.37	0.00	-0.35	0.06	1.99
419	1019	59.01	0.00	-0.43	0.03	1.87
419	19	59.01	0.00	-0.43	0.03	2.19

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.VY-

Envolvente de tren de cargas plano genérico. VY-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.48	-0.01	2.07
420	20	62.64	0.00	-0.48	-0.01	2.43
421	1021	66.28	0.00	-0.47	-0.07	2.13
421	21	66.28	0.00	-0.47	-0.07	2.48
422	1022	69.91	0.00	-0.37	-0.14	1.81
422	22	69.91	0.00	-0.37	-0.14	2.09
423	1023	73.55	0.00	-0.15	-0.20	1.13
423	23	73.55	0.00	-0.15	-0.20	1.24
424	1024	76.66	0.00	-0.28	0.16	1.52
424	24	76.66	0.00	-0.28	0.16	1.73
425	1025	79.77	0.00	-0.39	0.09	1.74
425	25	79.77	0.00	-0.39	0.09	2.03
426	1026	82.88	0.00	-0.42	0.04	1.78
426	26	82.88	0.00	-0.42	0.04	2.10
427	1027	85.99	0.00	-0.40	0.00	1.78
427	27	85.99	0.00	-0.40	0.00	2.08
428	1028	89.10	0.00	-0.36	-0.03	1.64
428	28	89.10	0.00	-0.36	-0.03	1.91
429	1029	92.21	0.00	-0.29	-0.05	1.44
429	29	92.21	0.00	-0.29	-0.05	1.66
430	1030	95.32	0.00	-0.20	-0.07	1.22
430	30	95.32	0.00	-0.20	-0.07	1.37
431	1031	98.43	0.00	-0.11	-0.07	0.93
431	31	98.43	0.00	-0.11	-0.07	1.02
432	1032	101.54	0.00	-0.03	-0.04	0.62
432	32	101.54	0.00	-0.03	-0.04	0.64
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00	0.00
434	1034	107.76	0.00	-0.18	0.21	1.16
434	34	107.76	0.00	-0.18	0.21	1.29

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	1.58	-0.05	-0.05
1	2	3.05	0.00	1.58	-0.05	-4.87
2	2	3.05	0.00	0.00	0.00	0.00
2	3	6.10	0.00	0.00	0.00	0.00
3	3	6.10	0.00	-2.04	-0.97	18.59
3	4	9.15	0.00	-2.04	-0.97	24.81
4	4	9.15	0.00	-1.49	-3.07	30.56
4	5	12.20	0.00	-1.49	-3.07	35.11
5	5	12.20	0.00	-0.84	-5.91	49.79
5	6	15.25	0.00	-0.84	-5.91	52.35
6	6	15.25	0.00	0.79	-9.48	52.37
6	7	18.30	0.00	0.79	-9.48	49.95
7	7	18.30	0.00	2.39	-12.97	49.85
7	8	21.35	0.00	2.39	-12.97	42.56
8	8	21.35	0.00	3.82	-16.01	42.36
8	9	24.40	0.00	3.82	-16.01	30.71
9	9	24.40	0.00	4.98	-18.24	30.50
9	10	27.45	0.00	4.98	-18.24	15.31
10	10	27.45	0.00	5.78	-19.43	14.98
10	11	30.50	0.00	5.78	-19.43	-2.65
11	11	30.50	0.00	6.20	-19.50	-2.98
11	12	33.55	0.00	6.20	-19.50	-21.90
12	10012	33.55	0.00	0.65	-18.42	-22.18
12	13	37.19	0.00	0.65	-18.42	-24.54
13	13	37.19	0.00	0.40	-16.35	-24.72
13	14	40.82	0.00	0.40	-16.35	-26.16
14	14	40.82	0.00	0.00	-13.92	-26.24
14	15	44.46	0.00	0.00	-13.92	-26.23
15	15	44.46	0.00	-0.44	-11.48	-26.24
15	16	48.10	0.00	-0.44	-11.48	-24.65
16	16	48.10	0.00	-0.84	-9.23	-24.62
16	17	51.73	0.00	-0.84	-9.23	-21.56
17	17	51.73	0.00	-1.17	-7.29	-21.50
17	18	55.37	0.00	-1.17	-7.29	-17.25
18	18	55.37	0.00	1.69	-7.58	38.04
18	19	59.01	0.00	1.69	-7.58	31.91
19	19	59.01	0.00	3.88	-10.79	48.27
19	20	62.64	0.00	3.88	-10.79	34.16
20	20	62.64	0.00	5.56	-13.91	37.51
20	21	66.28	0.00	5.56	-13.91	17.31
21	21	66.28	0.00	6.55	-15.79	16.90
21	22	69.91	0.00	6.55	-15.79	-6.90
22	22	69.91	0.00	6.95	-15.92	-7.30
22	23	73.55	0.00	6.95	-15.92	-32.59
23	10023	73.55	0.00	0.50	-14.87	-33.60
23	24	76.66	0.00	0.50	-14.87	-35.15
24	24	76.66	0.00	0.27	-13.21	-35.33
24	25	79.77	0.00	0.27	-13.21	-36.16
25	25	79.77	0.00	-0.09	-11.19	-36.26
25	26	82.88	0.00	-0.09	-11.19	-35.97
26	26	82.88	0.00	-0.51	-9.05	-36.01

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-0.51	-9.05	-34.44
27	27	85.99	0.00	-0.91	-6.97	-34.44
27	28	89.10	0.00	-0.91	-6.97	-31.61
28	28	89.10	0.00	-1.27	-5.06	-31.58
28	29	92.21	0.00	-1.27	-5.06	-27.65
29	29	92.21	0.00	-1.53	-3.43	-27.47
29	30	95.32	0.00	-1.53	-3.43	-22.71
30	30	95.32	0.00	-1.59	-2.12	-20.98
30	31	98.43	0.00	-1.59	-2.12	-16.03
31	31	98.43	0.00	2.48	-1.70	27.08
31	32	101.54	0.00	2.48	-1.70	19.35
32	32	101.54	0.00	3.72	-2.06	24.13
32	33	104.65	0.00	3.72	-2.06	12.57
33	33	104.65	0.00	4.54	-1.29	14.35
33	34	107.76	0.00	4.54	-1.29	0.21
101	101	0.00	0.00	2.33	-0.85	0.04
101	102	3.05	0.00	2.33	-0.85	-7.07
102	102	3.05	0.00	-20.08	-3.16	59.47
102	103	6.10	0.00	-15.18	-2.55	91.18
103	103	6.10	0.00	-15.94	-6.45	90.84
103	104	9.15	0.00	-11.58	-5.49	100.88
104	104	9.15	0.00	-12.57	-10.01	100.66
104	105	12.20	0.00	-8.69	-8.52	94.78
105	105	12.20	0.00	-9.71	-13.07	94.67
105	106	15.25	0.00	-6.22	-10.89	77.30
106	106	15.25	0.00	-7.13	-15.00	77.26
106	107	18.30	0.00	-3.99	-12.11	51.65
107	107	18.30	0.00	-4.68	-15.48	51.66
107	108	21.35	0.00	-1.41	-11.36	12.99
108	108	21.35	0.00	-1.78	-13.69	13.00
108	109	24.40	0.00	0.90	-9.28	-26.94
109	109	24.40	0.00	0.80	-10.68	-26.96
109	110	27.45	0.00	2.85	-6.43	-64.65
110	110	27.45	0.00	12.98	-7.35	2.10
110	111	30.50	0.00	-0.92	-5.43	18.61
111	111	30.50	0.00	-1.03	-6.24	18.62
111	112	33.55	0.00	-1.03	-6.24	21.76
112	10112	33.55	0.00	2.38	-7.14	21.79
112	113	37.19	0.00	2.38	-7.14	13.14
113	113	37.19	0.00	2.30	-8.04	13.19
113	114	40.82	0.00	2.30	-8.04	4.83
114	114	40.82	0.00	1.74	-8.90	3.50
114	115	44.46	0.00	1.74	-8.90	-2.83
115	115	44.46	0.00	-13.38	-10.45	48.76
115	116	48.10	0.00	0.78	-9.74	-4.35
116	116	48.10	0.00	-10.06	-14.23	60.03
116	117	51.73	0.00	-6.09	-12.81	55.24
117	117	51.73	0.00	-7.05	-17.00	55.14
117	118	55.37	0.00	-3.50	-14.74	37.55
118	118	55.37	0.00	-5.17	-18.22	106.20
118	119	59.01	0.00	-1.50	-15.50	15.73

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.MX-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MX-
Envolvente de tren de cargas plano genérico. MX-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-1.59	-19.22	78.74
119	120	62.64	0.00	0.46	-14.83	-13.00
120	120	62.64	0.00	2.01	-18.02	39.27
120	121	66.28	0.00	2.30	-13.02	-45.92
121	121	66.28	0.00	2.36	-14.11	-45.97
121	122	69.91	0.00	3.84	-10.76	-79.35
122	122	69.91	0.00	3.96	-11.76	-79.52
122	123	73.55	0.00	4.72	-9.49	-106.91
123	10123	73.55	0.00	-32.46	-11.16	-107.20
123	124	76.66	0.00	-25.86	-9.41	-28.16
124	124	76.66	0.00	-26.27	-11.94	-28.50
124	125	79.77	0.00	-21.37	-8.18	28.14
125	125	79.77	0.00	-22.07	-11.54	27.79
125	126	82.88	0.00	-17.47	-8.10	65.70
126	126	82.88	0.00	-18.39	-12.08	65.41
126	127	85.99	0.00	-10.30	-9.44	58.63
127	127	85.99	0.00	-11.13	-13.00	58.44
127	128	89.10	0.00	-11.13	-13.00	93.07
128	128	89.10	0.00	-12.20	-17.37	92.94
128	129	92.21	0.00	-8.69	-13.16	89.79
129	129	92.21	0.00	-9.65	-17.04	89.73
129	130	95.32	0.00	-1.85	-9.31	99.78
130	130	95.32	0.00	-2.86	-13.38	99.82
130	131	98.43	0.00	4.31	-8.81	132.06
131	131	98.43	0.00	2.95	-14.74	132.32
131	132	101.54	0.00	7.69	-8.57	89.12
132	132	101.54	0.00	7.51	-12.38	105.19
132	133	104.65	0.00	12.90	-5.18	61.08
133	133	104.65	0.00	12.57	-7.53	61.51
133	134	107.76	0.00	0.00	0.00	0.00
301	101	0.00	0.00	-0.12	-0.23	0.42
301	2001	0.00	0.00	-0.12	-0.23	0.51
302	102	3.05	0.00	0.37	-0.43	2.75
302	2002	3.05	0.00	0.37	-0.43	2.47
303	103	6.10	0.00	0.87	-0.35	4.33
303	2003	6.10	0.00	0.87	-0.35	3.67
304	104	9.15	0.00	1.26	-0.25	5.55
304	2004	9.15	0.00	1.26	-0.25	4.60
305	105	12.20	0.00	1.55	-0.13	6.49
305	2005	12.20	0.00	1.55	-0.13	5.32
306	106	15.25	0.00	0.91	-0.04	4.11
306	2006	15.25	0.00	0.91	-0.04	3.43
307	107	18.30	0.00	0.07	-0.01	0.60
307	2007	18.30	0.00	0.07	-0.01	0.55
308	108	21.35	0.00	-0.18	-0.01	0.40
308	2008	21.35	0.00	-0.18	-0.01	0.53
309	109	24.40	0.00	-0.32	-0.05	-0.10
309	2009	24.40	0.00	-0.32	-0.05	0.15
310	110	27.45	0.00	-0.28	-0.10	0.08
310	2010	27.45	0.00	-0.28	-0.10	0.29
311	111	30.50	0.00	-0.23	-0.18	0.22

CÁLCULO TENSIONAL

Hipótesis de cálculo:

TREND.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.23	-0.18	0.39
312	112	33.55	0.00	0.02	-0.30	1.14
312	2012	33.55	0.00	0.02	-0.30	1.12
313	113	37.19	0.00	0.55	-0.42	2.98
313	2013	37.19	0.00	0.55	-0.42	2.56
314	114	40.82	0.00	1.11	-0.41	4.82
314	2014	40.82	0.00	1.11	-0.41	3.97
315	115	44.46	0.00	1.51	-0.34	6.05
315	2015	44.46	0.00	1.51	-0.34	4.91
316	116	48.10	0.00	1.72	-0.23	6.72
316	2016	48.10	0.00	1.72	-0.23	5.42
317	117	51.73	0.00	1.38	-0.11	5.58
317	2017	51.73	0.00	1.38	-0.11	4.54
318	118	55.37	0.00	-0.24	-0.07	0.12
318	2018	55.37	0.00	-0.24	-0.07	0.30
319	119	59.01	0.00	-0.15	-0.07	0.34
319	2019	59.01	0.00	-0.15	-0.07	0.45
320	120	62.64	0.00	-0.06	-0.07	0.55
320	2020	62.64	0.00	-0.06	-0.07	0.59
321	121	66.28	0.00	-0.41	-0.09	-0.07
321	2021	66.28	0.00	-0.41	-0.09	0.23
322	122	69.91	0.00	-0.24	-0.19	0.55
322	2022	69.91	0.00	-0.24	-0.19	0.73
323	123	73.55	0.00	0.09	-0.30	1.61
323	2023	73.55	0.00	0.09	-0.30	1.54
324	124	76.66	0.00	0.44	-0.34	2.68
324	2024	76.66	0.00	0.44	-0.34	2.34
325	125	79.77	0.00	0.84	-0.35	4.00
325	2025	79.77	0.00	0.84	-0.35	3.36
326	126	82.88	0.00	1.08	-0.30	4.64
326	2026	82.88	0.00	1.08	-0.30	3.83
327	127	85.99	0.00	1.24	-0.22	5.03
327	2027	85.99	0.00	1.24	-0.22	4.09
328	128	89.10	0.00	1.26	-0.13	4.96
328	2028	89.10	0.00	1.26	-0.13	4.01
329	129	92.21	0.00	0.96	-0.05	3.88
329	2029	92.21	0.00	0.96	-0.05	3.16
330	130	95.32	0.00	-0.20	-0.07	0.10
330	2030	95.32	0.00	-0.20	-0.07	0.25
331	131	98.43	0.00	-0.08	-0.08	0.53
331	2031	98.43	0.00	-0.08	-0.08	0.59
332	132	101.54	0.00	0.03	-0.09	0.85
332	2032	101.54	0.00	0.03	-0.09	0.83
333	133	104.65	0.00	0.15	-0.09	1.22
333	2033	104.65	0.00	0.15	-0.09	1.11
334	134	107.76	0.00	0.14	-0.05	0.81
334	2034	107.76	0.00	0.14	-0.05	0.71
201	2001	0.00	0.00	-0.12	-0.23	0.51
201	1001	0.00	0.00	-0.12	-0.23	1.08
202	2002	3.05	0.00	0.37	-0.43	2.47
202	1002	3.05	0.00	0.37	-0.43	0.71

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.MX-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

TREND.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	1.26	-0.13	-2.00
229	2029	92.21	0.00	0.96	-0.05	3.16
229	1029	92.21	0.00	0.96	-0.05	-1.44
230	2030	95.32	0.00	-0.20	-0.07	0.25
230	1030	95.32	0.00	-0.20	-0.07	1.22
231	2031	98.43	0.00	-0.08	-0.08	0.59
231	1031	98.43	0.00	-0.08	-0.08	0.96
232	2032	101.54	0.00	0.03	-0.09	0.83
232	1032	101.54	0.00	0.03	-0.09	0.69
233	2033	104.65	0.00	0.15	-0.09	1.11
233	1033	104.65	0.00	0.15	-0.09	0.40
234	2034	107.76	0.00	0.14	-0.05	0.71
234	1034	107.76	0.00	0.14	-0.05	0.05
401	1001	0.00	0.00	-0.12	-0.23	1.08
401	1	0.00	0.00	-0.12	-0.23	1.17
402	1002	3.05	0.00	0.37	-0.43	0.71
402	2	3.05	0.00	0.37	-0.43	0.44
403	1003	6.10	0.00	0.87	-0.35	-0.51
403	3	6.10	0.00	0.87	-0.35	-1.17
404	1004	9.15	0.00	1.26	-0.25	-1.45
404	4	9.15	0.00	1.26	-0.25	-2.41
405	1005	12.20	0.00	1.55	-0.13	-2.08
405	5	12.20	0.00	1.55	-0.13	-3.25
406	1006	15.25	0.00	0.91	-0.04	-0.91
406	6	15.25	0.00	0.91	-0.04	-1.59
407	1007	18.30	0.00	0.07	-0.01	0.24
407	7	18.30	0.00	0.07	-0.01	0.19
408	1008	21.35	0.00	-0.18	-0.01	1.39
408	8	21.35	0.00	-0.18	-0.01	1.53
409	1009	24.40	0.00	-0.32	-0.05	1.70
409	9	24.40	0.00	-0.32	-0.05	1.94
410	1010	27.45	0.00	-0.28	-0.10	1.61
410	10	27.45	0.00	-0.28	-0.10	1.82
411	1011	30.50	0.00	-0.23	-0.18	1.47
411	11	30.50	0.00	-0.23	-0.18	1.64
412	1012	33.55	0.00	0.02	-0.30	1.03
412	12	33.55	0.00	0.02	-0.30	1.02
413	1013	37.19	0.00	0.55	-0.42	-0.07
413	13	37.19	0.00	0.55	-0.42	-0.48
414	1014	40.82	0.00	1.11	-0.41	-1.36
414	14	40.82	0.00	1.11	-0.41	-2.20
415	1015	44.46	0.00	1.51	-0.34	-2.31
415	15	44.46	0.00	1.51	-0.34	-3.46
416	1016	48.10	0.00	1.72	-0.23	-2.83
416	16	48.10	0.00	1.72	-0.23	-4.13
417	1017	51.73	0.00	1.38	-0.11	-2.07
417	17	51.73	0.00	1.38	-0.11	-3.11
418	1018	55.37	0.00	-0.24	-0.07	1.42
418	18	55.37	0.00	-0.24	-0.07	1.60
419	1019	59.01	0.00	-0.15	-0.07	1.14
419	19	59.01	0.00	-0.15	-0.07	1.25

CÁLCULO TENSIONAL

Hipótesis de cálculo:

TREND.EnvTrenGen.MX-

Envolvente de tren de cargas plano genérico. MX-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.06	-0.07	0.88
420	20	62.64	0.00	-0.06	-0.07	0.92
421	1021	66.28	0.00	-0.41	-0.09	2.17
421	21	66.28	0.00	-0.41	-0.09	2.48
422	1022	69.91	0.00	-0.24	-0.19	1.89
422	22	69.91	0.00	-0.24	-0.19	2.08
423	1023	73.55	0.00	0.09	-0.30	1.10
423	23	73.55	0.00	0.09	-0.30	1.02
424	1024	76.66	0.00	0.44	-0.34	0.22
424	24	76.66	0.00	0.44	-0.34	-0.12
425	1025	79.77	0.00	0.84	-0.35	-0.67
425	25	79.77	0.00	0.84	-0.35	-1.30
426	1026	82.88	0.00	1.08	-0.30	-1.34
426	26	82.88	0.00	1.08	-0.30	-2.15
427	1027	85.99	0.00	1.24	-0.22	-1.83
427	27	85.99	0.00	1.24	-0.22	-2.76
428	1028	89.10	0.00	1.26	-0.13	-2.00
428	28	89.10	0.00	1.26	-0.13	-2.95
429	1029	92.21	0.00	0.96	-0.05	-1.44
429	29	92.21	0.00	0.96	-0.05	-2.16
430	1030	95.32	0.00	-0.20	-0.07	1.22
430	30	95.32	0.00	-0.20	-0.07	1.37
431	1031	98.43	0.00	-0.08	-0.08	0.96
431	31	98.43	0.00	-0.08	-0.08	1.02
432	1032	101.54	0.00	0.03	-0.09	0.69
432	32	101.54	0.00	0.03	-0.09	0.67
433	1033	104.65	0.00	0.15	-0.09	0.40
433	33	104.65	0.00	0.15	-0.09	0.29
434	1034	107.76	0.00	0.14	-0.05	0.05
434	34	107.76	0.00	0.14	-0.05	-0.06

CÁLCULO TENSIONAL

Hipótesis de cálculo:

TREND.EnvTrenGen.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	1.58	-0.05	-0.05
1	2	3.05	0.00	1.82	0.02	-5.58
2	2	3.05	0.00	1.90	0.41	-5.66
2	3	6.10	0.00	1.90	0.41	-11.46
3	3	6.10	0.00	1.88	1.13	-11.54
3	4	9.15	0.00	1.88	1.13	-17.27
4	4	9.15	0.00	1.77	2.15	-17.34
4	5	12.20	0.00	1.79	2.07	-22.76
5	5	12.20	0.00	1.59	3.45	-22.83
5	6	15.25	0.00	1.59	3.45	-27.67
6	6	15.25	0.00	1.30	5.11	-27.73
6	7	18.30	0.00	1.30	5.11	-31.70
7	7	18.30	0.00	0.95	7.02	-31.73
7	8	21.35	0.00	0.95	7.02	-34.61
8	8	21.35	0.00	0.55	9.09	-34.61
8	9	24.40	0.00	0.55	9.09	-36.27
9	9	24.40	0.00	0.14	11.22	-36.23
9	10	27.45	0.00	0.14	11.22	-36.65
10	10	27.45	0.00	-0.22	13.23	-36.55
10	11	30.50	0.00	-0.22	13.23	-35.88
11	11	30.50	0.00	-0.44	14.87	-35.70
11	12	33.55	0.00	-0.44	14.87	-34.35
12	10012	33.55	0.00	-7.28	15.89	-34.04
12	13	37.19	0.00	0.65	-18.42	-24.54
13	13	37.19	0.00	0.40	-16.35	-24.72
13	14	40.82	0.00	0.40	-16.35	-26.16
14	14	40.82	0.00	0.00	-13.92	-26.24
14	15	44.46	0.00	0.00	-13.92	-26.23
15	15	44.46	0.00	-0.44	-11.48	-26.24
15	16	48.10	0.00	-0.44	-11.48	-24.65
16	16	48.10	0.00	-0.84	-9.23	-24.62
16	17	51.73	0.00	-0.84	-9.23	-21.56
17	17	51.73	0.00	-1.17	-7.29	-21.50
17	18	55.37	0.00	1.25	7.41	-22.77
18	18	55.37	0.00	0.91	9.40	-22.83
18	19	59.01	0.00	0.91	9.40	-26.12
19	19	59.01	0.00	0.48	11.72	-26.15
19	20	62.64	0.00	0.48	11.72	-27.89
20	20	62.64	0.00	0.01	14.26	-27.88
20	21	66.28	0.00	0.01	14.26	-27.93
21	21	66.28	0.00	-0.42	16.80	-27.85
21	22	69.91	0.00	-0.42	16.80	-26.30
22	22	69.91	0.00	-0.71	18.98	-26.12
22	23	73.55	0.00	7.25	-15.89	-33.29
23	10023	73.55	0.00	0.50	-14.87	-33.60
23	24	76.66	0.00	0.50	-14.87	-35.15
24	24	76.66	0.00	0.27	-13.21	-35.33
24	25	79.77	0.00	0.27	-13.21	-36.16
25	25	79.77	0.00	-0.09	-11.19	-36.26
25	26	82.88	0.00	-0.09	-11.19	-35.97
26	26	82.88	0.00	-0.51	-9.05	-36.01

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-0.51	-9.05	-34.44
27	27	85.99	0.00	-0.91	-6.97	-34.44
27	28	89.10	0.00	-0.91	-6.97	-31.61
28	28	89.10	0.00	-1.27	-5.06	-31.58
28	29	92.21	0.00	-1.27	-5.06	-27.65
29	29	92.21	0.00	-1.55	-3.40	-27.59
29	30	95.32	0.00	-1.55	-3.40	-22.76
30	30	95.32	0.00	-1.75	-2.03	-22.70
30	31	98.43	0.00	-1.73	-2.11	-17.28
31	31	98.43	0.00	-1.84	-1.10	-17.21
31	32	101.54	0.00	-1.84	-1.10	-11.48
32	32	101.54	0.00	-1.86	-0.40	-11.41
32	33	104.65	0.00	-1.86	-0.40	-5.63
33	33	104.65	0.00	-1.77	-0.02	-5.55
33	34	107.76	0.00	-1.54	0.06	-0.05
101	101	0.00	0.00	-19.71	-0.42	-0.23
101	102	3.05	0.00	2.80	-0.73	-8.48
102	102	3.05	0.00	2.68	-1.81	-8.39
102	103	6.10	0.00	2.68	-1.81	-16.55
103	103	6.10	0.00	2.68	-2.52	-16.47
103	104	9.15	0.00	2.68	-2.52	-24.63
104	104	9.15	0.00	2.78	-2.91	-24.55
104	105	12.20	0.00	2.78	-2.91	-33.04
105	105	12.20	0.00	2.98	-3.02	-32.97
105	106	15.25	0.00	2.98	-3.02	-42.07
106	106	15.25	0.00	3.27	-2.87	-42.02
106	107	18.30	0.00	3.27	-2.87	-52.00
107	107	18.30	0.00	3.63	-2.53	-51.97
107	108	21.35	0.00	3.63	-2.53	-63.03
108	108	21.35	0.00	4.03	-2.08	-63.03
108	109	24.40	0.00	4.03	-2.08	-75.32
109	109	24.40	0.00	4.43	-1.65	-75.36
109	110	27.45	0.00	4.43	-1.65	-88.89
110	110	27.45	0.00	4.79	-1.41	-88.99
110	111	30.50	0.00	4.79	-1.41	-103.60
111	111	30.50	0.00	5.02	-1.63	-103.78
111	112	33.55	0.00	24.35	3.59	-125.97
112	10112	33.55	0.00	-24.29	1.15	-125.97
112	113	37.19	0.00	-4.63	8.69	-86.57
113	113	37.19	0.00	-4.38	8.20	-86.40
113	114	40.82	0.00	-4.32	9.13	-70.58
114	114	40.82	0.00	-3.95	9.08	-70.50
114	115	44.46	0.00	-3.95	9.08	-56.13
115	115	44.46	0.00	-3.54	9.28	-56.12
115	116	48.10	0.00	-3.54	9.28	-43.26
116	116	48.10	0.00	-3.15	9.49	-43.29
116	117	51.73	0.00	-3.15	9.49	-31.84
117	117	51.73	0.00	-2.83	9.57	-31.89
117	118	55.37	0.00	2.96	-9.42	-33.25
118	118	55.37	0.00	3.30	-9.28	-33.19
118	119	59.01	0.00	3.30	-9.28	-45.21

f4.rea

Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.MZ-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	3.72	-8.99	-45.18
119	120	62.64	0.00	3.72	-8.99	-58.70
120	120	62.64	0.00	4.17	-8.68	-58.72
120	121	66.28	0.00	4.17	-8.68	-73.87
121	121	66.28	0.00	4.57	-8.61	-73.95
121	122	69.91	0.00	4.57	-8.61	-90.57
122	122	69.91	0.00	4.81	-9.16	-90.76
122	123	73.55	0.00	24.31	-1.15	-126.63
123	10123	73.55	0.00	-24.43	-3.59	-126.63
123	124	76.66	0.00	-4.93	1.58	-102.66
124	124	76.66	0.00	-4.70	1.37	-102.48
124	125	79.77	0.00	-4.70	1.37	-87.86
125	125	79.77	0.00	-4.34	1.63	-87.76
125	126	82.88	0.00	-4.34	1.63	-74.27
126	126	82.88	0.00	-3.93	2.08	-74.23
126	127	85.99	0.00	-3.93	2.08	-62.02
127	127	85.99	0.00	-3.52	2.54	-62.02
127	128	89.10	0.00	-3.52	2.54	-51.07
128	128	89.10	0.00	-3.17	2.88	-51.10
128	129	92.21	0.00	-3.17	2.88	-41.25
129	129	92.21	0.00	-2.88	3.03	-41.31
129	130	95.32	0.00	-2.88	3.03	-32.36
130	130	95.32	0.00	-2.68	2.93	-32.43
130	131	98.43	0.00	-2.68	2.93	-24.10
131	131	98.43	0.00	-2.57	2.54	-24.18
131	132	101.54	0.00	-2.57	2.54	-16.18
132	132	101.54	0.00	-2.58	1.82	-16.26
132	133	104.65	0.00	-2.58	1.82	-8.25
133	133	104.65	0.00	-2.70	0.74	-8.34
133	134	107.76	0.00	19.49	0.32	-0.24
301	101	0.00	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00	0.00
306	106	15.25	0.00	-0.28	0.05	-0.19
306	2006	15.25	0.00	0.00	0.00	0.00
307	107	18.30	0.00	-0.35	0.03	-0.39
307	2007	18.30	0.00	-0.35	0.03	-0.12
308	108	21.35	0.00	-0.40	0.00	-0.51
308	2008	21.35	0.00	-0.40	0.00	-0.21
309	109	24.40	0.00	-0.41	-0.04	-0.53
309	2009	24.40	0.00	-0.41	-0.04	-0.21
310	110	27.45	0.00	-0.38	-0.09	-0.38
310	2010	27.45	0.00	-0.38	-0.09	-0.10
311	111	30.50	0.00	-0.27	-0.14	-0.06

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00	0.00
313	113	37.19	0.00	-0.33	0.12	-0.27
313	2013	37.19	0.00	-0.33	0.12	-0.02
314	114	40.82	0.00	-0.39	0.05	-0.54
314	2014	40.82	0.00	-0.39	0.05	-0.24
315	115	44.46	0.00	-0.44	0.01	-0.59
315	2015	44.46	0.00	-0.38	0.00	-0.28
316	116	48.10	0.00	-0.38	-0.03	-0.49
316	2016	48.10	0.00	-0.33	-0.02	-0.21
317	117	51.73	0.00	-0.31	-0.05	-0.31
317	2017	51.73	0.00	-0.27	-0.04	-0.10
318	118	55.37	0.00	-0.32	0.05	-0.34
318	2018	55.37	0.00	-0.27	0.04	-0.11
319	119	59.01	0.00	-0.40	0.03	-0.54
319	2019	59.01	0.00	-0.40	0.03	-0.24
320	120	62.64	0.00	-0.45	-0.01	-0.65
320	2020	62.64	0.00	-0.45	-0.01	-0.31
321	121	66.28	0.00	-0.46	-0.06	-0.59
321	2021	66.28	0.00	-0.41	-0.05	-0.28
322	122	69.91	0.00	-0.35	-0.12	-0.33
322	2022	69.91	0.00	-0.35	-0.12	-0.07
323	123	73.55	0.00	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00	0.00
324	124	76.66	0.00	-0.28	0.14	-0.07
324	2024	76.66	0.00	0.00	0.00	0.00
325	125	79.77	0.00	-0.39	0.09	-0.40
325	2025	79.77	0.00	-0.39	0.09	-0.11
326	126	82.88	0.00	-0.42	0.04	-0.54
326	2026	82.88	0.00	-0.42	0.04	-0.22
327	127	85.99	0.00	-0.40	0.00	-0.52
327	2027	85.99	0.00	-0.40	0.00	-0.21
328	128	89.10	0.00	-0.35	-0.03	-0.39
328	2028	89.10	0.00	-0.35	-0.03	-0.12
329	129	92.21	0.00	-0.28	-0.05	-0.19
329	2029	92.21	0.00	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ-

Envolvente de tren de cargas plano genérico. MZ-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00	0.00
203	1003	6.10	0.00	0.80	-0.26	-0.74
204	2004	9.15	0.00	0.00	0.00	0.00
204	1004	9.15	0.00	1.26	-0.25	-1.54
205	2005	12.20	0.00	0.00	0.00	0.00
205	1005	12.20	0.00	1.49	-0.13	-2.13
206	2006	15.25	0.00	0.00	0.00	0.00
206	1006	15.25	0.00	1.58	-0.01	-2.38
207	2007	18.30	0.00	-0.35	0.03	-0.12
207	1007	18.30	0.00	1.59	0.10	-2.32
208	2008	21.35	0.00	-0.40	0.00	-0.21
208	1008	21.35	0.00	1.44	0.21	-1.99
209	2009	24.40	0.00	-0.41	-0.04	-0.21
209	1009	24.40	0.00	1.18	0.29	-1.41
210	2010	27.45	0.00	-0.38	-0.09	-0.10
210	1010	27.45	0.00	0.83	0.33	-0.64
211	2011	30.50	0.00	0.00	0.00	0.00
211	1011	30.50	0.00	0.00	0.00	0.00
212	2012	33.55	0.00	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00	0.00
213	2013	37.19	0.00	-0.33	0.12	-0.02
213	1013	37.19	0.00	0.66	-0.36	-0.21
214	2014	40.82	0.00	-0.39	0.05	-0.24
214	1014	40.82	0.00	1.15	-0.39	-1.40
215	2015	44.46	0.00	-0.38	0.00	-0.28
215	1015	44.46	0.00	1.60	-0.33	-2.49
216	2016	48.10	0.00	-0.33	-0.02	-0.21
216	1016	48.10	0.00	1.95	-0.21	-3.30
217	2017	51.73	0.00	-0.27	-0.04	-0.10
217	1017	51.73	0.00	2.12	-0.07	-3.70
218	2018	55.37	0.00	-0.27	0.04	-0.11
218	1018	55.37	0.00	2.12	0.07	-3.71
219	2019	59.01	0.00	-0.40	0.03	-0.24
219	1019	59.01	0.00	1.95	0.21	-3.30
220	2020	62.64	0.00	-0.45	-0.01	-0.31
220	1020	62.64	0.00	1.60	0.33	-2.49
221	2021	66.28	0.00	-0.41	-0.05	-0.28
221	1021	66.28	0.00	1.15	0.39	-1.41
222	2022	69.91	0.00	-0.35	-0.12	-0.07
222	1022	69.91	0.00	0.67	0.36	-0.22
223	2023	73.55	0.00	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00	0.00
224	1024	76.66	0.00	0.00	0.00	0.00
225	2025	79.77	0.00	-0.39	0.09	-0.11
225	1025	79.77	0.00	0.84	-0.35	-0.67
226	2026	82.88	0.00	-0.42	0.04	-0.22
226	1026	82.88	0.00	1.21	-0.30	-1.49
227	2027	85.99	0.00	-0.40	0.00	-0.21
227	1027	85.99	0.00	1.49	-0.22	-2.10
228	2028	89.10	0.00	-0.35	-0.03	-0.12

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	1.65	-0.11	-2.45
229	2029	92.21	0.00	0.00	0.00	0.00
229	1029	92.21	0.00	1.64	0.01	-2.50
230	2030	95.32	0.00	0.00	0.00	0.00
230	1030	95.32	0.00	1.54	0.13	-2.24
231	2031	98.43	0.00	0.00	0.00	0.00
231	1031	98.43	0.00	1.30	0.26	-1.62
232	2032	101.54	0.00	0.00	0.00	0.00
232	1032	101.54	0.00	0.82	0.27	-0.77
233	2033	104.65	0.00	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00	0.00
234	2034	107.76	0.00	0.00	0.00	0.00
234	1034	107.76	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.14	0.05	-0.05
402	1002	3.05	0.00	0.00	0.00	0.00
402	2	3.05	0.00	0.39	-0.28	-0.24
403	1003	6.10	0.00	0.80	-0.26	-0.74
403	3	6.10	0.00	0.80	-0.26	-1.35
404	1004	9.15	0.00	1.26	-0.25	-1.54
404	4	9.15	0.00	1.26	-0.25	-2.50
405	1005	12.20	0.00	1.49	-0.13	-2.13
405	5	12.20	0.00	1.49	-0.13	-3.25
406	1006	15.25	0.00	1.58	-0.01	-2.38
406	6	15.25	0.00	1.63	-0.01	-3.59
407	1007	18.30	0.00	1.59	0.10	-2.32
407	7	18.30	0.00	1.59	0.10	-3.53
408	1008	21.35	0.00	1.44	0.21	-1.99
408	8	21.35	0.00	1.44	0.21	-3.08
409	1009	24.40	0.00	1.18	0.29	-1.41
409	9	24.40	0.00	1.18	0.29	-2.30
410	1010	27.45	0.00	0.83	0.33	-0.64
410	10	27.45	0.00	0.83	0.33	-1.26
411	1011	30.50	0.00	0.00	0.00	0.00
411	11	30.50	0.00	0.48	0.27	-0.21
412	1012	33.55	0.00	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00	0.00
413	1013	37.19	0.00	0.66	-0.36	-0.21
413	13	37.19	0.00	0.66	-0.36	-0.71
414	1014	40.82	0.00	1.15	-0.39	-1.40
414	14	40.82	0.00	1.15	-0.39	-2.27
415	1015	44.46	0.00	1.60	-0.33	-2.49
415	15	44.46	0.00	1.60	-0.33	-3.70
416	1016	48.10	0.00	1.95	-0.21	-3.30
416	16	48.10	0.00	1.95	-0.21	-4.77
417	1017	51.73	0.00	2.12	-0.07	-3.70
417	17	51.73	0.00	2.12	-0.07	-5.31
418	1018	55.37	0.00	2.12	0.07	-3.71
418	18	55.37	0.00	2.12	0.07	-5.31
419	1019	59.01	0.00	1.95	0.21	-3.30
419	19	59.01	0.00	1.95	0.21	-4.78

CÁLCULO TENSIONAL

Hipótesis de cálculo:
TREND.EnvTrenGen.MZ-
Envolvente de tren de cargas plano genérico. MZ-
[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.Mx- + [0; 1]TREND.PaseoTren.Nudo10:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	1.60	0.33	-2.49
420	20	62.64	0.00	1.60	0.33	-3.70
421	1021	66.28	0.00	1.15	0.39	-1.41
421	21	66.28	0.00	1.15	0.39	-2.28
422	1022	69.91	0.00	0.67	0.36	-0.22
422	22	69.91	0.00	0.67	0.36	-0.72
423	1023	73.55	0.00	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00	0.00
424	24	76.66	0.00	0.48	-0.28	-0.21
425	1025	79.77	0.00	0.84	-0.35	-0.67
425	25	79.77	0.00	0.84	-0.35	-1.30
426	1026	82.88	0.00	1.21	-0.30	-1.49
426	26	82.88	0.00	1.21	-0.30	-2.40
427	1027	85.99	0.00	1.49	-0.22	-2.10
427	27	85.99	0.00	1.49	-0.22	-3.22
428	1028	89.10	0.00	1.65	-0.11	-2.45
428	28	89.10	0.00	1.65	-0.11	-3.70
429	1029	92.21	0.00	1.64	0.01	-2.50
429	29	92.21	0.00	1.68	0.01	-3.77
430	1030	95.32	0.00	1.54	0.13	-2.24
430	30	95.32	0.00	1.60	0.14	-3.41
431	1031	98.43	0.00	1.30	0.26	-1.62
431	31	98.43	0.00	1.36	0.26	-2.61
432	1032	101.54	0.00	0.82	0.27	-0.77
432	32	101.54	0.00	0.82	0.27	-1.39
433	1033	104.65	0.00	0.00	0.00	0.00
433	33	104.65	0.00	0.39	0.29	-0.24
434	1034	107.76	0.00	0.00	0.00	0.00
434	34	107.76	0.00	0.14	-0.05	-0.06

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFI

Carga uniforme 1t/m via izda

[1; 1]CUNIFI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-10.02	1.29	-0.09
1	2	3.05	0.00	-7.03	-2.47	25.92
2	2	3.05	0.00	-7.47	0.80	25.76
2	3	6.10	0.00	-4.48	-2.95	43.99
3	3	6.10	0.00	-5.11	0.90	43.87
3	4	9.15	0.00	-2.12	-2.85	54.89
4	4	9.15	0.00	-2.88	1.41	54.81
4	5	12.20	0.00	0.11	-2.34	59.02
5	5	12.20	0.00	-0.72	2.16	58.99
5	6	15.25	0.00	2.27	-1.59	56.63
6	6	15.25	0.00	1.42	2.96	56.64
6	7	18.30	0.00	4.41	-0.79	47.74
7	7	18.30	0.00	3.61	3.62	47.80
7	8	21.35	0.00	6.60	-0.13	32.24
8	8	21.35	0.00	5.88	4.00	32.34
8	9	24.40	0.00	8.87	0.25	9.84
9	9	24.40	0.00	8.28	4.00	9.95
9	10	27.45	0.00	11.27	0.24	-19.86
10	10	27.45	0.00	10.81	3.56	-19.75
10	11	30.50	0.00	13.80	-0.19	-57.29
11	11	30.50	0.00	13.46	2.76	-57.21
11	12	33.55	0.00	16.45	-0.99	-102.83
12	10012	33.55	0.00	-15.93	2.06	-102.82
12	13	37.19	0.00	-12.36	-2.41	-51.38
13	13	37.19	0.00	-12.78	1.14	-51.47
13	14	40.82	0.00	-9.21	-3.34	-11.49
14	14	40.82	0.00	-9.79	0.73	-11.61
14	15	44.46	0.00	-6.23	-3.75	17.51
15	15	44.46	0.00	-6.98	0.88	17.39
15	16	48.10	0.00	-3.42	-3.60	36.30
16	16	48.10	0.00	-4.32	1.48	36.22
16	17	51.73	0.00	-0.75	-2.99	45.44
17	17	51.73	0.00	-1.73	2.32	45.41
17	18	55.37	0.00	1.84	-2.15	45.21
18	18	55.37	0.00	0.86	3.17	45.24
18	19	59.01	0.00	4.43	-1.31	35.62
19	19	59.01	0.00	3.53	3.75	35.70
19	20	62.64	0.00	7.10	-0.72	16.37
20	20	62.64	0.00	6.35	3.89	16.49
20	21	66.28	0.00	9.91	-0.59	-13.08
21	21	66.28	0.00	9.35	3.45	-12.96
21	22	69.91	0.00	12.91	-1.02	-53.42
22	22	69.91	0.00	12.51	2.51	-53.33
22	23	73.55	0.00	16.07	-1.97	-105.29
23	10023	73.55	0.00	-16.70	1.07	-105.30
23	24	76.66	0.00	-13.65	-2.75	-58.11
24	24	76.66	0.00	-13.99	0.21	-58.20
24	25	79.77	0.00	-10.94	-3.61	-19.43
25	25	79.77	0.00	-11.41	-0.25	-19.55
25	26	82.88	0.00	-8.36	-4.08	11.19
26	26	82.88	0.00	-8.97	-0.26	11.07

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFI

Carga uniforme 1t/m via izda

[1; 1]CUNIFI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-5.92	-4.09	34.22
27	27	85.99	0.00	-6.66	0.14	34.12
27	28	89.10	0.00	-3.61	-3.69	50.10
28	28	89.10	0.00	-4.45	0.84	50.04
28	29	92.21	0.00	-1.40	-2.98	59.13
29	29	92.21	0.00	-2.28	1.68	59.12
29	30	95.32	0.00	0.77	-2.14	61.47
30	30	95.32	0.00	-0.10	2.47	61.51
30	31	98.43	0.00	2.95	-1.35	57.07
31	31	98.43	0.00	2.17	3.01	57.15
31	32	101.54	0.00	5.22	-0.82	45.67
32	32	101.54	0.00	4.58	3.10	45.80
32	33	104.65	0.00	7.63	-0.73	26.83
33	33	104.65	0.00	7.18	2.56	26.99
33	34	107.76	0.00	10.23	-1.27	-0.09
101	101	0.00	0.00	-2.47	-0.59	0.09
101	102	3.05	0.00	-2.47	-0.59	7.62
102	102	3.05	0.00	-2.03	-1.09	7.77
102	103	6.10	0.00	-2.03	-1.09	13.96
103	103	6.10	0.00	-1.40	-1.00	14.09
103	104	9.15	0.00	-1.40	-1.00	18.37
104	104	9.15	0.00	-0.65	-0.49	18.45
104	105	12.20	0.00	-0.65	-0.49	20.43
105	105	12.20	0.00	0.19	0.25	20.46
105	106	15.25	0.00	0.19	0.25	19.89
106	106	15.25	0.00	1.03	1.03	19.88
106	107	18.30	0.00	1.03	1.03	16.73
107	107	18.30	0.00	1.84	1.69	16.67
107	108	21.35	0.00	1.84	1.69	11.07
108	108	21.35	0.00	2.55	2.05	10.97
108	109	24.40	0.00	2.55	2.05	3.19
109	109	24.40	0.00	3.14	2.03	3.08
109	110	27.45	0.00	3.14	2.03	-6.50
110	110	27.45	0.00	3.60	1.59	-6.61
110	111	30.50	0.00	3.60	1.59	-17.59
111	111	30.50	0.00	3.94	0.78	-17.67
111	112	33.55	0.00	3.94	0.78	-29.68
112	10112	33.55	0.00	-3.58	-0.30	-29.68
112	113	37.19	0.00	-3.58	-0.30	-16.65
113	113	37.19	0.00	-3.17	-1.24	-16.56
113	114	40.82	0.00	-3.17	-1.24	-5.03
114	114	40.82	0.00	-2.59	-1.67	-4.90
114	115	44.46	0.00	-2.59	-1.67	4.53
115	115	44.46	0.00	-1.84	-1.53	4.65
115	116	48.10	0.00	-1.84	-1.53	11.34
116	116	48.10	0.00	-0.94	-0.95	11.42
116	117	51.73	0.00	-0.94	-0.95	14.84
117	117	51.73	0.00	0.03	-0.13	14.87
117	118	55.37	0.00	0.03	-0.13	14.75
118	118	55.37	0.00	1.01	0.69	14.72
118	119	59.01	0.00	1.01	0.69	11.06

CÁLCULO TENSIONAL

Hipótesis de cálculo:

CUNIFI

Carga uniforme 1t/m via izda

[1; 1]CUNIFI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	1.90	1.25	10.97
119	120	62.64	0.00	1.90	1.25	4.07
120	120	62.64	0.00	2.65	1.36	3.95
120	121	66.28	0.00	2.65	1.36	-5.68
121	121	66.28	0.00	3.21	0.89	-5.80
121	122	69.91	0.00	3.21	0.89	-17.49
122	122	69.91	0.00	3.62	-0.09	-17.58
122	123	73.55	0.00	3.62	-0.09	-30.74
123	10123	73.55	0.00	-4.04	-1.19	-30.73
123	124	76.66	0.00	-4.04	-1.19	-18.15
124	124	76.66	0.00	-3.70	-2.01	-18.07
124	125	79.77	0.00	-3.70	-2.01	-6.56
125	125	79.77	0.00	-3.24	-2.44	-6.44
125	126	82.88	0.00	-3.24	-2.44	3.63
126	126	82.88	0.00	-2.63	-2.42	3.75
126	127	85.99	0.00	-2.63	-2.42	11.92
127	127	85.99	0.00	-1.89	-1.98	12.02
127	128	89.10	0.00	-1.89	-1.98	17.88
128	128	89.10	0.00	-1.05	-1.24	17.95
128	129	92.21	0.00	-1.05	-1.24	21.22
129	129	92.21	0.00	-0.17	-0.37	21.23
129	130	95.32	0.00	-0.17	-0.37	21.77
130	130	95.32	0.00	0.69	0.45	21.73
130	131	98.43	0.00	0.69	0.45	19.58
131	131	98.43	0.00	1.47	1.02	19.49
131	132	101.54	0.00	1.47	1.02	14.91
132	132	101.54	0.00	2.11	1.14	14.77
132	133	104.65	0.00	2.11	1.14	8.20
133	133	104.65	0.00	2.55	0.63	8.03
133	134	107.76	0.00	2.55	0.63	0.09
301	101	0.00	0.00	-0.11	0.09	0.59
301	2001	0.00	0.00	-0.11	0.09	0.68
302	102	3.05	0.00	-0.44	0.16	0.49
302	2002	3.05	0.00	-0.44	0.16	0.83
303	103	6.10	0.00	-0.62	0.13	-0.09
303	2003	6.10	0.00	-0.62	0.13	0.39
304	104	9.15	0.00	-0.76	0.08	-0.51
304	2004	9.15	0.00	-0.76	0.08	0.07
305	105	12.20	0.00	-0.83	0.03	-0.74
305	2005	12.20	0.00	-0.83	0.03	-0.11
306	106	15.25	0.00	-0.85	-0.02	-0.79
306	2006	15.25	0.00	-0.85	-0.02	-0.15
307	107	18.30	0.00	-0.80	-0.06	-0.65
307	2007	18.30	0.00	-0.80	-0.06	-0.04
308	108	21.35	0.00	-0.71	-0.09	-0.37
308	2008	21.35	0.00	-0.71	-0.09	0.17
309	109	24.40	0.00	-0.59	-0.11	0.02
309	2009	24.40	0.00	-0.59	-0.11	0.47
310	110	27.45	0.00	-0.46	-0.11	0.45
310	2010	27.45	0.00	-0.46	-0.11	0.79
311	111	30.50	0.00	-0.34	-0.08	0.81

f4.rea

Programa DINTEL PACADAR S.A.
CUNIFI

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

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Carga uniforme 1t/m via izda

[1; 1]CUNIFI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.34	-0.08	1.07
312	112	33.55	0.00	-0.31	-0.01	1.08
312	2012	33.55	0.00	-0.31	-0.01	1.31
313	113	37.19	0.00	-0.41	0.09	0.94
313	2013	37.19	0.00	-0.41	0.09	1.26
314	114	40.82	0.00	-0.58	0.12	0.43
314	2014	40.82	0.00	-0.58	0.12	0.86
315	115	44.46	0.00	-0.76	0.12	-0.13
315	2015	44.46	0.00	-0.76	0.12	0.44
316	116	48.10	0.00	-0.90	0.08	-0.58
316	2016	48.10	0.00	-0.90	0.08	0.10
317	117	51.73	0.00	-0.98	0.03	-0.82
317	2017	51.73	0.00	-0.98	0.03	-0.09
318	118	55.37	0.00	-0.97	-0.03	-0.82
318	2018	55.37	0.00	-0.97	-0.03	-0.08
319	119	59.01	0.00	-0.89	-0.08	-0.56
319	2019	59.01	0.00	-0.89	-0.08	0.11
320	120	62.64	0.00	-0.75	-0.12	-0.10
320	2020	62.64	0.00	-0.75	-0.12	0.46
321	121	66.28	0.00	-0.57	-0.12	0.46
321	2021	66.28	0.00	-0.57	-0.12	0.89
322	122	69.91	0.00	-0.40	-0.09	0.98
322	2022	69.91	0.00	-0.40	-0.09	1.29
323	123	73.55	0.00	-0.31	0.01	1.10
323	2023	73.55	0.00	-0.31	0.01	1.34
324	124	76.66	0.00	-0.34	0.08	0.82
324	2024	76.66	0.00	-0.34	0.08	1.08
325	125	79.77	0.00	-0.47	0.12	0.43
325	2025	79.77	0.00	-0.47	0.12	0.78
326	126	82.88	0.00	-0.61	0.12	-0.03
326	2026	82.88	0.00	-0.61	0.12	0.44
327	127	85.99	0.00	-0.74	0.10	-0.44
327	2027	85.99	0.00	-0.74	0.10	0.12
328	128	89.10	0.00	-0.84	0.06	-0.74
328	2028	89.10	0.00	-0.84	0.06	-0.10
329	129	92.21	0.00	-0.88	0.02	-0.87
329	2029	92.21	0.00	-0.88	0.02	-0.21
330	130	95.32	0.00	-0.86	-0.04	-0.82
330	2030	95.32	0.00	-0.86	-0.04	-0.17
331	131	98.43	0.00	-0.78	-0.09	-0.57
331	2031	98.43	0.00	-0.78	-0.09	0.02
332	132	101.54	0.00	-0.64	-0.13	-0.12
332	2032	101.54	0.00	-0.64	-0.13	0.37
333	133	104.65	0.00	-0.44	-0.17	0.51
333	2033	104.65	0.00	-0.44	-0.17	0.84
334	134	107.76	0.00	-0.10	-0.09	0.63
334	2034	107.76	0.00	-0.10	-0.09	0.71
201	2001	0.00	0.00	-0.11	0.09	0.68
201	1001	0.00	0.00	-0.11	0.09	1.20
202	2002	3.05	0.00	-0.44	0.16	0.83
202	1002	3.05	0.00	-0.44	0.16	2.93

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFI

Carga uniforme 1t/m via izda

[1; 1]CUNIFI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-0.62	0.13	0.39
203	1003	6.10	0.00	-0.62	0.13	3.38
204	2004	9.15	0.00	-0.76	0.08	0.07
204	1004	9.15	0.00	-0.76	0.08	3.69
205	2005	12.20	0.00	-0.83	0.03	-0.11
205	1005	12.20	0.00	-0.83	0.03	3.87
206	2006	15.25	0.00	-0.85	-0.02	-0.15
206	1006	15.25	0.00	-0.85	-0.02	3.91
207	2007	18.30	0.00	-0.80	-0.06	-0.04
207	1007	18.30	0.00	-0.80	-0.06	3.81
208	2008	21.35	0.00	-0.71	-0.09	0.17
208	1008	21.35	0.00	-0.71	-0.09	3.59
209	2009	24.40	0.00	-0.59	-0.11	0.47
209	1009	24.40	0.00	-0.59	-0.11	3.30
210	2010	27.45	0.00	-0.46	-0.11	0.79
210	1010	27.45	0.00	-0.46	-0.11	2.97
211	2011	30.50	0.00	-0.34	-0.08	1.07
211	1011	30.50	0.00	-0.34	-0.08	2.70
212	2012	33.55	0.00	-0.31	-0.01	1.31
212	1012	33.55	0.00	-0.31	-0.01	2.81
213	2013	37.19	0.00	-0.41	0.09	1.26
213	1013	37.19	0.00	-0.41	0.09	3.23
214	2014	40.82	0.00	-0.58	0.12	0.86
214	1014	40.82	0.00	-0.58	0.12	3.63
215	2015	44.46	0.00	-0.76	0.12	0.44
215	1015	44.46	0.00	-0.76	0.12	4.05
216	2016	48.10	0.00	-0.90	0.08	0.10
216	1016	48.10	0.00	-0.90	0.08	4.40
217	2017	51.73	0.00	-0.98	0.03	-0.09
217	1017	51.73	0.00	-0.98	0.03	4.58
218	2018	55.37	0.00	-0.97	-0.03	-0.08
218	1018	55.37	0.00	-0.97	-0.03	4.58
219	2019	59.01	0.00	-0.89	-0.08	0.11
219	1019	59.01	0.00	-0.89	-0.08	4.39
220	2020	62.64	0.00	-0.75	-0.12	0.46
220	1020	62.64	0.00	-0.75	-0.12	4.04
221	2021	66.28	0.00	-0.57	-0.12	0.89
221	1021	66.28	0.00	-0.57	-0.12	3.61
222	2022	69.91	0.00	-0.40	-0.09	1.29
222	1022	69.91	0.00	-0.40	-0.09	3.22
223	2023	73.55	0.00	-0.31	0.01	1.34
223	1023	73.55	0.00	-0.31	0.01	2.81
224	2024	76.66	0.00	-0.34	0.08	1.08
224	1024	76.66	0.00	-0.34	0.08	2.71
225	2025	79.77	0.00	-0.47	0.12	0.78
225	1025	79.77	0.00	-0.47	0.12	3.01
226	2026	82.88	0.00	-0.61	0.12	0.44
226	1026	82.88	0.00	-0.61	0.12	3.35
227	2027	85.99	0.00	-0.74	0.10	0.12
227	1027	85.99	0.00	-0.74	0.10	3.67
228	2028	89.10	0.00	-0.84	0.06	-0.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFI

Carga uniforme 1t/m via izda

[1; 1]CUNIFI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-0.84	0.06	3.90
229	2029	92.21	0.00	-0.88	0.02	-0.21
229	1029	92.21	0.00	-0.88	0.02	4.00
230	2030	95.32	0.00	-0.86	-0.04	-0.17
230	1030	95.32	0.00	-0.86	-0.04	3.96
231	2031	98.43	0.00	-0.78	-0.09	0.02
231	1031	98.43	0.00	-0.78	-0.09	3.77
232	2032	101.54	0.00	-0.64	-0.13	0.37
232	1032	101.54	0.00	-0.64	-0.13	3.43
233	2033	104.65	0.00	-0.44	-0.17	0.84
233	1033	104.65	0.00	-0.44	-0.17	2.95
234	2034	107.76	0.00	-0.10	-0.09	0.71
234	1034	107.76	0.00	-0.10	-0.09	1.19
401	1001	0.00	0.00	-0.11	0.09	1.20
401	1	0.00	0.00	-0.11	0.09	1.29
402	1002	3.05	0.00	-0.44	0.16	2.93
402	2	3.05	0.00	-0.44	0.16	3.27
403	1003	6.10	0.00	-0.62	0.13	3.38
403	3	6.10	0.00	-0.62	0.13	3.85
404	1004	9.15	0.00	-0.76	0.08	3.69
404	4	9.15	0.00	-0.76	0.08	4.27
405	1005	12.20	0.00	-0.83	0.03	3.87
405	5	12.20	0.00	-0.83	0.03	4.50
406	1006	15.25	0.00	-0.85	-0.02	3.91
406	6	15.25	0.00	-0.85	-0.02	4.55
407	1007	18.30	0.00	-0.80	-0.06	3.81
407	7	18.30	0.00	-0.80	-0.06	4.41
408	1008	21.35	0.00	-0.71	-0.09	3.59
408	8	21.35	0.00	-0.71	-0.09	4.13
409	1009	24.40	0.00	-0.59	-0.11	3.30
409	9	24.40	0.00	-0.59	-0.11	3.74
410	1010	27.45	0.00	-0.46	-0.11	2.97
410	10	27.45	0.00	-0.46	-0.11	3.32
411	1011	30.50	0.00	-0.34	-0.08	2.70
411	11	30.50	0.00	-0.34	-0.08	2.95
412	1012	33.55	0.00	-0.31	-0.01	2.81
412	12	33.55	0.00	-0.31	-0.01	3.05
413	1013	37.19	0.00	-0.41	0.09	3.23
413	13	37.19	0.00	-0.41	0.09	3.55
414	1014	40.82	0.00	-0.58	0.12	3.63
414	14	40.82	0.00	-0.58	0.12	4.06
415	1015	44.46	0.00	-0.76	0.12	4.05
415	15	44.46	0.00	-0.76	0.12	4.62
416	1016	48.10	0.00	-0.90	0.08	4.40
416	16	48.10	0.00	-0.90	0.08	5.07
417	1017	51.73	0.00	-0.98	0.03	4.58
417	17	51.73	0.00	-0.98	0.03	5.32
418	1018	55.37	0.00	-0.97	-0.03	4.58
418	18	55.37	0.00	-0.97	-0.03	5.31
419	1019	59.01	0.00	-0.89	-0.08	4.39
419	19	59.01	0.00	-0.89	-0.08	5.06

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFI

Carga uniforme 1t/m via izda

[1; 1]CUNIFI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.75	-0.12	4.04
420	20	62.64	0.00	-0.75	-0.12	4.61
421	1021	66.28	0.00	-0.57	-0.12	3.61
421	21	66.28	0.00	-0.57	-0.12	4.04
422	1022	69.91	0.00	-0.40	-0.09	3.22
422	22	69.91	0.00	-0.40	-0.09	3.53
423	1023	73.55	0.00	-0.31	0.01	2.81
423	23	73.55	0.00	-0.31	0.01	3.04
424	1024	76.66	0.00	-0.34	0.08	2.71
424	24	76.66	0.00	-0.34	0.08	2.96
425	1025	79.77	0.00	-0.47	0.12	3.01
425	25	79.77	0.00	-0.47	0.12	3.36
426	1026	82.88	0.00	-0.61	0.12	3.35
426	26	82.88	0.00	-0.61	0.12	3.81
427	1027	85.99	0.00	-0.74	0.10	3.67
427	27	85.99	0.00	-0.74	0.10	4.23
428	1028	89.10	0.00	-0.84	0.06	3.90
428	28	89.10	0.00	-0.84	0.06	4.53
429	1029	92.21	0.00	-0.88	0.02	4.00
429	29	92.21	0.00	-0.88	0.02	4.67
430	1030	95.32	0.00	-0.86	-0.04	3.96
430	30	95.32	0.00	-0.86	-0.04	4.62
431	1031	98.43	0.00	-0.78	-0.09	3.77
431	31	98.43	0.00	-0.78	-0.09	4.36
432	1032	101.54	0.00	-0.64	-0.13	3.43
432	32	101.54	0.00	-0.64	-0.13	3.91
433	1033	104.65	0.00	-0.44	-0.17	2.95
433	33	104.65	0.00	-0.44	-0.17	3.29
434	1034	107.76	0.00	-0.10	-0.09	1.19
434	34	107.76	0.00	-0.10	-0.09	1.27

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFD

Carga uniforme 1t/m via derecha

[1; 1]CUNIFD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-2.17	0.72	0.10
1	2	3.05	0.00	-2.17	0.72	6.72
2	2	3.05	0.00	-1.86	1.31	6.91
2	3	6.10	0.00	-1.86	1.31	12.57
3	3	6.10	0.00	-1.32	1.21	12.72
3	4	9.15	0.00	-1.32	1.21	16.76
4	4	9.15	0.00	-0.63	0.59	16.86
4	5	12.20	0.00	-0.63	0.59	18.78
5	5	12.20	0.00	0.16	-0.30	18.82
5	6	15.25	0.00	0.16	-0.30	18.34
6	6	15.25	0.00	0.96	-1.25	18.32
6	7	18.30	0.00	0.96	-1.25	15.40
7	7	18.30	0.00	1.71	-2.04	15.33
7	8	21.35	0.00	1.71	-2.04	10.12
8	8	21.35	0.00	2.35	-2.49	10.01
8	9	24.40	0.00	2.35	-2.49	2.84
9	9	24.40	0.00	2.84	-2.47	2.70
9	10	27.45	0.00	2.84	-2.47	-5.97
10	10	27.45	0.00	3.17	-1.93	-6.11
10	11	30.50	0.00	3.17	-1.93	-15.79
11	11	30.50	0.00	3.36	-0.95	-15.88
11	12	33.55	0.00	3.36	-0.95	-26.14
12	10012	33.55	0.00	-3.02	0.34	-26.14
12	13	37.19	0.00	-3.02	0.34	-15.16
13	13	37.19	0.00	-2.78	1.48	-15.06
13	14	40.82	0.00	-2.78	1.48	-4.93
14	14	40.82	0.00	-2.35	2.00	-4.78
14	15	44.46	0.00	-2.35	2.00	3.76
15	15	44.46	0.00	-1.70	1.83	3.91
15	16	48.10	0.00	-1.70	1.83	10.09
16	16	48.10	0.00	-0.88	1.13	10.19
16	17	51.73	0.00	-0.88	1.13	13.39
17	17	51.73	0.00	0.04	0.13	13.43
17	18	55.37	0.00	0.04	0.13	13.30
18	18	55.37	0.00	0.95	-0.87	13.26
18	19	59.01	0.00	0.95	-0.87	9.81
19	19	59.01	0.00	1.76	-1.55	9.72
19	20	62.64	0.00	1.76	-1.55	3.30
20	20	62.64	0.00	2.40	-1.68	3.16
20	21	66.28	0.00	2.40	-1.68	-5.58
21	21	66.28	0.00	2.82	-1.12	-5.73
21	22	69.91	0.00	2.82	-1.12	-16.00
22	22	69.91	0.00	3.05	0.06	-16.10
22	23	73.55	0.00	3.05	0.06	-27.18
23	10023	73.55	0.00	-3.47	1.40	-27.17
23	24	76.66	0.00	-3.47	1.40	-16.37
24	24	76.66	0.00	-3.28	2.39	-16.27
24	25	79.77	0.00	-3.28	2.39	-6.06
25	25	79.77	0.00	-2.95	2.91	-5.92
25	26	82.88	0.00	-2.95	2.91	3.24
26	26	82.88	0.00	-2.43	2.89	3.39

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFD
Carga uniforme 1t/m via derecha
[1; 1]CUNIFD
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-2.43	2.89	10.96
27	27	85.99	0.00	-1.76	2.36	11.08
27	28	89.10	0.00	-1.76	2.36	16.56
28	28	89.10	0.00	-0.98	1.48	16.64
28	29	92.21	0.00	-0.98	1.48	19.68
29	29	92.21	0.00	-0.14	0.43	19.70
29	30	95.32	0.00	-0.14	0.43	20.14
30	30	95.32	0.00	0.68	-0.56	20.09
30	31	98.43	0.00	0.68	-0.56	17.99
31	31	98.43	0.00	1.40	-1.24	17.88
31	32	101.54	0.00	1.40	-1.24	13.53
32	32	101.54	0.00	1.95	-1.38	13.37
32	33	104.65	0.00	1.95	-1.38	7.32
33	33	104.65	0.00	2.25	-0.76	7.12
33	34	107.76	0.00	2.25	-0.76	0.11
101	101	0.00	0.00	-11.09	-0.86	-0.10
101	102	3.05	0.00	-7.91	2.28	28.87
102	102	3.05	0.00	-8.23	-0.27	28.68
102	103	6.10	0.00	-5.05	2.87	48.94
103	103	6.10	0.00	-5.59	-0.38	48.78
103	104	9.15	0.00	-2.42	2.76	60.99
104	104	9.15	0.00	-3.11	-1.00	60.89
104	105	12.20	0.00	0.06	2.14	65.53
105	105	12.20	0.00	-0.72	-1.91	65.49
105	106	15.25	0.00	2.45	1.23	62.86
106	106	15.25	0.00	1.65	-2.87	62.88
106	107	18.30	0.00	4.82	0.27	53.02
107	107	18.30	0.00	4.07	-3.67	53.09
107	108	21.35	0.00	7.24	-0.53	35.84
108	108	21.35	0.00	6.60	-4.12	35.96
108	109	24.40	0.00	9.77	-0.98	10.99
109	109	24.40	0.00	9.28	-4.11	11.13
109	110	27.45	0.00	12.45	-0.97	-22.00
110	110	27.45	0.00	12.12	-3.58	-21.87
110	111	30.50	0.00	15.29	-0.44	-63.67
111	111	30.50	0.00	15.10	-2.62	-63.58
111	112	33.55	0.00	18.27	0.53	-114.48
112	10112	33.55	0.00	-17.69	-1.63	-114.47
112	113	37.19	0.00	-13.91	2.11	-57.03
113	113	37.19	0.00	-14.14	-0.51	-57.14
113	114	40.82	0.00	-10.36	3.24	-12.59
114	114	40.82	0.00	-10.79	-0.01	-12.74
114	115	44.46	0.00	-7.01	3.74	19.63
115	115	44.46	0.00	-7.66	-0.19	19.48
115	116	48.10	0.00	-3.88	3.56	40.46
116	116	48.10	0.00	-4.70	-0.91	40.36
116	117	51.73	0.00	-0.92	2.84	50.58
117	117	51.73	0.00	-1.83	-1.93	50.54
117	118	55.37	0.00	1.95	1.82	50.33
118	118	55.37	0.00	1.04	-2.94	50.37
118	119	59.01	0.00	4.82	0.81	39.72

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFD
Carga uniforme 1t/m via derecha
[1; 1]CUNIFD
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	4.00	-3.65	39.82
119	120	62.64	0.00	7.78	0.10	18.39
120	120	62.64	0.00	7.15	-3.80	18.53
120	121	66.28	0.00	10.93	-0.05	-14.33
121	121	66.28	0.00	10.51	-3.27	-14.18
121	122	69.91	0.00	14.29	0.48	-59.26
122	122	69.91	0.00	14.07	-2.11	-59.15
122	123	73.55	0.00	17.85	1.64	-117.17
123	10123	73.55	0.00	-18.54	-0.50	-117.19
123	124	76.66	0.00	-15.30	2.70	-64.56
124	124	76.66	0.00	-15.49	0.53	-64.67
124	125	79.77	0.00	-12.26	3.73	-21.52
125	125	79.77	0.00	-12.59	1.08	-21.66
125	126	82.88	0.00	-9.36	4.28	12.48
126	126	82.88	0.00	-9.87	1.08	12.33
126	127	85.99	0.00	-6.64	4.29	38.01
127	127	85.99	0.00	-7.31	0.59	37.89
127	128	89.10	0.00	-4.07	3.79	55.58
128	128	89.10	0.00	-4.86	-0.27	55.51
128	129	92.21	0.00	-1.62	2.94	65.59
129	129	92.21	0.00	-2.46	-1.29	65.57
129	130	95.32	0.00	0.77	1.91	68.20
130	130	95.32	0.00	-0.05	-2.25	68.24
130	131	98.43	0.00	3.19	0.95	63.35
131	131	98.43	0.00	2.47	-2.91	63.46
131	132	101.54	0.00	5.70	0.29	50.75
132	132	101.54	0.00	5.15	-3.02	50.91
132	133	104.65	0.00	8.39	0.18	29.85
133	133	104.65	0.00	8.08	-2.37	30.05
133	134	107.76	0.00	11.32	0.83	-0.11
301	101	0.00	0.00	0.02	-0.10	0.86
301	2001	0.00	0.00	0.02	-0.10	0.84
302	102	3.05	0.00	0.31	-0.19	2.55
302	2002	3.05	0.00	0.31	-0.19	2.32
303	103	6.10	0.00	0.53	-0.15	3.26
303	2003	6.10	0.00	0.53	-0.15	2.85
304	104	9.15	0.00	0.69	-0.10	3.76
304	2004	9.15	0.00	0.69	-0.10	3.24
305	105	12.20	0.00	0.78	-0.04	4.05
305	2005	12.20	0.00	0.78	-0.04	3.45
306	106	15.25	0.00	0.80	0.02	4.10
306	2006	15.25	0.00	0.80	0.02	3.49
307	107	18.30	0.00	0.75	0.07	3.94
307	2007	18.30	0.00	0.75	0.07	3.37
308	108	21.35	0.00	0.64	0.11	3.60
308	2008	21.35	0.00	0.64	0.11	3.11
309	109	24.40	0.00	0.49	0.14	3.13
309	2009	24.40	0.00	0.49	0.14	2.76
310	110	27.45	0.00	0.33	0.13	2.61
310	2010	27.45	0.00	0.33	0.13	2.36
311	111	30.50	0.00	0.19	0.09	2.17

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFD

Carga uniforme 1t/m via derecha

[1; 1]CUNIFD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.19	0.09	2.03
312	112	33.55	0.00	0.14	0.01	2.16
312	2012	33.55	0.00	0.14	0.01	2.05
313	113	37.19	0.00	0.24	-0.11	2.62
313	2013	37.19	0.00	0.24	-0.11	2.44
314	114	40.82	0.00	0.43	-0.15	3.25
314	2014	40.82	0.00	0.43	-0.15	2.92
315	115	44.46	0.00	0.65	-0.14	3.92
315	2015	44.46	0.00	0.65	-0.14	3.43
316	116	48.10	0.00	0.82	-0.10	4.47
316	2016	48.10	0.00	0.82	-0.10	3.85
317	117	51.73	0.00	0.92	-0.03	4.76
317	2017	51.73	0.00	0.92	-0.03	4.07
318	118	55.37	0.00	0.91	0.04	4.76
318	2018	55.37	0.00	0.91	0.04	4.07
319	119	59.01	0.00	0.82	0.10	4.45
319	2019	59.01	0.00	0.82	0.10	3.84
320	120	62.64	0.00	0.64	0.14	3.90
320	2020	62.64	0.00	0.64	0.14	3.42
321	121	66.28	0.00	0.42	0.15	3.21
321	2021	66.28	0.00	0.42	0.15	2.89
322	122	69.91	0.00	0.22	0.11	2.59
322	2022	69.91	0.00	0.22	0.11	2.42
323	123	73.55	0.00	0.13	-0.01	2.14
323	2023	73.55	0.00	0.13	-0.01	2.04
324	124	76.66	0.00	0.19	-0.10	2.18
324	2024	76.66	0.00	0.19	-0.10	2.03
325	125	79.77	0.00	0.34	-0.14	2.65
325	2025	79.77	0.00	0.34	-0.14	2.39
326	126	82.88	0.00	0.51	-0.14	3.20
326	2026	82.88	0.00	0.51	-0.14	2.81
327	127	85.99	0.00	0.67	-0.12	3.70
327	2027	85.99	0.00	0.67	-0.12	3.19
328	128	89.10	0.00	0.79	-0.08	4.06
328	2028	89.10	0.00	0.79	-0.08	3.47
329	129	92.21	0.00	0.84	-0.02	4.23
329	2029	92.21	0.00	0.84	-0.02	3.59
330	130	95.32	0.00	0.82	0.04	4.17
330	2030	95.32	0.00	0.82	0.04	3.55
331	131	98.43	0.00	0.72	0.11	3.86
331	2031	98.43	0.00	0.72	0.11	3.31
332	132	101.54	0.00	0.55	0.16	3.31
332	2032	101.54	0.00	0.55	0.16	2.90
333	133	104.65	0.00	0.31	0.20	2.56
333	2033	104.65	0.00	0.31	0.20	2.33
334	134	107.76	0.00	0.01	0.11	0.83
334	2034	107.76	0.00	0.01	0.11	0.82
201	2001	0.00	0.00	0.02	-0.10	0.84
201	1001	0.00	0.00	0.02	-0.10	0.73
202	2002	3.05	0.00	0.31	-0.19	2.32
202	1002	3.05	0.00	0.31	-0.19	0.83

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFD

Carga uniforme 1t/m via derecha

[1; 1]CUNIFD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.53	-0.15	2.85
203	1003	6.10	0.00	0.53	-0.15	0.30
204	2004	9.15	0.00	0.69	-0.10	3.24
204	1004	9.15	0.00	0.69	-0.10	-0.09
205	2005	12.20	0.00	0.78	-0.04	3.45
205	1005	12.20	0.00	0.78	-0.04	-0.30
206	2006	15.25	0.00	0.80	0.02	3.49
206	1006	15.25	0.00	0.80	0.02	-0.34
207	2007	18.30	0.00	0.75	0.07	3.37
207	1007	18.30	0.00	0.75	0.07	-0.22
208	2008	21.35	0.00	0.64	0.11	3.11
208	1008	21.35	0.00	0.64	0.11	0.04
209	2009	24.40	0.00	0.49	0.14	2.76
209	1009	24.40	0.00	0.49	0.14	0.40
210	2010	27.45	0.00	0.33	0.13	2.36
210	1010	27.45	0.00	0.33	0.13	0.79
211	2011	30.50	0.00	0.19	0.09	2.03
211	1011	30.50	0.00	0.19	0.09	1.12
212	2012	33.55	0.00	0.14	0.01	2.05
212	1012	33.55	0.00	0.14	0.01	1.40
213	2013	37.19	0.00	0.24	-0.11	2.44
213	1013	37.19	0.00	0.24	-0.11	1.32
214	2014	40.82	0.00	0.43	-0.15	2.92
214	1014	40.82	0.00	0.43	-0.15	0.84
215	2015	44.46	0.00	0.65	-0.14	3.43
215	1015	44.46	0.00	0.65	-0.14	0.33
216	2016	48.10	0.00	0.82	-0.10	3.85
216	1016	48.10	0.00	0.82	-0.10	-0.09
217	2017	51.73	0.00	0.92	-0.03	4.07
217	1017	51.73	0.00	0.92	-0.03	-0.31
218	2018	55.37	0.00	0.91	0.04	4.07
218	1018	55.37	0.00	0.91	0.04	-0.30
219	2019	59.01	0.00	0.82	0.10	3.84
219	1019	59.01	0.00	0.82	0.10	-0.07
220	2020	62.64	0.00	0.64	0.14	3.42
220	1020	62.64	0.00	0.64	0.14	0.35
221	2021	66.28	0.00	0.42	0.15	2.89
221	1021	66.28	0.00	0.42	0.15	0.88
222	2022	69.91	0.00	0.22	0.11	2.42
222	1022	69.91	0.00	0.22	0.11	1.35
223	2023	73.55	0.00	0.13	-0.01	2.04
223	1023	73.55	0.00	0.13	-0.01	1.43
224	2024	76.66	0.00	0.19	-0.10	2.03
224	1024	76.66	0.00	0.19	-0.10	1.14
225	2025	79.77	0.00	0.34	-0.14	2.39
225	1025	79.77	0.00	0.34	-0.14	0.78
226	2026	82.88	0.00	0.51	-0.14	2.81
226	1026	82.88	0.00	0.51	-0.14	0.36
227	2027	85.99	0.00	0.67	-0.12	3.19
227	1027	85.99	0.00	0.67	-0.12	-0.02
228	2028	89.10	0.00	0.79	-0.08	3.47

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFD

Carga uniforme 1t/m via derecha

[1; 1]CUNIFD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.79	-0.08	-0.29
229	2029	92.21	0.00	0.84	-0.02	3.59
229	1029	92.21	0.00	0.84	-0.02	-0.42
230	2030	95.32	0.00	0.82	0.04	3.55
230	1030	95.32	0.00	0.82	0.04	-0.37
231	2031	98.43	0.00	0.72	0.11	3.31
231	1031	98.43	0.00	0.72	0.11	-0.14
232	2032	101.54	0.00	0.55	0.16	2.90
232	1032	101.54	0.00	0.55	0.16	0.28
233	2033	104.65	0.00	0.31	0.20	2.33
233	1033	104.65	0.00	0.31	0.20	0.85
234	2034	107.76	0.00	0.01	0.11	0.82
234	1034	107.76	0.00	0.01	0.11	0.77
401	1001	0.00	0.00	0.02	-0.10	0.73
401	1	0.00	0.00	0.02	-0.10	0.72
402	1002	3.05	0.00	0.31	-0.19	0.83
402	2	3.05	0.00	0.31	-0.19	0.60
403	1003	6.10	0.00	0.53	-0.15	0.30
403	3	6.10	0.00	0.53	-0.15	-0.11
404	1004	9.15	0.00	0.69	-0.10	-0.09
404	4	9.15	0.00	0.69	-0.10	-0.61
405	1005	12.20	0.00	0.78	-0.04	-0.30
405	5	12.20	0.00	0.78	-0.04	-0.90
406	1006	15.25	0.00	0.80	0.02	-0.34
406	6	15.25	0.00	0.80	0.02	-0.95
407	1007	18.30	0.00	0.75	0.07	-0.22
407	7	18.30	0.00	0.75	0.07	-0.79
408	1008	21.35	0.00	0.64	0.11	0.04
408	8	21.35	0.00	0.64	0.11	-0.45
409	1009	24.40	0.00	0.49	0.14	0.40
409	9	24.40	0.00	0.49	0.14	0.02
410	1010	27.45	0.00	0.33	0.13	0.79
410	10	27.45	0.00	0.33	0.13	0.54
411	1011	30.50	0.00	0.19	0.09	1.12
411	11	30.50	0.00	0.19	0.09	0.98
412	1012	33.55	0.00	0.14	0.01	1.40
412	12	33.55	0.00	0.14	0.01	1.30
413	1013	37.19	0.00	0.24	-0.11	1.32
413	13	37.19	0.00	0.24	-0.11	1.14
414	1014	40.82	0.00	0.43	-0.15	0.84
414	14	40.82	0.00	0.43	-0.15	0.51
415	1015	44.46	0.00	0.65	-0.14	0.33
415	15	44.46	0.00	0.65	-0.14	-0.16
416	1016	48.10	0.00	0.82	-0.10	-0.09
416	16	48.10	0.00	0.82	-0.10	-0.71
417	1017	51.73	0.00	0.92	-0.03	-0.31
417	17	51.73	0.00	0.92	-0.03	-1.00
418	1018	55.37	0.00	0.91	0.04	-0.30
418	18	55.37	0.00	0.91	0.04	-0.99
419	1019	59.01	0.00	0.82	0.10	-0.07
419	19	59.01	0.00	0.82	0.10	-0.68

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUNIFD

Carga uniforme 1t/m via derecha

[1; 1]CUNIFD

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.64	0.14	0.35
420	20	62.64	0.00	0.64	0.14	-0.13
421	1021	66.28	0.00	0.42	0.15	0.88
421	21	66.28	0.00	0.42	0.15	0.56
422	1022	69.91	0.00	0.22	0.11	1.35
422	22	69.91	0.00	0.22	0.11	1.19
423	1023	73.55	0.00	0.13	-0.01	1.43
423	23	73.55	0.00	0.13	-0.01	1.34
424	1024	76.66	0.00	0.19	-0.10	1.14
424	24	76.66	0.00	0.19	-0.10	0.99
425	1025	79.77	0.00	0.34	-0.14	0.78
425	25	79.77	0.00	0.34	-0.14	0.52
426	1026	82.88	0.00	0.51	-0.14	0.36
426	26	82.88	0.00	0.51	-0.14	-0.03
427	1027	85.99	0.00	0.67	-0.12	-0.02
427	27	85.99	0.00	0.67	-0.12	-0.52
428	1028	89.10	0.00	0.79	-0.08	-0.29
428	28	89.10	0.00	0.79	-0.08	-0.89
429	1029	92.21	0.00	0.84	-0.02	-0.42
429	29	92.21	0.00	0.84	-0.02	-1.05
430	1030	95.32	0.00	0.82	0.04	-0.37
430	30	95.32	0.00	0.82	0.04	-0.99
431	1031	98.43	0.00	0.72	0.11	-0.14
431	31	98.43	0.00	0.72	0.11	-0.68
432	1032	101.54	0.00	0.55	0.16	0.28
432	32	101.54	0.00	0.55	0.16	-0.14
433	1033	104.65	0.00	0.31	0.20	0.85
433	33	104.65	0.00	0.31	0.20	0.62
434	1034	107.76	0.00	0.01	0.11	0.77
434	34	107.76	0.00	0.01	0.11	0.76

GRÁFICO DE ESFUERZOS

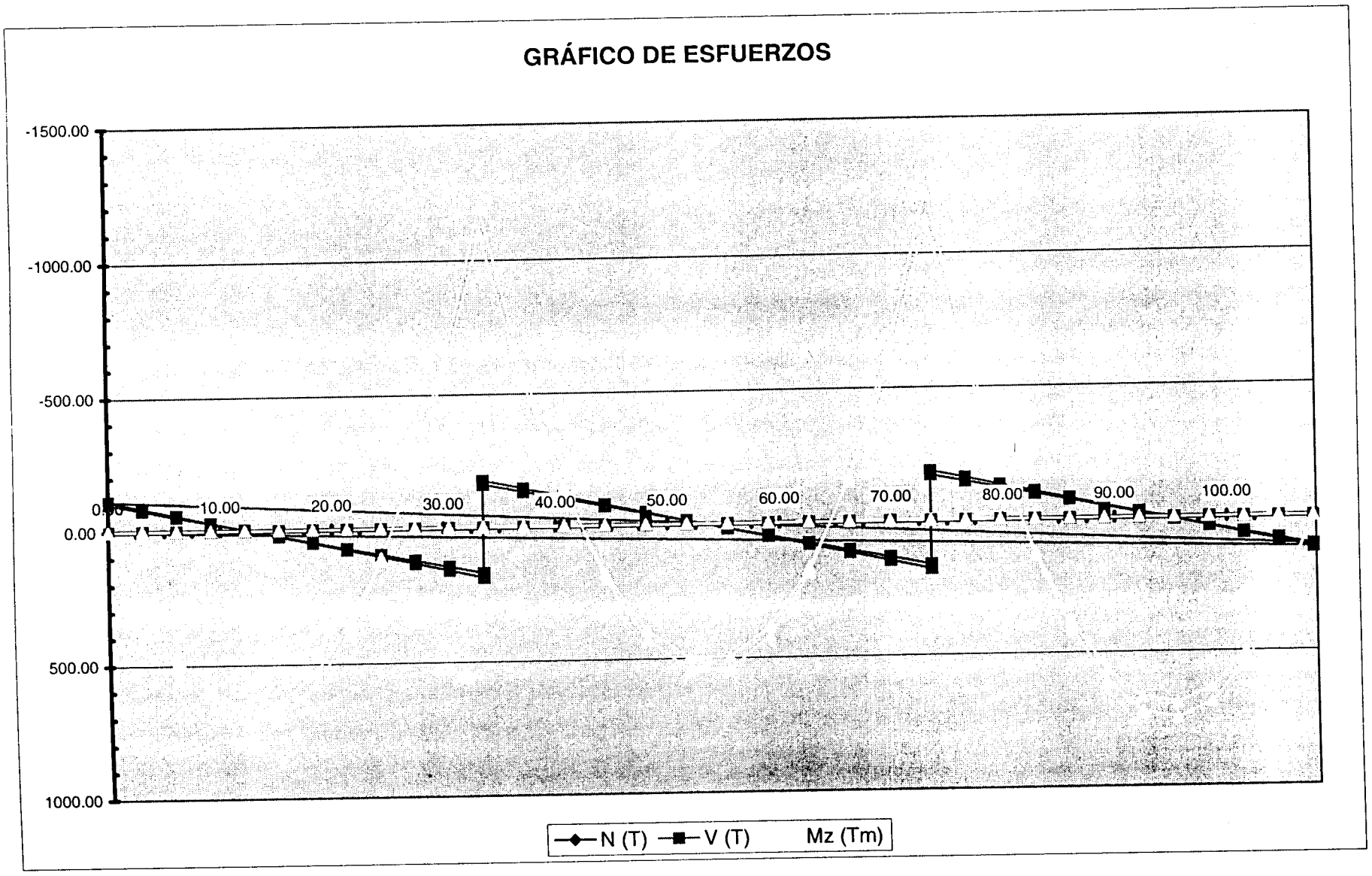


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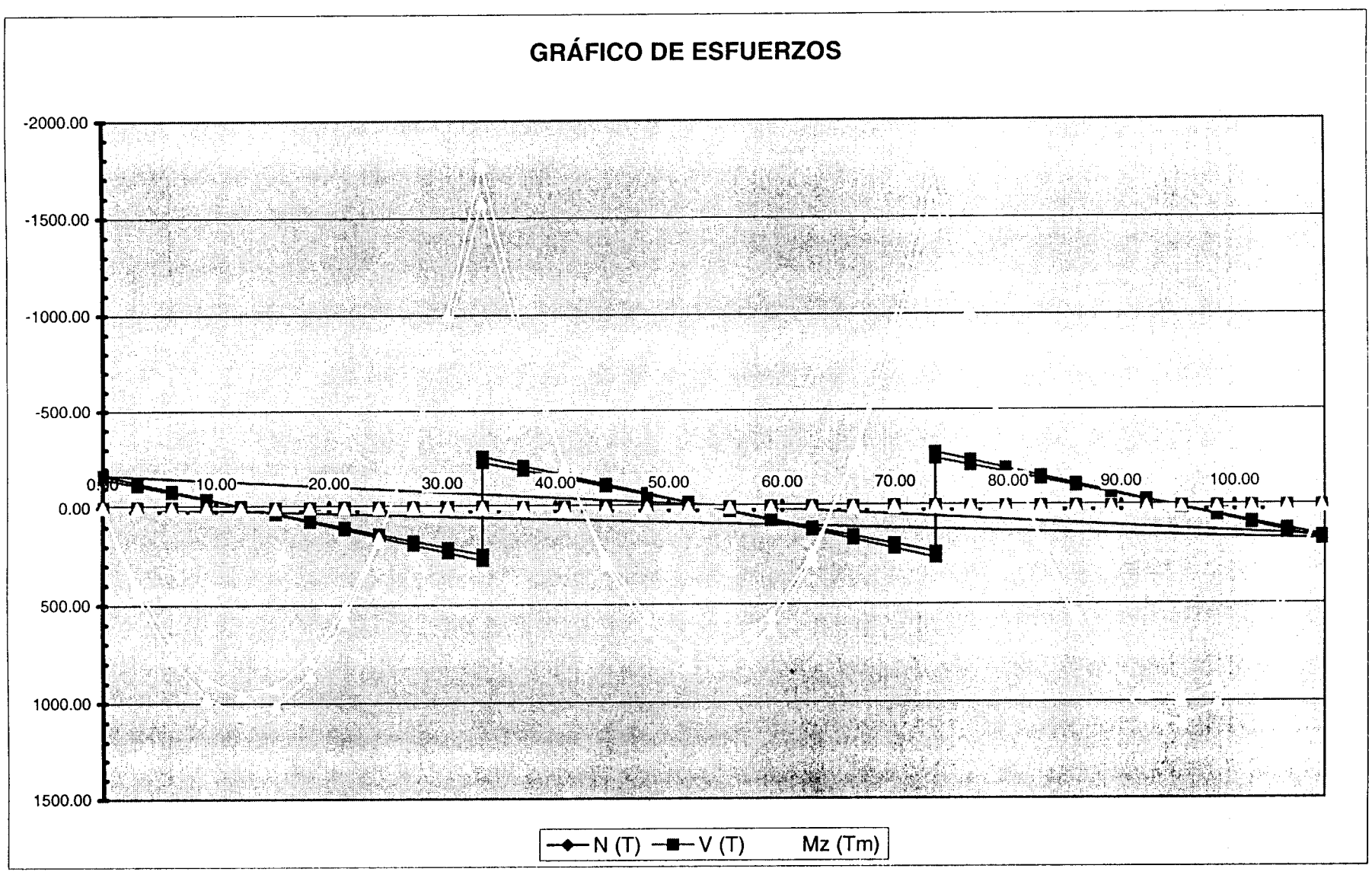


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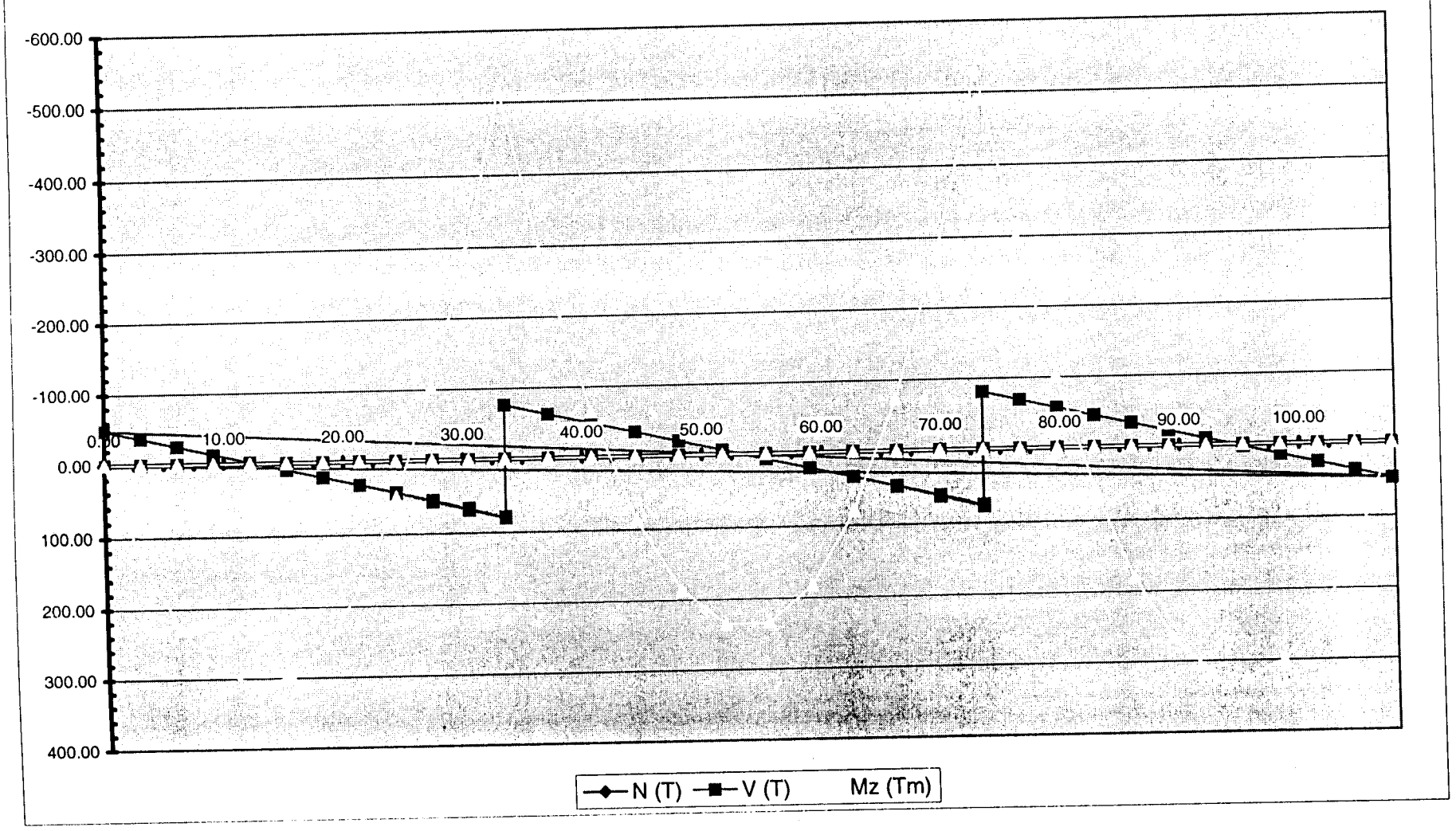


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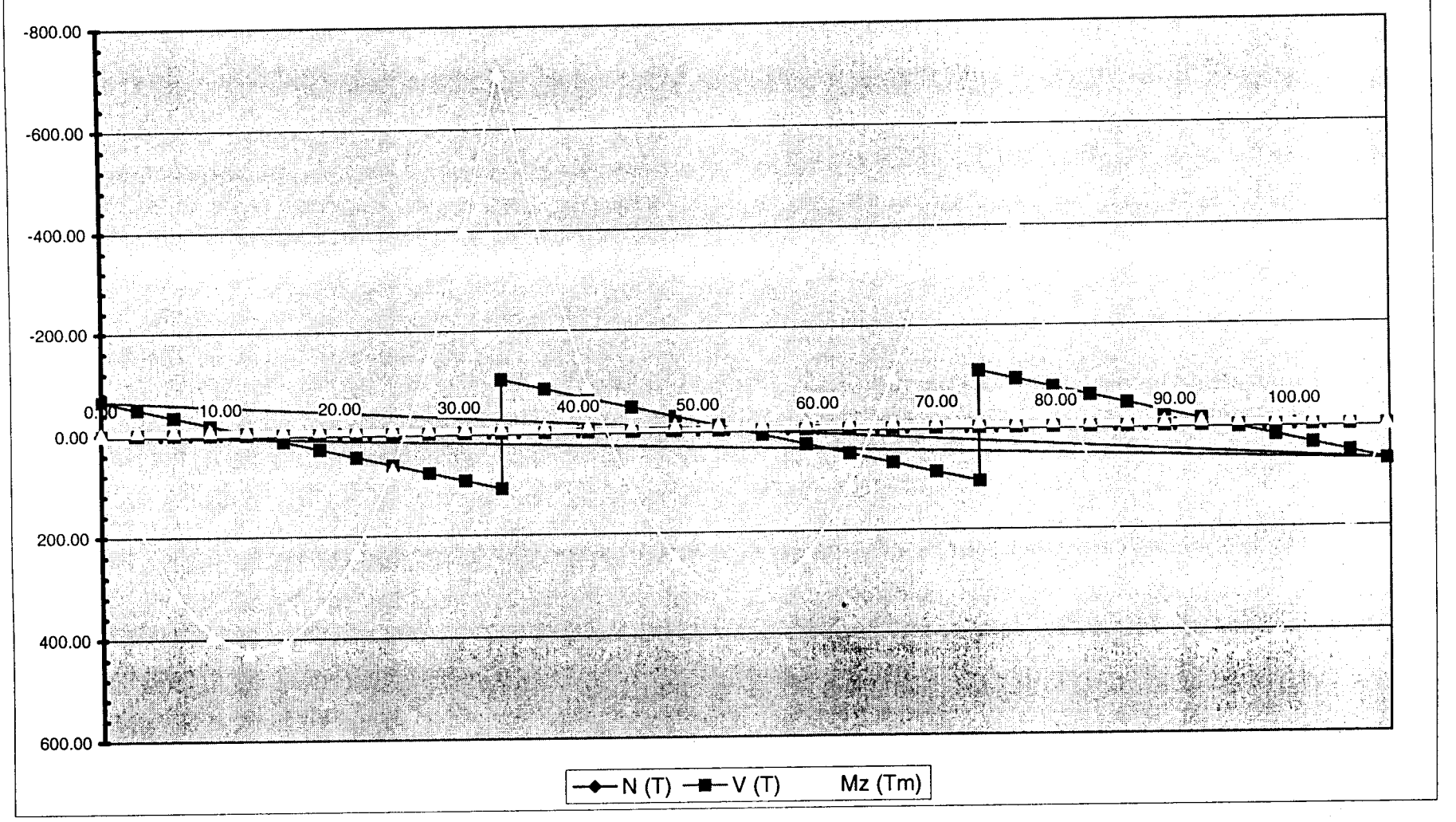


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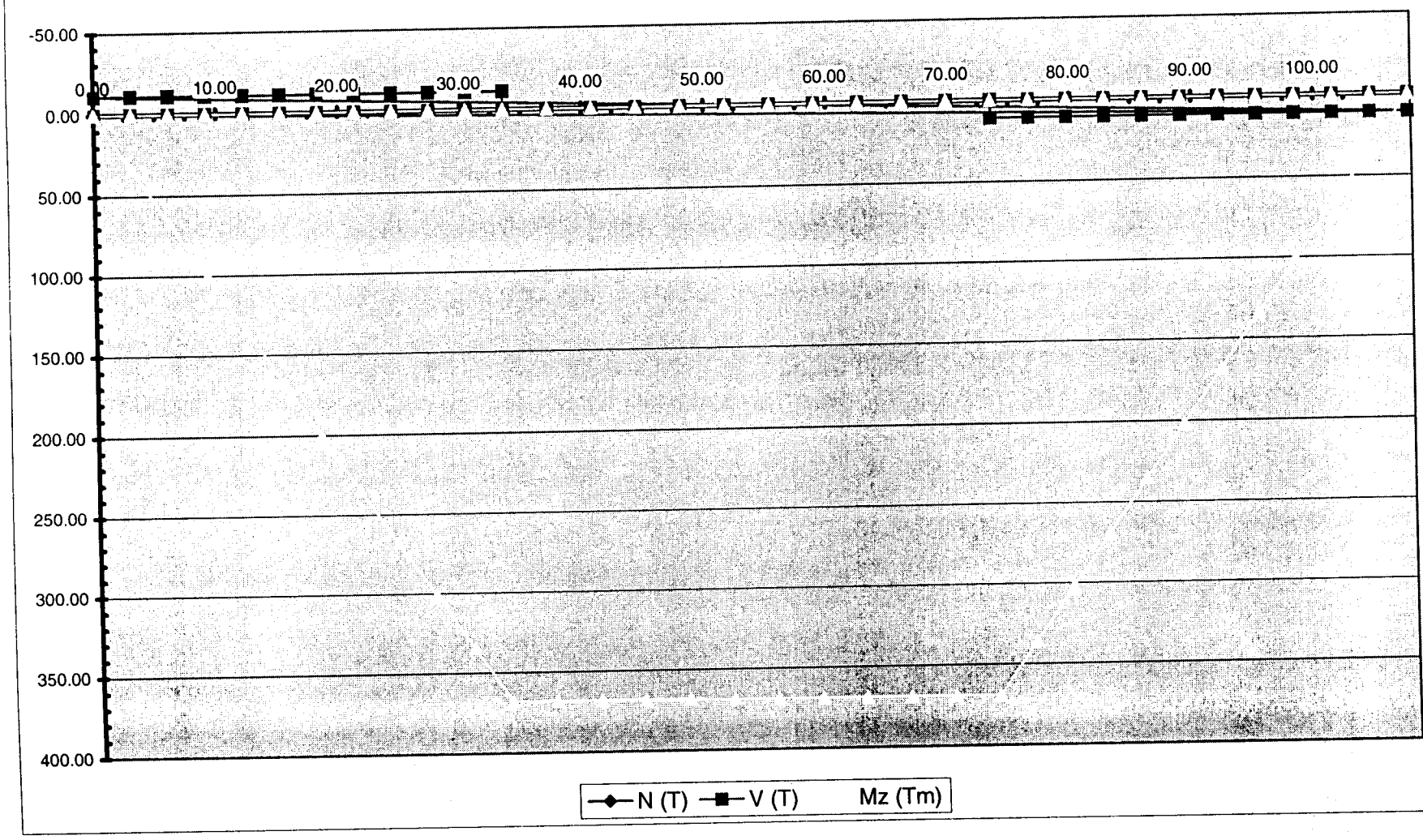


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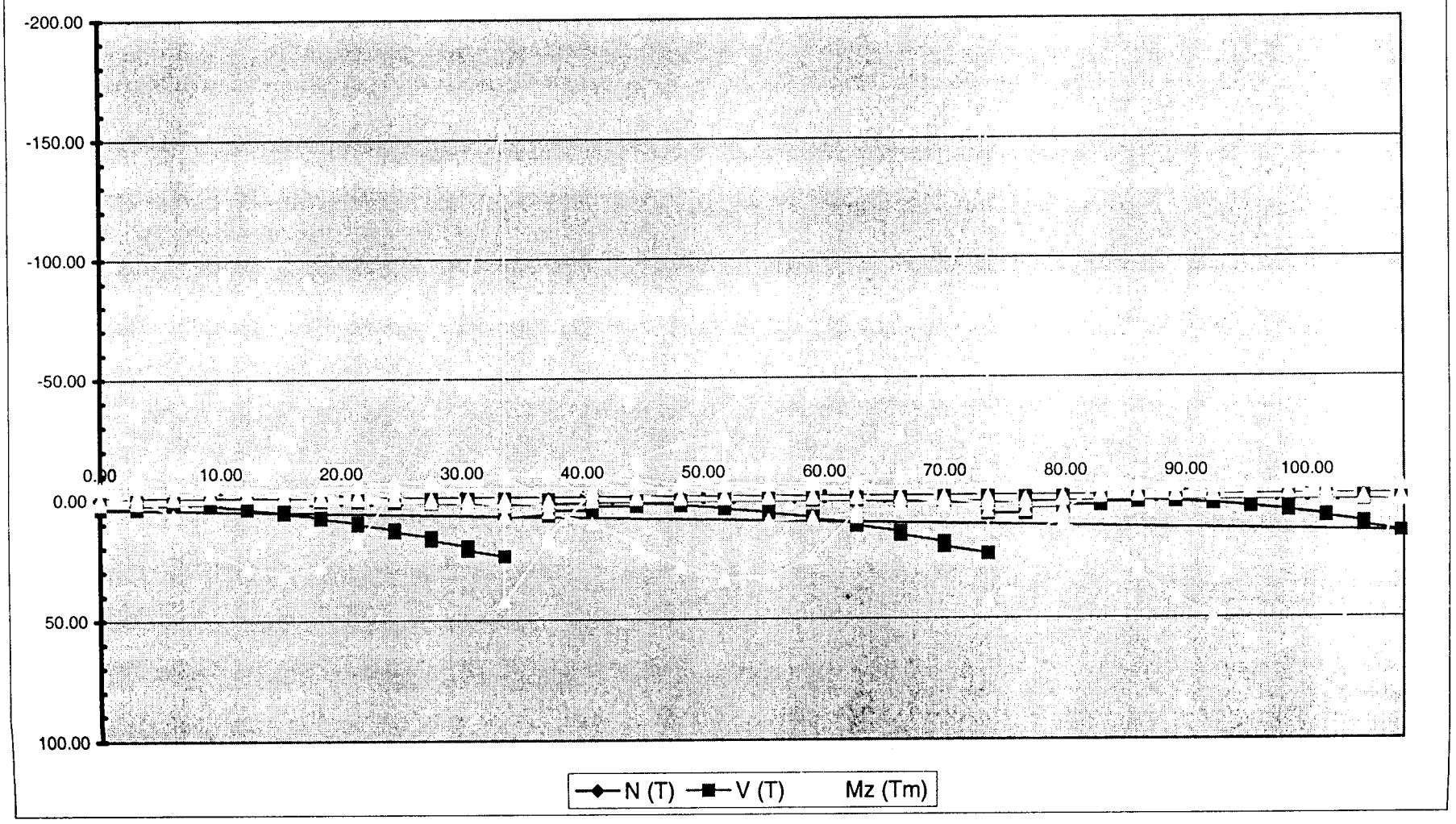


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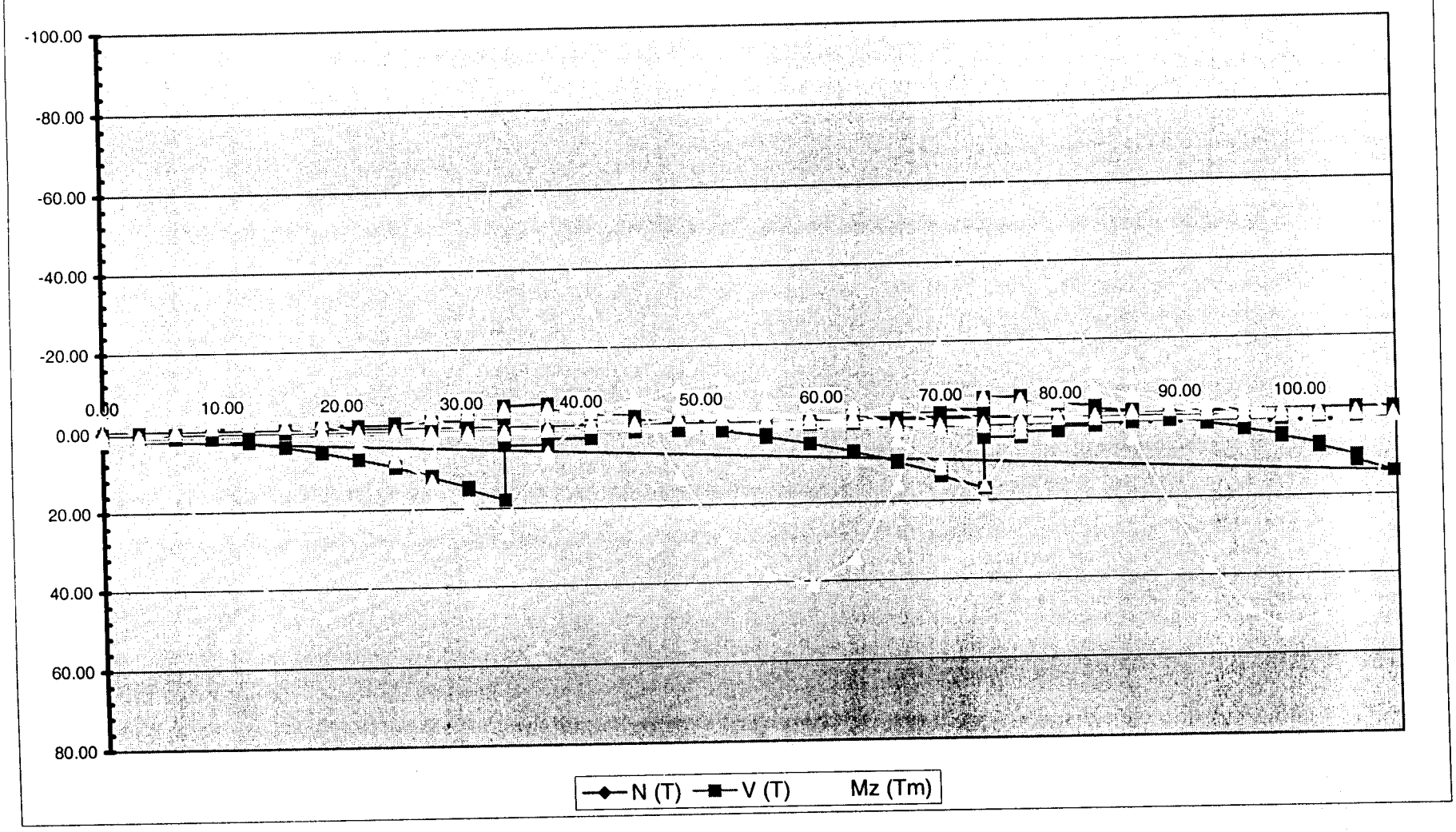


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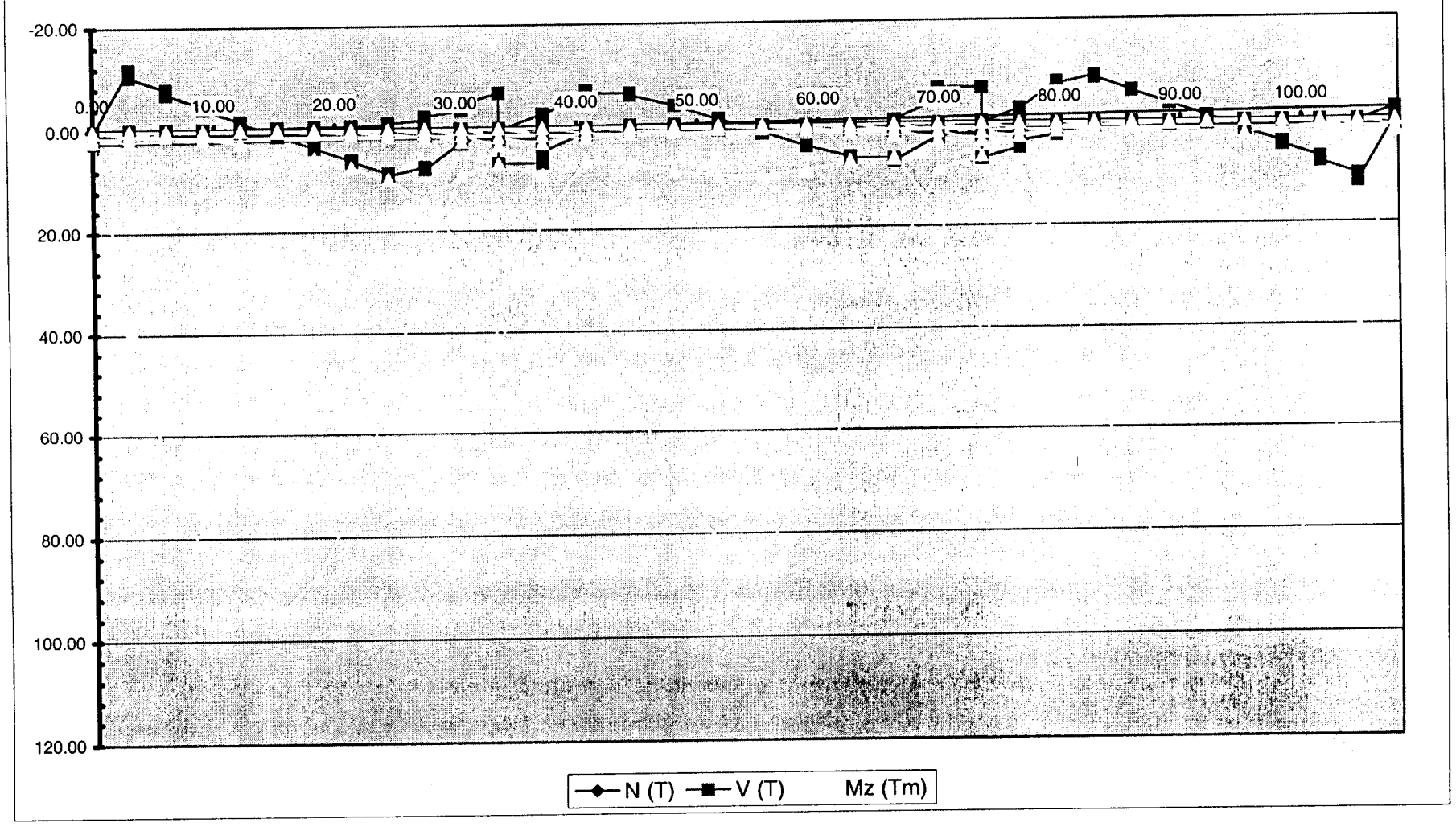


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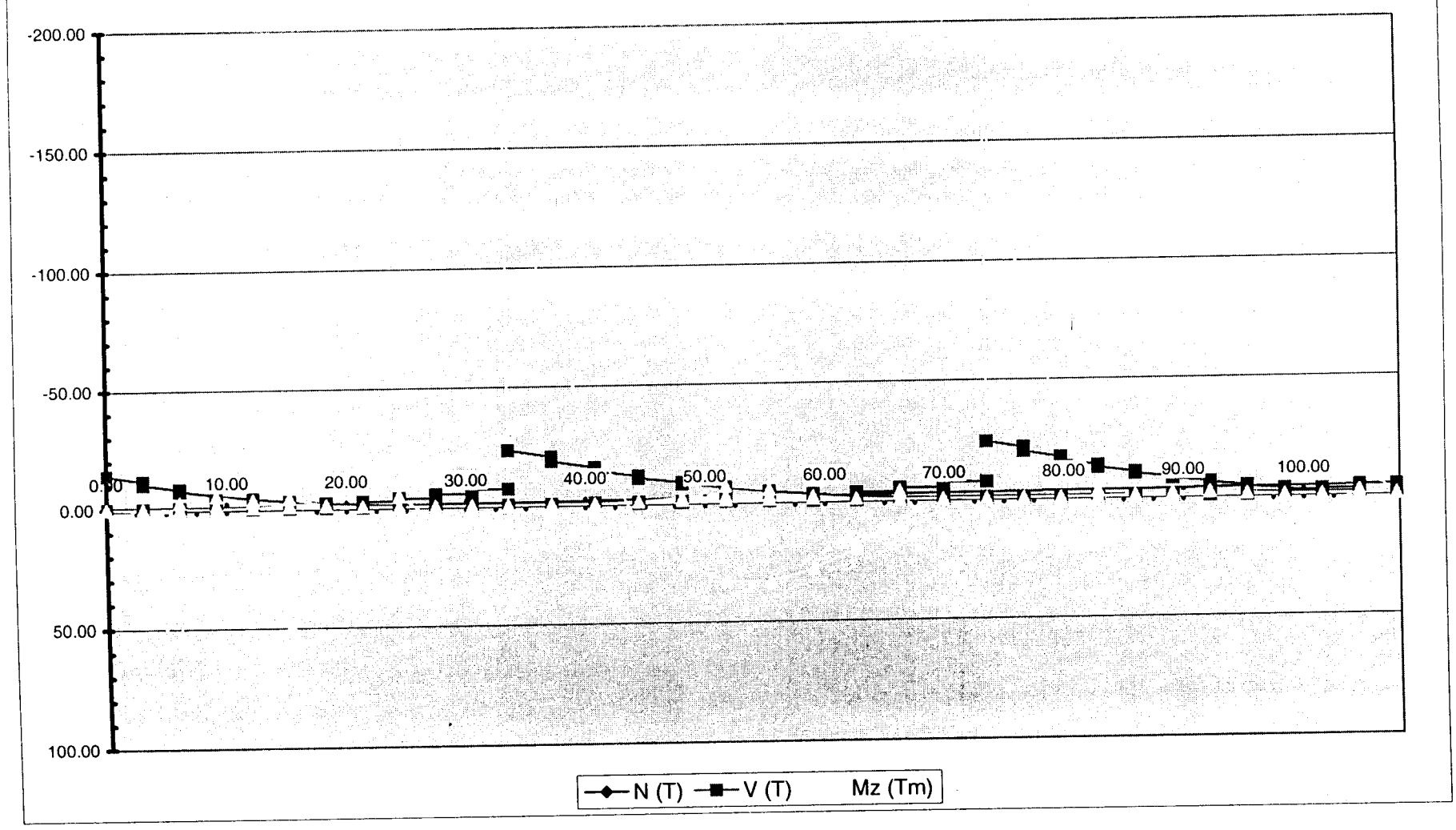
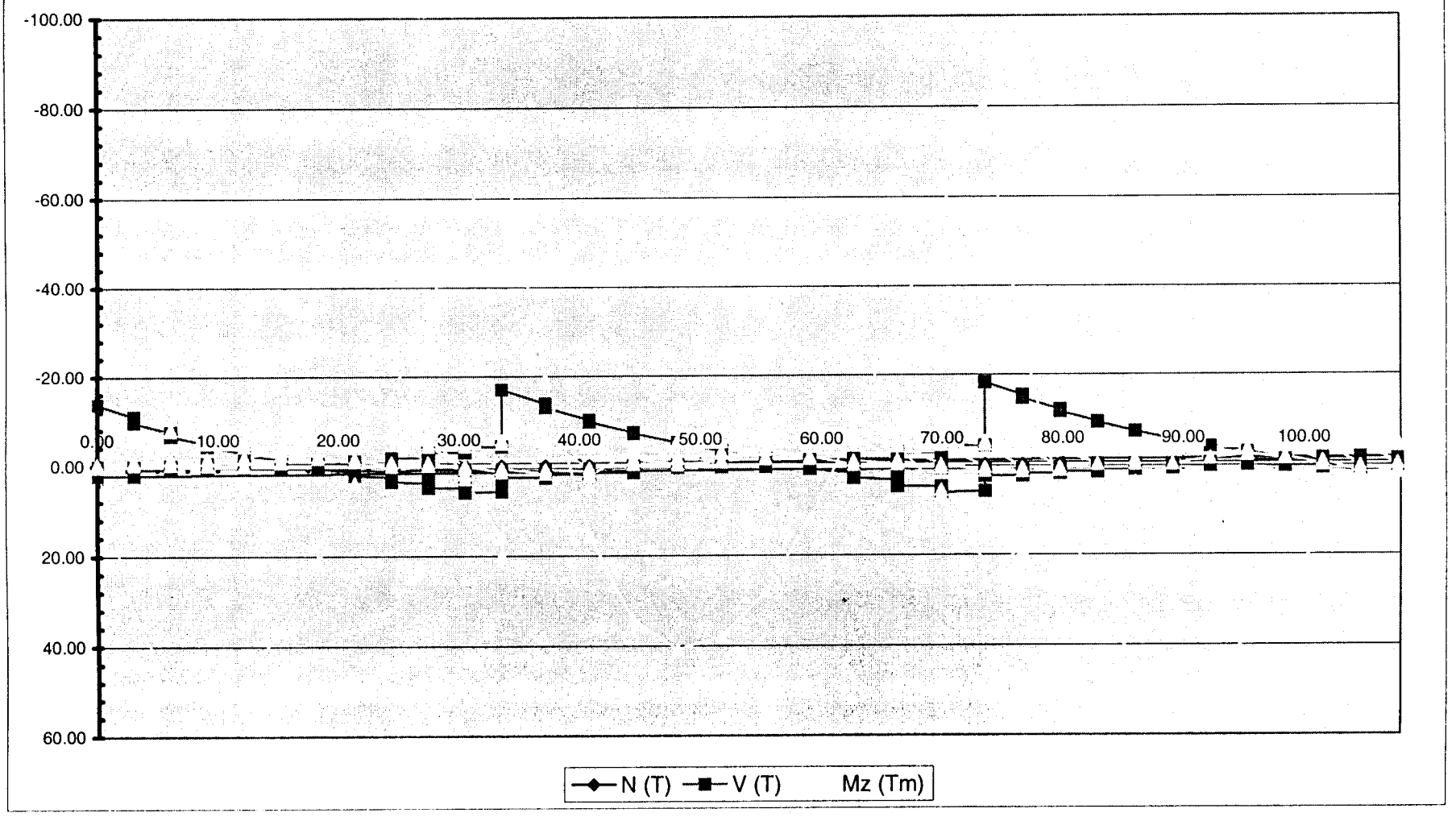
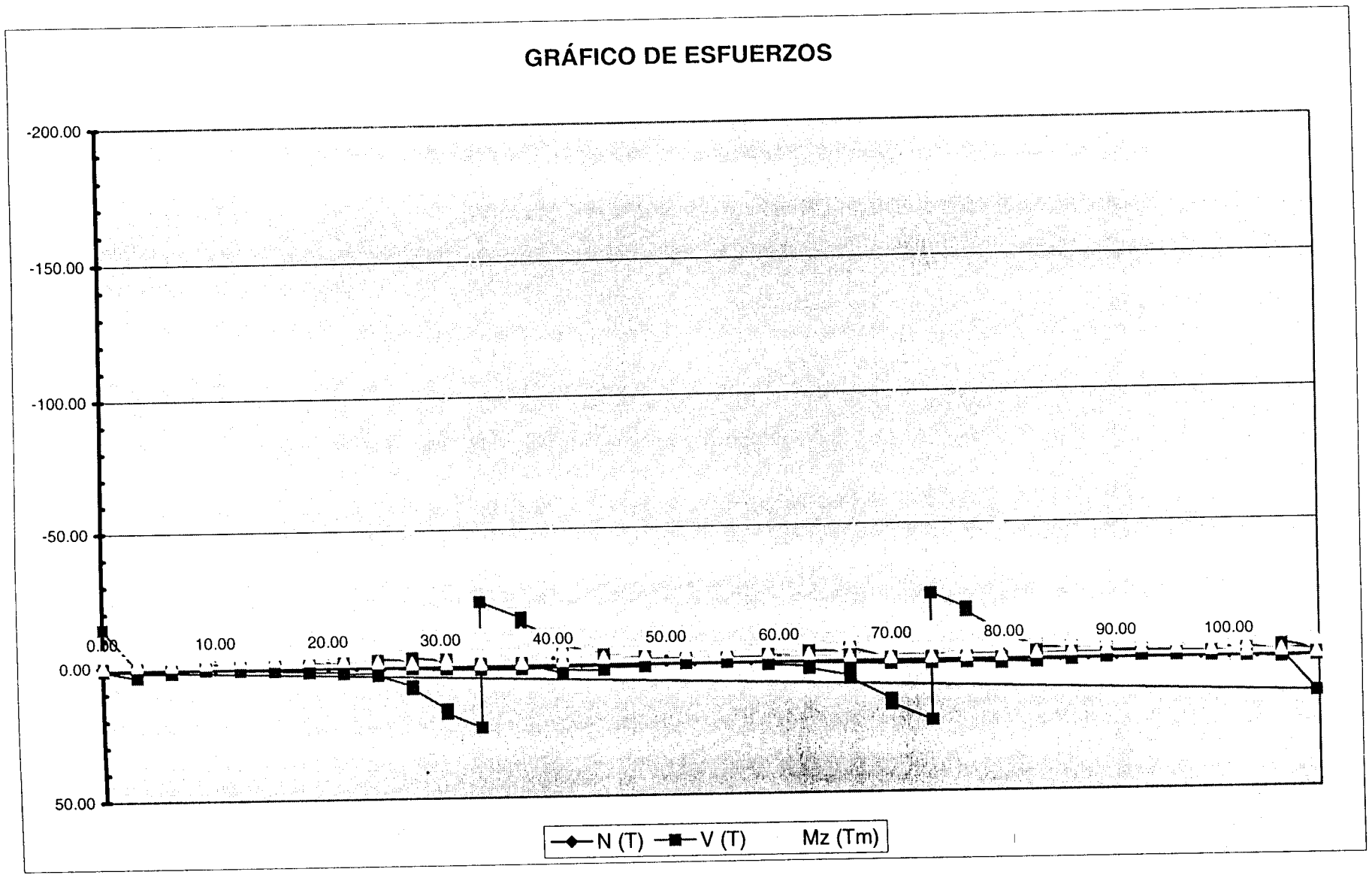


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GRÁFICO DE ESFUERZOS
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V (T)
Mz (Tm)

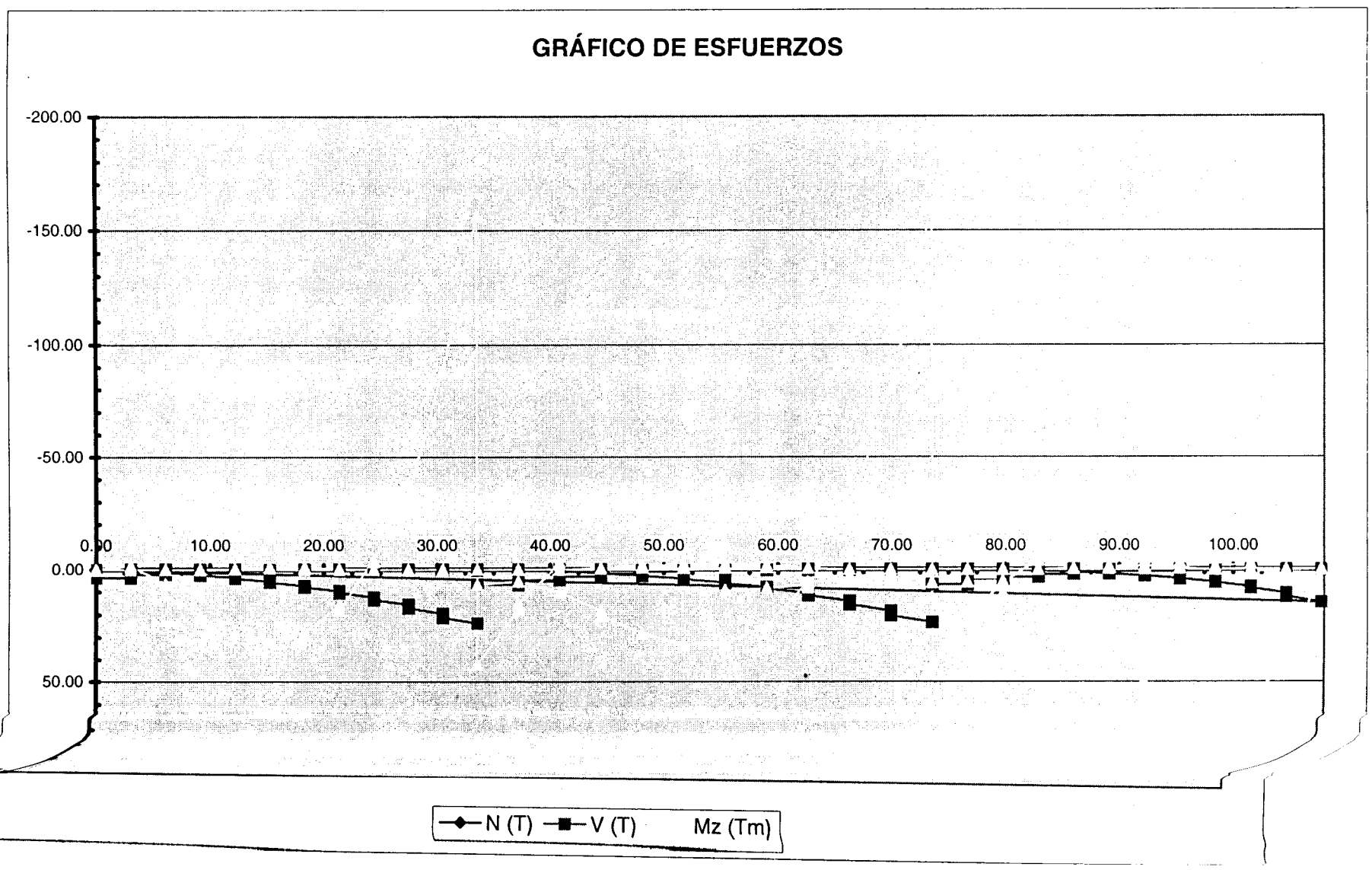

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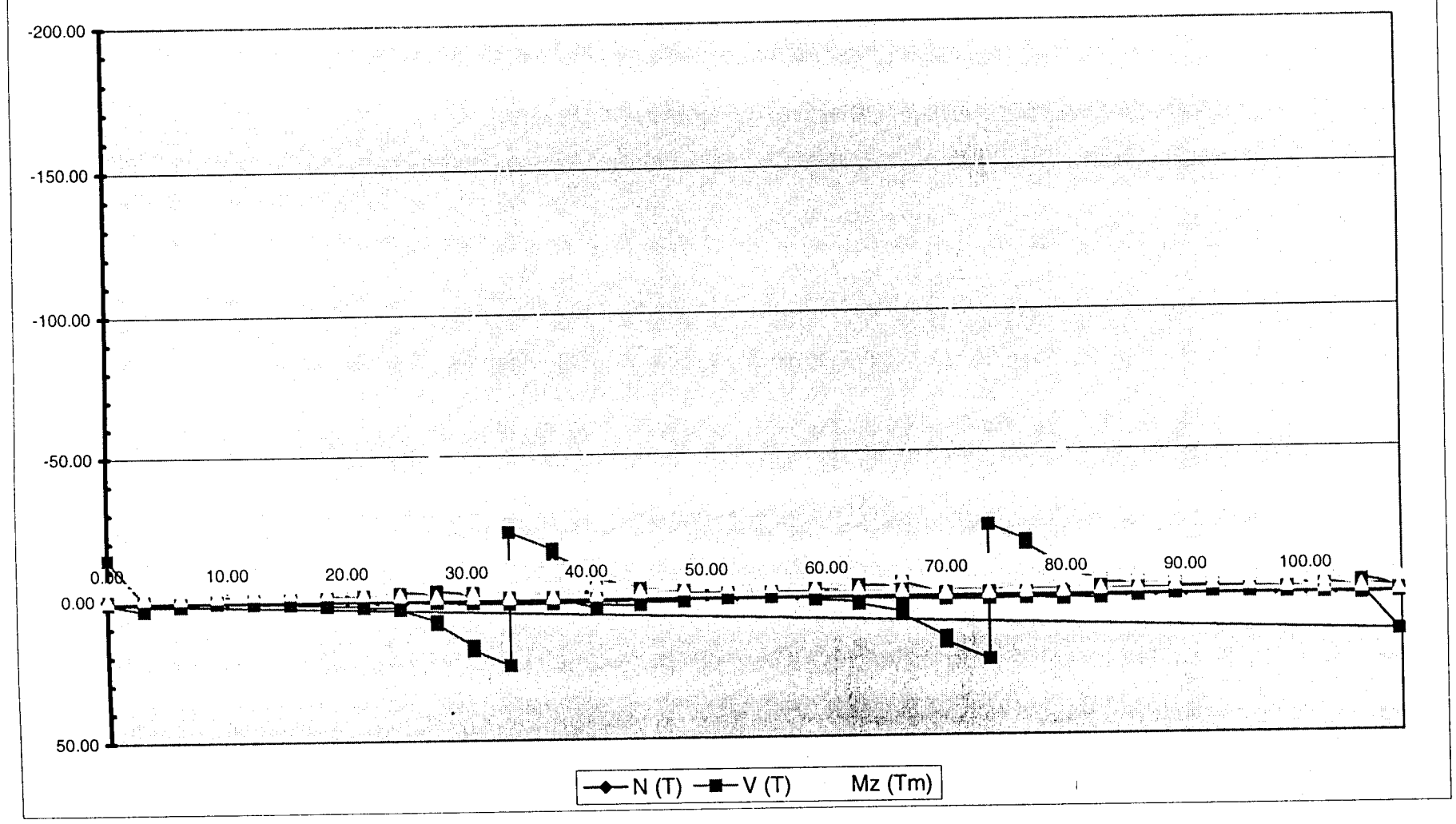
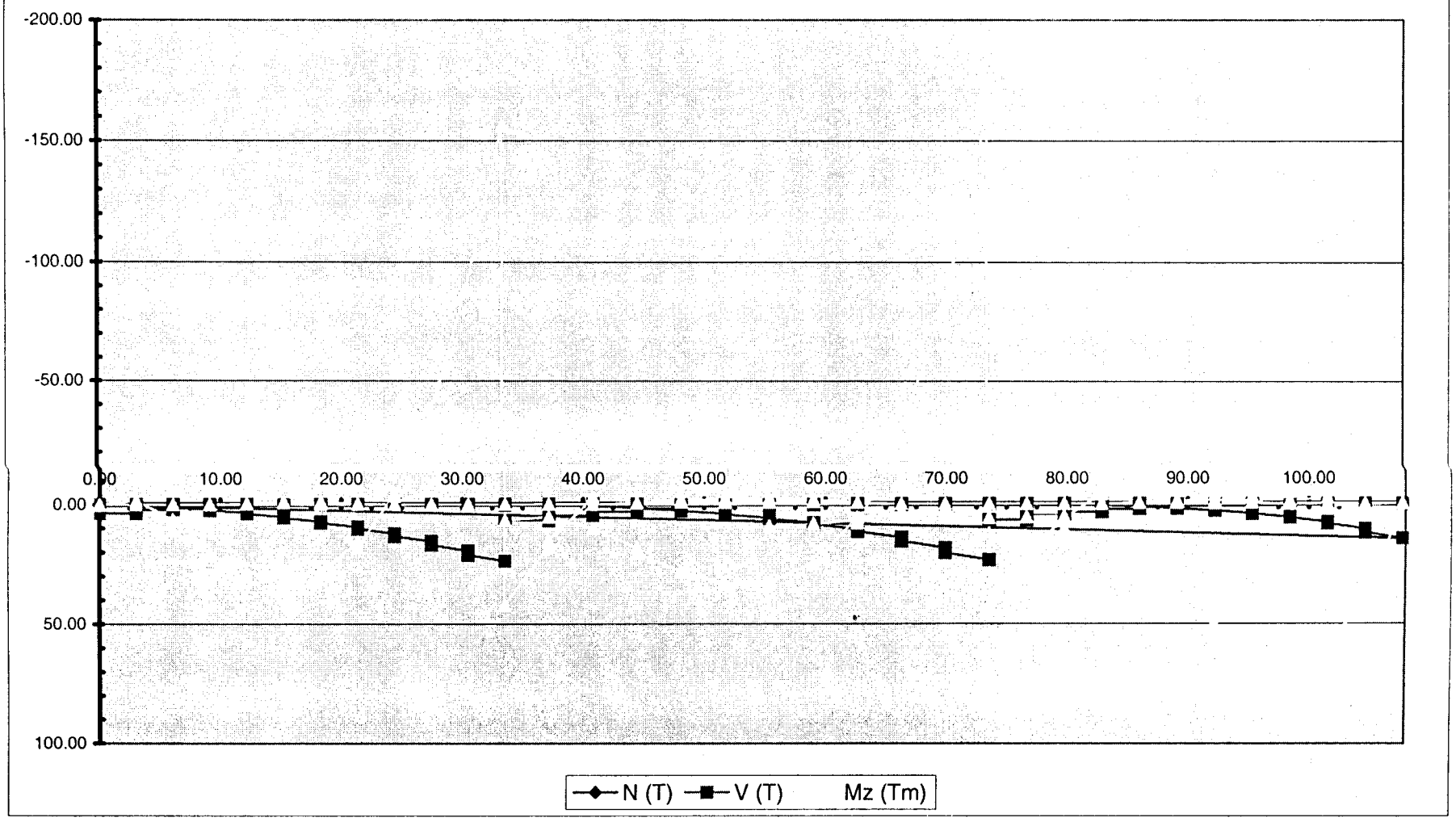
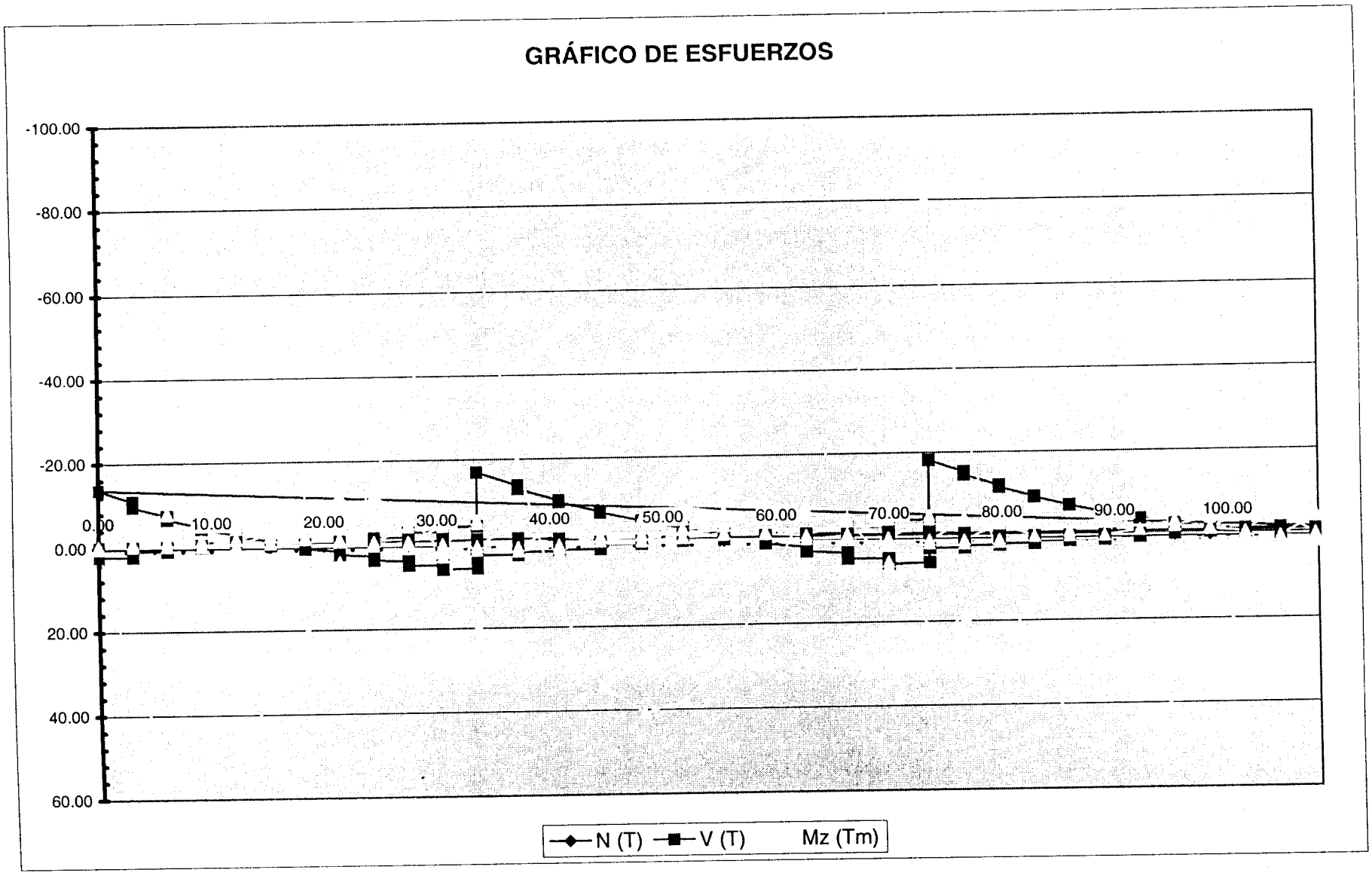


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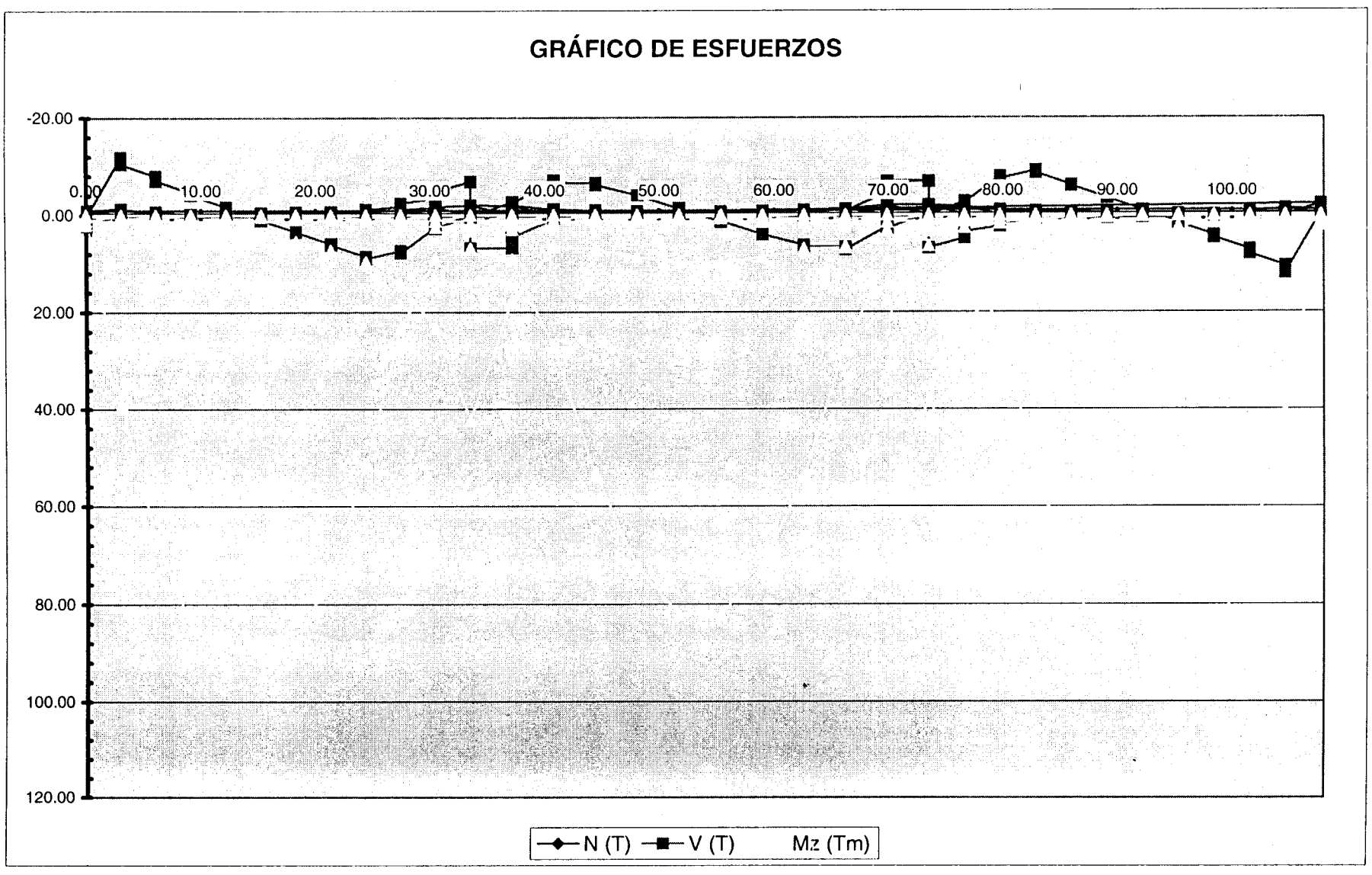

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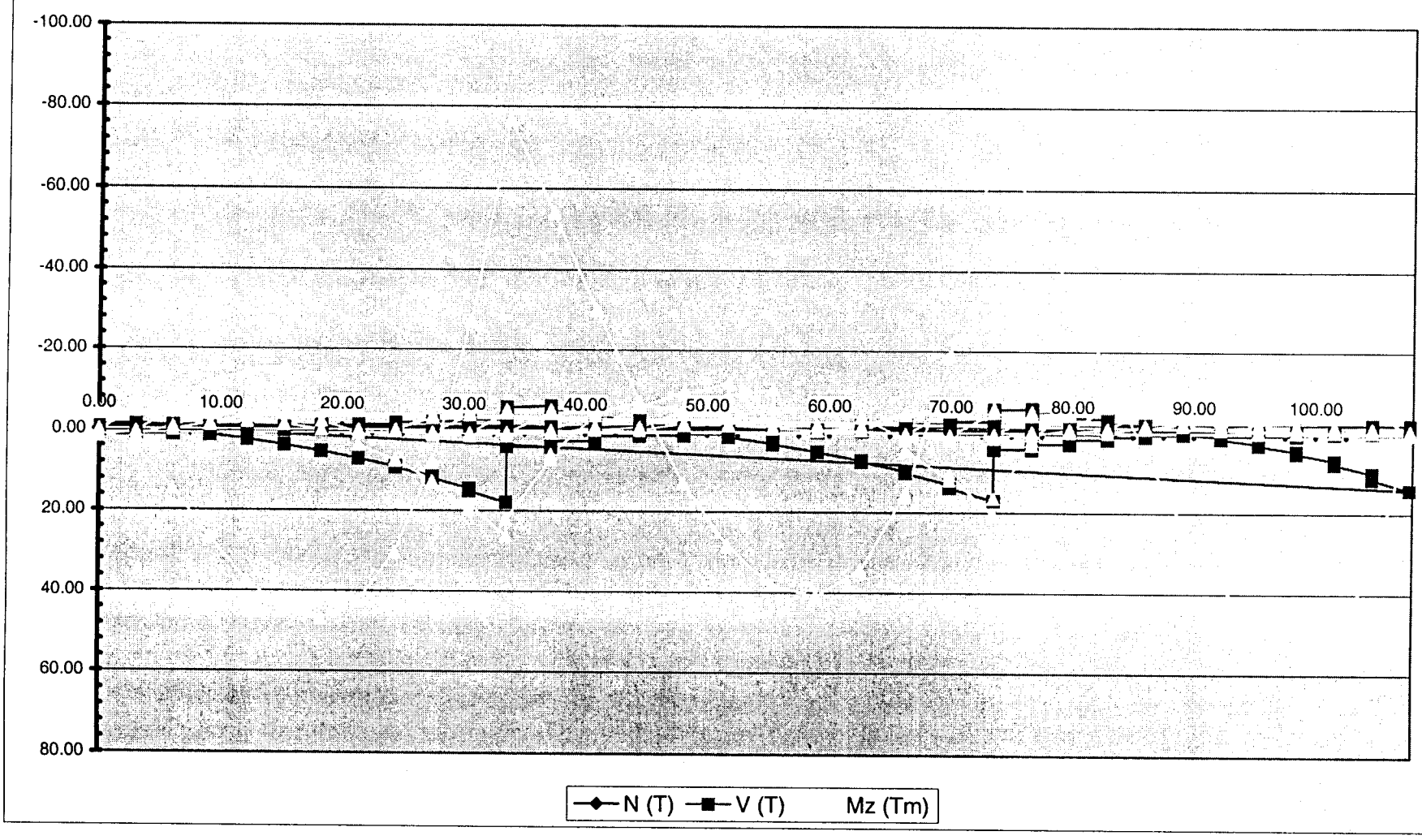
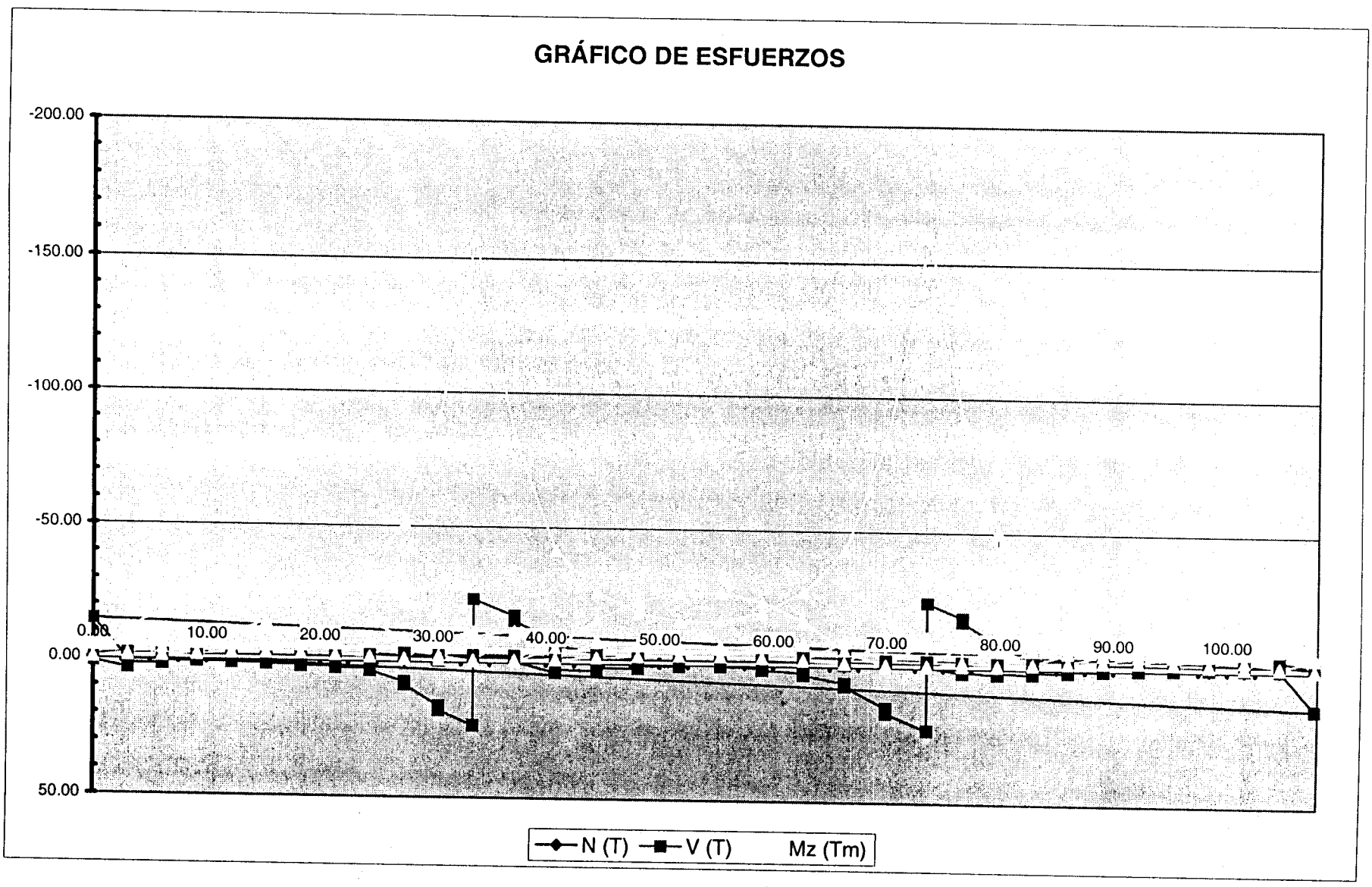
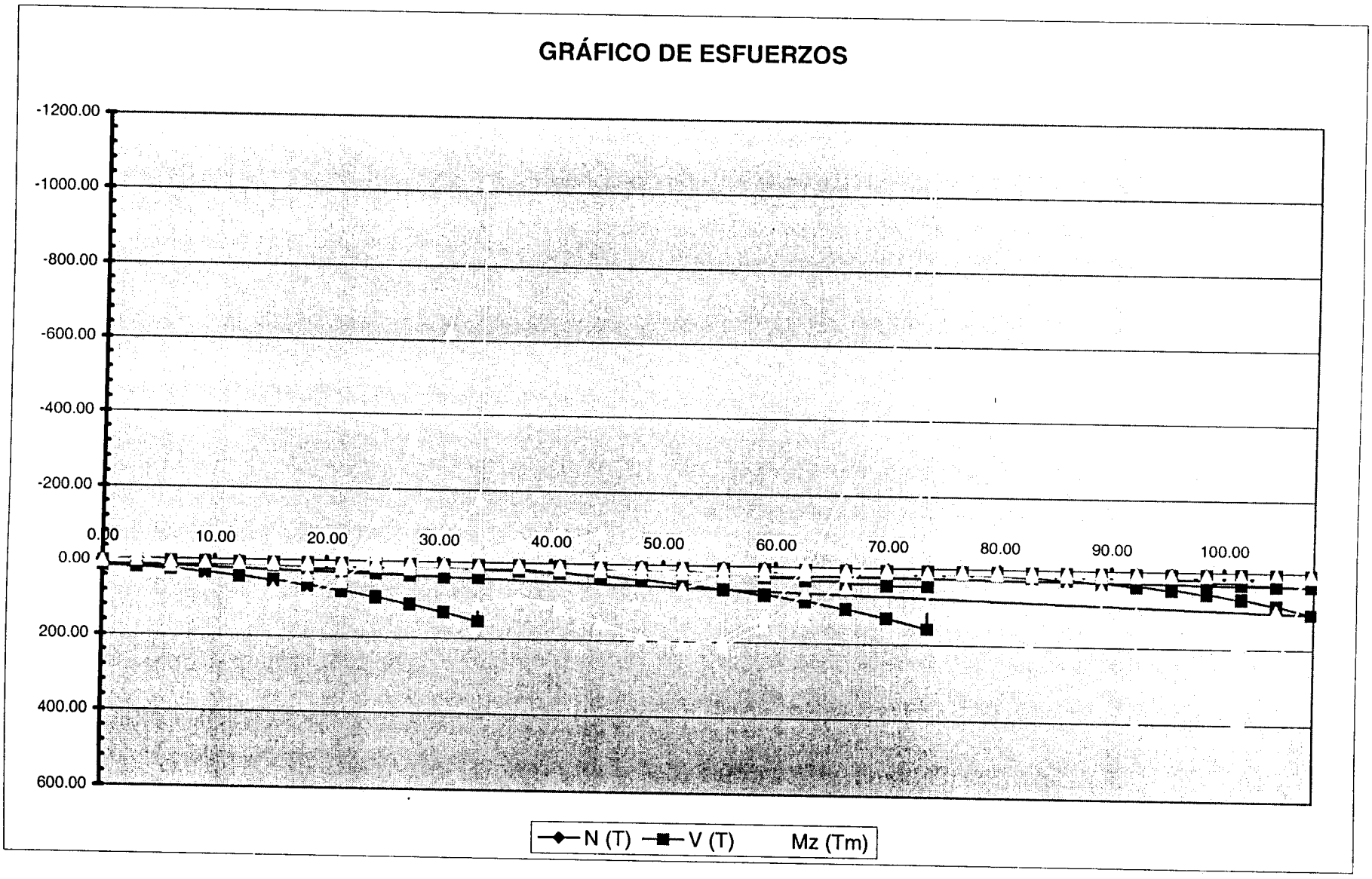
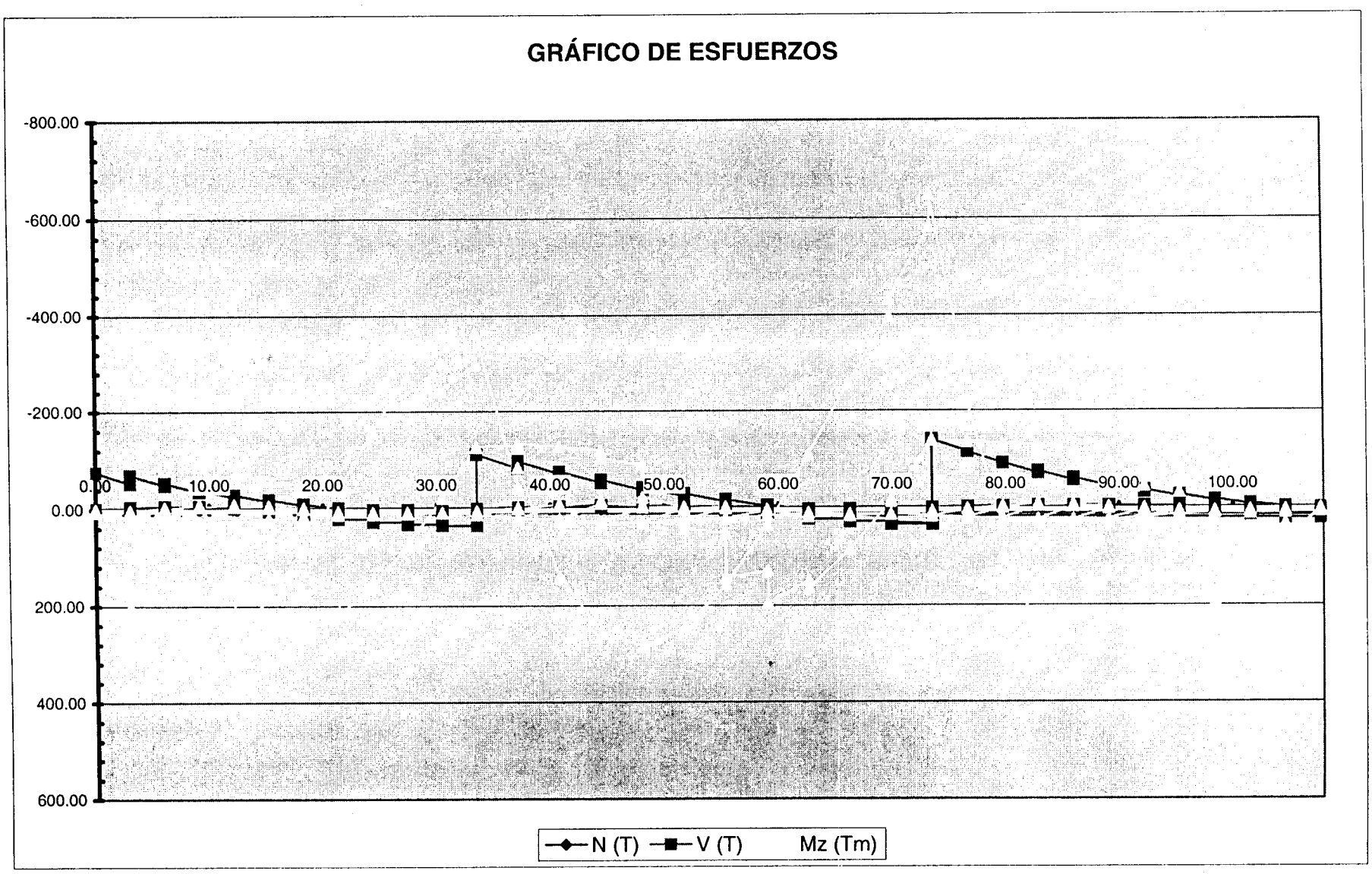
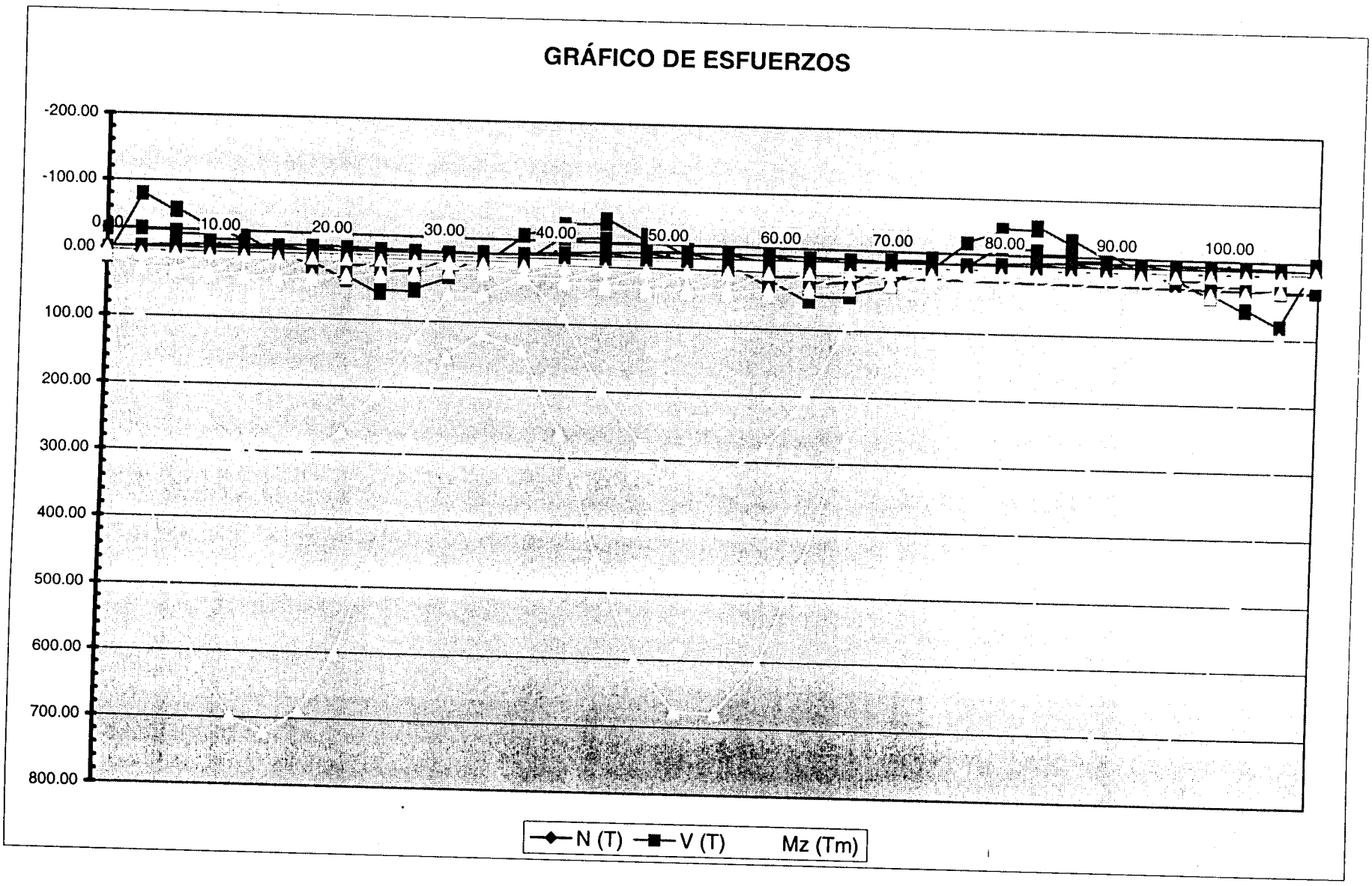


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Mz (Tm)


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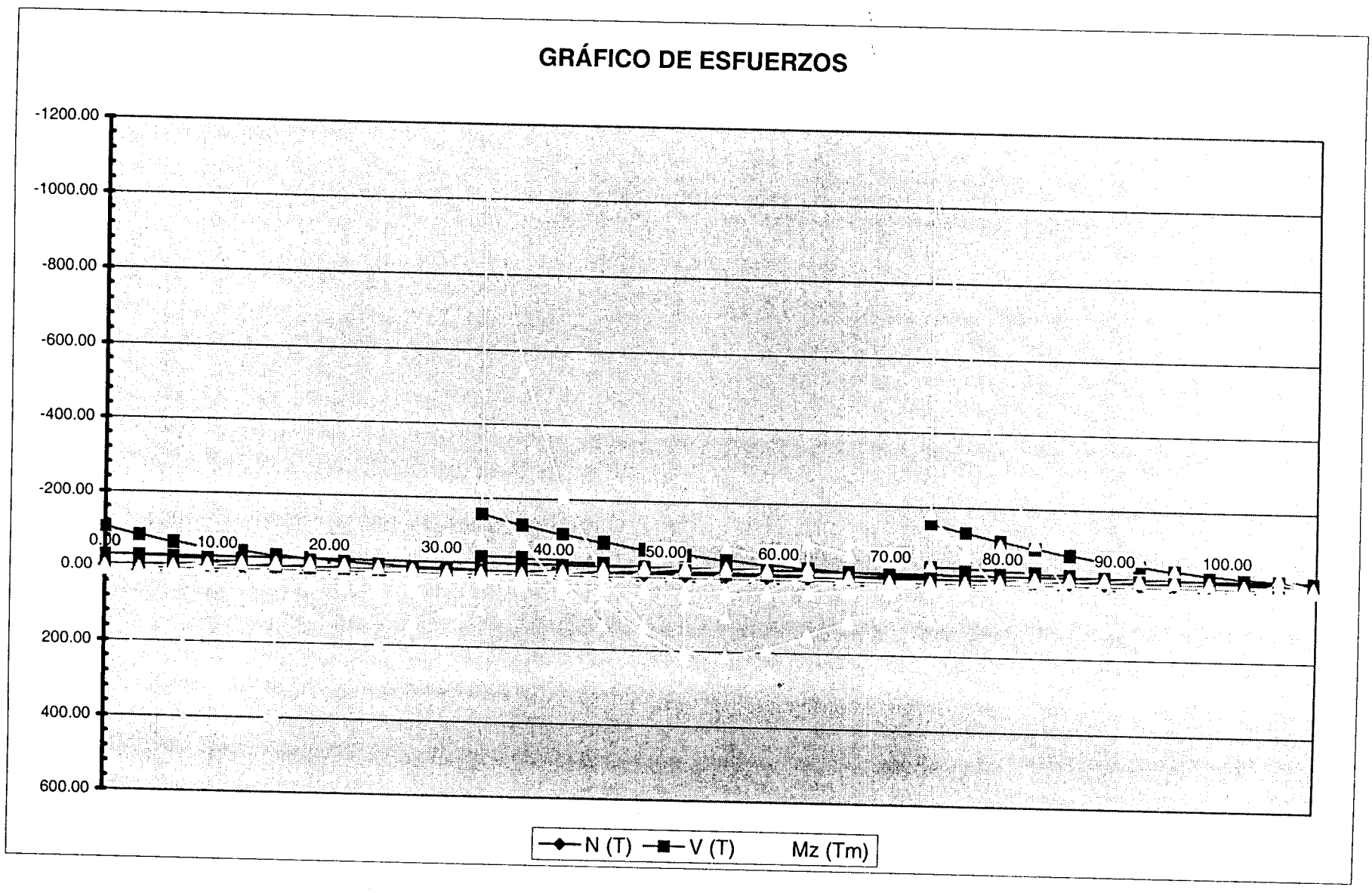

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Mz (Tm)

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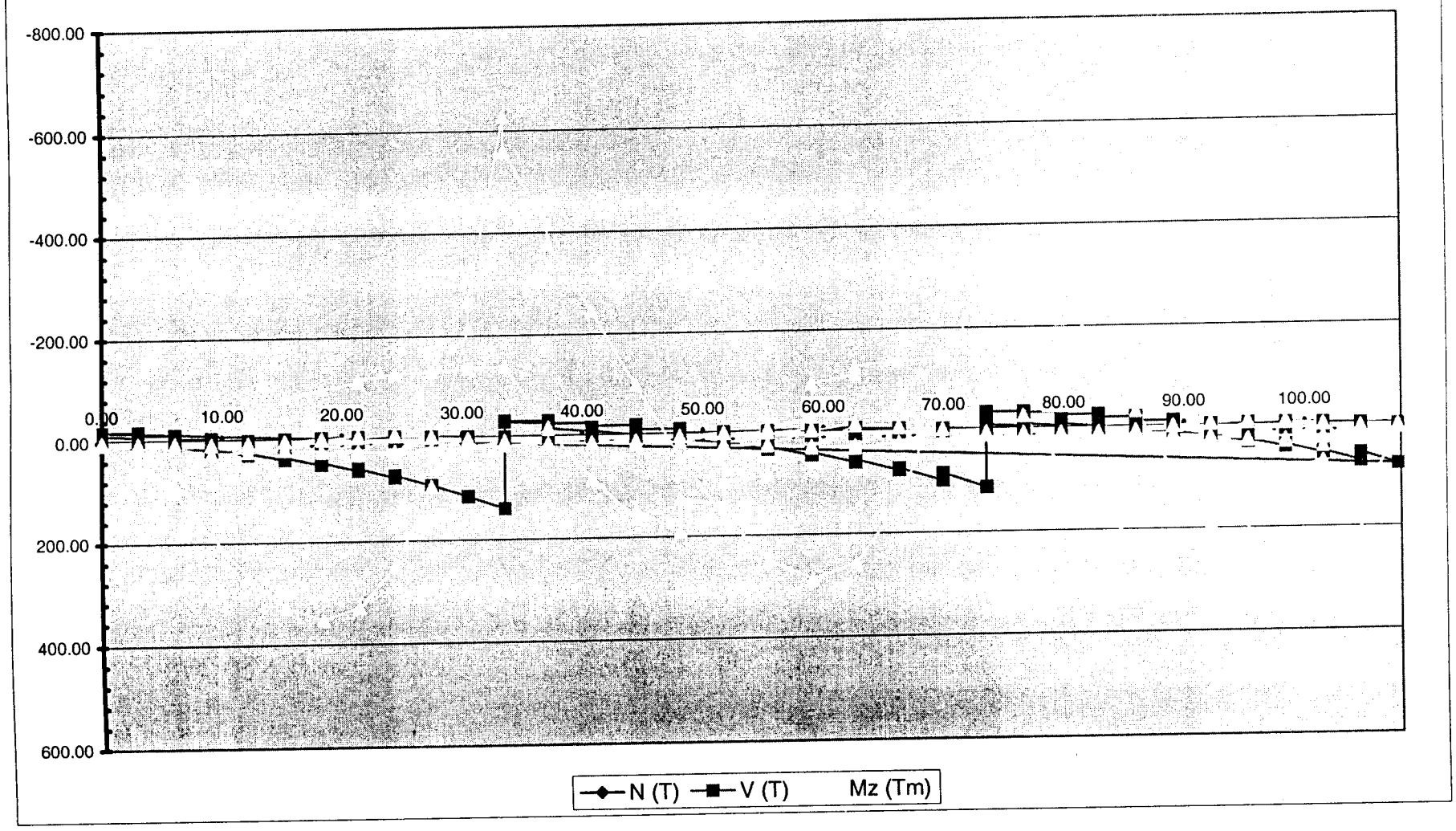


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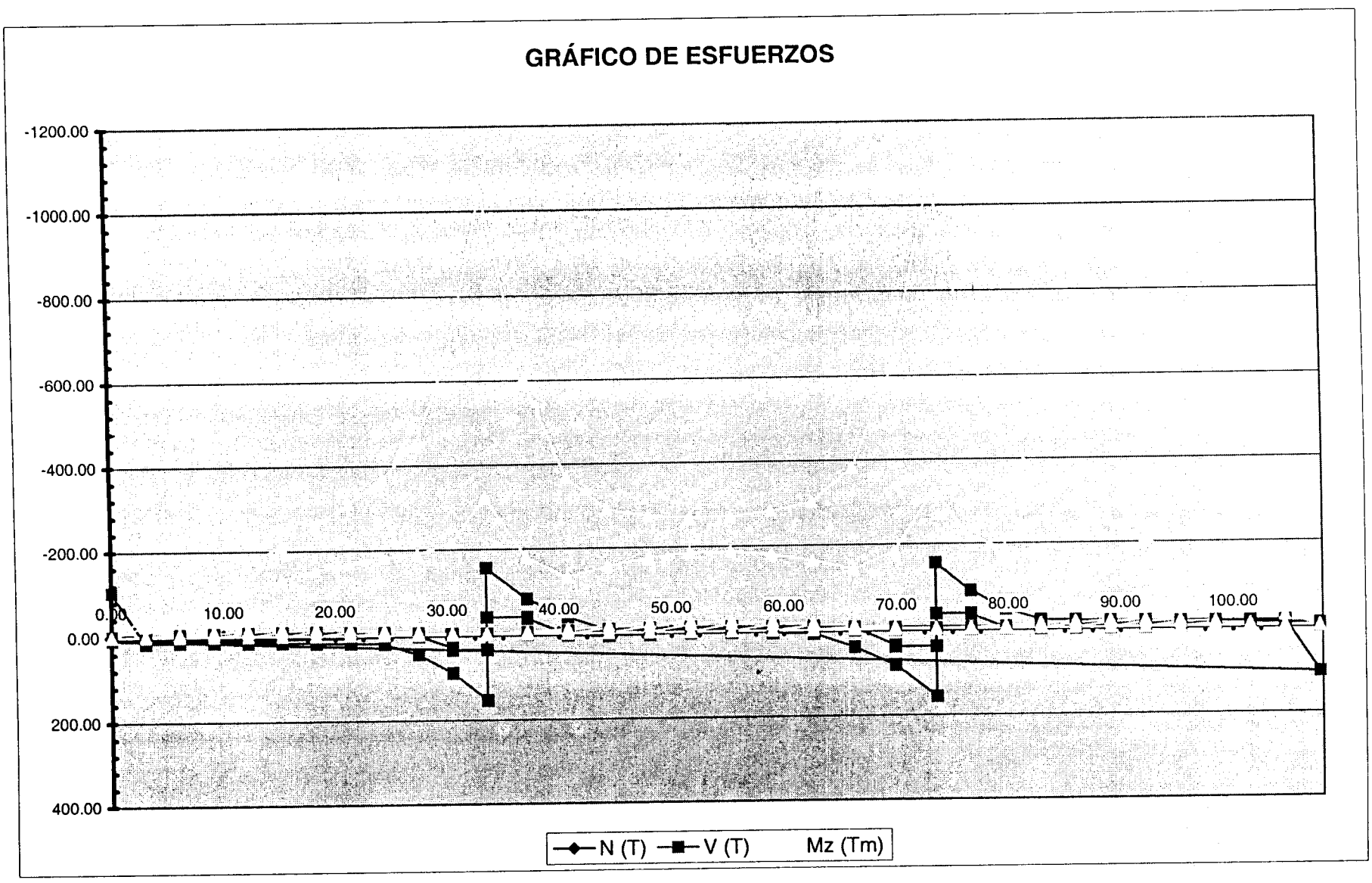


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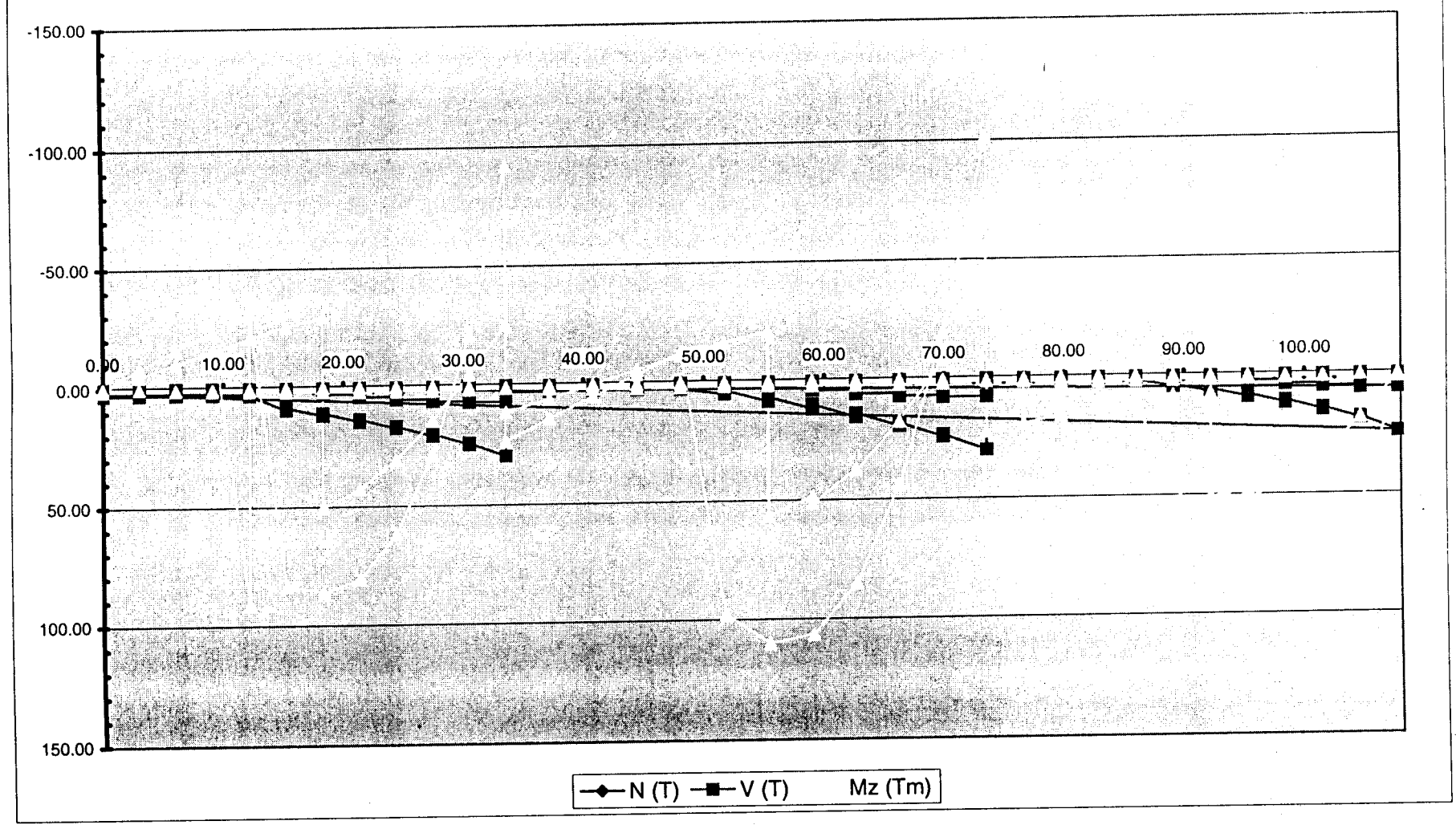
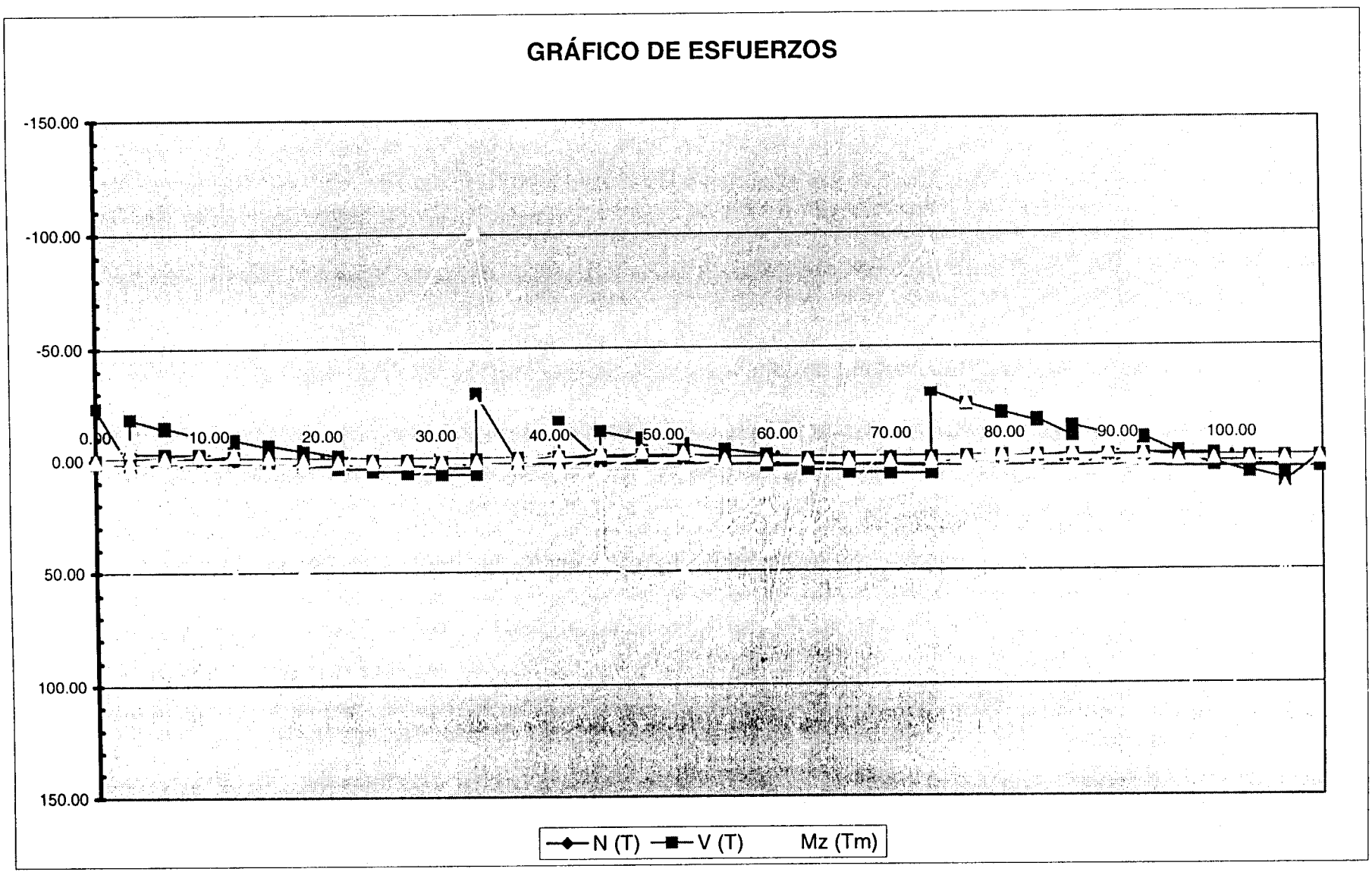
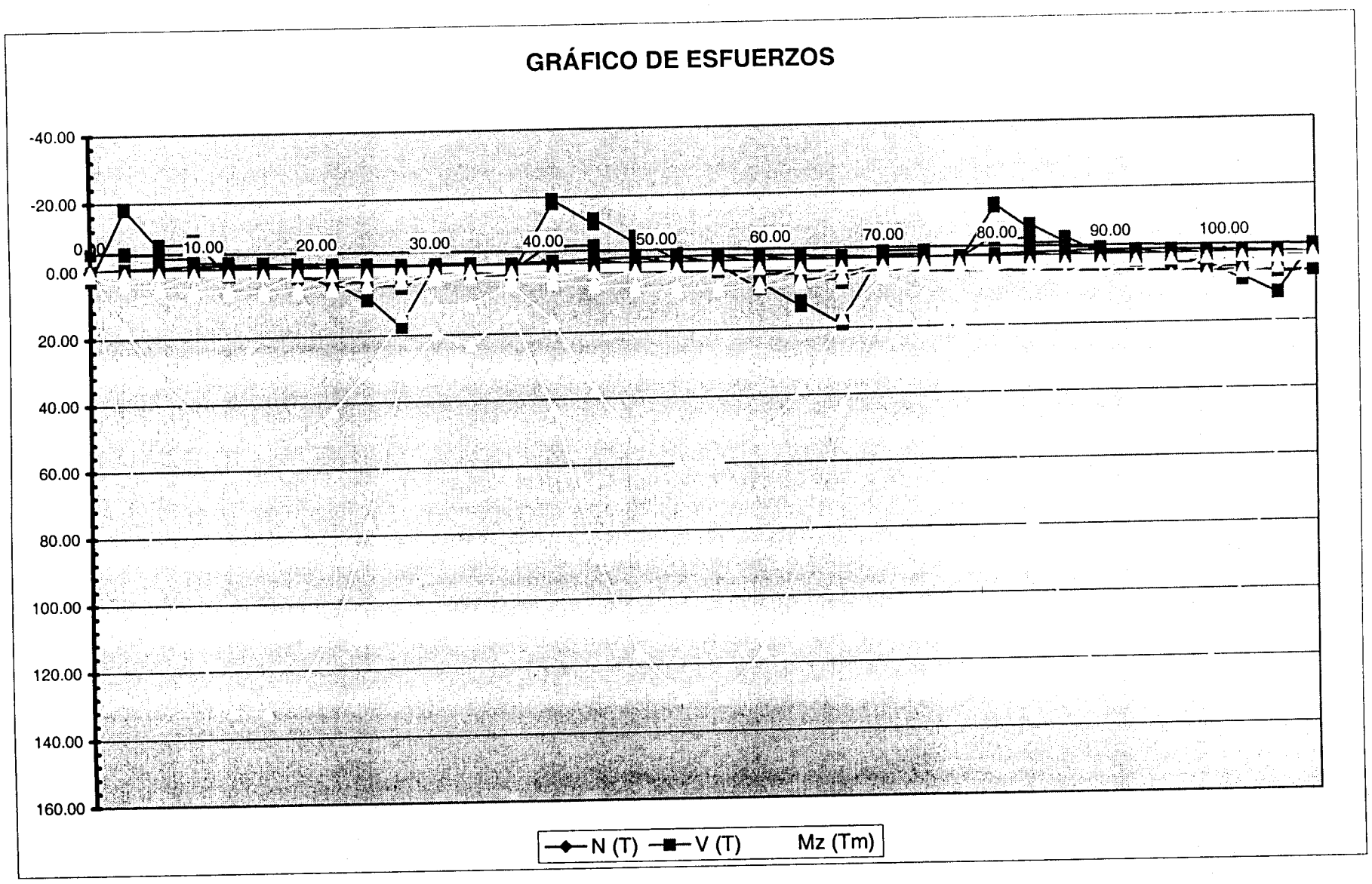


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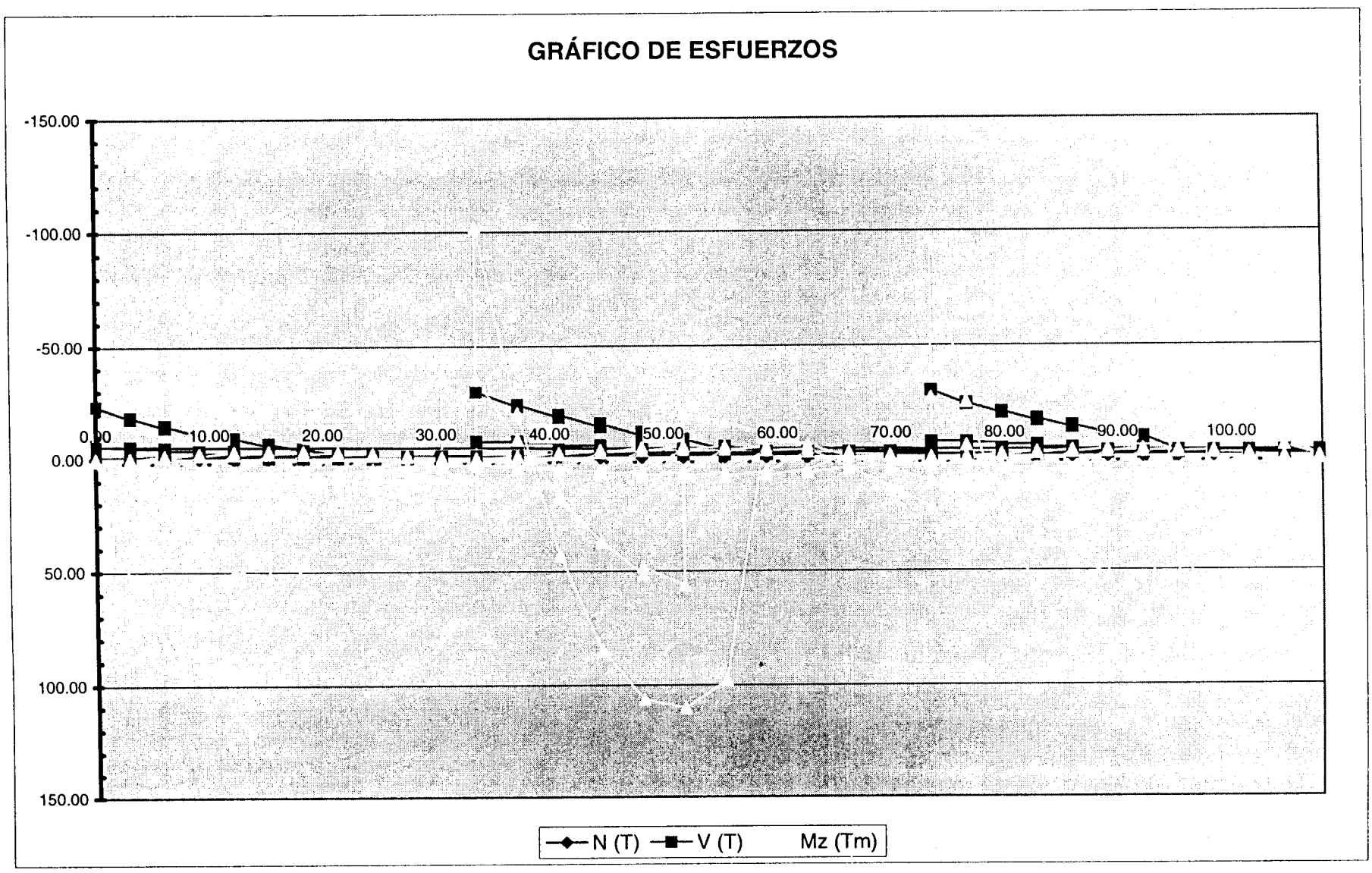

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Mz (Tm)

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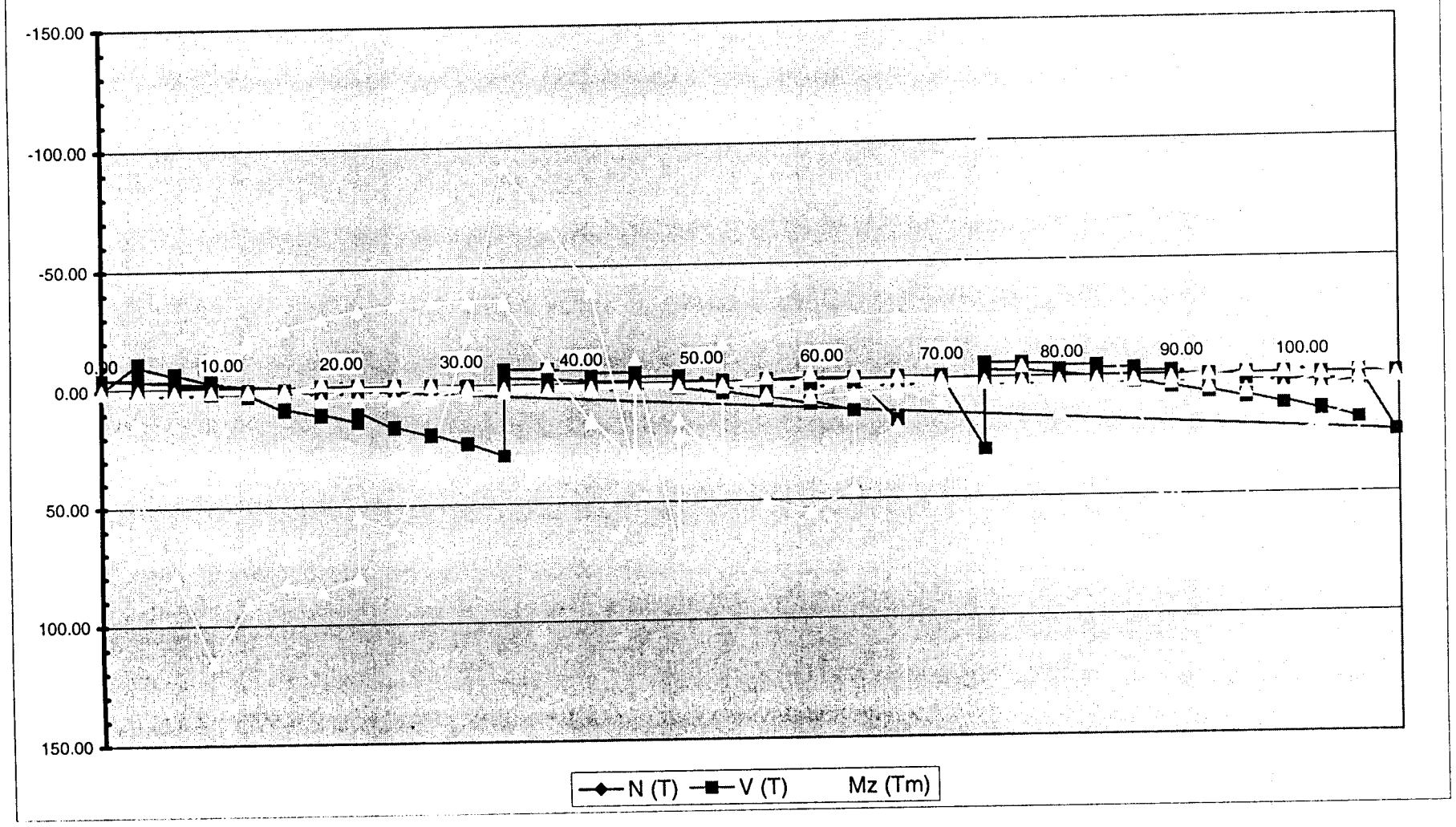


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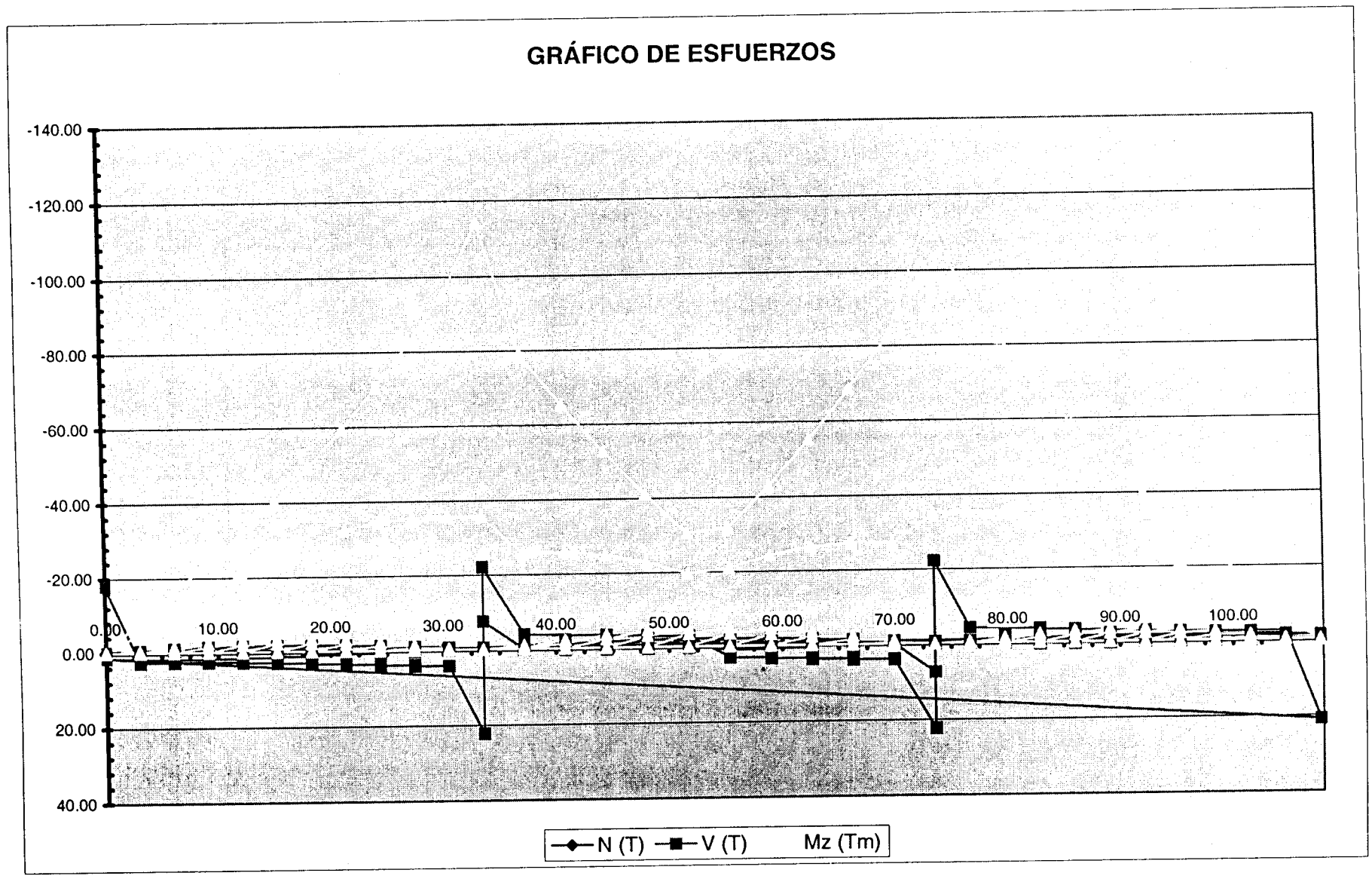
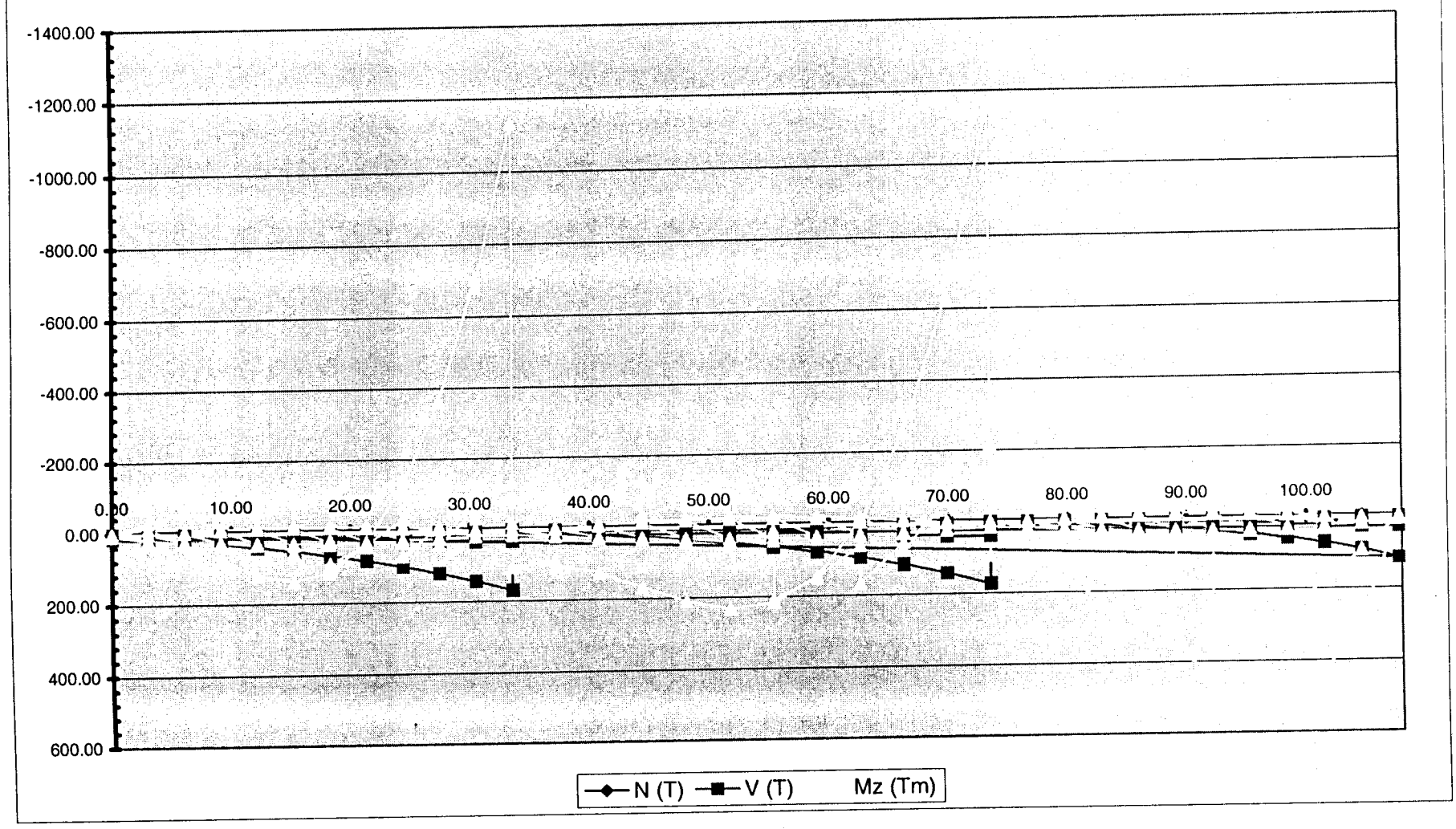


GRÁFICO DE ESFUERZOS



f4.rea.xls

Programa DINTEL PACADAR S.A.
SCUNIFD.ENV_TREN_GENERICO.MX+

17/11/02

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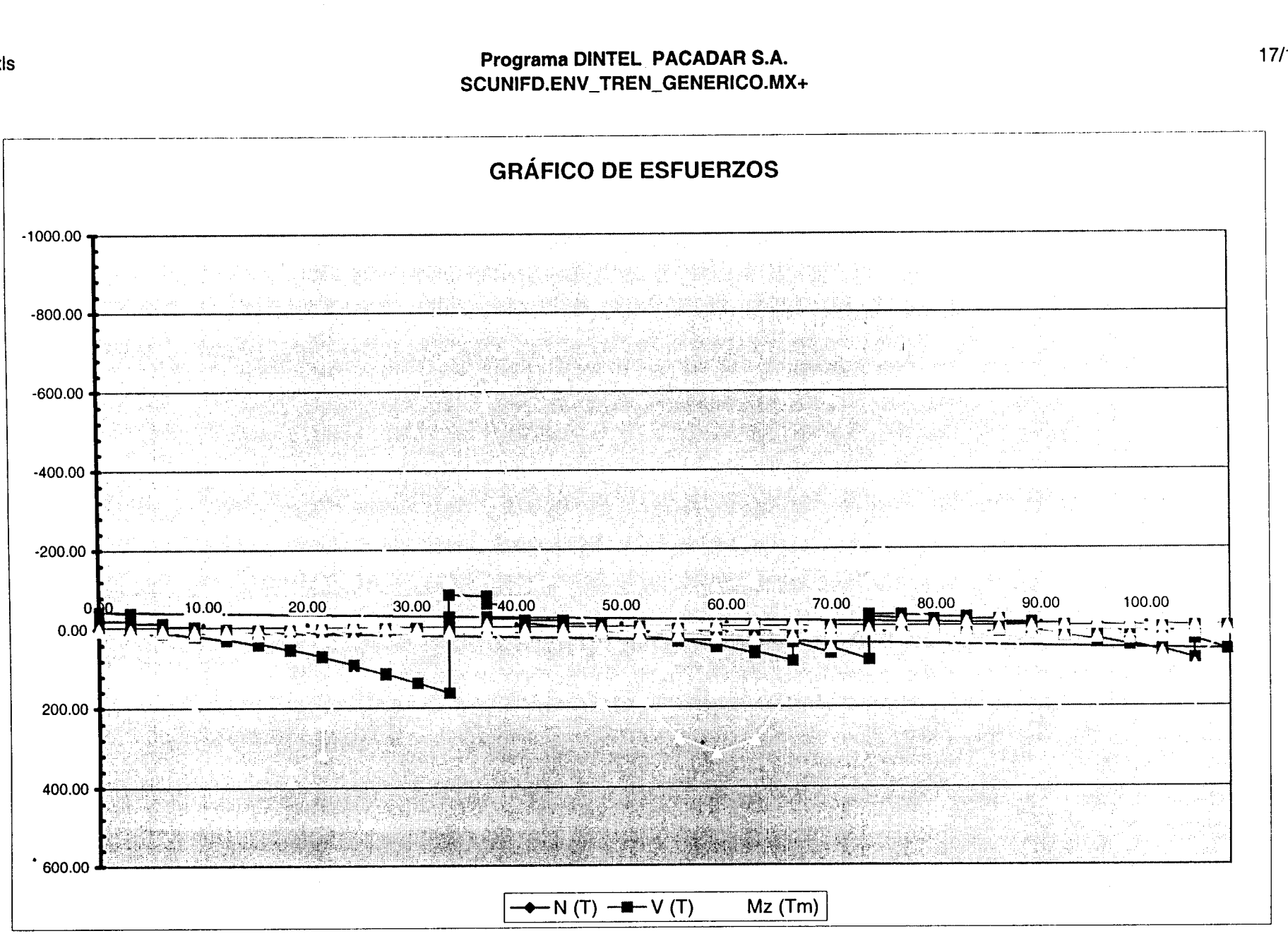


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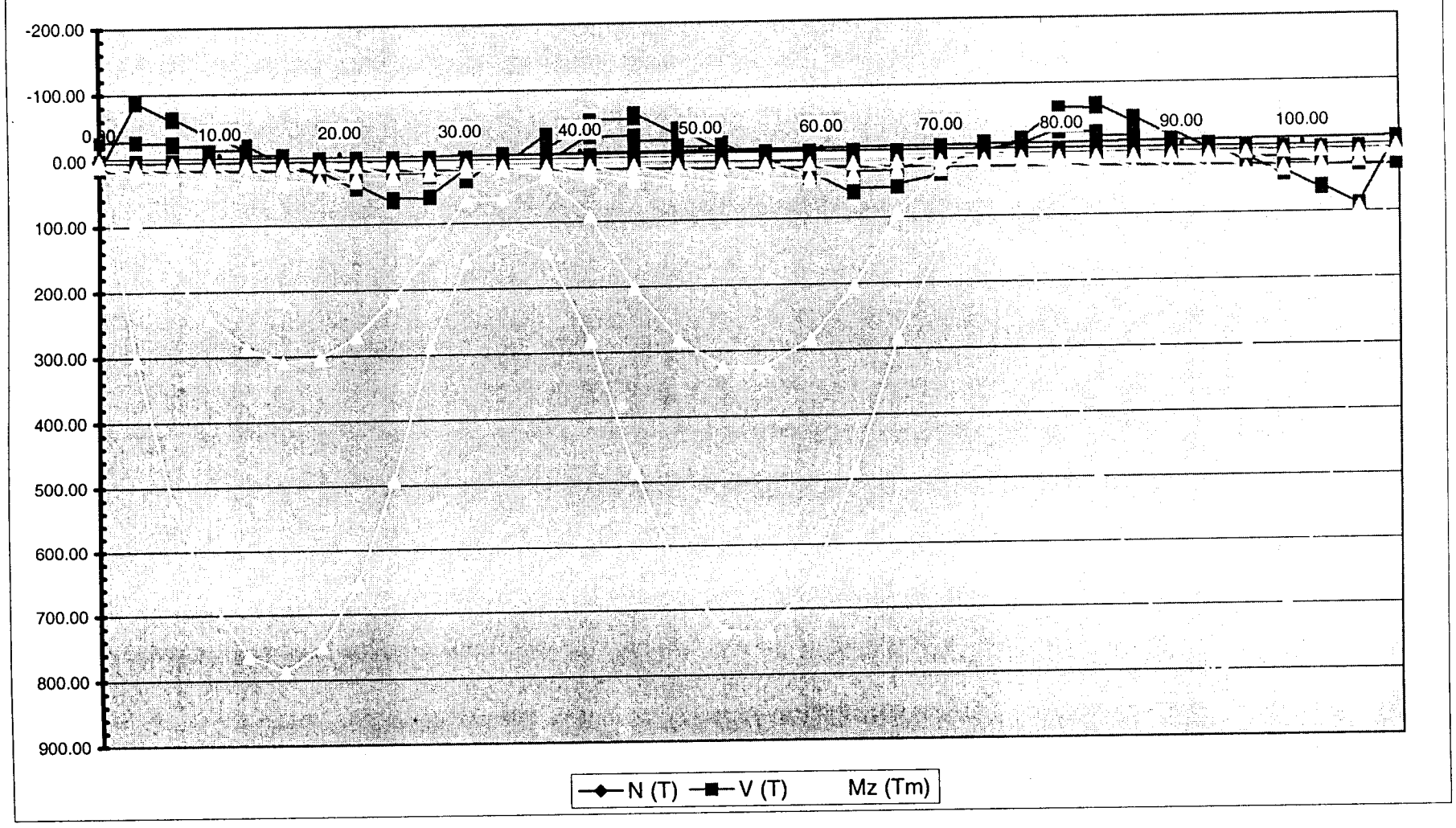
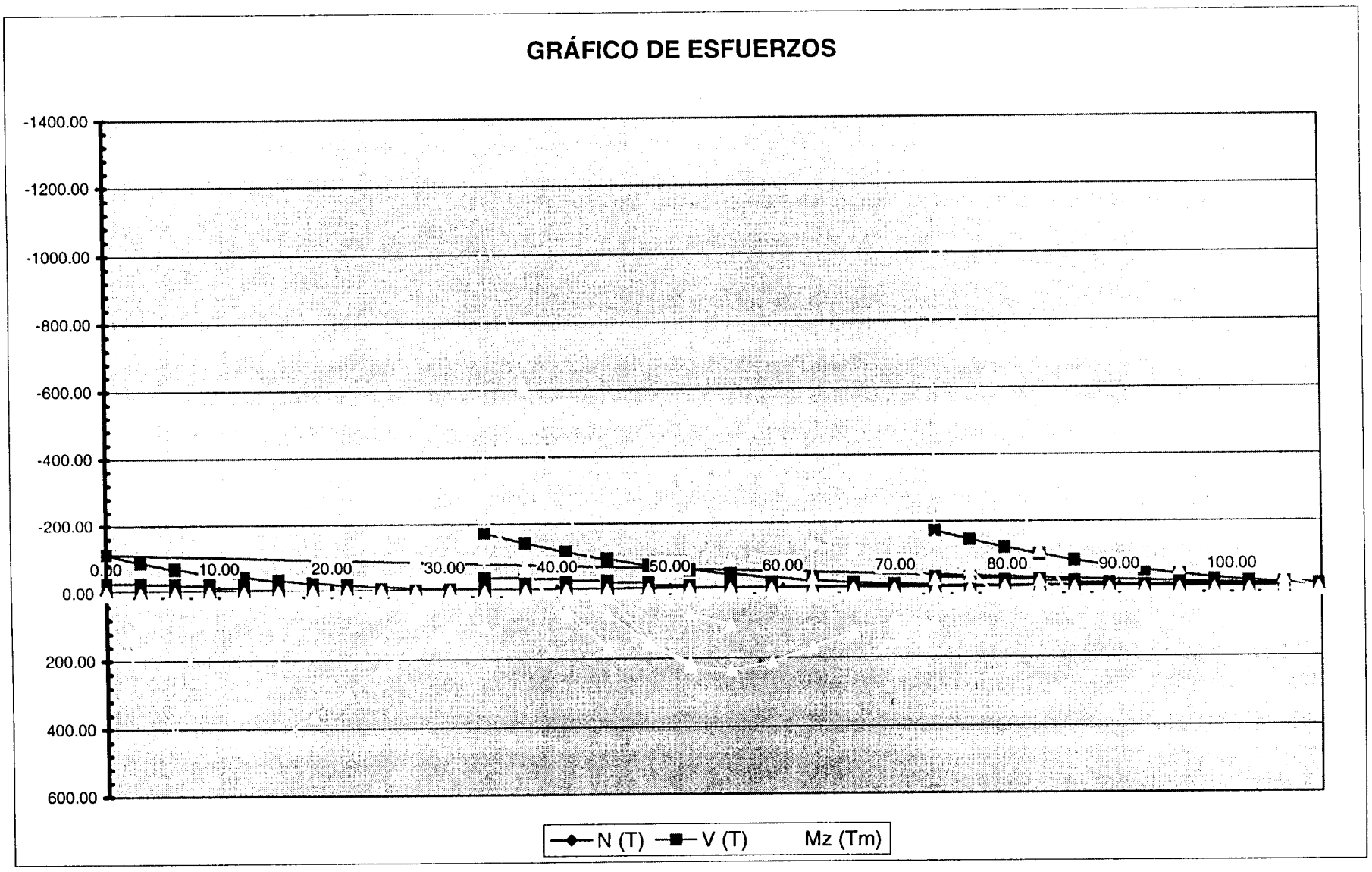
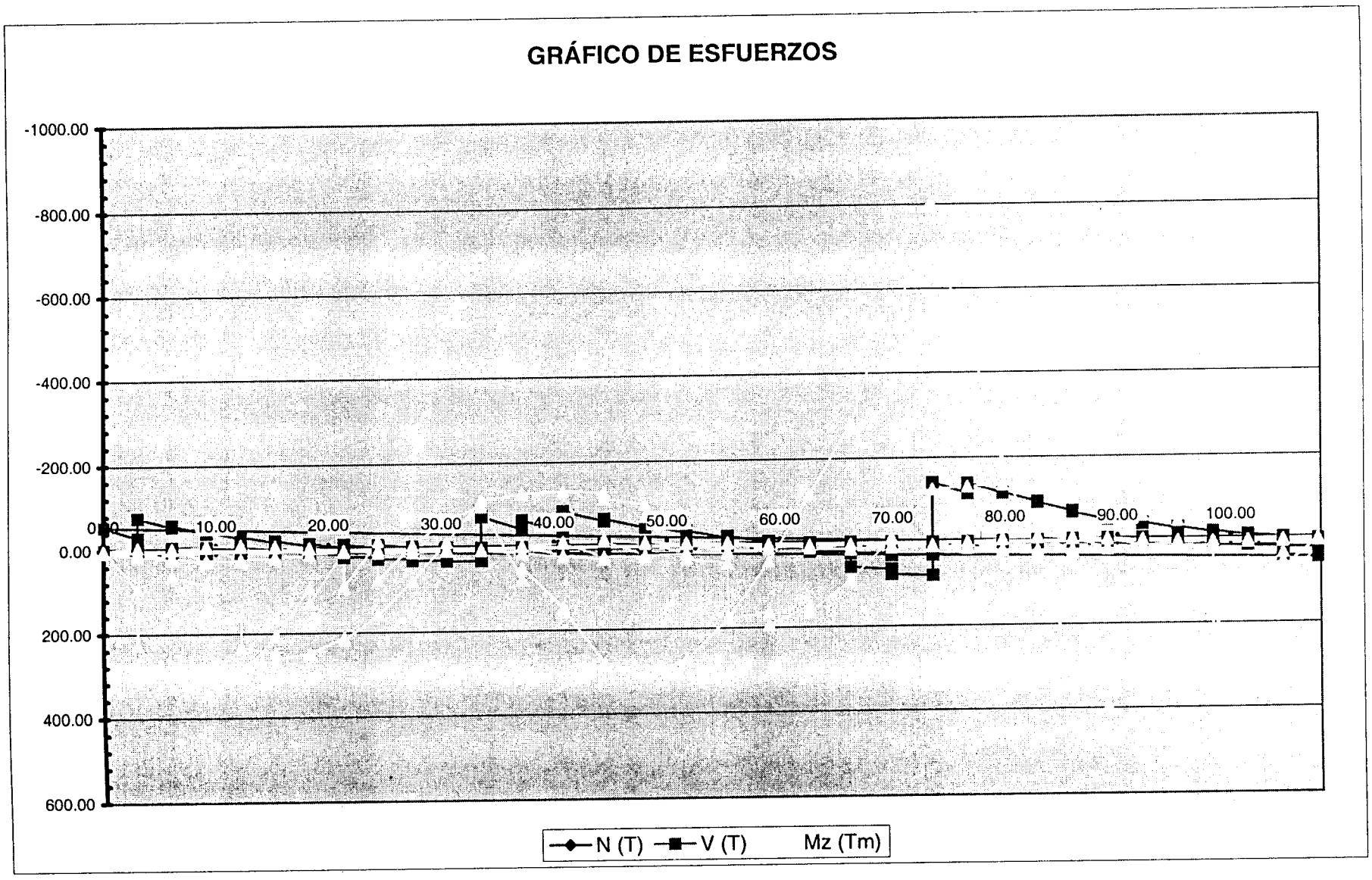
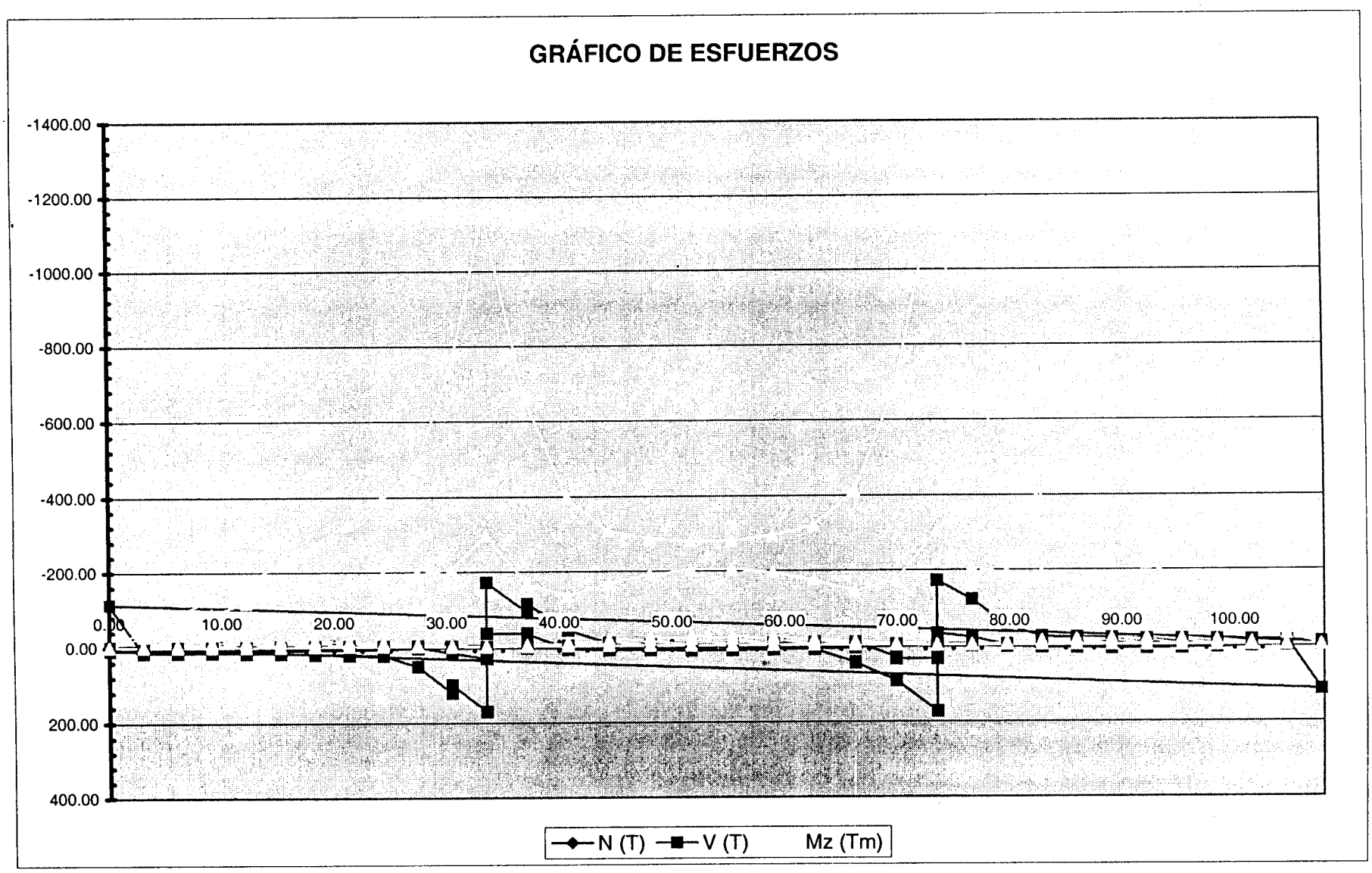
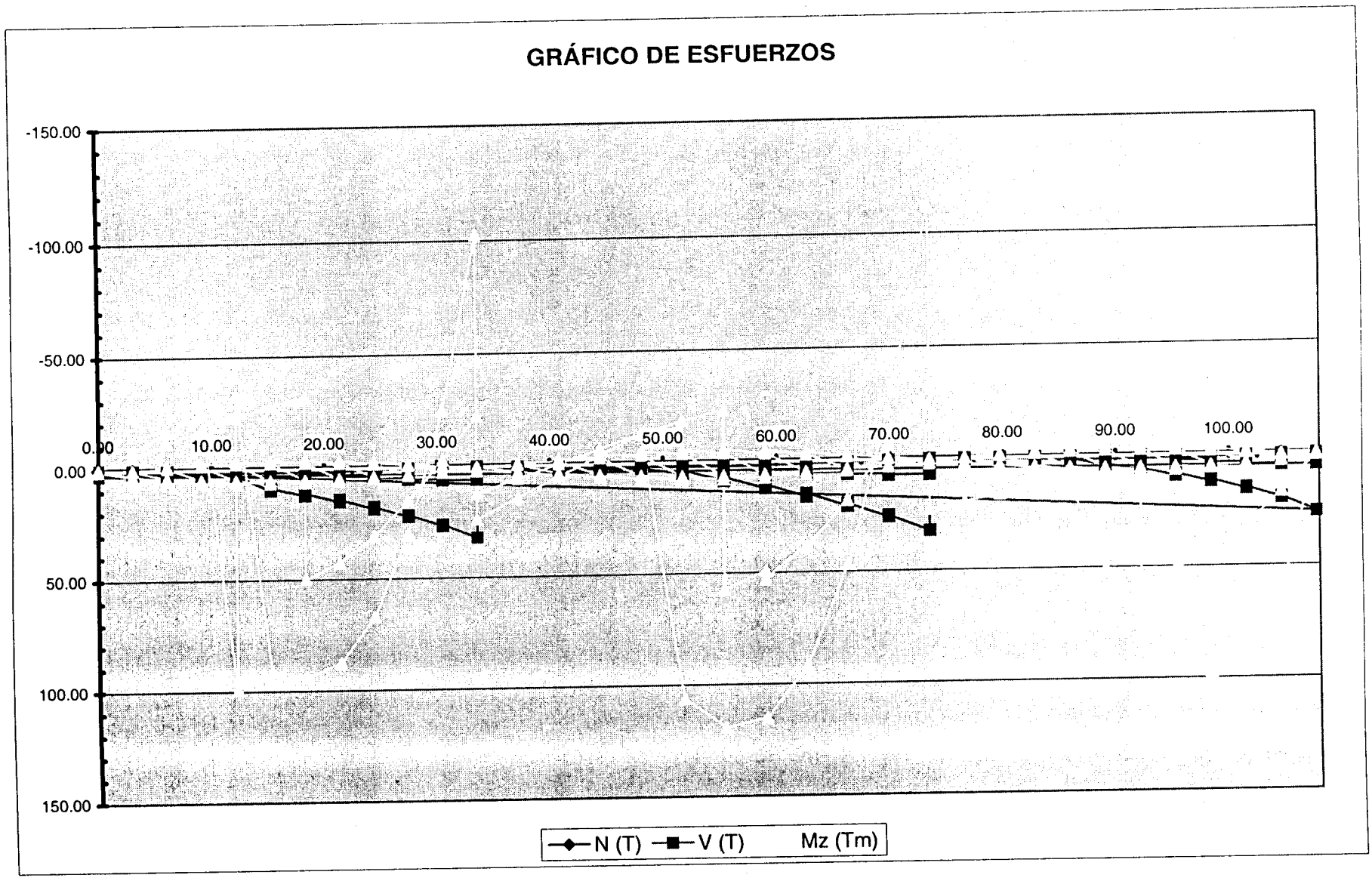


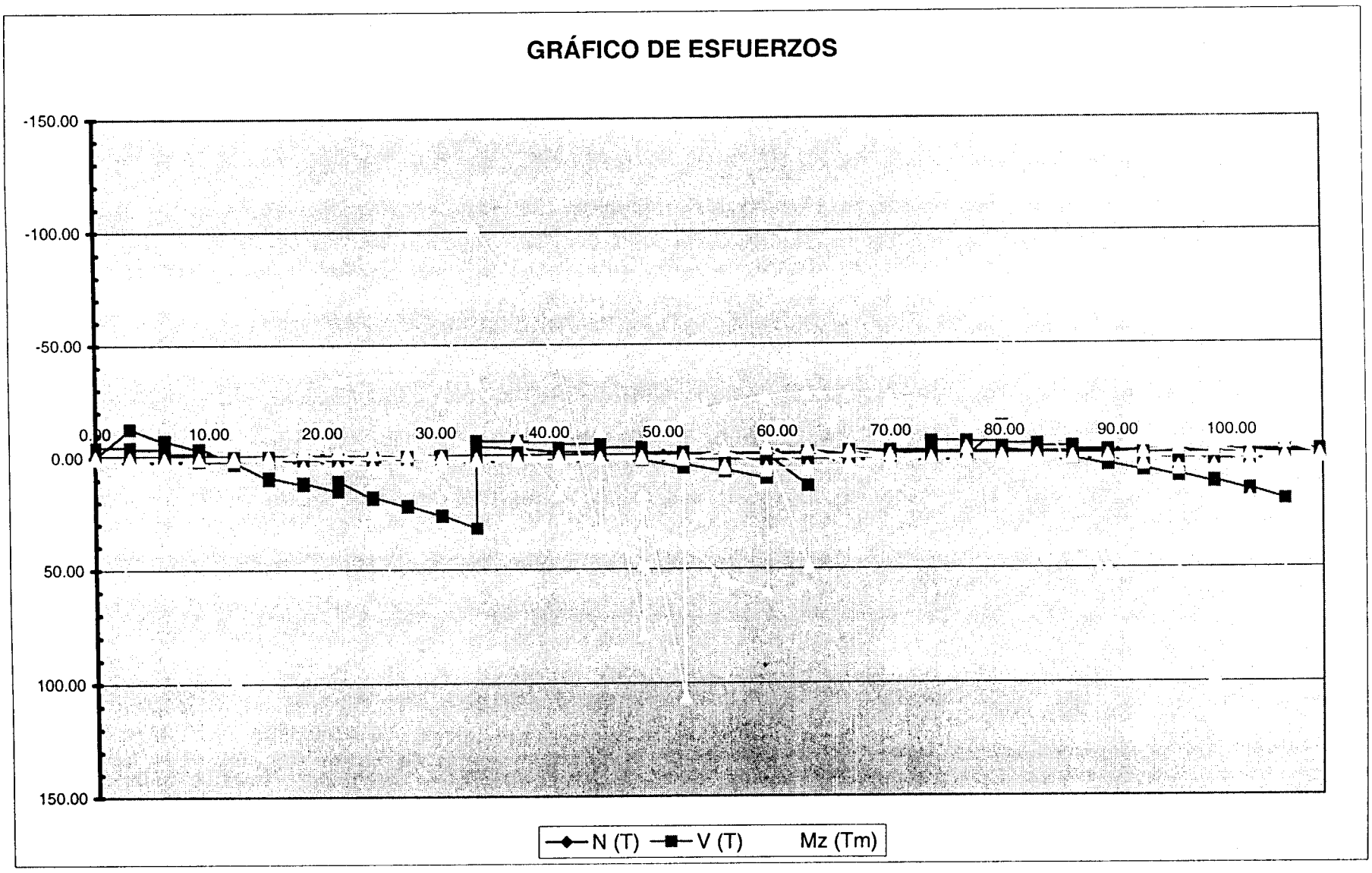
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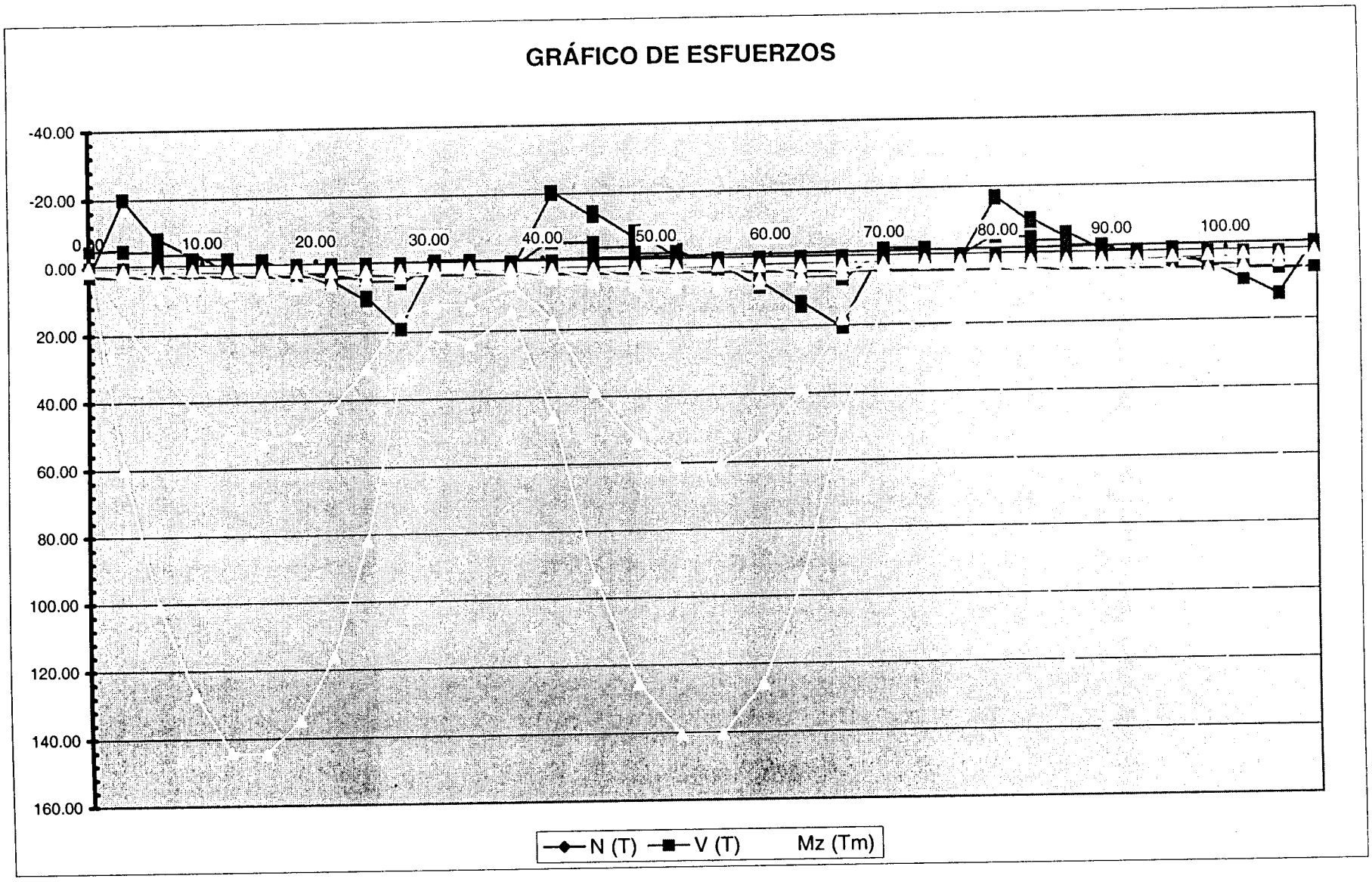


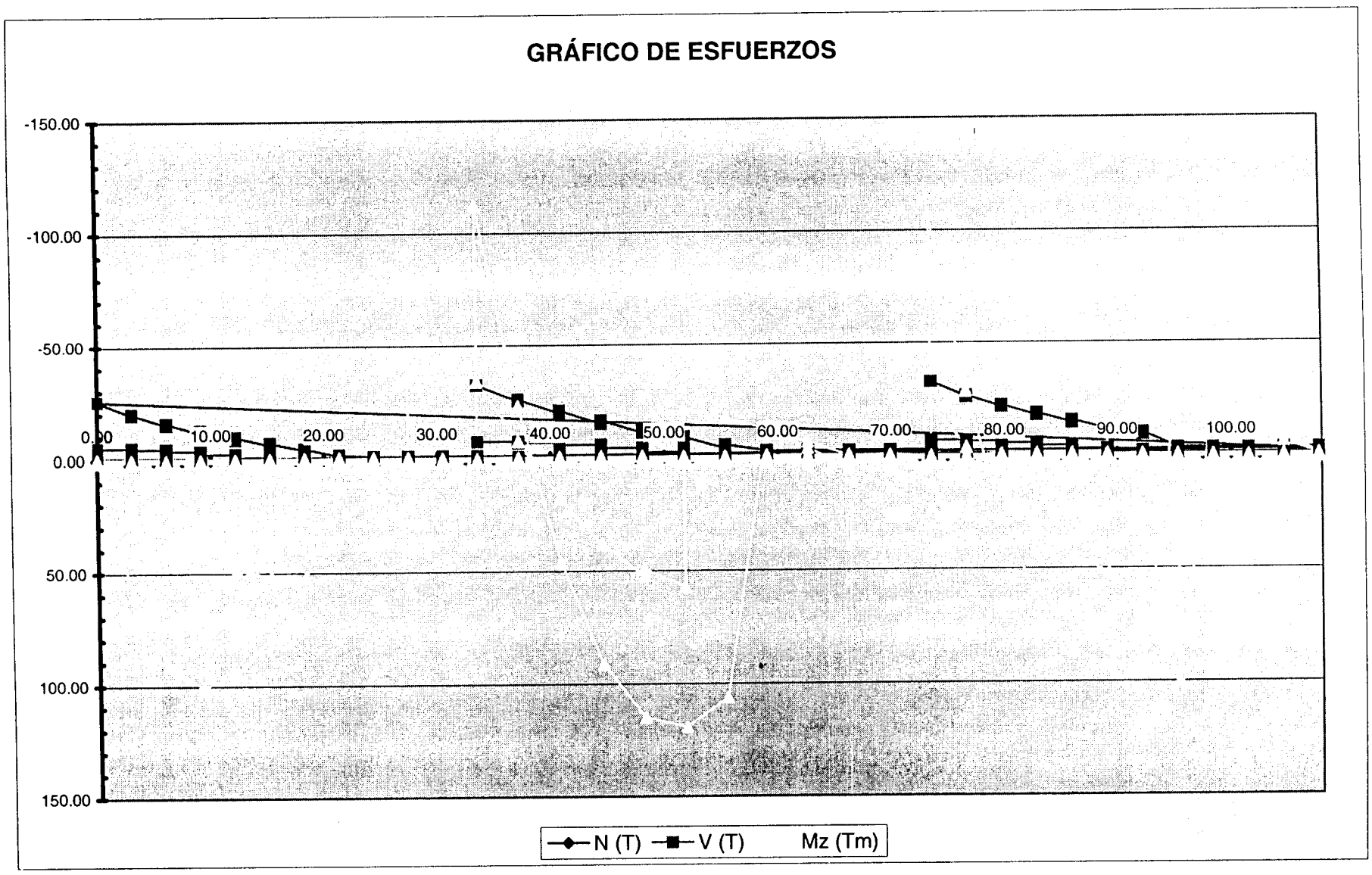

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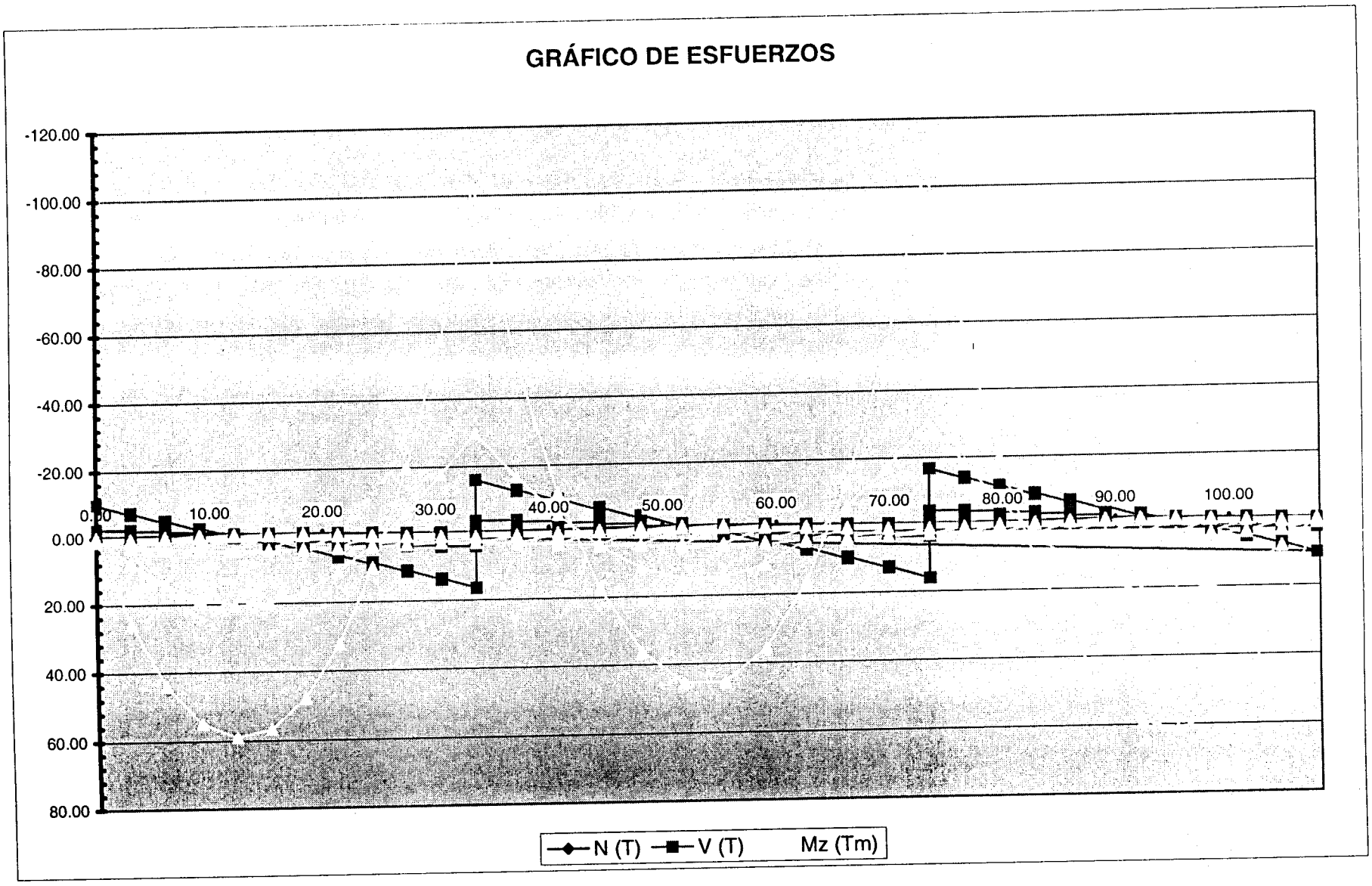

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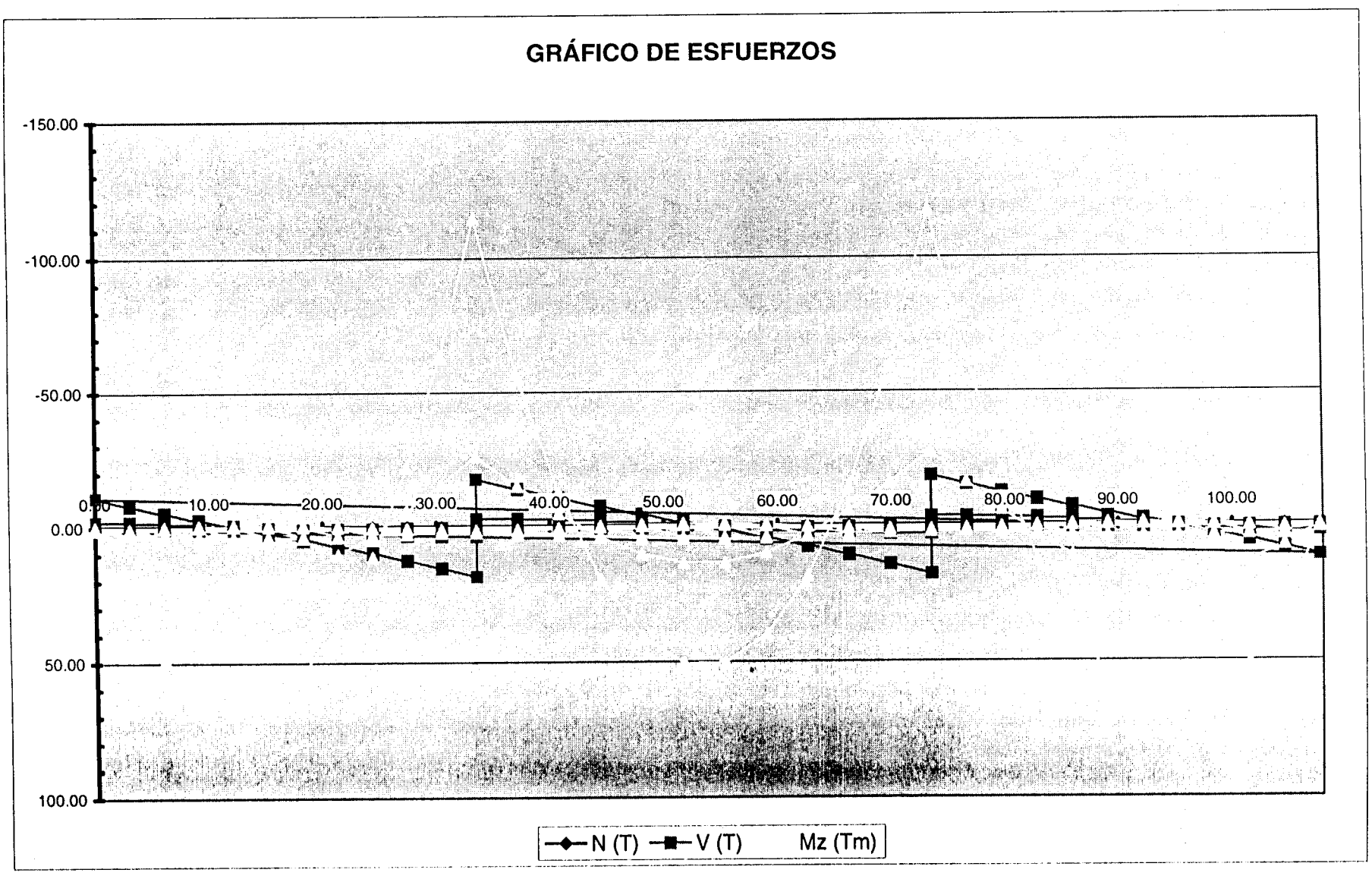

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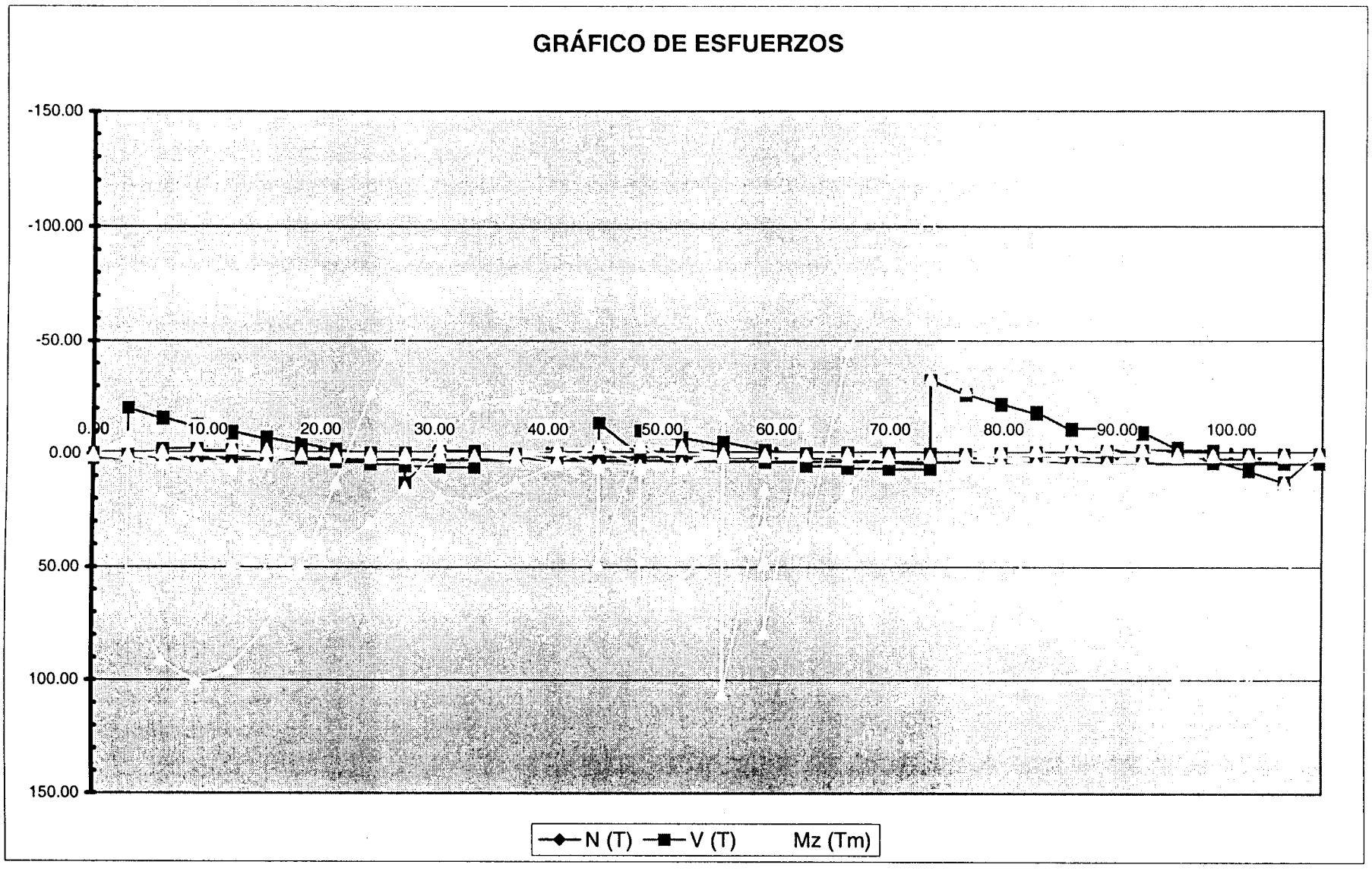

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V (T)
Mz (Tm)


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V (T)
Mz (Tm)


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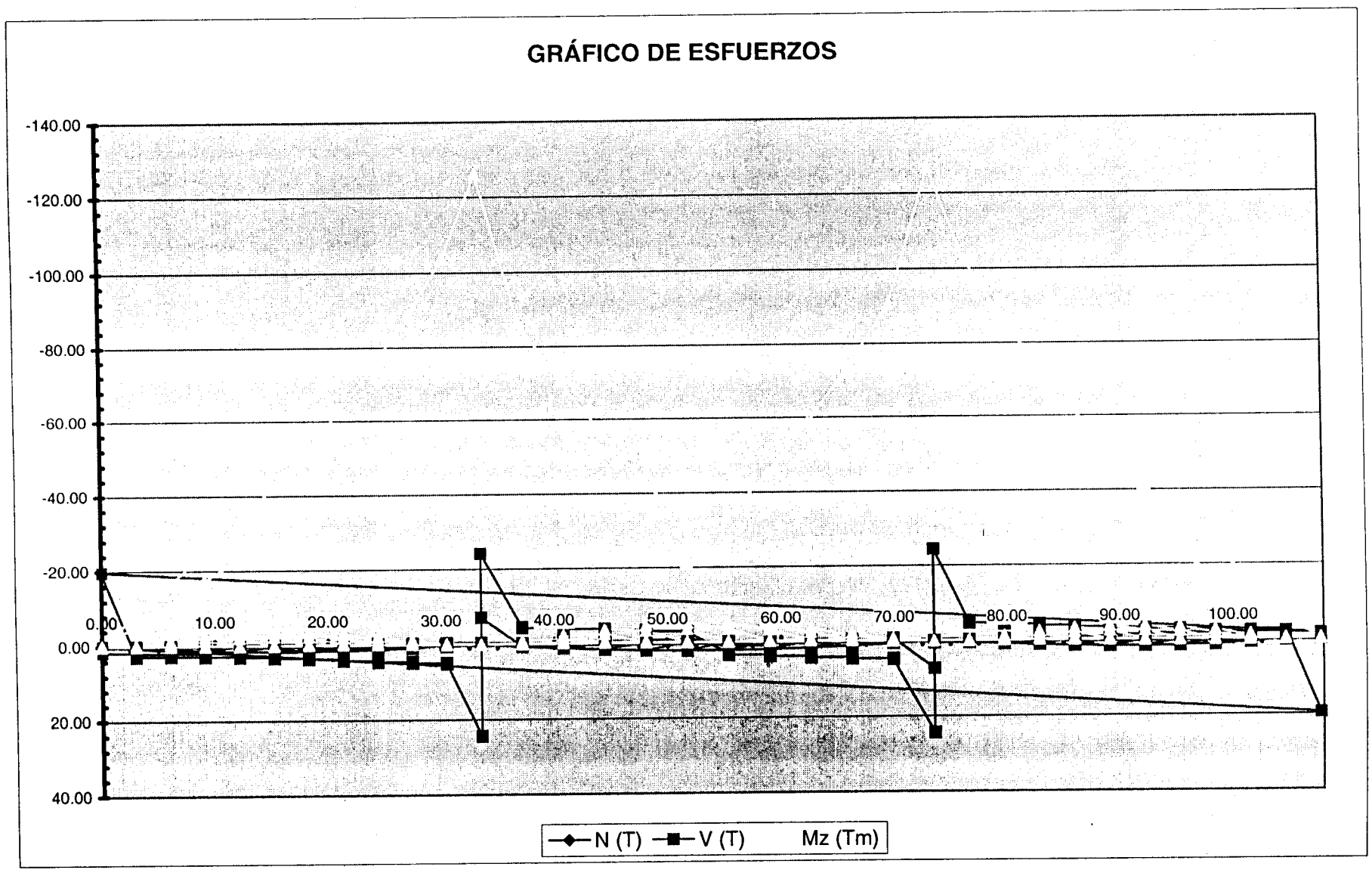

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Mz (Tm)



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Programa DINTEL PACADAR S.A.
TREND.EnvTrenGen.MZ-

17/11/02



CÁLCULO TENSIONAL

Hipótesis de cálculo:
LTORSION

Liberacion de coacciones a torsión

[1; 1]LTORSION

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
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120	120	62.64	0.00	0.00	-27.63	0.00
120	121	66.28	0.00	0.00	-27.63	0.00
121	121	66.28	0.00	0.00	-37.04	0.00
121	122	69.91	0.00	0.00	-37.04	0.00
122	122	69.91	0.00	0.00	-46.77	0.00
122	123	73.55	0.00	0.00	-46.77	0.00
123	10123	73.55	0.00	0.00	-56.10	0.00
123	124	76.66	0.00	0.00	45.95	0.00
124	124	76.66	0.00	0.00	37.73	0.00
124	125	79.77	0.00	0.00	37.73	0.00
125	125	79.77	0.00	0.00	29.75	0.00
125	126	82.88	0.00	0.00	29.75	0.00
126	126	82.88	0.00	0.00	21.95	0.00
126	127	85.99	0.00	0.00	21.95	0.00
127	127	85.99	0.00	0.00	14.29	0.00
127	128	89.10	0.00	0.00	14.29	0.00
128	128	89.10	0.00	0.00	6.72	0.00
128	129	92.21	0.00	0.00	6.72	0.00
129	129	92.21	0.00	0.00	-0.81	0.00
129	130	95.32	0.00	0.00	-0.81	0.00
130	130	95.32	0.00	0.00	-8.34	0.00
130	131	98.43	0.00	0.00	-8.34	0.00
131	131	98.43	0.00	0.00	-15.93	0.00
131	132	101.54	0.00	0.00	-15.93	0.00
132	132	101.54	0.00	0.00	-23.61	0.00
132	133	104.65	0.00	0.00	-23.61	0.00
133	133	104.65	0.00	0.00	-31.44	0.00
133	134	107.76	0.00	0.00	4.02	0.00
301	101	0.00	0.00	0.00	0.00	3.98
301	2001	0.00	0.00	0.00	0.00	3.98
302	102	3.05	0.00	0.00	0.00	7.78
302	2002	3.05	0.00	0.00	0.00	7.78
303	103	6.10	0.00	0.00	0.00	7.64
303	2003	6.10	0.00	0.00	0.00	7.64
304	104	9.15	0.00	0.00	0.00	7.54
304	2004	9.15	0.00	0.00	0.00	7.54
305	105	12.20	0.00	0.00	0.00	7.49
305	2005	12.20	0.00	0.00	0.00	7.49
306	106	15.25	0.00	0.00	0.00	7.49
306	2006	15.25	0.00	0.00	0.00	7.49
307	107	18.30	0.00	0.00	0.00	7.53
307	2007	18.30	0.00	0.00	0.00	7.53
308	108	21.35	0.00	0.00	0.00	7.62
308	2008	21.35	0.00	0.00	0.00	7.62
309	109	24.40	0.00	0.00	0.00	7.76
309	2009	24.40	0.00	0.00	0.00	7.76
310	110	27.45	0.00	0.00	0.00	7.95
310	2010	27.45	0.00	0.00	0.00	7.95
311	111	30.50	0.00	0.00	0.00	8.18

CÁLCULO TENSIONAL

Hipótesis de cálculo:
LTORSION

Liberacion de coacciones a torsión

[1; 1]LTORSION

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00	8.18
312	112	33.55	0.00	0.00	0.00	9.28
312	2012	33.55	0.00	0.00	0.00	9.28
313	113	37.19	0.00	0.00	0.00	9.69
313	2013	37.19	0.00	0.00	0.00	9.69
314	114	40.82	0.00	0.00	0.00	9.38
314	2014	40.82	0.00	0.00	0.00	9.38
315	115	44.46	0.00	0.00	0.00	9.15
315	2015	44.46	0.00	0.00	0.00	9.15
316	116	48.10	0.00	0.00	0.00	8.99
316	2016	48.10	0.00	0.00	0.00	8.99
317	117	51.73	0.00	0.00	0.00	8.92
317	2017	51.73	0.00	0.00	0.00	8.92
318	118	55.37	0.00	0.00	0.00	8.93
318	2018	55.37	0.00	0.00	0.00	8.93
319	119	59.01	0.00	0.00	0.00	9.01
319	2019	59.01	0.00	0.00	0.00	9.01
320	120	62.64	0.00	0.00	0.00	9.17
320	2020	62.64	0.00	0.00	0.00	9.17
321	121	66.28	0.00	0.00	0.00	9.41
321	2021	66.28	0.00	0.00	0.00	9.41
322	122	69.91	0.00	0.00	0.00	9.73
322	2022	69.91	0.00	0.00	0.00	9.73
323	123	73.55	0.00	0.00	0.00	9.33
323	2023	73.55	0.00	0.00	0.00	9.33
324	124	76.66	0.00	0.00	0.00	8.22
324	2024	76.66	0.00	0.00	0.00	8.22
325	125	79.77	0.00	0.00	0.00	7.98
325	2025	79.77	0.00	0.00	0.00	7.98
326	126	82.88	0.00	0.00	0.00	7.80
326	2026	82.88	0.00	0.00	0.00	7.80
327	127	85.99	0.00	0.00	0.00	7.66
327	2027	85.99	0.00	0.00	0.00	7.66
328	128	89.10	0.00	0.00	0.00	7.57
328	2028	89.10	0.00	0.00	0.00	7.57
329	129	92.21	0.00	0.00	0.00	7.53
329	2029	92.21	0.00	0.00	0.00	7.53
330	130	95.32	0.00	0.00	0.00	7.53
330	2030	95.32	0.00	0.00	0.00	7.53
331	131	98.43	0.00	0.00	0.00	7.59
331	2031	98.43	0.00	0.00	0.00	7.59
332	132	101.54	0.00	0.00	0.00	7.69
332	2032	101.54	0.00	0.00	0.00	7.69
333	133	104.65	0.00	0.00	0.00	7.83
333	2033	104.65	0.00	0.00	0.00	7.83
334	134	107.76	0.00	0.00	0.00	4.02
334	2034	107.76	0.00	0.00	0.00	4.02
201	2001	0.00	0.00	0.00	0.00	3.98
201	1001	0.00	0.00	0.00	0.00	3.98
202	2002	3.05	0.00	0.00	0.00	7.78
202	1002	3.05	0.00	0.00	0.00	7.78

CÁLCULO TENSIONAL

Hipótesis de cálculo:
LTORSION

Liberacion de coacciones a torsión

[1; 1]LTORSION

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00	7.64
203	1003	6.10	0.00	0.00	0.00	7.64
204	2004	9.15	0.00	0.00	0.00	7.54
204	1004	9.15	0.00	0.00	0.00	7.54
205	2005	12.20	0.00	0.00	0.00	7.49
205	1005	12.20	0.00	0.00	0.00	7.49
206	2006	15.25	0.00	0.00	0.00	7.49
206	1006	15.25	0.00	0.00	0.00	7.49
207	2007	18.30	0.00	0.00	0.00	7.53
207	1007	18.30	0.00	0.00	0.00	7.53
208	2008	21.35	0.00	0.00	0.00	7.62
208	1008	21.35	0.00	0.00	0.00	7.62
209	2009	24.40	0.00	0.00	0.00	7.76
209	1009	24.40	0.00	0.00	0.00	7.76
210	2010	27.45	0.00	0.00	0.00	7.95
210	1010	27.45	0.00	0.00	0.00	7.95
211	2011	30.50	0.00	0.00	0.00	8.18
211	1011	30.50	0.00	0.00	0.00	8.18
212	2012	33.55	0.00	0.00	0.00	9.28
212	1012	33.55	0.00	0.00	0.00	9.28
213	2013	37.19	0.00	0.00	0.00	9.69
213	1013	37.19	0.00	0.00	0.00	9.69
214	2014	40.82	0.00	0.00	0.00	9.38
214	1014	40.82	0.00	0.00	0.00	9.38
215	2015	44.46	0.00	0.00	0.00	9.15
215	1015	44.46	0.00	0.00	0.00	9.15
216	2016	48.10	0.00	0.00	0.00	8.99
216	1016	48.10	0.00	0.00	0.00	8.99
217	2017	51.73	0.00	0.00	0.00	8.92
217	1017	51.73	0.00	0.00	0.00	8.92
218	2018	55.37	0.00	0.00	0.00	8.93
218	1018	55.37	0.00	0.00	0.00	8.93
219	2019	59.01	0.00	0.00	0.00	9.01
219	1019	59.01	0.00	0.00	0.00	9.01
220	2020	62.64	0.00	0.00	0.00	9.17
220	1020	62.64	0.00	0.00	0.00	9.17
221	2021	66.28	0.00	0.00	0.00	9.41
221	1021	66.28	0.00	0.00	0.00	9.41
222	2022	69.91	0.00	0.00	0.00	9.73
222	1022	69.91	0.00	0.00	0.00	9.73
223	2023	73.55	0.00	0.00	0.00	9.33
223	1023	73.55	0.00	0.00	0.00	9.33
224	2024	76.66	0.00	0.00	0.00	8.22
224	1024	76.66	0.00	0.00	0.00	8.22
225	2025	79.77	0.00	0.00	0.00	7.98
225	1025	79.77	0.00	0.00	0.00	7.98
226	2026	82.88	0.00	0.00	0.00	7.80
226	1026	82.88	0.00	0.00	0.00	7.80
227	2027	85.99	0.00	0.00	0.00	7.66
227	1027	85.99	0.00	0.00	0.00	7.66
228	2028	89.10	0.00	0.00	0.00	7.57

CÁLCULO TENSIONAL

Hipótesis de cálculo:
LTORSION

Liberacion de coacciones a torsión

[1; 1]LTORSION

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00	7.57
229	2029	92.21	0.00	0.00	0.00	7.53
229	1029	92.21	0.00	0.00	0.00	7.53
230	2030	95.32	0.00	0.00	0.00	7.53
230	1030	95.32	0.00	0.00	0.00	7.53
231	2031	98.43	0.00	0.00	0.00	7.59
231	1031	98.43	0.00	0.00	0.00	7.59
232	2032	101.54	0.00	0.00	0.00	7.69
232	1032	101.54	0.00	0.00	0.00	7.69
233	2033	104.65	0.00	0.00	0.00	7.83
233	1033	104.65	0.00	0.00	0.00	7.83
234	2034	107.76	0.00	0.00	0.00	4.02
234	1034	107.76	0.00	0.00	0.00	4.02
401	1001	0.00	0.00	0.00	0.00	3.98
401	1	0.00	0.00	0.00	0.00	3.98
402	1002	3.05	0.00	0.00	0.00	7.78
402	2	3.05	0.00	0.00	0.00	7.78
403	1003	6.10	0.00	0.00	0.00	7.64
403	3	6.10	0.00	0.00	0.00	7.64
404	1004	9.15	0.00	0.00	0.00	7.54
404	4	9.15	0.00	0.00	0.00	7.54
405	1005	12.20	0.00	0.00	0.00	7.49
405	5	12.20	0.00	0.00	0.00	7.49
406	1006	15.25	0.00	0.00	0.00	7.49
406	6	15.25	0.00	0.00	0.00	7.49
407	1007	18.30	0.00	0.00	0.00	7.53
407	7	18.30	0.00	0.00	0.00	7.53
408	1008	21.35	0.00	0.00	0.00	7.62
408	8	21.35	0.00	0.00	0.00	7.62
409	1009	24.40	0.00	0.00	0.00	7.76
409	9	24.40	0.00	0.00	0.00	7.76
410	1010	27.45	0.00	0.00	0.00	7.95
410	10	27.45	0.00	0.00	0.00	7.95
411	1011	30.50	0.00	0.00	0.00	8.18
411	11	30.50	0.00	0.00	0.00	8.18
412	1012	33.55	0.00	0.00	0.00	9.28
412	12	33.55	0.00	0.00	0.00	9.28
413	1013	37.19	0.00	0.00	0.00	9.69
413	13	37.19	0.00	0.00	0.00	9.69
414	1014	40.82	0.00	0.00	0.00	9.38
414	14	40.82	0.00	0.00	0.00	9.38
415	1015	44.46	0.00	0.00	0.00	9.15
415	15	44.46	0.00	0.00	0.00	9.15
416	1016	48.10	0.00	0.00	0.00	8.99
416	16	48.10	0.00	0.00	0.00	8.99
417	1017	51.73	0.00	0.00	0.00	8.92
417	17	51.73	0.00	0.00	0.00	8.92
418	1018	55.37	0.00	0.00	0.00	8.93
418	18	55.37	0.00	0.00	0.00	8.93
419	1019	59.01	0.00	0.00	0.00	9.01
419	19	59.01	0.00	0.00	0.00	9.01

CÁLCULO TENSIONAL

Hipótesis de cálculo:

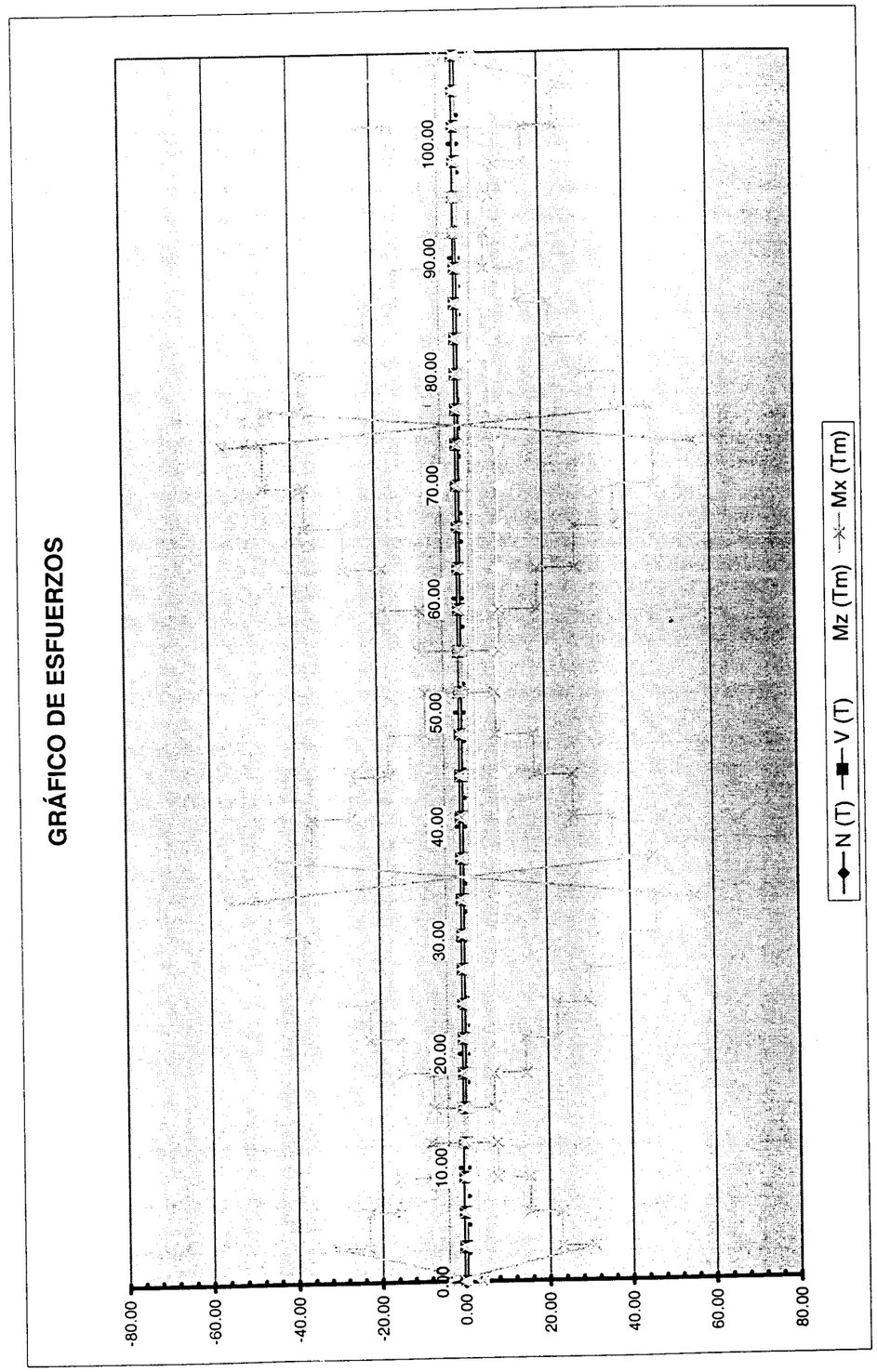
LTORSION

Liberacion de coacciones a torsión

[1; 1]LTORSION

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00	9.17
420	20	62.64	0.00	0.00	0.00	9.17
421	1021	66.28	0.00	0.00	0.00	9.41
421	21	66.28	0.00	0.00	0.00	9.41
422	1022	69.91	0.00	0.00	0.00	9.73
422	22	69.91	0.00	0.00	0.00	9.73
423	1023	73.55	0.00	0.00	0.00	9.33
423	23	73.55	0.00	0.00	0.00	9.33
424	1024	76.66	0.00	0.00	0.00	8.22
424	24	76.66	0.00	0.00	0.00	8.22
425	1025	79.77	0.00	0.00	0.00	7.98
425	25	79.77	0.00	0.00	0.00	7.98
426	1026	82.88	0.00	0.00	0.00	7.80
426	26	82.88	0.00	0.00	0.00	7.80
427	1027	85.99	0.00	0.00	0.00	7.66
427	27	85.99	0.00	0.00	0.00	7.66
428	1028	89.10	0.00	0.00	0.00	7.57
428	28	89.10	0.00	0.00	0.00	7.57
429	1029	92.21	0.00	0.00	0.00	7.53
429	29	92.21	0.00	0.00	0.00	7.53
430	1030	95.32	0.00	0.00	0.00	7.53
430	30	95.32	0.00	0.00	0.00	7.53
431	1031	98.43	0.00	0.00	0.00	7.59
431	31	98.43	0.00	0.00	0.00	7.59
432	1032	101.54	0.00	0.00	0.00	7.69
432	32	101.54	0.00	0.00	0.00	7.69
433	1033	104.65	0.00	0.00	0.00	7.83
433	33	104.65	0.00	0.00	0.00	7.83
434	1034	107.76	0.00	0.00	0.00	4.02
434	34	107.76	0.00	0.00	0.00	4.02



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ+

TREN IPF75-B EJE IZDO Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	7.38	0.22
1	2	3.05	0.00	-102.99	358.41
2	2	3.05	0.00	-106.98	355.96
2	3	6.10	0.00	-65.37	618.35
3	3	6.10	0.00	-72.25	616.34
3	4	9.15	0.00	-42.52	791.22
4	4	9.15	0.00	-51.72	789.78
4	5	12.20	0.00	-11.10	890.32
5	5	12.20	0.00	-21.72	889.55
5	6	15.25	0.00	7.79	910.84
6	6	15.25	0.00	-3.44	910.73
6	7	18.30	0.00	30.87	860.95
7	7	18.30	0.00	19.90	861.52
7	8	21.35	0.00	54.17	740.59
8	8	21.35	0.00	44.05	741.75
8	9	24.40	0.00	79.39	542.85
9	9	24.40	0.00	71.02	544.50
9	10	27.45	0.00	85.04	284.14
10	10	27.45	0.00	79.61	285.52
10	11	30.50	0.00	47.80	115.09
11	11	30.50	0.00	45.18	115.61
11	12	33.55	0.00	9.79	38.38
12	10012	33.55	0.00	-0.42	38.58
12	13	37.19	0.00	-39.46	102.76
13	13	37.19	0.00	-42.80	102.43
13	14	40.82	0.00	-71.48	296.29
14	14	40.82	0.00	-78.72	294.83
14	15	44.46	0.00	-68.17	554.41
15	15	44.46	0.00	-79.07	552.48
15	16	48.10	0.00	-36.44	754.99
16	16	48.10	0.00	-49.57	753.74
16	17	51.73	0.00	-6.58	853.42
17	17	51.73	0.00	-20.80	853.00
17	18	55.37	0.00	20.60	853.36
18	18	55.37	0.00	6.38	853.79
18	19	59.01	0.00	49.37	754.82
19	19	59.01	0.00	36.23	756.06
19	20	62.64	0.00	78.87	554.26
20	20	62.64	0.00	67.97	556.18
20	21	66.28	0.00	79.14	294.57
21	21	66.28	0.00	71.90	296.03
21	22	69.91	0.00	43.47	97.39
22	22	69.91	0.00	40.12	97.71
22	23	73.55	0.00	1.16	29.70
23	10023	73.55	0.00	-10.33	29.50
23	24	76.66	0.00	-46.37	109.68
24	24	76.66	0.00	-49.03	109.14
24	25	79.77	0.00	-78.89	285.55
25	25	79.77	0.00	-84.49	284.11
25	26	82.88	0.00	-72.23	554.28
26	26	82.88	0.00	-80.84	552.56

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BI.MZ+

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ+

TREN IPF75-B EJE IZDO Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-45.31	758.76
27	27	85.99	0.00	-55.75	757.56
27	28	89.10	0.00	-20.38	883.89
28	28	89.10	0.00	-31.73	883.29
28	29	92.21	0.00	3.05	936.10
29	29	92.21	0.00	-8.57	936.20
29	30	95.32	0.00	21.91	915.46
30	30	95.32	0.00	10.92	916.27
30	31	98.43	0.00	46.79	814.89
31	31	98.43	0.00	37.23	816.38
31	32	101.54	0.00	72.72	636.60
32	32	101.54	0.00	65.69	638.70
32	33	104.65	0.00	101.29	367.66
33	33	104.65	0.00	97.36	370.18
33	34	107.76	0.00	-6.60	0.22
101	101	0.00	0.00	-36.89	1.31
101	102	3.05	0.00	-38.53	118.75
102	102	3.05	0.00	-34.03	121.10
102	103	6.10	0.00	-34.03	224.91
103	103	6.10	0.00	-26.78	226.86
103	104	9.15	0.00	-26.78	308.54
104	104	9.15	0.00	-17.41	309.93
104	105	12.20	0.00	-17.42	363.07
105	105	12.20	0.00	-6.69	363.83
105	106	15.25	0.00	-6.69	384.23
106	106	15.25	0.00	4.61	384.33
106	107	18.30	0.00	4.36	370.78
107	107	18.30	0.00	15.41	370.22
107	108	21.35	0.00	15.41	323.22
108	108	21.35	0.00	25.52	322.06
108	109	24.40	0.00	25.52	244.22
109	109	24.40	0.00	34.06	242.60
109	110	27.45	0.00	34.06	138.70
110	110	27.45	0.00	40.58	136.79
110	111	30.50	0.00	6.13	51.67
111	111	30.50	0.00	3.99	51.37
111	112	33.55	0.00	3.93	39.19
112	10112	33.55	0.00	5.57	39.02
112	113	37.19	0.00	5.56	18.81
113	113	37.19	0.00	6.39	18.62
113	114	40.82	0.00	-41.88	98.84
114	114	40.82	0.00	-35.01	101.13
114	115	44.46	0.00	-38.35	239.70
115	115	44.46	0.00	-27.26	241.59
115	116	48.10	0.00	-27.37	341.09
116	116	48.10	0.00	-14.20	342.31
116	117	51.73	0.00	-14.23	393.99
117	117	51.73	0.00	-0.01	394.42
117	118	55.37	0.00	-0.16	394.75
118	118	55.37	0.00	14.03	394.33
118	119	59.01	0.00	14.03	343.31

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ+

TREN IPF75-B EJE IZDO Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	27.20	342.08
119	120	62.64	0.00	27.10	243.21
120	120	62.64	0.00	38.20	241.31
120	121	66.28	0.00	36.13	102.99
121	121	66.28	0.00	44.24	100.68
121	122	69.91	0.00	-5.74	14.55
122	122	69.91	0.00	-4.93	14.74
122	123	73.55	0.00	-4.93	32.65
123	10123	73.55	0.00	-4.22	32.81
123	124	76.66	0.00	-4.29	46.05
124	124	76.66	0.00	-3.38	46.21
124	125	79.77	0.00	-42.04	135.63
125	125	79.77	0.00	-35.42	137.62
125	126	82.88	0.00	-35.42	247.78
126	126	82.88	0.00	-26.64	249.47
126	127	85.99	0.00	-26.64	332.32
127	127	85.99	0.00	-16.20	333.53
127	128	89.10	0.00	-16.20	383.90
128	128	89.10	0.00	-4.77	384.50
128	129	92.21	0.00	-5.02	399.58
129	129	92.21	0.00	6.67	399.48
129	130	95.32	0.00	6.67	378.74
130	130	95.32	0.00	17.75	377.96
130	131	98.43	0.00	17.75	322.74
131	131	98.43	0.00	27.40	321.28
131	132	101.54	0.00	27.38	236.12
132	132	101.54	0.00	34.79	234.08
132	133	104.65	0.00	34.79	125.88
133	133	104.65	0.00	39.26	123.42
133	134	107.76	0.00	37.55	1.37
301	101	0.00	0.00	0.23	8.37
301	2001	0.00	0.00	-0.18	8.30
302	102	3.05	0.00	-1.82	8.78
302	2002	3.05	0.00	-2.55	10.67
303	103	6.10	0.00	-1.50	7.01
303	2003	6.10	0.00	-2.09	8.38
304	104	9.15	0.00	-0.72	8.32
304	2004	9.15	0.00	-0.95	8.98
305	105	12.20	0.00	-0.31	9.77
305	2005	12.20	0.00	-0.31	10.01
306	106	15.25	0.00	0.22	11.09
306	2006	15.25	0.00	-0.34	11.12
307	107	18.30	0.00	0.53	12.29
307	2007	18.30	0.00	-0.01	12.11
308	108	21.35	0.00	0.46	13.21
308	2008	21.35	0.00	0.46	12.87
309	109	24.40	0.00	0.45	13.52
309	2009	24.40	0.00	0.20	13.29
310	110	27.45	0.00	0.10	13.25
310	2010	27.45	0.00	-0.43	13.41
311	111	30.50	0.00	-0.51	13.30

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ+

TREN IPF75-B EJE IZDO Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-0.84	13.89
312	112	33.55	0.00	-1.07	14.75
312	2012	33.55	0.00	-1.07	15.56
313	113	37.19	0.00	-0.30	17.11
313	2013	37.19	0.00	-0.63	17.40
314	114	40.82	0.00	0.71	18.12
314	2014	40.82	0.00	0.19	17.80
315	115	44.46	0.00	1.27	19.07
315	2015	44.46	0.00	1.06	18.25
316	116	48.10	0.00	1.45	19.40
316	2016	48.10	0.00	1.45	18.30
317	117	51.73	0.00	1.42	19.22
317	2017	51.73	0.00	1.11	18.16
318	118	55.37	0.00	1.46	19.34
318	2018	55.37	0.00	1.15	18.26
319	119	59.01	0.00	1.54	19.68
319	2019	59.01	0.00	1.52	18.52
320	120	62.64	0.00	1.39	19.47
320	2020	62.64	0.00	1.18	18.56
321	121	66.28	0.00	0.85	18.60
321	2021	66.28	0.00	0.32	18.19
322	122	69.91	0.00	-0.16	17.63
322	2022	69.91	0.00	-0.56	17.82
323	123	73.55	0.00	-0.99	15.11
323	2023	73.55	0.00	-1.07	15.87
324	124	76.66	0.00	-0.45	13.50
324	2024	76.66	0.00	-0.78	14.06
325	125	79.77	0.00	0.12	13.31
325	2025	79.77	0.00	-0.41	13.48
326	126	82.88	0.00	0.47	13.53
326	2026	82.88	0.00	0.22	13.30
327	127	85.99	0.00	0.47	13.18
327	2027	85.99	0.00	0.47	12.83
328	128	89.10	0.00	0.51	12.20
328	2028	89.10	0.00	-0.03	12.05
329	129	92.21	0.00	0.21	10.99
329	2029	92.21	0.00	-0.36	11.04
330	130	95.32	0.00	-0.33	9.66
330	2030	95.32	0.00	-0.33	9.91
331	131	98.43	0.00	-0.74	8.21
331	2031	98.43	0.00	-0.97	8.87
332	132	101.54	0.00	-1.76	6.94
332	2032	101.54	0.00	-2.11	8.34
333	133	104.65	0.00	-2.07	9.07
333	2033	104.65	0.00	-2.48	10.90
334	134	107.76	0.00	0.36	8.85
334	2034	107.76	0.00	0.05	8.67
201	2001	0.00	0.00	-0.18	8.30
201	1001	0.00	0.00	-1.22	13.35
202	2002	3.05	0.00	-2.55	10.67
202	1002	3.05	0.00	-5.10	33.05

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ+

TREN IPF75-B EJE IZDO Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	-2.09	8.38
203	1003	6.10	0.00	-7.33	38.39
204	2004	9.15	0.00	-0.95	8.98
204	1004	9.15	0.00	-8.98	42.27
205	2005	12.20	0.00	-0.31	10.01
205	1005	12.20	0.00	-9.91	44.47
206	2006	15.25	0.00	-0.34	11.12
206	1006	15.25	0.00	-10.53	44.95
207	2007	18.30	0.00	-0.01	12.11
207	1007	18.30	0.00	-10.61	44.07
208	2008	21.35	0.00	0.47	12.87
208	1008	21.35	0.00	-9.70	41.73
209	2009	24.40	0.00	0.20	13.29
209	1009	24.40	0.00	-8.28	38.18
210	2010	27.45	0.00	-0.43	13.41
210	1010	27.45	0.00	-6.30	33.89
211	2011	30.50	0.00	-0.84	13.89
211	1011	30.50	0.00	-4.02	30.01
212	2012	33.55	0.00	-1.07	15.56
212	1012	33.55	0.00	-3.65	31.01
213	2013	37.19	0.00	-0.63	17.40
213	1013	37.19	0.00	-4.93	35.94
214	2014	40.82	0.00	0.19	17.80
214	1014	40.82	0.00	-7.97	41.27
215	2015	44.46	0.00	1.06	18.25
215	1015	44.46	0.00	-10.68	46.77
216	2016	48.10	0.00	1.45	18.30
216	1016	48.10	0.00	-12.04	50.78
217	2017	51.73	0.00	1.11	18.16
217	1017	51.73	0.00	-12.76	52.67
218	2018	55.37	0.00	1.15	18.26
218	1018	55.37	0.00	-12.78	52.70
219	2019	59.01	0.00	1.52	18.52
219	1019	59.01	0.00	-12.26	50.79
220	2020	62.64	0.00	1.18	18.56
220	1020	62.64	0.00	-10.68	46.76
221	2021	66.28	0.00	0.32	18.19
221	1021	66.28	0.00	-8.19	41.23
222	2022	69.91	0.00	-0.56	17.82
222	1022	69.91	0.00	-4.83	35.82
223	2023	73.55	0.00	-1.07	15.87
223	1023	73.55	0.00	-3.60	30.97
224	2024	76.66	0.00	-0.78	14.06
224	1024	76.66	0.00	-4.03	30.13
225	2025	79.77	0.00	-0.41	13.48
225	1025	79.77	0.00	-6.42	34.30
226	2026	82.88	0.00	0.22	13.30
226	1026	82.88	0.00	-8.51	38.85
227	2027	85.99	0.00	0.47	12.83
227	1027	85.99	0.00	-10.01	42.63
228	2028	89.10	0.00	-0.03	12.05

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ+

TREN IPF75-B EJE IZDO Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	-10.99	45.11
229	2029	92.21	0.00	-0.36	11.04
229	1029	92.21	0.00	-10.91	46.02
230	2030	95.32	0.00	-0.33	9.91
230	1030	95.32	0.00	-10.27	45.51
231	2031	98.43	0.00	-0.97	8.87
231	1031	98.43	0.00	-9.25	43.13
232	2032	101.54	0.00	-2.11	8.34
232	1032	101.54	0.00	-7.50	38.97
233	2033	104.65	0.00	-2.48	10.90
233	1033	104.65	0.00	-5.10	33.23
234	2034	107.76	0.00	0.05	8.67
234	1034	107.76	0.00	-1.12	13.20
401	1001	0.00	0.00	-1.22	13.35
401	1	0.00	0.00	-1.53	14.40
402	1002	3.05	0.00	-5.10	33.05
402	2	3.05	0.00	-5.10	36.91
403	1003	6.10	0.00	-7.33	38.39
403	3	6.10	0.00	-7.33	43.93
404	1004	9.15	0.00	-8.98	42.27
404	4	9.15	0.00	-8.98	49.07
405	1005	12.20	0.00	-9.91	44.47
405	5	12.20	0.00	-9.91	51.96
406	1006	15.25	0.00	-10.54	44.95
406	6	15.25	0.00	-10.90	53.09
407	1007	18.30	0.00	-10.61	44.07
407	7	18.30	0.00	-10.96	52.16
408	1008	21.35	0.00	-9.70	41.73
408	8	21.35	0.00	-10.08	49.21
409	1009	24.40	0.00	-8.28	38.18
409	9	24.40	0.00	-8.46	44.56
410	1010	27.45	0.00	-6.31	33.89
410	10	27.45	0.00	-6.72	38.87
411	1011	30.50	0.00	-4.02	30.01
411	11	30.50	0.00	-4.81	33.37
412	1012	33.55	0.00	-3.65	31.01
412	12	33.55	0.00	-3.65	33.78
413	1013	37.19	0.00	-4.93	35.94
413	13	37.19	0.00	-5.67	40.00
414	1014	40.82	0.00	-7.97	41.27
414	14	40.82	0.00	-8.47	47.57
415	1015	44.46	0.00	-10.68	46.77
415	15	44.46	0.00	-10.68	54.83
416	1016	48.10	0.00	-12.04	50.78
416	16	48.10	0.00	-12.44	60.04
417	1017	51.73	0.00	-12.76	52.67
417	17	51.73	0.00	-13.62	62.68
418	1018	55.37	0.00	-12.78	52.70
418	18	55.37	0.00	-13.78	62.68
419	1019	59.01	0.00	-12.26	50.79
419	19	59.01	0.00	-12.47	60.09

CÁLCULO TENSIONAL

Hipótesis de cálculo:

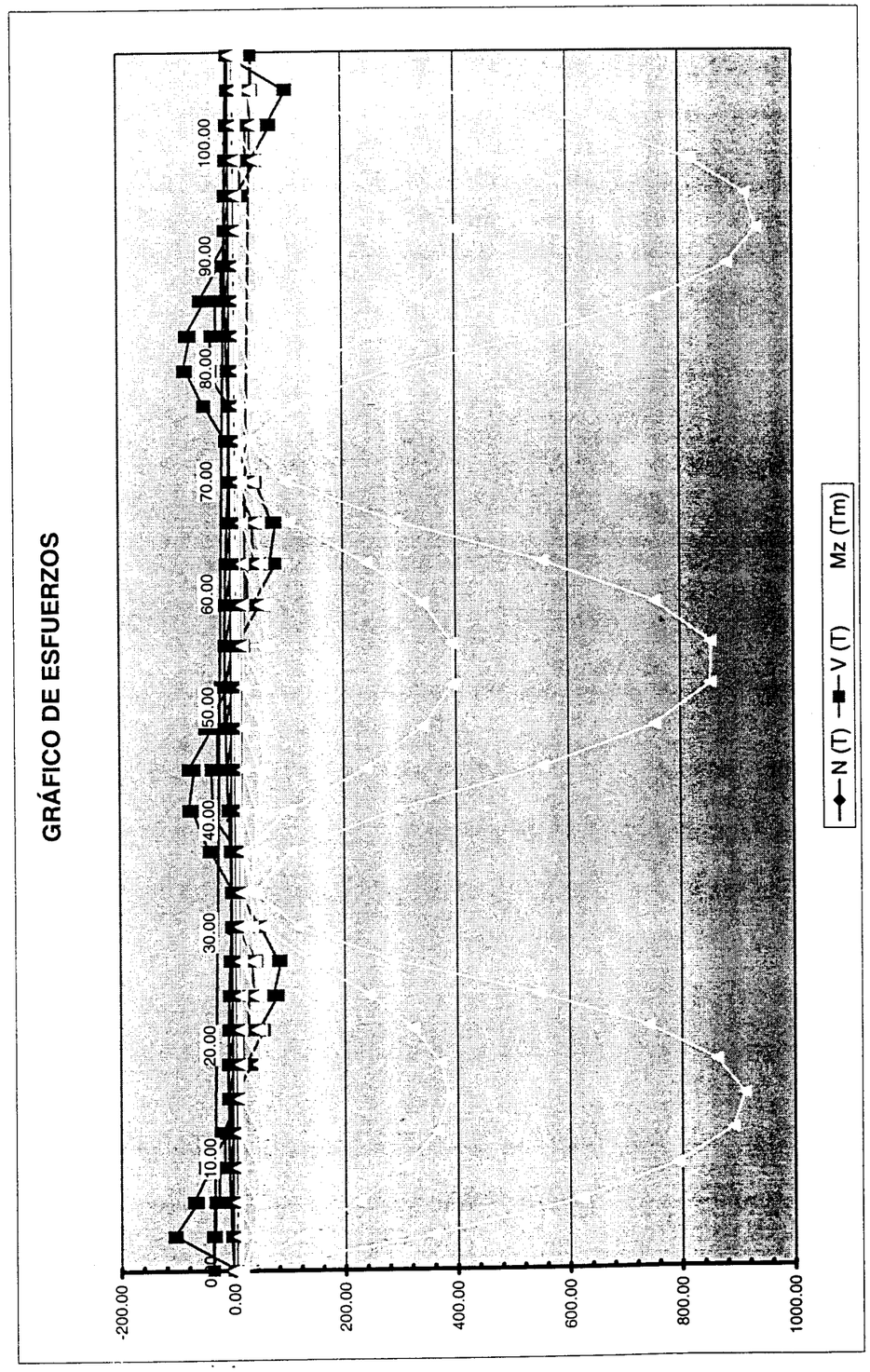
IPF75BI.MZ+

TREN IPF75-B EJE IZDO Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-10.68	46.76
420	20	62.64	0.00	-10.68	54.84
421	1021	66.28	0.00	-8.19	41.23
421	21	66.28	0.00	-8.46	47.57
422	1022	69.91	0.00	-4.83	35.82
422	22	69.91	0.00	-5.87	39.98
423	1023	73.55	0.00	-3.60	30.97
423	23	73.55	0.00	-3.60	33.68
424	1024	76.66	0.00	-4.03	30.13
424	24	76.66	0.00	-4.84	33.52
425	1025	79.77	0.00	-6.42	34.30
425	25	79.77	0.00	-6.83	39.37
426	1026	82.88	0.00	-8.51	38.85
426	26	82.88	0.00	-8.69	45.41
427	1027	85.99	0.00	-10.01	42.63
427	27	85.99	0.00	-10.39	50.36
428	1028	89.10	0.00	-10.99	45.11
428	28	89.10	0.00	-11.33	53.50
429	1029	92.21	0.00	-10.91	46.02
429	29	92.21	0.00	-11.27	54.47
430	1030	95.32	0.00	-10.27	45.51
430	30	95.32	0.00	-10.27	53.27
431	1031	98.43	0.00	-9.25	43.13
431	31	98.43	0.00	-9.25	50.14
432	1032	101.54	0.00	-7.50	38.97
432	32	101.54	0.00	-7.50	44.64
433	1033	104.65	0.00	-5.10	33.23
433	33	104.65	0.00	-5.10	37.09
434	1034	107.76	0.00	-1.12	13.20
434	34	107.76	0.00	-1.46	14.27



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ-

TREN IPF75-B EJE IZDO Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-132.84	-1.31
1	2	3.05	0.00	10.41	-26.99
2	2	3.05	0.00	8.86	-26.56
2	3	6.10	0.00	11.85	-58.12
3	3	6.10	0.00	10.81	-57.69
3	4	9.15	0.00	13.96	-95.32
4	4	9.15	0.00	13.55	-94.92
4	5	12.20	0.00	16.54	-140.84
5	5	12.20	0.00	16.62	-140.48
5	6	15.25	0.00	19.61	-195.72
6	6	15.25	0.00	20.11	-195.42
6	7	18.30	0.00	23.10	-261.33
7	7	18.30	0.00	23.97	-261.13
7	8	21.35	0.00	26.96	-338.79
8	8	21.35	0.00	28.06	-338.74
8	9	24.40	0.00	31.41	-429.50
9	9	24.40	0.00	32.36	-429.70
9	10	27.45	0.00	60.54	-553.92
10	10	27.45	0.00	60.30	-553.89
10	11	30.50	0.00	107.20	-820.94
11	11	30.50	0.00	106.06	-820.75
11	12	33.55	0.00	192.27	-1260.60
12	10012	33.55	0.00	-194.45	-1260.68
12	13	37.19	0.00	-97.82	-733.04
13	13	37.19	0.00	-99.04	-733.48
13	14	40.82	0.00	-51.63	-444.79
14	14	40.82	0.00	-51.72	-444.98
14	15	44.46	0.00	-15.73	-326.84
15	15	44.46	0.00	-14.47	-326.47
15	16	48.10	0.00	-10.56	-280.60
16	16	48.10	0.00	-8.96	-280.45
16	17	51.73	0.00	-5.39	-254.33
17	17	51.73	0.00	-3.76	-254.32
17	18	55.37	0.00	5.23	-258.04
18	18	55.37	0.00	6.91	-258.03
18	19	59.01	0.00	10.48	-289.66
19	19	59.01	0.00	12.15	-289.79
19	20	62.64	0.00	16.06	-341.42
20	20	62.64	0.00	17.43	-341.77
20	21	66.28	0.00	52.80	-463.39
21	21	66.28	0.00	52.86	-463.21
21	22	69.91	0.00	100.09	-754.55
22	22	69.91	0.00	98.96	-754.14
22	23	73.55	0.00	195.37	-1280.58
23	10023	73.55	0.00	-194.57	-1280.53
23	24	76.66	0.00	-106.90	-824.65
24	24	76.66	0.00	-107.98	-824.89
24	25	79.77	0.00	-60.30	-549.36
25	25	79.77	0.00	-60.53	-549.42
25	26	82.88	0.00	-31.91	-422.27
26	26	82.88	0.00	-30.96	-422.08

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ-

TREN IPF75-B EJE IZDO Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-27.53	-331.06
27	27	85.99	0.00	-26.43	-331.13
27	28	89.10	0.00	-23.38	-253.67
28	28	89.10	0.00	-22.53	-253.87
28	29	92.21	0.00	-19.48	-188.55
29	29	92.21	0.00	-19.00	-188.84
29	30	95.32	0.00	-15.95	-134.47
30	30	95.32	0.00	-15.92	-134.82
30	31	98.43	0.00	-12.87	-90.07
31	31	98.43	0.00	-13.29	-90.46
31	32	101.54	0.00	-10.08	-54.24
32	32	101.54	0.00	-11.14	-54.64
32	33	104.65	0.00	-8.06	-24.72
33	33	104.65	0.00	-9.68	-25.15
33	34	107.76	0.00	137.32	-1.37
101	101	0.00	0.00	5.85	-0.22
101	102	3.05	0.00	7.47	-22.97
102	102	3.05	0.00	8.63	-23.32
102	103	6.10	0.00	8.63	-49.66
103	103	6.10	0.00	9.36	-50.00
103	104	9.15	0.00	9.36	-78.53
104	104	9.15	0.00	9.63	-78.87
104	105	12.20	0.00	9.63	-108.25
105	105	12.20	0.00	9.49	-108.58
105	106	15.25	0.00	9.49	-137.51
106	106	15.25	0.00	8.91	-137.79
106	107	18.30	0.00	9.19	-165.55
107	107	18.30	0.00	8.33	-165.75
107	108	21.35	0.00	8.33	-191.15
108	108	21.35	0.00	7.22	-191.20
108	109	24.40	0.00	7.22	-213.22
109	109	24.40	0.00	6.08	-213.04
109	110	27.45	0.00	6.08	-231.60
110	110	27.45	0.00	5.25	-231.10
110	111	30.50	0.00	33.53	-269.86
111	111	30.50	0.00	39.41	-270.26
111	112	33.55	0.00	39.41	-390.44
112	10112	33.55	0.00	-50.98	-390.08
112	113	37.19	0.00	-43.43	-221.89
113	113	37.19	0.00	-39.73	-220.93
113	114	40.82	0.00	0.18	-163.39
114	114	40.82	0.00	0.60	-164.01
114	115	44.46	0.00	3.94	-177.45
115	115	44.46	0.00	2.47	-177.78
115	116	48.10	0.00	2.58	-187.15
116	116	48.10	0.00	0.93	-187.27
116	117	51.73	0.00	0.97	-190.72
117	117	51.73	0.00	-0.70	-190.73
117	118	55.37	0.00	1.63	-193.51
118	118	55.37	0.00	-0.02	-193.53
118	119	59.01	0.00	-0.02	-193.45

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ-

TREN IPF75-B EJE IZDO Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	-1.75	-193.35
119	120	62.64	0.00	-1.64	-187.01
120	120	62.64	0.00	-3.22	-186.69
120	121	66.28	0.00	-1.15	-175.54
121	121	66.28	0.00	-2.14	-174.87
121	122	69.91	0.00	39.62	-229.15
122	122	69.91	0.00	43.21	-230.10
122	123	73.55	0.00	50.78	-395.43
123	10123	73.55	0.00	-40.24	-395.74
123	124	76.66	0.00	-40.24	-270.60
124	124	76.66	0.00	-37.41	-269.99
124	125	79.77	0.00	-5.02	-228.56
125	125	79.77	0.00	-5.89	-229.06
125	126	82.88	0.00	-5.89	-210.75
126	126	82.88	0.00	-7.04	-210.92
126	127	85.99	0.00	-7.04	-189.06
127	127	85.99	0.00	-8.13	-189.00
127	128	89.10	0.00	-8.13	-163.72
128	128	89.10	0.00	-8.98	-163.51
128	129	92.21	0.00	-8.71	-135.82
129	129	92.21	0.00	-9.25	-135.53
129	130	95.32	0.00	-9.25	-106.76
130	130	95.32	0.00	-9.36	-106.44
130	131	98.43	0.00	-9.36	-77.32
131	131	98.43	0.00	-9.05	-76.99
131	132	101.54	0.00	-9.05	-48.84
132	132	101.54	0.00	-8.31	-48.52
132	133	104.65	0.00	-8.31	-22.68
133	133	104.65	0.00	-7.14	-22.35
133	134	107.76	0.00	-5.52	-0.22
301	101	0.00	0.00	-1.56	-0.91
301	2001	0.00	0.00	-0.99	0.11
302	102	3.05	0.00	-3.81	-3.13
302	2002	3.05	0.00	-3.07	-0.76
303	103	6.10	0.00	-6.28	-8.67
303	2003	6.10	0.00	-5.72	-4.12
304	104	9.15	0.00	-8.88	-15.24
304	2004	9.15	0.00	-8.56	-8.63
305	105	12.20	0.00	-10.20	-19.61
305	2005	12.20	0.00	-10.20	-11.90
306	106	15.25	0.00	-10.95	-21.45
306	2006	15.25	0.00	-10.35	-13.41
307	107	18.30	0.00	-10.69	-20.92
307	2007	18.30	0.00	-10.15	-13.04
308	108	21.35	0.00	-9.47	-18.21
308	2008	21.35	0.00	-9.47	-11.05
309	109	24.40	0.00	-7.89	-13.55
309	2009	24.40	0.00	-7.64	-7.69
310	110	27.45	0.00	-5.78	-7.80
310	2010	27.45	0.00	-5.24	-3.67
311	111	30.50	0.00	-3.69	-3.25

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ-

TREN IPF75-B EJE IZDO Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-2.74	-0.72
312	112	33.55	0.00	-2.87	-1.80
312	2012	33.55	0.00	-2.36	-0.01
313	113	37.19	0.00	-4.88	-5.78
313	2013	37.19	0.00	-4.55	-2.13
314	114	40.82	0.00	-8.05	-13.49
314	2014	40.82	0.00	-7.53	-7.64
315	115	44.46	0.00	-10.90	-21.80
315	2015	44.46	0.00	-10.69	-13.69
316	116	48.10	0.00	-12.97	-28.16
316	2016	48.10	0.00	-12.97	-18.35
317	117	51.73	0.00	-14.01	-31.34
317	2017	51.73	0.00	-13.70	-20.80
318	118	55.37	0.00	-14.00	-31.35
318	2018	55.37	0.00	-13.69	-20.79
319	119	59.01	0.00	-12.97	-28.15
319	2019	59.01	0.00	-12.97	-18.35
320	120	62.64	0.00	-10.90	-21.80
320	2020	62.64	0.00	-10.69	-13.70
321	121	66.28	0.00	-8.06	-13.50
321	2021	66.28	0.00	-7.53	-7.64
322	122	69.91	0.00	-4.89	-5.80
322	2022	69.91	0.00	-4.56	-2.14
323	123	73.55	0.00	-2.91	-1.84
323	2023	73.55	0.00	-2.39	-0.01
324	124	76.66	0.00	-3.75	-3.33
324	2024	76.66	0.00	-2.79	-0.77
325	125	79.77	0.00	-5.91	-8.08
325	2025	79.77	0.00	-5.38	-3.88
326	126	82.88	0.00	-8.14	-14.14
326	2026	82.88	0.00	-7.88	-8.10
327	127	85.99	0.00	-9.82	-19.06
327	2027	85.99	0.00	-9.82	-11.65
328	128	89.10	0.00	-11.08	-21.92
328	2028	89.10	0.00	-10.54	-13.77
329	129	92.21	0.00	-11.35	-22.46
329	2029	92.21	0.00	-10.74	-14.13
330	130	95.32	0.00	-10.62	-20.52
330	2030	95.32	0.00	-10.56	-12.53
331	131	98.43	0.00	-9.23	-15.90
331	2031	98.43	0.00	-8.92	-9.08
332	132	101.54	0.00	-6.21	-8.97
332	2032	101.54	0.00	-5.88	-4.32
333	133	104.65	0.00	-3.55	-3.20
333	2033	104.65	0.00	-3.13	-0.78
334	134	107.76	0.00	-1.58	-0.92
334	2034	107.76	0.00	-1.11	0.10
201	2001	0.00	0.00	-0.99	0.11
201	1001	0.00	0.00	-0.11	1.20
202	2002	3.05	0.00	-3.07	-0.76
202	1002	3.05	0.00	-0.44	2.93

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ-

TREN IPF75-B EJE IZDO Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	-5.72	-4.12
203	1003	6.10	0.00	-0.62	3.38
204	2004	9.15	0.00	-8.56	-8.63
204	1004	9.15	0.00	-0.76	3.69
205	2005	12.20	0.00	-10.20	-11.90
205	1005	12.20	0.00	-0.83	3.87
206	2006	15.25	0.00	-10.35	-13.41
206	1006	15.25	0.00	-0.44	3.90
207	2007	18.30	0.00	-10.15	-13.04
207	1007	18.30	0.00	0.16	3.51
208	2008	21.35	0.00	-9.47	-11.05
208	1008	21.35	0.00	0.38	3.05
209	2009	24.40	0.00	-7.64	-7.69
209	1009	24.40	0.00	0.54	2.74
210	2010	27.45	0.00	-5.24	-3.67
210	1010	27.45	0.00	0.35	2.64
211	2011	30.50	0.00	-2.74	-0.72
211	1011	30.50	0.00	-0.34	2.70
212	2012	33.55	0.00	-2.36	-0.01
212	1012	33.55	0.00	-0.31	2.81
213	2013	37.19	0.00	-4.55	-2.13
213	1013	37.19	0.00	-0.41	3.23
214	2014	40.82	0.00	-7.53	-7.64
214	1014	40.82	0.00	0.38	3.22
215	2015	44.46	0.00	-10.69	-13.69
215	1015	44.46	0.00	0.73	3.39
216	2016	48.10	0.00	-12.97	-18.35
216	1016	48.10	0.00	0.22	3.87
217	2017	51.73	0.00	-13.70	-20.80
217	1017	51.73	0.00	-0.07	4.39
218	2018	55.37	0.00	-13.69	-20.79
218	1018	55.37	0.00	-0.03	4.33
219	2019	59.01	0.00	-12.97	-18.35
219	1019	59.01	0.00	0.50	3.77
220	2020	62.64	0.00	-10.69	-13.70
220	1020	62.64	0.00	0.81	3.25
221	2021	66.28	0.00	-7.53	-7.64
221	1021	66.28	0.00	0.71	3.08
222	2022	69.91	0.00	-4.56	-2.14
222	1022	69.91	0.00	-0.40	3.22
223	2023	73.55	0.00	-2.39	-0.01
223	1023	73.55	0.00	-0.31	2.81
224	2024	76.66	0.00	-2.79	-0.77
224	1024	76.66	0.00	-0.34	2.71
225	2025	79.77	0.00	-5.38	-3.88
225	1025	79.77	0.00	0.35	2.66
226	2026	82.88	0.00	-7.88	-8.10
226	1026	82.88	0.00	0.53	2.76
227	2027	85.99	0.00	-9.81	-11.65
227	1027	85.99	0.00	0.35	3.11
228	2028	89.10	0.00	-10.54	-13.77

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MZ-

TREN IPF75-B EJE IZDO Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ-

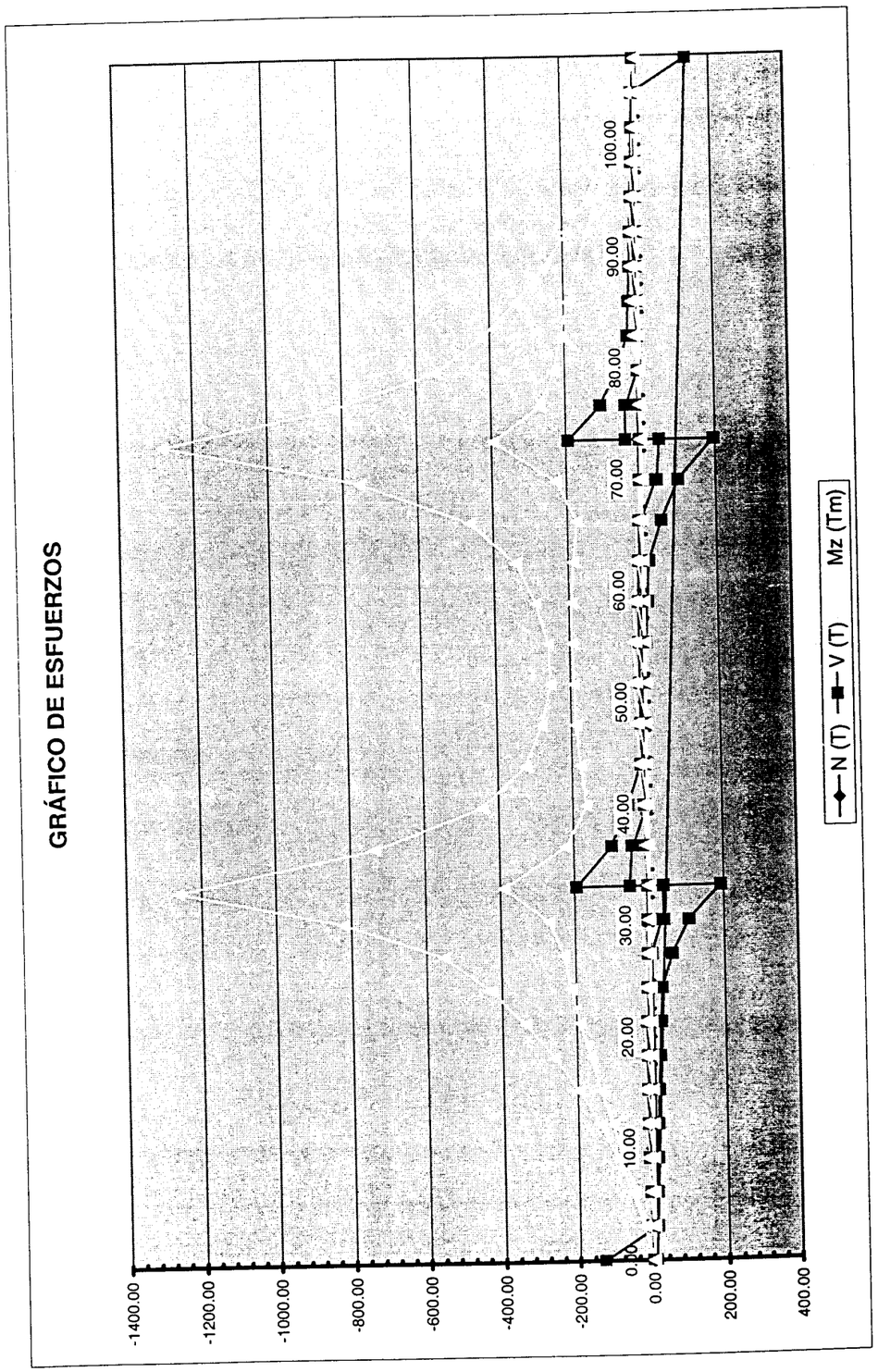
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	0.12	3.59
229	2029	92.21	0.00	-10.74	-14.13
229	1029	92.21	0.00	-0.48	3.99
230	2030	95.32	0.00	-10.56	-12.53
230	1030	95.32	0.00	-0.86	3.96
231	2031	98.43	0.00	-8.92	-9.08
231	1031	98.43	0.00	-0.78	3.77
232	2032	101.54	0.00	-5.88	-4.32
232	1032	101.54	0.00	-0.64	3.43
233	2033	104.65	0.00	-3.13	-0.78
233	1033	104.65	0.00	-0.44	2.95
234	2034	107.76	0.00	-1.11	0.10
234	1034	107.76	0.00	-0.10	1.19
401	1001	0.00	0.00	-0.11	1.20
401	1	0.00	0.00	0.20	1.16
402	1002	3.05	0.00	-0.44	2.93
402	2	3.05	0.00	-0.44	3.27
403	1003	6.10	0.00	-0.62	3.38
403	3	6.10	0.00	-0.62	3.85
404	1004	9.15	0.00	-0.76	3.69
404	4	9.15	0.00	-0.76	4.27
405	1005	12.20	0.00	-0.83	3.87
405	5	12.20	0.00	-0.83	4.50
406	1006	15.25	0.00	-0.44	3.90
406	6	15.25	0.00	-0.08	4.05
407	1007	18.30	0.00	0.16	3.51
407	7	18.30	0.00	0.79	3.28
408	1008	21.35	0.00	0.38	3.05
408	8	21.35	0.00	1.08	2.52
409	1009	24.40	0.00	0.54	2.74
409	9	24.40	0.00	1.04	2.11
410	1010	27.45	0.00	0.35	2.64
410	10	27.45	0.00	0.76	2.17
411	1011	30.50	0.00	-0.34	2.70
411	11	30.50	0.00	0.45	2.62
412	1012	33.55	0.00	-0.31	2.81
412	12	33.55	0.00	-0.31	3.05
413	1013	37.19	0.00	-0.41	3.23
413	13	37.19	0.00	0.33	3.23
414	1014	40.82	0.00	0.38	3.22
414	14	40.82	0.00	1.16	2.55
415	1015	44.46	0.00	0.73	3.39
415	15	44.46	0.00	1.03	2.65
416	1016	48.10	0.00	0.22	3.87
416	16	48.10	0.00	0.89	3.39
417	1017	51.73	0.00	-0.07	4.39
417	17	51.73	0.00	1.00	4.04
418	1018	55.37	0.00	-0.03	4.33
418	18	55.37	0.00	1.20	3.96
419	1019	59.01	0.00	0.50	3.77
419	19	59.01	0.00	0.98	3.19

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BI.MZ-
TREN IPF75-B EJE IZDO Mz-
[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ-
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.81	3.25
420	20	62.64	0.00	1.12	2.42
421	1021	66.28	0.00	0.71	3.08
421	21	66.28	0.00	1.28	2.27
422	1022	69.91	0.00	-0.40	3.22
422	22	69.91	0.00	0.63	3.03
423	1023	73.55	0.00	-0.31	2.81
423	23	73.55	0.00	-0.31	3.04
424	1024	76.66	0.00	-0.34	2.71
424	24	76.66	0.00	0.46	2.61
425	1025	79.77	0.00	0.35	2.66
425	25	79.77	0.00	0.77	2.16
426	1026	82.88	0.00	0.53	2.76
426	26	82.88	0.00	1.04	2.13
427	1027	85.99	0.00	0.35	3.11
427	27	85.99	0.00	1.06	2.57
428	1028	89.10	0.00	0.12	3.59
428	28	89.10	0.00	0.75	3.37
429	1029	92.21	0.00	-0.48	3.99
429	29	92.21	0.00	-0.11	4.17
430	1030	95.32	0.00	-0.86	3.96
430	30	95.32	0.00	-0.86	4.62
431	1031	98.43	0.00	-0.78	3.77
431	31	98.43	0.00	-0.78	4.36
432	1032	101.54	0.00	-0.64	3.43
432	32	101.54	0.00	-0.64	3.91
433	1033	104.65	0.00	-0.44	2.95
433	33	104.65	0.00	-0.44	3.29
434	1034	107.76	0.00	-0.10	1.19
434	34	107.76	0.00	0.24	1.05



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ+

TREN IPF75-B EJE DCHO Mz+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ+ + [1; 1]TREND.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-34.80	1.51
1	2	3.05	0.00	-36.17	111.77
2	2	3.05	0.00	-33.06	114.52
2	3	6.10	0.00	-33.06	215.34
3	3	6.10	0.00	-26.70	217.61
3	4	9.15	0.00	-26.71	299.09
4	4	9.15	0.00	-17.88	300.71
4	5	12.20	0.00	-18.04	355.34
5	5	12.20	0.00	-7.66	356.22
5	6	15.25	0.00	-7.66	379.58
6	6	15.25	0.00	3.43	379.66
6	7	18.30	0.00	3.43	369.22
7	7	18.30	0.00	14.30	368.54
7	8	21.35	0.00	14.30	324.94
8	8	21.35	0.00	24.12	323.59
8	9	24.40	0.00	24.12	250.01
9	9	24.40	0.00	32.18	248.12
9	10	27.45	0.00	32.18	149.96
10	10	27.45	0.00	37.96	147.74
10	11	30.50	0.00	14.73	62.14
11	11	30.50	0.00	16.91	61.09
11	12	33.55	0.00	3.06	49.89
12	10012	33.55	0.00	7.29	49.72
12	13	37.19	0.00	7.29	23.20
13	13	37.19	0.00	7.85	23.02
13	14	40.82	0.00	-41.81	103.00
14	14	40.82	0.00	-35.63	105.61
14	15	44.46	0.00	-38.08	243.30
15	15	44.46	0.00	-27.37	245.51
15	16	48.10	0.00	-27.37	345.03
16	16	48.10	0.00	-14.31	346.45
16	17	51.73	0.00	-14.31	398.48
17	17	51.73	0.00	-0.02	398.98
17	18	55.37	0.00	-0.16	399.32
18	18	55.37	0.00	14.13	398.83
18	19	59.01	0.00	14.13	347.47
19	19	59.01	0.00	27.19	346.06
19	20	62.64	0.00	27.19	247.19
20	20	62.64	0.00	37.89	244.99
20	21	66.28	0.00	36.59	107.72
21	21	66.28	0.00	43.05	105.08
21	22	69.91	0.00	-4.38	18.74
22	22	69.91	0.00	-6.59	18.89
22	23	73.55	0.00	-6.60	42.88
23	10023	73.55	0.00	-3.32	43.06
23	24	76.66	0.00	-13.70	54.86
24	24	76.66	0.00	-11.67	55.69
24	25	79.77	0.00	-39.51	146.54
25	25	79.77	0.00	-33.61	148.83
25	26	82.88	0.00	-33.61	253.37
26	26	82.88	0.00	-25.31	255.34

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ+

TREN IPF75-B EJE DCHO Mz+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ+ + [1; 1]TREND.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-25.31	334.05
27	27	85.99	0.00	-15.14	335.48
27	28	89.10	0.00	-15.14	382.55
28	28	89.10	0.00	-3.86	383.27
28	29	92.21	0.00	-3.86	395.27
29	29	92.21	0.00	7.64	395.18
29	30	95.32	0.00	7.64	371.42
30	30	95.32	0.00	18.41	370.49
30	31	98.43	0.00	18.25	313.62
31	31	98.43	0.00	27.38	311.93
31	32	101.54	0.00	27.38	226.80
32	32	101.54	0.00	33.85	224.42
32	33	104.65	0.00	33.85	119.16
33	33	104.65	0.00	36.90	116.29
33	34	107.76	0.00	35.52	1.58
101	101	0.00	0.00	6.43	0.20
101	102	3.05	0.00	-113.67	393.57
102	102	3.05	0.00	-116.36	390.74
102	103	6.10	0.00	-72.30	678.13
103	103	6.10	0.00	-78.48	675.79
103	104	9.15	0.00	-41.42	866.86
104	104	9.15	0.00	-50.16	865.19
104	105	12.20	0.00	-12.35	973.60
105	105	12.20	0.00	-22.71	972.71
105	106	15.25	0.00	8.60	994.30
106	106	15.25	0.00	-2.46	994.21
106	107	18.30	0.00	33.96	937.58
107	107	18.30	0.00	23.15	938.27
107	108	21.35	0.00	59.53	804.02
108	108	21.35	0.00	49.71	805.39
108	109	24.40	0.00	87.00	584.65
109	109	24.40	0.00	79.09	586.56
109	110	27.45	0.00	92.94	299.46
110	110	27.45	0.00	88.06	301.03
110	111	30.50	0.00	31.29	114.37
111	111	30.50	0.00	50.45	114.77
111	112	33.55	0.00	11.66	31.69
112	10112	33.55	0.00	-1.96	31.88
112	113	37.19	0.00	-44.72	102.98
113	113	37.19	0.00	-23.92	102.60
113	114	40.82	0.00	-79.24	316.67
114	114	40.82	0.00	-85.86	314.99
114	115	44.46	0.00	-74.91	598.91
115	115	44.46	0.00	-85.51	596.72
115	116	48.10	0.00	-40.34	818.04
116	116	48.10	0.00	-53.40	816.61
116	117	51.73	0.00	-7.78	925.31
117	117	51.73	0.00	-22.07	924.82
117	118	55.37	0.00	21.85	925.21
118	118	55.37	0.00	7.57	925.70
118	119	59.01	0.00	53.18	817.77

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BD.MZ+

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ+

TREN IPF75-B EJE DCHO Mz+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ+ + [1; 1]TREND.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	40.11	819.19
119	120	62.64	0.00	85.29	598.61
120	120	62.64	0.00	74.70	600.79
120	121	66.28	0.00	86.30	314.66
121	121	66.28	0.00	79.68	316.34
121	122	69.91	0.00	48.21	97.16
122	122	69.91	0.00	45.42	97.57
122	123	73.55	0.00	2.75	22.43
123	10123	73.55	0.00	-12.22	22.23
123	124	76.66	0.00	-30.41	108.93
124	124	76.66	0.00	-32.22	108.55
124	125	79.77	0.00	-87.31	301.10
125	125	79.77	0.00	-92.34	299.47
125	126	82.88	0.00	-80.37	597.17
126	126	82.88	0.00	-88.53	595.18
126	127	85.99	0.00	-51.05	823.83
127	127	85.99	0.00	-61.22	822.41
127	128	89.10	0.00	-23.66	962.53
128	128	89.10	0.00	-34.87	961.81
128	129	92.21	0.00	2.05	1021.74
129	129	92.21	0.00	-9.45	1021.83
129	130	95.32	0.00	22.89	1000.92
130	130	95.32	0.00	12.15	1001.84
130	131	98.43	0.00	50.21	892.79
131	131	98.43	0.00	41.16	894.52
131	132	101.54	0.00	78.96	697.90
132	132	101.54	0.00	72.66	700.32
132	133	104.65	0.00	110.28	403.33
133	133	104.65	0.00	107.68	406.25
133	134	107.76	0.00	-5.60	0.19
301	101	0.00	0.00	1.31	10.58
301	2001	0.00	0.00	1.00	9.71
302	102	3.05	0.00	3.59	28.76
302	2002	3.05	0.00	3.59	26.05
303	103	6.10	0.00	6.28	37.24
303	2003	6.10	0.00	6.28	32.48
304	104	9.15	0.00	8.26	43.42
304	2004	9.15	0.00	8.26	37.19
305	105	12.20	0.00	10.16	47.48
305	2005	12.20	0.00	9.74	39.90
306	106	15.25	0.00	10.91	49.24
306	2006	15.25	0.00	10.70	41.00
307	107	18.30	0.00	10.76	48.34
307	2007	18.30	0.00	10.66	40.28
308	108	21.35	0.00	9.74	45.00
308	2008	21.35	0.00	9.62	37.67
309	109	24.40	0.00	8.10	39.62
309	2009	24.40	0.00	7.97	33.52
310	110	27.45	0.00	6.01	32.82
310	2010	27.45	0.00	5.67	28.41
311	111	30.50	0.00	3.75	26.12

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ+

TREN IPF75-B EJE DCHO Mz+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ+ + [1; 1]TREND.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	3.43	23.44
312	112	33.55	0.00	2.44	24.24
312	2012	33.55	0.00	1.71	22.72
313	113	37.19	0.00	4.72	31.63
313	2013	37.19	0.00	4.32	28.24
314	114	40.82	0.00	7.74	40.85
314	2014	40.82	0.00	7.54	35.09
315	115	44.46	0.00	10.36	49.39
315	2015	44.46	0.00	10.36	41.56
316	116	48.10	0.00	12.69	55.59
316	2016	48.10	0.00	12.00	46.18
317	117	51.73	0.00	14.00	59.05
317	2017	51.73	0.00	13.56	48.59
318	118	55.37	0.00	13.99	59.07
318	2018	55.37	0.00	13.56	48.60
319	119	59.01	0.00	12.70	55.60
319	2019	59.01	0.00	12.20	46.22
320	120	62.64	0.00	10.37	49.43
320	2020	62.64	0.00	10.37	41.59
321	121	66.28	0.00	7.75	40.86
321	2021	66.28	0.00	7.53	35.06
322	122	69.91	0.00	4.72	31.63
322	2022	69.91	0.00	4.28	28.19
323	123	73.55	0.00	2.54	24.10
323	2023	73.55	0.00	1.61	22.58
324	124	76.66	0.00	3.75	26.21
324	2024	76.66	0.00	3.42	23.50
325	125	79.77	0.00	6.13	33.30
325	2025	79.77	0.00	5.78	28.78
326	126	82.88	0.00	8.34	40.50
326	2026	82.88	0.00	8.21	34.21
327	127	85.99	0.00	10.08	46.19
327	2027	85.99	0.00	9.96	38.61
328	128	89.10	0.00	11.16	49.74
328	2028	89.10	0.00	11.06	41.38
329	129	92.21	0.00	11.33	50.70
329	2029	92.21	0.00	10.99	42.14
330	130	95.32	0.00	10.54	48.83
330	2030	95.32	0.00	10.13	40.98
331	131	98.43	0.00	8.56	44.53
331	2031	98.43	0.00	8.56	38.04
332	132	101.54	0.00	6.45	37.89
332	2032	101.54	0.00	6.45	33.01
333	133	104.65	0.00	3.55	28.79
333	2033	104.65	0.00	3.55	26.12
334	134	107.76	0.00	1.29	10.55
334	2034	107.76	0.00	1.13	9.61
201	2001	0.00	0.00	1.00	9.71
201	1001	0.00	0.00	-0.78	8.97
202	2002	3.05	0.00	3.59	26.05
202	1002	3.05	0.00	1.58	10.37

IPF75

Programa DINTEL PACADAR S.A.
IPF75BD.MZ+

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ+

TREN IPF75-B EJE DCHO Mz+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ+ + [1; 1]TREND.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	6.28	32.48
203	1003	6.10	0.00	1.60	7.36
204	2004	9.15	0.00	8.26	37.19
204	1004	9.15	0.00	0.59	7.99
205	2005	12.20	0.00	9.74	39.90
205	1005	12.20	0.00	-0.05	9.14
206	2006	15.25	0.00	10.70	41.00
206	1006	15.25	0.00	-0.46	10.32
207	2007	18.30	0.00	10.66	40.28
207	1007	18.30	0.00	-0.80	11.52
208	2008	21.35	0.00	9.62	37.67
208	1008	21.35	0.00	-1.14	12.56
209	2009	24.40	0.00	7.97	33.52
209	1009	24.40	0.00	-1.04	13.21
210	2010	27.45	0.00	5.67	28.41
210	1010	27.45	0.00	-0.59	13.55
211	2011	30.50	0.00	3.43	23.44
211	1011	30.50	0.00	-0.40	14.28
212	2012	33.55	0.00	1.71	22.72
212	1012	33.55	0.00	-0.33	16.18
213	2013	37.19	0.00	4.32	28.24
213	1013	37.19	0.00	-0.79	17.91
214	2014	40.82	0.00	7.54	35.09
214	1014	40.82	0.00	-1.45	17.99
215	2015	44.46	0.00	10.36	41.56
215	1015	44.46	0.00	-2.10	18.16
216	2016	48.10	0.00	12.00	46.18
216	1016	48.10	0.00	-2.33	17.98
217	2017	51.73	0.00	13.56	48.59
217	1017	51.73	0.00	-2.21	17.63
218	2018	55.37	0.00	13.56	48.60
218	1018	55.37	0.00	-2.26	17.75
219	2019	59.01	0.00	12.20	46.22
219	1019	59.01	0.00	-2.40	18.23
220	2020	62.64	0.00	10.37	41.59
220	1020	62.64	0.00	-2.23	18.52
221	2021	66.28	0.00	7.53	35.06
221	1021	66.28	0.00	-1.62	18.44
222	2022	69.91	0.00	4.28	28.19
222	1022	69.91	0.00	-0.98	18.39
223	2023	73.55	0.00	1.61	22.58
223	1023	73.55	0.00	-0.49	16.58
224	2024	76.66	0.00	3.42	23.50
224	1024	76.66	0.00	-0.47	14.49
225	2025	79.77	0.00	5.78	28.78
225	1025	79.77	0.00	-0.61	13.63
226	2026	82.88	0.00	8.21	34.21
226	1026	82.88	0.00	-1.05	13.21
227	2027	85.99	0.00	9.96	38.61
227	1027	85.99	0.00	-1.13	12.52
228	2028	89.10	0.00	11.06	41.38

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ+

TREN IPF75-B EJE DCHO Mz+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ+ + [1; 1]TREND.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	-0.77	11.44
229	2029	92.21	0.00	10.99	42.14
229	1029	92.21	0.00	-0.43	10.20
230	2030	95.32	0.00	10.13	40.98
230	1030	95.32	0.00	-0.01	9.02
231	2031	98.43	0.00	8.56	38.04
231	1031	98.43	0.00	0.63	7.87
232	2032	101.54	0.00	6.45	33.01
232	1032	101.54	0.00	1.63	7.31
233	2033	104.65	0.00	3.55	26.12
233	1033	104.65	0.00	1.49	10.66
234	2034	107.76	0.00	1.13	9.61
234	1034	107.76	0.00	-0.92	9.43
401	1001	0.00	0.00	-0.78	8.97
401	1	0.00	0.00	-0.85	9.59
402	1002	3.05	0.00	1.58	10.37
402	2	3.05	0.00	1.18	9.29
403	1003	6.10	0.00	1.60	7.36
403	3	6.10	0.00	1.10	6.34
404	1004	9.15	0.00	0.59	7.99
404	4	9.15	0.00	0.38	7.65
405	1005	12.20	0.00	-0.05	9.14
405	5	12.20	0.00	-0.05	9.18
406	1006	15.25	0.00	-0.46	10.32
406	6	15.25	0.00	-0.66	10.73
407	1007	18.30	0.00	-0.80	11.52
407	7	18.30	0.00	-1.05	12.20
408	1008	21.35	0.00	-1.14	12.56
408	8	21.35	0.00	-1.14	13.41
409	1009	24.40	0.00	-1.04	13.21
409	9	24.40	0.00	-1.42	14.14
410	1010	27.45	0.00	-0.59	13.55
410	10	27.45	0.00	-1.26	14.13
411	1011	30.50	0.00	-0.40	14.28
411	11	30.50	0.00	-0.57	14.65
412	1012	33.55	0.00	-0.33	16.18
412	12	33.55	0.00	-0.50	16.50
413	1013	37.19	0.00	-0.79	17.91
413	13	37.19	0.00	-1.12	18.68
414	1014	40.82	0.00	-1.45	17.99
414	14	40.82	0.00	-1.67	19.19
415	1015	44.46	0.00	-2.10	18.16
415	15	44.46	0.00	-2.30	19.84
416	1016	48.10	0.00	-2.33	17.98
416	16	48.10	0.00	-2.33	19.75
417	1017	51.73	0.00	-2.21	17.63
417	17	51.73	0.00	-2.42	19.38
418	1018	55.37	0.00	-2.26	17.75
418	18	55.37	0.00	-2.47	19.52
419	1019	59.01	0.00	-2.40	18.23
419	19	59.01	0.00	-2.42	20.07

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BD.MZ+

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ+

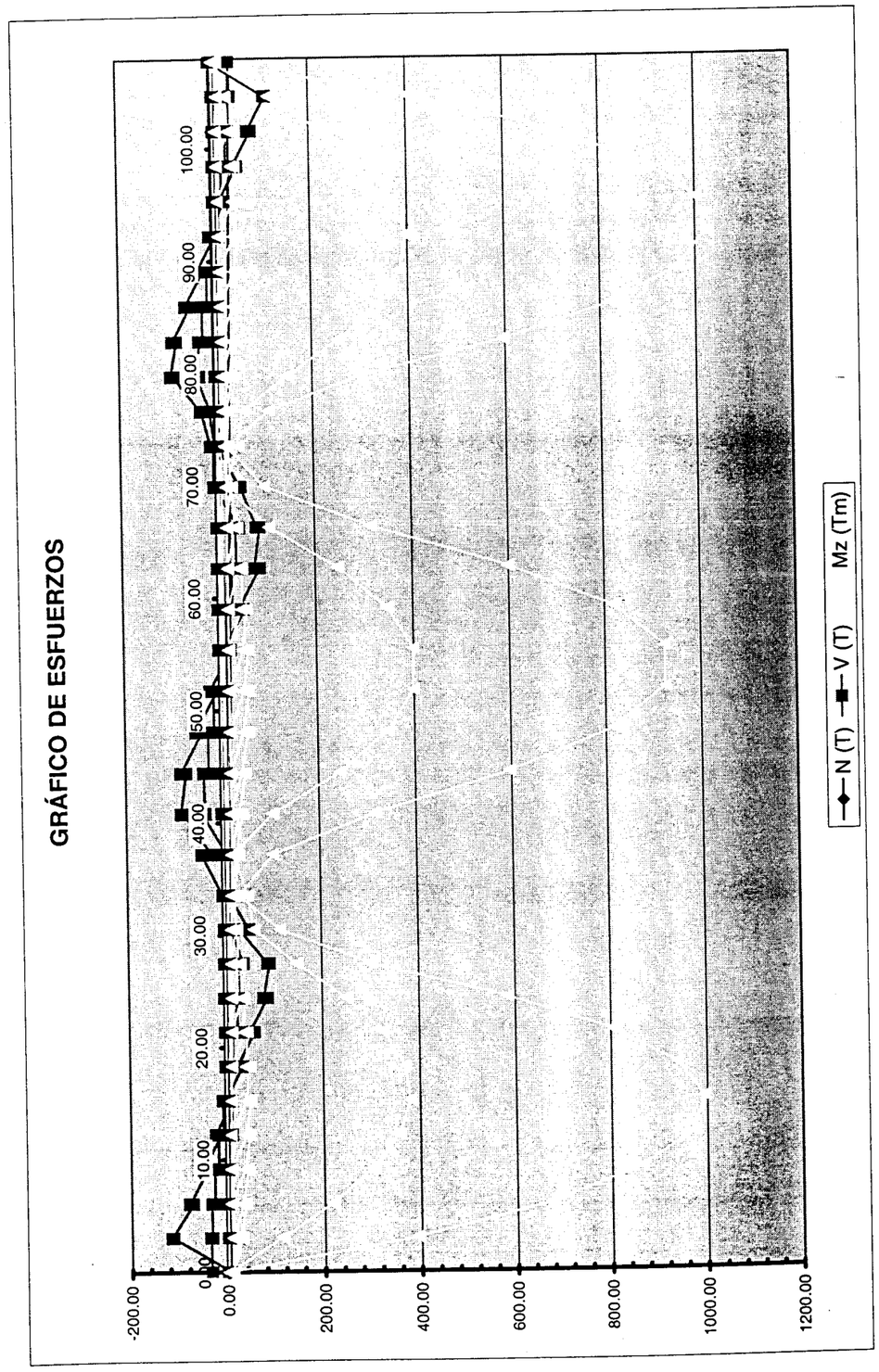
TREN IPF75-B EJE DCHO Mz+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ+ + [1; 1]TREND.EnvTrenGen.MZ+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-2.23	18.52
420	20	62.64	0.00	-2.43	20.30
421	1021	66.28	0.00	-1.62	18.44
421	21	66.28	0.00	-1.84	19.78
422	1022	69.91	0.00	-0.98	18.39
422	22	69.91	0.00	-1.30	19.29
423	1023	73.55	0.00	-0.49	16.58
423	23	73.55	0.00	-0.64	16.99
424	1024	76.66	0.00	-0.47	14.49
424	24	76.66	0.00	-0.71	14.89
425	1025	79.77	0.00	-0.61	13.63
425	25	79.77	0.00	-1.29	14.21
426	1026	82.88	0.00	-1.05	13.21
426	26	82.88	0.00	-1.43	14.14
427	1027	85.99	0.00	-1.13	12.52
427	27	85.99	0.00	-1.13	13.38
428	1028	89.10	0.00	-0.77	11.44
428	28	89.10	0.00	-1.03	12.10
429	1029	92.21	0.00	-0.43	10.20
429	29	92.21	0.00	-0.62	10.59
430	1030	95.32	0.00	-0.01	9.02
430	30	95.32	0.00	-0.01	9.03
431	1031	98.43	0.00	0.63	7.87
431	31	98.43	0.00	0.42	7.52
432	1032	101.54	0.00	1.63	7.31
432	32	101.54	0.00	1.33	6.26
433	1033	104.65	0.00	1.49	10.66
433	33	104.65	0.00	1.09	9.64
434	1034	107.76	0.00	-0.92	9.43
434	34	107.76	0.00	-1.01	10.15

GRÁFICO DE ESFUERZOS



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ-

TREN IPF75-B EJE DCHO Mz-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ- + [1; 1]TREND.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	7.61	-0.20
1	2	3.05	0.00	9.00	-27.58
2	2	3.05	0.00	9.87	-27.91
2	3	6.10	0.00	9.87	-58.03
3	3	6.10	0.00	10.33	-58.37
3	4	9.15	0.00	10.33	-89.86
4	4	9.15	0.00	10.34	-90.21
4	5	12.20	0.00	10.52	-121.84
5	5	12.20	0.00	10.11	-122.23
5	6	15.25	0.00	10.11	-153.06
6	6	15.25	0.00	9.20	-153.41
6	7	18.30	0.00	9.20	-181.46
7	7	18.30	0.00	7.84	-181.71
7	8	21.35	0.00	7.84	-205.59
8	8	21.35	0.00	6.11	-205.69
8	9	24.40	0.00	6.11	-224.29
9	9	24.40	0.00	4.21	-224.15
9	10	27.45	0.00	4.21	-237.00
10	10	27.45	0.00	2.50	-236.50
10	11	30.50	0.00	19.84	-259.34
11	11	30.50	0.00	19.61	-259.14
11	12	33.55	0.00	33.47	-359.36
12	10012	33.55	0.00	-46.11	-358.98
12	13	37.19	0.00	-38.18	-208.27
13	13	37.19	0.00	-36.34	-207.15
13	14	40.82	0.00	4.87	-166.09
14	14	40.82	0.00	4.16	-166.71
14	15	44.46	0.00	6.61	-189.95
15	15	44.46	0.00	4.20	-190.27
15	16	48.10	0.00	4.20	-205.55
16	16	48.10	0.00	1.72	-205.65
16	17	51.73	0.00	1.72	-211.90
17	17	51.73	0.00	-0.71	-211.88
17	18	55.37	0.00	1.71	-214.82
18	18	55.37	0.00	-0.76	-214.86
18	19	59.01	0.00	-0.76	-212.08
19	19	59.01	0.00	-3.34	-211.99
19	20	62.64	0.00	-3.34	-199.87
20	20	62.64	0.00	-5.88	-199.56
20	21	66.28	0.00	-4.58	-178.74
21	21	66.28	0.00	-5.72	-178.08
21	22	69.91	0.00	33.40	-215.36
22	22	69.91	0.00	37.85	-216.43
22	23	73.55	0.00	45.81	-363.79
23	10023	73.55	0.00	-34.32	-364.11
23	24	76.66	0.00	-24.00	-258.66
24	24	76.66	0.00	-24.10	-258.55
24	25	79.77	0.00	-2.29	-233.95
25	25	79.77	0.00	-4.03	-234.44
25	26	82.88	0.00	-4.03	-221.92
26	26	82.88	0.00	-5.93	-222.04

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ-

TREN IPF75-B EJE DCHO Mz-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ- + [1; 1]TREND.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-5.93	-203.61
27	27	85.99	0.00	-7.64	-203.49
27	28	89.10	0.00	-7.64	-179.72
28	28	89.10	0.00	-9.00	-179.45
28	29	92.21	0.00	-9.00	-151.50
29	29	92.21	0.00	-9.86	-151.15
29	30	95.32	0.00	-9.86	-120.46
30	30	95.32	0.00	-10.23	-120.10
30	31	98.43	0.00	-10.05	-88.68
31	31	98.43	0.00	-10.00	-88.34
31	32	101.54	0.00	-10.00	-57.22
32	32	101.54	0.00	-9.52	-56.91
32	33	104.65	0.00	-9.52	-27.29
33	33	104.65	0.00	-8.63	-26.98
33	34	107.76	0.00	-7.26	-0.19
101	101	0.00	0.00	-145.33	-1.51
101	102	3.05	0.00	9.70	-24.54
102	102	3.05	0.00	8.47	-24.14
102	103	6.10	0.00	11.76	-55.12
103	103	6.10	0.00	11.16	-54.74
103	104	9.15	0.00	14.33	-93.60
104	104	9.15	0.00	14.23	-93.21
104	105	12.20	0.00	17.40	-141.47
105	105	12.20	0.00	17.82	-141.09
105	106	15.25	0.00	20.99	-200.27
106	106	15.25	0.00	21.90	-199.93
106	107	18.30	0.00	25.07	-271.56
107	107	18.30	0.00	26.44	-271.31
107	108	21.35	0.00	29.61	-356.79
108	108	21.35	0.00	31.34	-356.68
108	109	24.40	0.00	35.11	-457.22
109	109	24.40	0.00	36.83	-457.36
109	110	27.45	0.00	67.76	-597.31
110	110	27.45	0.00	68.57	-597.18
110	111	30.50	0.00	140.72	-897.84
111	111	30.50	0.00	119.61	-897.37
111	112	33.55	0.00	212.62	-1393.05
112	10112	33.55	0.00	-214.32	-1393.12
112	113	37.19	0.00	-110.30	-802.34
113	113	37.19	0.00	-133.49	-802.93
113	114	40.82	0.00	-58.72	-479.52
114	114	40.82	0.00	-57.62	-479.83
114	115	44.46	0.00	-19.17	-344.55
115	115	44.46	0.00	-16.90	-344.25
115	116	48.10	0.00	-12.67	-290.62
116	116	48.10	0.00	-10.20	-290.52
116	117	51.73	0.00	-6.42	-260.29
117	117	51.73	0.00	-4.00	-260.30
117	118	55.37	0.00	5.57	-264.28
118	118	55.37	0.00	8.04	-264.24
118	119	59.01	0.00	11.82	-300.37

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BD.MZ-

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ-

TREN IPF75-B EJE DCHO Mz-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ- + [1; 1]TREND.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	14.38	-300.45
119	120	62.64	0.00	18.60	-360.28
120	120	62.64	0.00	21.03	-360.60
120	121	66.28	0.00	58.82	-499.67
121	121	66.28	0.00	60.09	-499.38
121	122	69.91	0.00	111.13	-825.71
122	122	69.91	0.00	111.63	-825.20
122	123	73.55	0.00	215.40	-1415.15
123	10123	73.55	0.00	-215.08	-1415.13
123	124	76.66	0.00	-141.80	-902.26
124	124	76.66	0.00	-141.94	-902.84
124	125	79.77	0.00	-68.57	-592.28
125	125	79.77	0.00	-67.73	-592.44
125	126	82.88	0.00	-36.32	-449.29
126	126	82.88	0.00	-34.59	-449.16
126	127	85.99	0.00	-30.76	-348.36
127	127	85.99	0.00	-29.03	-348.47
127	128	89.10	0.00	-25.79	-263.23
128	128	89.10	0.00	-24.46	-263.48
128	129	92.21	0.00	-21.22	-192.47
129	129	92.21	0.00	-20.34	-192.82
129	130	95.32	0.00	-17.11	-134.59
130	130	95.32	0.00	-16.74	-134.97
130	131	98.43	0.00	-13.50	-87.95
131	131	98.43	0.00	-13.63	-88.33
131	132	101.54	0.00	-10.40	-50.97
132	132	101.54	0.00	-11.03	-51.35
132	133	104.65	0.00	-7.68	-22.12
133	133	104.65	0.00	-8.92	-22.50
133	134	107.76	0.00	146.89	-1.58
301	101	0.00	0.00	-0.93	-0.29
301	2001	0.00	0.00	-0.79	0.32
302	102	3.05	0.00	0.31	2.55
302	2002	3.05	0.00	0.31	2.32
303	103	6.10	0.00	0.53	3.26
303	2003	6.10	0.00	0.53	2.85
304	104	9.15	0.00	0.69	3.76
304	2004	9.15	0.00	0.69	3.24
305	105	12.20	0.00	0.01	3.53
305	2005	12.20	0.00	0.43	3.40
306	106	15.25	0.00	-0.73	2.41
306	2006	15.25	0.00	-0.25	2.92
307	107	18.30	0.00	-1.25	1.17
307	2007	18.30	0.00	-1.15	2.05
308	108	21.35	0.00	-1.65	0.06
308	2008	21.35	0.00	-1.53	1.27
309	109	24.40	0.00	-1.92	-0.63
309	2009	24.40	0.00	-1.78	0.81
310	110	27.45	0.00	-1.93	-0.50
310	2010	27.45	0.00	-1.60	0.82
311	111	30.50	0.00	-1.46	0.52

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ-

TREN IPF75-B EJE DCHO Mz-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ- + [1; 1]TREND.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-0.86	1.34
312	112	33.55	0.00	-0.59	1.93
312	2012	33.55	0.00	0.14	2.05
313	113	37.19	0.00	-1.79	0.40
313	2013	37.19	0.00	-1.39	1.58
314	114	40.82	0.00	-2.22	-0.70
314	2014	40.82	0.00	-2.02	0.89
315	115	44.46	0.00	-2.06	-0.41
315	2015	44.46	0.00	-2.00	1.13
316	116	48.10	0.00	-2.09	0.59
316	2016	48.10	0.00	-1.35	1.97
317	117	51.73	0.00	-2.12	1.09
317	2017	51.73	0.00	-1.64	2.56
318	118	55.37	0.00	-2.16	1.00
318	2018	55.37	0.00	-1.68	2.49
319	119	59.01	0.00	-2.17	0.34
319	2019	59.01	0.00	-1.67	1.78
320	120	62.64	0.00	-2.19	-0.77
320	2020	62.64	0.00	-2.19	0.89
321	121	66.28	0.00	-2.43	-1.12
321	2021	66.28	0.00	-2.16	0.61
322	122	69.91	0.00	-1.95	0.00
322	2022	69.91	0.00	-1.51	1.34
323	123	73.55	0.00	-0.80	1.84
323	2023	73.55	0.00	0.13	2.04
324	124	76.66	0.00	-1.48	0.47
324	2024	76.66	0.00	-0.87	1.31
325	125	79.77	0.00	-1.95	-0.55
325	2025	79.77	0.00	-1.61	0.80
326	126	82.88	0.00	-1.92	-0.62
326	2026	82.88	0.00	-1.79	0.81
327	127	85.99	0.00	-1.63	0.12
327	2027	85.99	0.00	-1.51	1.32
328	128	89.10	0.00	-1.21	1.28
328	2028	89.10	0.00	-1.11	2.14
329	129	92.21	0.00	-0.68	2.55
329	2029	92.21	0.00	-0.06	3.03
330	130	95.32	0.00	0.06	3.67
330	2030	95.32	0.00	0.47	3.50
331	131	98.43	0.00	0.72	3.86
331	2031	98.43	0.00	0.72	3.31
332	132	101.54	0.00	0.55	3.31
332	2032	101.54	0.00	0.55	2.90
333	133	104.65	0.00	0.31	2.56
333	2033	104.65	0.00	0.31	2.33
334	134	107.76	0.00	-1.03	-0.58
334	2034	107.76	0.00	-0.87	0.15
201	2001	0.00	0.00	-0.79	0.32
201	1001	0.00	0.00	0.88	0.19
202	2002	3.05	0.00	0.31	2.32
202	1002	3.05	0.00	2.02	-0.30

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BD.MZ-

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ-

TREN IPF75-B EJE DCHO Mz-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ- + [1; 1]TREND.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	0.53	2.85
203	1003	6.10	0.00	5.06	-4.11
204	2004	9.15	0.00	0.69	3.24
204	1004	9.15	0.00	8.19	-9.52
205	2005	12.20	0.00	0.43	3.40
205	1005	12.20	0.00	9.96	-13.38
206	2006	15.25	0.00	-0.25	2.92
206	1006	15.25	0.00	10.57	-15.03
207	2007	18.30	0.00	-1.15	2.05
207	1007	18.30	0.00	10.29	-14.65
208	2008	21.35	0.00	-1.53	1.27
208	1008	21.35	0.00	9.24	-12.36
209	2009	24.40	0.00	-1.78	0.81
209	1009	24.40	0.00	7.23	-8.44
210	2010	27.45	0.00	-1.60	0.82
210	1010	27.45	0.00	4.68	-3.79
211	2011	30.50	0.00	-0.86	1.34
211	1011	30.50	0.00	2.22	-0.43
212	2012	33.55	0.00	0.14	2.05
212	1012	33.55	0.00	1.81	0.41
213	2013	37.19	0.00	-1.39	1.58
213	1013	37.19	0.00	3.80	-1.76
214	2014	40.82	0.00	-2.02	0.89
214	1014	40.82	0.00	6.96	-7.99
215	2015	44.46	0.00	-2.00	1.13
215	1015	44.46	0.00	10.40	-14.94
216	2016	48.10	0.00	-1.35	1.97
216	1016	48.10	0.00	12.91	-20.29
217	2017	51.73	0.00	-1.64	2.56
217	1017	51.73	0.00	14.08	-23.03
218	2018	55.37	0.00	-1.68	2.49
218	1018	55.37	0.00	14.08	-23.04
219	2019	59.01	0.00	-1.67	1.78
219	1019	59.01	0.00	12.92	-20.29
220	2020	62.64	0.00	-2.19	0.89
220	1020	62.64	0.00	10.40	-14.94
221	2021	66.28	0.00	-2.16	0.61
221	1021	66.28	0.00	6.96	-7.99
222	2022	69.91	0.00	-1.51	1.34
222	1022	69.91	0.00	3.81	-1.76
223	2023	73.55	0.00	0.13	2.04
223	1023	73.55	0.00	1.82	0.42
224	2024	76.66	0.00	-0.87	1.31
224	1024	76.66	0.00	2.26	-0.46
225	2025	79.77	0.00	-1.61	0.80
225	1025	79.77	0.00	4.81	-4.00
226	2026	82.88	0.00	-1.79	0.81
226	1026	82.88	0.00	7.48	-8.91
227	2027	85.99	0.00	-1.51	1.32
227	1027	85.99	0.00	9.59	-13.04
228	2028	89.10	0.00	-1.11	2.14

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MZ-

TREN IPF75-B EJE DCHO Mz-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ- + [1; 1]TREND.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	10.71	-15.46
229	2029	92.21	0.00	-0.06	3.03
229	1029	92.21	0.00	11.00	-15.86
230	2030	95.32	0.00	0.47	3.50
230	1030	95.32	0.00	10.36	-14.11
231	2031	98.43	0.00	0.72	3.31
231	1031	98.43	0.00	8.49	-10.03
232	2032	101.54	0.00	0.55	2.90
232	1032	101.54	0.00	5.22	-4.32
233	2033	104.65	0.00	0.31	2.33
233	1033	104.65	0.00	2.06	-0.31
234	2034	107.76	0.00	-0.87	0.15
234	1034	107.76	0.00	0.88	0.20
401	1001	0.00	0.00	0.88	0.19
401	1	0.00	0.00	1.08	-0.54
402	1002	3.05	0.00	2.02	-0.30
402	2	3.05	0.00	2.77	-2.15
403	1003	6.10	0.00	5.06	-4.11
403	3	6.10	0.00	5.54	-8.15
404	1004	9.15	0.00	8.19	-9.52
404	4	9.15	0.00	8.40	-15.83
405	1005	12.20	0.00	9.96	-13.38
405	5	12.20	0.00	9.96	-20.91
406	1006	15.25	0.00	10.57	-15.03
406	6	15.25	0.00	10.81	-23.12
407	1007	18.30	0.00	10.29	-14.65
407	7	18.30	0.00	10.54	-22.53
408	1008	21.35	0.00	9.24	-12.36
408	8	21.35	0.00	9.24	-19.35
409	1009	24.40	0.00	7.23	-8.44
409	9	24.40	0.00	7.61	-14.06
410	1010	27.45	0.00	4.68	-3.79
410	10	27.45	0.00	5.34	-7.45
411	1011	30.50	0.00	2.22	-0.43
411	11	30.50	0.00	2.87	-2.37
412	1012	33.55	0.00	1.81	0.41
412	12	33.55	0.00	1.90	-0.95
413	1013	37.19	0.00	3.80	-1.76
413	13	37.19	0.00	4.06	-4.76
414	1014	40.82	0.00	6.96	-7.99
414	14	40.82	0.00	7.18	-13.38
415	1015	44.46	0.00	10.40	-14.94
415	15	44.46	0.00	10.60	-22.89
416	1016	48.10	0.00	12.91	-20.29
416	16	48.10	0.00	12.91	-30.05
417	1017	51.73	0.00	14.08	-23.03
417	17	51.73	0.00	14.29	-33.75
418	1018	55.37	0.00	14.08	-23.04
418	18	55.37	0.00	14.28	-33.75
419	1019	59.01	0.00	12.92	-20.29
419	19	59.01	0.00	12.92	-30.05

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BD.MZ-

CÁLCULO TENSIONAL

Hipótesis de cálculo:

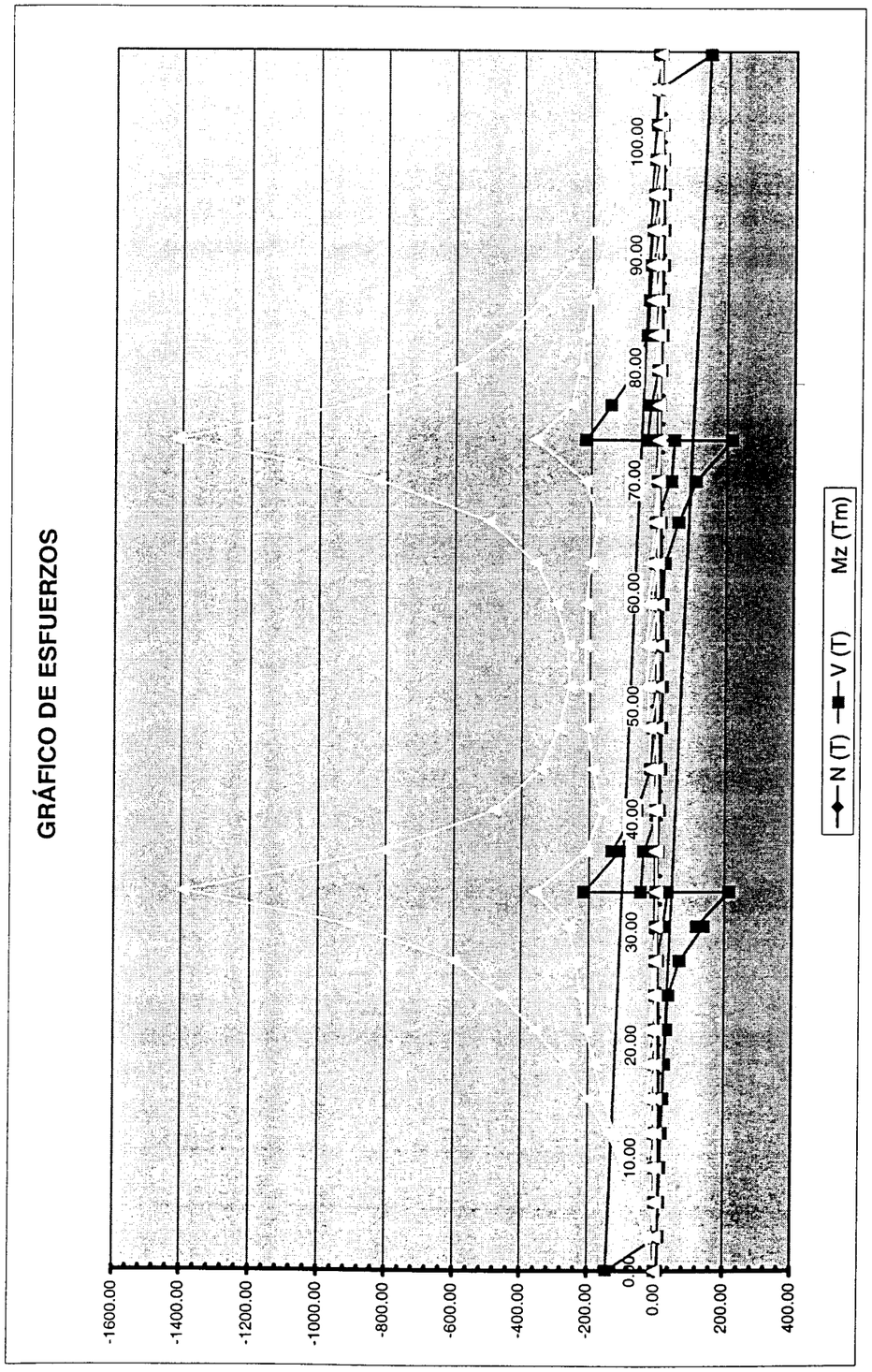
IPF75BD.MZ-

TREN IPF75-B EJE DCHO Mz-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MZ- + [1; 1]TREND.EnvTrenGen.MZ-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	10.40	-14.94
420	20	62.64	0.00	10.60	-22.89
421	1021	66.28	0.00	6.96	-7.99
421	21	66.28	0.00	7.18	-13.37
422	1022	69.91	0.00	3.81	-1.76
422	22	69.91	0.00	4.07	-4.76
423	1023	73.55	0.00	1.82	0.42
423	23	73.55	0.00	1.91	-0.95
424	1024	76.66	0.00	2.26	-0.46
424	24	76.66	0.00	2.98	-2.45
425	1025	79.77	0.00	4.81	-4.00
425	25	79.77	0.00	5.46	-7.74
426	1026	82.88	0.00	7.48	-8.91
426	26	82.88	0.00	7.86	-14.70
427	1027	85.99	0.00	9.59	-13.04
427	27	85.99	0.00	9.59	-20.28
428	1028	89.10	0.00	10.71	-15.46
428	28	89.10	0.00	10.96	-23.64
429	1029	92.21	0.00	11.00	-15.86
429	29	92.21	0.00	11.23	-24.27
430	1030	95.32	0.00	10.36	-14.11
430	30	95.32	0.00	10.42	-21.95
431	1031	98.43	0.00	8.49	-10.03
431	31	98.43	0.00	8.77	-16.57
432	1032	101.54	0.00	5.22	-4.32
432	32	101.54	0.00	5.50	-8.45
433	1033	104.65	0.00	2.06	-0.31
433	33	104.65	0.00	2.81	-2.20
434	1034	107.76	0.00	0.88	0.20
434	34	107.76	0.00	1.09	-0.55



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY+

TREN IPF75-B EJE IZDO Vy+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY+ + [1; 1]TRENI.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	7.42	0.22
1	2	3.05	0.00	14.21	2.45
2	2	3.05	0.00	11.81	3.29
2	3	6.10	0.00	21.50	42.44
3	3	6.10	0.00	19.04	42.80
3	4	9.15	0.00	31.45	91.61
4	4	9.15	0.00	28.65	91.94
4	5	12.20	0.00	43.63	250.42
5	5	12.20	0.00	40.17	128.09
5	6	15.25	0.00	63.31	256.23
6	6	15.25	0.00	58.51	256.77
6	7	18.30	0.00	80.25	226.86
7	7	18.30	0.00	75.14	227.69
7	8	21.35	0.00	99.02	131.08
8	8	21.35	0.00	94.04	132.20
8	9	24.40	0.00	119.82	-49.14
9	9	24.40	0.00	115.38	-44.82
9	10	27.45	0.00	143.15	-324.63
10	10	27.45	0.00	139.73	-306.43
10	11	30.50	0.00	169.57	-699.54
11	11	30.50	0.00	167.38	-697.29
11	12	33.55	0.00	200.26	-1220.71
12	10012	33.55	0.00	0.45	28.51
12	13	37.19	0.00	7.51	51.29
13	13	37.19	0.00	5.20	51.52
13	14	40.82	0.00	15.03	98.65
14	14	40.82	0.00	12.32	110.18
14	15	44.46	0.00	24.86	164.70
15	15	44.46	0.00	21.37	168.15
15	16	48.10	0.00	36.43	212.92
16	16	48.10	0.00	32.14	213.35
16	17	51.73	0.00	51.85	351.34
17	17	51.73	0.00	45.16	351.97
17	18	55.37	0.00	69.56	348.73
18	18	55.37	0.00	62.32	349.77
18	19	59.01	0.00	89.21	270.14
19	19	59.01	0.00	82.10	271.58
19	20	62.64	0.00	111.56	93.44
20	20	62.64	0.00	105.35	98.55
20	21	66.28	0.00	137.55	-202.60
21	21	66.28	0.00	132.80	-188.89
21	22	69.91	0.00	167.86	-638.47
22	22	69.91	0.00	164.88	-636.97
22	23	73.55	0.00	203.62	-1256.18
23	10023	73.55	0.00	-9.45	11.90
23	24	76.66	0.00	-3.63	60.58
24	24	76.66	0.00	-5.84	61.79
24	25	79.77	0.00	1.83	131.70
25	25	79.77	0.00	-0.71	148.20
25	26	82.88	0.00	8.84	230.84
26	26	82.88	0.00	5.64	233.61

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY+

TREN IPF75-B EJE IZDO Vy+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY+ + [1; 1]TRENI.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	18.12	319.80
27	27	85.99	0.00	13.61	319.69
27	28	89.10	0.00	29.66	437.90
28	28	89.10	0.00	23.95	437.96
28	29	92.21	0.00	41.60	529.88
29	29	92.21	0.00	34.98	530.26
29	30	95.32	0.00	54.72	587.69
30	30	95.32	0.00	47.68	588.53
30	31	98.43	0.00	69.77	592.77
31	31	98.43	0.00	63.09	594.16
31	32	101.54	0.00	87.99	519.83
32	32	101.54	0.00	82.58	521.83
32	33	104.65	0.00	110.78	335.38
33	33	104.65	0.00	107.69	338.34
33	34	107.76	0.00	140.30	-1.34
101	101	0.00	0.00	7.47	-0.17
101	102	3.05	0.00	7.47	-22.97
102	102	3.05	0.00	8.63	-23.32
102	103	6.10	0.00	8.63	-49.66
103	103	6.10	0.00	9.37	-48.50
103	104	9.15	0.00	9.37	-77.09
104	104	9.15	0.00	9.76	-77.49
104	105	12.20	0.00	9.76	-107.28
105	105	12.20	0.00	10.35	-45.38
105	106	15.25	0.00	10.35	-76.92
106	106	15.25	0.00	13.93	67.44
106	107	18.30	0.00	13.93	24.94
107	107	18.30	0.00	22.58	172.66
107	108	21.35	0.00	22.58	103.80
108	108	21.35	0.00	30.84	106.50
108	109	24.40	0.00	30.84	12.43
109	109	24.40	0.00	37.63	12.08
109	110	27.45	0.00	37.63	-102.69
110	110	27.45	0.00	43.44	23.24
110	111	30.50	0.00	43.44	-109.26
111	111	30.50	0.00	48.04	-82.65
111	112	33.55	0.00	48.04	-229.15
112	10112	33.55	0.00	8.48	-50.83
112	113	37.19	0.00	8.48	-81.66
113	113	37.19	0.00	8.12	-70.17
113	114	40.82	0.00	8.12	-99.69
114	114	40.82	0.00	7.28	-67.78
114	115	44.46	0.00	7.28	-94.26
115	115	44.46	0.00	7.49	-30.74
115	116	48.10	0.00	7.49	-57.98
116	116	48.10	0.00	7.65	-58.23
116	117	51.73	0.00	7.65	-86.02
117	117	51.73	0.00	10.44	55.84
117	118	55.37	0.00	10.44	17.85
118	118	55.37	0.00	18.95	283.36
118	119	59.01	0.00	18.95	214.46

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BI.VY+

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY+

TREN IPF75-B EJE IZDO Vy+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY+ + [1; 1]TRENI.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	30.35	216.65
119	120	62.64	0.00	30.35	106.33
120	120	62.64	0.00	39.81	173.39
120	121	66.28	0.00	39.81	28.63
121	121	66.28	0.00	48.15	61.01
121	122	69.91	0.00	48.15	-114.10
122	122	69.91	0.00	53.80	-103.12
122	123	73.55	0.00	53.80	-298.75
123	10123	73.55	0.00	-1.83	-158.23
123	124	76.66	0.00	-1.83	-152.53
124	124	76.66	0.00	-2.20	-89.30
124	125	79.77	0.00	-2.20	-82.44
125	125	79.77	0.00	-2.21	46.08
125	126	82.88	0.00	-2.21	52.95
126	126	82.88	0.00	-1.21	60.34
126	127	85.99	0.00	-1.21	64.11
127	127	85.99	0.00	-0.06	67.83
127	128	89.10	0.00	-0.06	68.02
128	128	89.10	0.00	1.49	140.18
128	129	92.21	0.00	1.49	135.56
129	129	92.21	0.00	7.63	331.30
129	130	95.32	0.00	7.63	307.59
130	130	95.32	0.00	17.91	375.94
130	131	98.43	0.00	17.91	320.24
131	131	98.43	0.00	27.42	320.05
131	132	101.54	0.00	27.42	234.79
132	132	101.54	0.00	34.79	234.04
132	133	104.65	0.00	34.79	125.83
133	133	104.65	0.00	39.26	123.42
133	134	107.76	0.00	39.26	1.30
301	101	0.00	0.00	0.58	6.19
301	2001	0.00	0.00	0.58	5.76
302	102	3.05	0.00	-0.44	0.49
302	2002	3.05	0.00	-0.44	0.83
303	103	6.10	0.00	-0.50	2.96
303	2003	6.10	0.00	-0.50	3.35
304	104	9.15	0.00	-0.25	5.35
304	2004	9.15	0.00	-0.25	5.54
305	105	12.20	0.00	0.17	7.36
305	2005	12.20	0.00	0.17	7.24
306	106	15.25	0.00	0.59	8.83
306	2006	15.25	0.00	0.59	8.38
307	107	18.30	0.00	0.98	10.22
307	2007	18.30	0.00	0.98	9.48
308	108	21.35	0.00	1.27	11.33
308	2008	21.35	0.00	1.27	10.37
309	109	24.40	0.00	1.39	11.95
309	2009	24.40	0.00	1.39	10.90
310	110	27.45	0.00	1.28	11.12
310	2010	27.45	0.00	1.28	10.14
311	111	30.50	0.00	0.84	9.18

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY+

TREN IPF75-B EJE IZDO Vy+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY+ + [1; 1]TRENI.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.84	8.55
312	112	33.55	0.00	0.52	11.01
312	2012	33.55	0.00	0.52	10.61
313	113	37.19	0.00	1.02	10.44
313	2013	37.19	0.00	1.02	9.68
314	114	40.82	0.00	1.54	14.90
314	2014	40.82	0.00	1.54	13.73
315	115	44.46	0.00	1.78	17.37
315	2015	44.46	0.00	1.78	16.02
316	116	48.10	0.00	1.87	17.87
316	2016	48.10	0.00	1.87	16.46
317	117	51.73	0.00	1.85	17.65
317	2017	51.73	0.00	1.85	16.24
318	118	55.37	0.00	1.89	17.74
318	2018	55.37	0.00	1.89	16.32
319	119	59.01	0.00	1.95	18.12
319	2019	59.01	0.00	1.95	16.64
320	120	62.64	0.00	1.90	17.76
320	2020	62.64	0.00	1.90	16.33
321	121	66.28	0.00	1.67	15.37
321	2021	66.28	0.00	1.67	14.10
322	122	69.91	0.00	1.15	11.11
322	2022	69.91	0.00	1.15	10.25
323	123	73.55	0.00	0.62	11.37
323	2023	73.55	0.00	0.62	10.92
324	124	76.66	0.00	0.86	9.24
324	2024	76.66	0.00	0.86	8.60
325	125	79.77	0.00	1.29	11.17
325	2025	79.77	0.00	1.29	10.19
326	126	82.88	0.00	1.40	11.97
326	2026	82.88	0.00	1.40	10.92
327	127	85.99	0.00	1.26	11.31
327	2027	85.99	0.00	1.26	10.36
328	128	89.10	0.00	0.95	10.21
328	2028	89.10	0.00	0.95	9.49
329	129	92.21	0.00	0.56	8.81
329	2029	92.21	0.00	0.56	8.38
330	130	95.32	0.00	0.14	7.26
330	2030	95.32	0.00	0.14	7.15
331	131	98.43	0.00	-0.27	5.25
331	2031	98.43	0.00	-0.27	5.45
332	132	101.54	0.00	-0.53	2.90
332	2032	101.54	0.00	-0.53	3.30
333	133	104.65	0.00	-0.44	0.51
333	2033	104.65	0.00	-0.44	0.84
334	134	107.76	0.00	0.69	6.53
334	2034	107.76	0.00	0.69	6.01
201	2001	0.00	0.00	0.58	5.76
201	1001	0.00	0.00	0.58	3.01
202	2002	3.05	0.00	-0.44	0.83
202	1002	3.05	0.00	-0.44	2.93

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BI.VY+

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY+

TREN IPF75-B EJE IZDO Vy+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY+ + [1; 1]TRENI.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	-0.50	3.35
203	1003	6.10	0.00	-0.50	5.77
204	2004	9.15	0.00	-0.25	5.54
204	1004	9.15	0.00	-0.25	6.69
205	2005	12.20	0.00	0.17	7.24
205	1005	12.20	0.00	0.17	6.43
206	2006	15.25	0.00	0.59	8.38
206	1006	15.25	0.00	0.59	5.55
207	2007	18.30	0.00	0.98	9.48
207	1007	18.30	0.00	0.98	4.80
208	2008	21.35	0.00	1.27	10.37
208	1008	21.35	0.00	1.27	4.29
209	2009	24.40	0.00	1.39	10.90
209	1009	24.40	0.00	1.39	4.23
210	2010	27.45	0.00	1.28	10.14
210	1010	27.45	0.00	1.28	4.01
211	2011	30.50	0.00	0.84	8.55
211	1011	30.50	0.00	0.84	4.54
212	2012	33.55	0.00	0.52	10.61
212	1012	33.55	0.00	0.52	8.14
213	2013	37.19	0.00	1.02	9.68
213	1013	37.19	0.00	1.02	4.82
214	2014	40.82	0.00	1.54	13.73
214	1014	40.82	0.00	1.54	6.37
215	2015	44.46	0.00	1.78	16.02
215	1015	44.46	0.00	1.78	7.47
216	2016	48.10	0.00	1.87	16.46
216	1016	48.10	0.00	1.87	7.49
217	2017	51.73	0.00	1.85	16.24
217	1017	51.73	0.00	1.85	7.39
218	2018	55.37	0.00	1.89	16.32
218	1018	55.37	0.00	1.89	7.32
219	2019	59.01	0.00	1.95	16.64
219	1019	59.01	0.00	1.95	7.33
220	2020	62.64	0.00	1.90	16.33
220	1020	62.64	0.00	1.90	7.24
221	2021	66.28	0.00	1.67	14.10
221	1021	66.28	0.00	1.67	6.10
222	2022	69.91	0.00	1.15	10.25
222	1022	69.91	0.00	1.15	4.78
223	2023	73.55	0.00	0.62	10.92
223	1023	73.55	0.00	0.62	7.97
224	2024	76.66	0.00	0.86	8.60
224	1024	76.66	0.00	0.86	4.51
225	2025	79.77	0.00	1.29	10.19
225	1025	79.77	0.00	1.29	3.99
226	2026	82.88	0.00	1.40	10.92
226	1026	82.88	0.00	1.40	4.21
227	2027	85.99	0.00	1.26	10.36
227	1027	85.99	0.00	1.26	4.31
228	2028	89.10	0.00	0.95	9.49

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BI.VY+

TREN IPF75-B EJE IZDO Vy+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY+ + [1; 1]TRENI.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	0.95	4.93
229	2029	92.21	0.00	0.56	8.38
229	1029	92.21	0.00	0.56	5.70
230	2030	95.32	0.00	0.13	7.15
230	1030	95.32	0.00	0.13	6.52
231	2031	98.43	0.00	-0.27	5.45
231	1031	98.43	0.00	-0.27	6.77
232	2032	101.54	0.00	-0.53	3.30
232	1032	101.54	0.00	-0.53	5.82
233	2033	104.65	0.00	-0.44	0.84
233	1033	104.65	0.00	-0.44	2.95
234	2034	107.76	0.00	0.69	6.01
234	1034	107.76	0.00	0.69	2.71
401	1001	0.00	0.00	0.58	3.01
401	1	0.00	0.00	0.58	2.58
402	1002	3.05	0.00	-0.44	2.93
402	2	3.05	0.00	-0.44	3.27
403	1003	6.10	0.00	-0.50	5.77
403	3	6.10	0.00	-0.50	6.15
404	1004	9.15	0.00	-0.25	6.69
404	4	9.15	0.00	-0.25	6.88
405	1005	12.20	0.00	0.17	6.43
405	5	12.20	0.00	0.17	6.31
406	1006	15.25	0.00	0.59	5.56
406	6	15.25	0.00	0.59	5.11
407	1007	18.30	0.00	0.98	4.80
407	7	18.30	0.00	0.98	4.05
408	1008	21.35	0.00	1.27	4.29
408	8	21.35	0.00	1.27	3.33
409	1009	24.40	0.00	1.39	4.23
409	9	24.40	0.00	1.39	3.17
410	1010	27.45	0.00	1.28	4.01
410	10	27.45	0.00	1.28	3.04
411	1011	30.50	0.00	0.84	4.54
411	11	30.50	0.00	0.84	3.89
412	1012	33.55	0.00	0.52	8.14
412	12	33.55	0.00	0.52	7.75
413	1013	37.19	0.00	1.02	4.82
413	13	37.19	0.00	1.02	4.05
414	1014	40.82	0.00	1.54	6.37
414	14	40.82	0.00	1.54	5.20
415	1015	44.46	0.00	1.78	7.47
415	15	44.46	0.00	1.78	6.12
416	1016	48.10	0.00	1.87	7.49
416	16	48.10	0.00	1.87	6.07
417	1017	51.73	0.00	1.85	7.39
417	17	51.73	0.00	1.85	5.99
418	1018	55.37	0.00	1.89	7.32
418	18	55.37	0.00	1.89	5.89
419	1019	59.01	0.00	1.95	7.33
419	19	59.01	0.00	1.95	5.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY+

TREN IPF75-B EJE IZDO Vy+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY+ + [1; 1]TRENI.EnvTrenGen.VY+

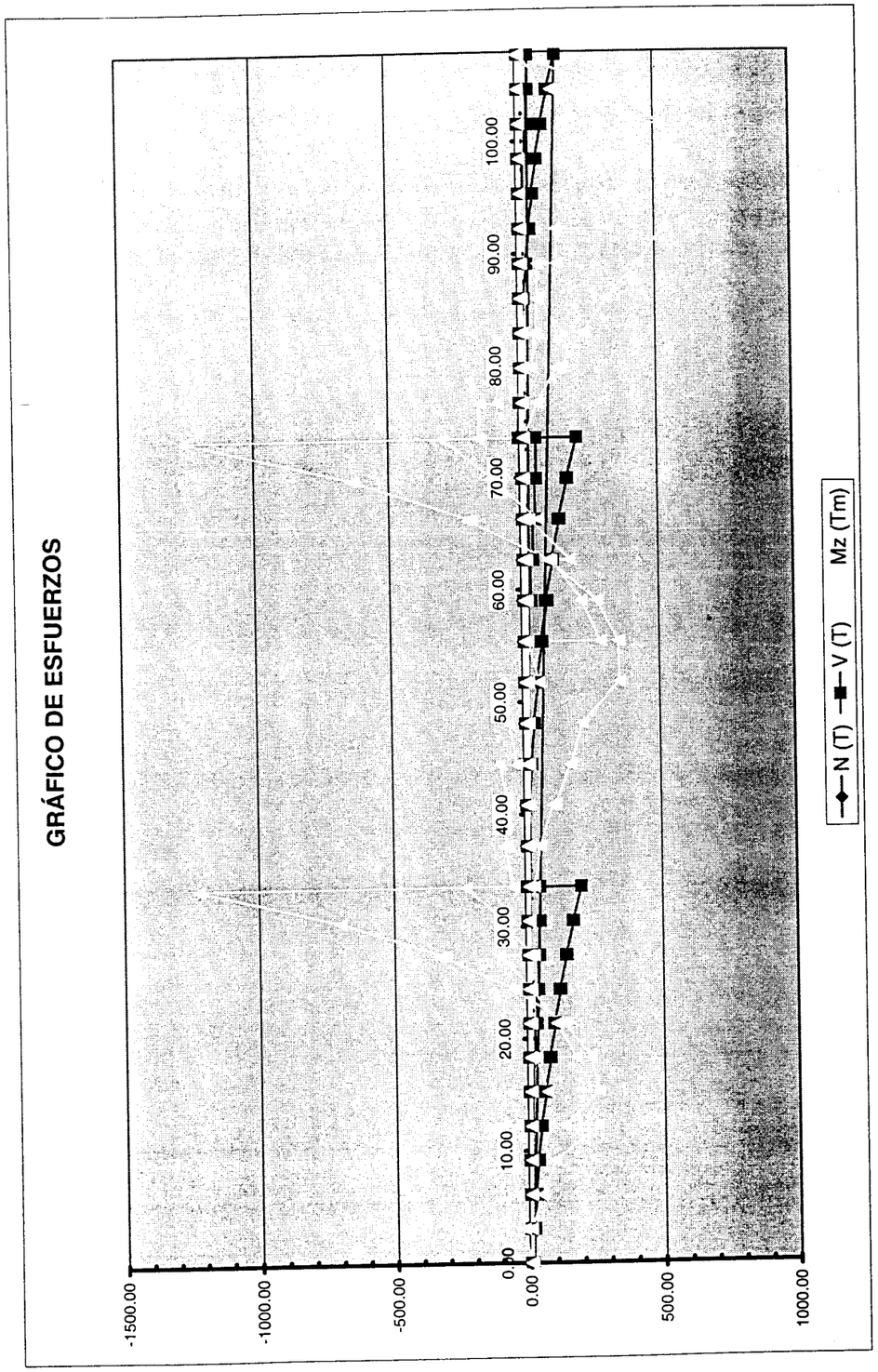
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	1.90	7.24
420	20	62.64	0.00	1.90	5.82
421	1021	66.28	0.00	1.67	6.10
421	21	66.28	0.00	1.67	4.85
422	1022	69.91	0.00	1.15	4.78
422	22	69.91	0.00	1.15	3.92
423	1023	73.55	0.00	0.62	7.97
423	23	73.55	0.00	0.62	7.50
424	1024	76.66	0.00	0.86	4.51
424	24	76.66	0.00	0.86	3.85
425	1025	79.77	0.00	1.29	3.99
425	25	79.77	0.00	1.29	3.00
426	1026	82.88	0.00	1.40	4.21
426	26	82.88	0.00	1.40	3.16
427	1027	85.99	0.00	1.26	4.31
427	27	85.99	0.00	1.26	3.36
428	1028	89.10	0.00	0.95	4.93
428	28	89.10	0.00	0.95	4.21
429	1029	92.21	0.00	0.56	5.70
429	29	92.21	0.00	0.56	5.27
430	1030	95.32	0.00	0.13	6.52
430	30	95.32	0.00	0.13	6.42
431	1031	98.43	0.00	-0.27	6.77
431	31	98.43	0.00	-0.27	6.98
432	1032	101.54	0.00	-0.53	5.82
432	32	101.54	0.00	-0.53	6.23
433	1033	104.65	0.00	-0.44	2.95
433	33	104.65	0.00	-0.44	3.29
434	1034	107.76	0.00	0.69	2.71
434	34	107.76	0.00	0.69	2.18

17/11/02

Programa DINTEL PACADAR S.A.
IPF75BI.VY+

GRÁFICO DE ESFUERZOS



IPF75.xls

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY-

TREN IPF75-B EJE IZDO Vy-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY- + [1; 1]TRENI.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-138.37	-1.30
1	2	3.05	0.00	-106.78	328.96
2	2	3.05	0.00	-109.93	326.10
2	3	6.10	0.00	-82.13	508.53
3	3	6.10	0.00	-87.47	506.60
3	4	9.15	0.00	-62.90	580.32
4	4	9.15	0.00	-69.43	578.97
4	5	12.20	0.00	-47.63	576.08
5	5	12.20	0.00	-54.45	575.28
5	6	15.25	0.00	-34.99	520.27
6	6	15.25	0.00	-41.42	519.90
6	7	18.30	0.00	-24.02	430.99
7	7	18.30	0.00	-29.57	430.94
7	8	21.35	0.00	-13.70	315.21
8	8	21.35	0.00	-18.09	315.34
8	9	24.40	0.00	-5.85	233.02
9	9	24.40	0.00	-8.96	230.19
9	10	27.45	0.00	0.39	151.03
10	10	27.45	0.00	-2.11	134.34
10	11	30.50	0.00	5.41	67.64
11	11	30.50	0.00	3.19	66.54
11	12	33.55	0.00	8.90	20.59
12	10012	33.55	0.00	-202.77	-1238.60
12	13	37.19	0.00	-164.00	-622.28
13	13	37.19	0.00	-167.11	-623.80
13	14	40.82	0.00	-132.00	-176.72
14	14	40.82	0.00	-136.86	-189.91
14	15	44.46	0.00	-104.63	109.07
15	15	44.46	0.00	-110.94	104.10
15	16	48.10	0.00	-81.45	280.23
16	16	48.10	0.00	-88.64	278.79
16	17	51.73	0.00	-61.71	356.44
17	17	51.73	0.00	-69.01	355.41
17	18	55.37	0.00	-44.57	356.54
18	18	55.37	0.00	-51.32	355.93
18	19	59.01	0.00	-31.43	216.00
19	19	59.01	0.00	-35.76	215.58
19	20	62.64	0.00	-20.66	168.00
20	20	62.64	0.00	-24.18	164.42
20	21	66.28	0.00	-11.60	106.99
21	21	66.28	0.00	-14.30	94.93
21	22	69.91	0.00	-4.45	44.80
22	22	69.91	0.00	-6.78	44.57
22	23	73.55	0.00	0.29	18.89
23	10023	73.55	0.00	-202.94	-1244.50
23	24	76.66	0.00	-169.02	-705.42
24	24	76.66	0.00	-171.19	-707.87
24	25	79.77	0.00	-140.80	-302.96
25	25	79.77	0.00	-144.26	-321.06
25	26	82.88	0.00	-116.00	-33.74
26	26	82.88	0.00	-120.57	-38.09

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY-

TREN IPF75-B EJE IZDO Vy-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY- + [1; 1]TRENI.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-94.36	147.31
27	27	85.99	0.00	-99.49	146.14
27	28	89.10	0.00	-75.23	244.23
28	28	89.10	0.00	-80.54	243.37
28	29	92.21	0.00	-58.42	272.44
29	29	92.21	0.00	-63.39	271.88
29	30	95.32	0.00	-39.97	143.18
30	30	95.32	0.00	-43.53	265.67
30	31	98.43	0.00	-28.29	103.42
31	31	98.43	0.00	-31.19	103.11
31	32	101.54	0.00	-18.49	49.97
32	32	101.54	0.00	-21.02	49.64
32	33	104.65	0.00	-11.10	6.28
33	33	104.65	0.00	-13.56	5.42
33	34	107.76	0.00	-6.63	0.21
101	101	0.00	0.00	-38.53	1.26
101	102	3.05	0.00	-38.53	118.75
102	102	3.05	0.00	-34.03	121.07
102	103	6.10	0.00	-34.03	224.88
103	103	6.10	0.00	-26.80	225.54
103	104	9.15	0.00	-26.80	307.29
104	104	9.15	0.00	-17.57	307.50
104	105	12.20	0.00	-17.57	361.09
105	105	12.20	0.00	-7.59	299.42
105	106	15.25	0.00	-7.59	322.57
106	106	15.25	0.00	-1.69	133.46
106	107	18.30	0.00	-1.69	138.58
107	107	18.30	0.00	-0.17	69.56
107	108	21.35	0.00	-0.17	70.08
108	108	21.35	0.00	0.96	66.16
108	109	24.40	0.00	0.96	63.25
109	109	24.40	0.00	1.94	61.22
109	110	27.45	0.00	1.94	55.28
110	110	27.45	0.00	2.11	-73.51
110	111	30.50	0.00	2.11	-79.92
111	111	30.50	0.00	1.85	-151.94
111	112	33.55	0.00	1.85	-157.58
112	10112	33.55	0.00	-53.89	-300.23
112	113	37.19	0.00	-53.89	-104.24
113	113	37.19	0.00	-48.26	-114.40
113	114	40.82	0.00	-48.26	61.08
114	114	40.82	0.00	-39.86	30.86
114	115	44.46	0.00	-39.86	175.82
115	115	44.46	0.00	-30.25	112.83
115	116	48.10	0.00	-30.25	222.82
116	116	48.10	0.00	-18.78	220.69
116	117	51.73	0.00	-18.78	288.97
117	117	51.73	0.00	-10.01	71.43
117	118	55.37	0.00	-10.01	107.81
118	118	55.37	0.00	-7.04	-80.81
118	119	59.01	0.00	-7.04	-55.23

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY-

TREN IPF75-B EJE IZDO Vy-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY- + [1; 1]TRENI.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	-6.86	-55.03
119	120	62.64	0.00	-6.86	-30.07
120	120	62.64	0.00	-6.57	-97.65
120	121	66.28	0.00	-6.57	-73.75
121	121	66.28	0.00	-7.48	-107.79
121	122	69.91	0.00	-7.48	-80.63
122	122	69.91	0.00	-7.94	-92.90
122	123	73.55	0.00	-7.94	-64.04
123	10123	73.55	0.00	-49.30	-240.62
123	124	76.66	0.00	-49.30	-87.28
124	124	76.66	0.00	-44.66	-106.12
124	125	79.77	0.00	-44.66	32.77
125	125	79.77	0.00	-38.59	-92.90
125	126	82.88	0.00	-38.59	27.12
126	126	82.88	0.00	-31.58	22.17
126	127	85.99	0.00	-31.58	120.39
127	127	85.99	0.00	-23.02	117.73
127	128	89.10	0.00	-23.02	189.29
128	128	89.10	0.00	-13.94	36.40
128	129	92.21	0.00	-13.94	79.78
129	129	92.21	0.00	-10.14	-72.19
129	130	95.32	0.00	-10.14	-40.62
130	130	95.32	0.00	-9.50	-105.52
130	131	98.43	0.00	-9.50	-75.97
131	131	98.43	0.00	-9.08	-75.58
131	132	101.54	0.00	-9.08	-47.35
132	132	101.54	0.00	-8.31	-48.52
132	133	104.65	0.00	-8.31	-22.68
133	133	104.65	0.00	-7.14	-22.35
133	134	107.76	0.00	-7.14	-0.16
301	101	0.00	0.00	-1.91	1.27
301	2001	0.00	0.00	-1.91	2.71
302	102	3.05	0.00	-5.10	4.78
302	2002	3.05	0.00	-5.10	8.65
303	103	6.10	0.00	-7.44	-4.65
303	2003	6.10	0.00	-7.44	0.98
304	104	9.15	0.00	-9.41	-12.30
304	2004	9.15	0.00	-9.41	-5.17
305	105	12.20	0.00	-10.75	-17.25
305	2005	12.20	0.00	-10.75	-9.12
306	106	15.25	0.00	-11.34	-19.25
306	2006	15.25	0.00	-11.34	-10.68
307	107	18.30	0.00	-11.15	-18.88
307	2007	18.30	0.00	-11.15	-10.45
308	108	21.35	0.00	-10.27	-16.39
308	2008	21.35	0.00	-10.27	-8.62
309	109	24.40	0.00	-8.81	-12.01
309	2009	24.40	0.00	-8.81	-5.34
310	110	27.45	0.00	-6.95	-5.67
310	2010	27.45	0.00	-6.95	-0.41
311	111	30.50	0.00	-5.03	0.83

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BI.VY-

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY-

TREN IPF75-B EJE IZDO Vy-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY- + [1; 1]TRENI.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-5.03	4.64
312	112	33.55	0.00	-4.45	1.86
312	2012	33.55	0.00	-4.45	5.22
313	113	37.19	0.00	-6.15	0.64
313	2013	37.19	0.00	-6.15	5.30
314	114	40.82	0.00	-8.81	-10.44
314	2014	40.82	0.00	-8.81	-3.80
315	115	44.46	0.00	-11.39	-20.15
315	2015	44.46	0.00	-11.39	-11.55
316	116	48.10	0.00	-13.37	-26.72
316	2016	48.10	0.00	-13.37	-16.61
317	117	51.73	0.00	-14.41	-29.89
317	2017	51.73	0.00	-14.41	-19.02
318	118	55.37	0.00	-14.41	-29.90
318	2018	55.37	0.00	-14.41	-19.01
319	119	59.01	0.00	-13.37	-26.72
319	2019	59.01	0.00	-13.37	-16.61
320	120	62.64	0.00	-11.40	-20.17
320	2020	62.64	0.00	-11.40	-11.56
321	121	66.28	0.00	-8.82	-10.47
321	2021	66.28	0.00	-8.82	-3.80
322	122	69.91	0.00	-6.15	0.63
322	2022	69.91	0.00	-6.15	5.30
323	123	73.55	0.00	-4.46	1.85
323	2023	73.55	0.00	-4.46	5.24
324	124	76.66	0.00	-5.05	0.88
324	2024	76.66	0.00	-5.05	4.70
325	125	79.77	0.00	-7.08	-5.94
325	2025	79.77	0.00	-7.08	-0.60
326	126	82.88	0.00	-9.05	-12.61
326	2026	82.88	0.00	-9.05	-5.76
327	127	85.99	0.00	-10.61	-17.25
327	2027	85.99	0.00	-10.61	-9.24
328	128	89.10	0.00	-11.53	-19.90
328	2028	89.10	0.00	-11.53	-11.18
329	129	92.21	0.00	-11.71	-20.28
329	2029	92.21	0.00	-11.71	-11.43
330	130	95.32	0.00	-11.10	-18.17
330	2030	95.32	0.00	-11.10	-9.78
331	131	98.43	0.00	-9.68	-12.96
331	2031	98.43	0.00	-9.68	-5.64
332	132	101.54	0.00	-7.61	-4.95
332	2032	101.54	0.00	-7.61	0.81
333	133	104.65	0.00	-5.10	4.98
333	2033	104.65	0.00	-5.10	8.83
334	134	107.76	0.00	-1.91	1.37
334	2034	107.76	0.00	-1.91	2.81
201	2001	0.00	0.00	-1.91	2.71
201	1001	0.00	0.00	-1.91	11.83
202	2002	3.05	0.00	-5.10	8.65
202	1002	3.05	0.00	-5.10	33.05

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY-

TREN IPF75-B EJE IZDO Vy-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY- + [1; 1]TRENI.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	-7.44	0.98
203	1003	6.10	0.00	-7.44	36.65
204	2004	9.15	0.00	-9.41	-5.17
204	1004	9.15	0.00	-9.41	39.87
205	2005	12.20	0.00	-10.75	-9.12
205	1005	12.20	0.00	-10.75	42.33
206	2006	15.25	0.00	-11.34	-10.68
206	1006	15.25	0.00	-11.34	43.57
207	2007	18.30	0.00	-11.15	-10.45
207	1007	18.30	0.00	-11.15	42.96
208	2008	21.35	0.00	-10.27	-8.62
208	1008	21.35	0.00	-10.27	40.61
209	2009	24.40	0.00	-8.81	-5.34
209	1009	24.40	0.00	-8.81	36.85
210	2010	27.45	0.00	-6.95	-0.41
210	1010	27.45	0.00	-6.95	32.84
211	2011	30.50	0.00	-5.03	4.64
211	1011	30.50	0.00	-5.03	28.72
212	2012	33.55	0.00	-4.45	5.22
212	1012	33.55	0.00	-4.45	26.51
213	2013	37.19	0.00	-6.15	5.30
213	1013	37.19	0.00	-6.15	34.73
214	2014	40.82	0.00	-8.81	-3.80
214	1014	40.82	0.00	-8.81	38.38
215	2015	44.46	0.00	-11.39	-11.55
215	1015	44.46	0.00	-11.39	42.96
216	2016	48.10	0.00	-13.37	-16.61
216	1016	48.10	0.00	-13.37	47.40
217	2017	51.73	0.00	-14.41	-19.02
217	1017	51.73	0.00	-14.41	49.97
218	2018	55.37	0.00	-14.41	-19.01
218	1018	55.37	0.00	-14.41	49.98
219	2019	59.01	0.00	-13.38	-16.61
219	1019	59.01	0.00	-13.38	47.43
220	2020	62.64	0.00	-11.40	-11.56
220	1020	62.64	0.00	-11.40	42.99
221	2021	66.28	0.00	-8.82	-3.80
221	1021	66.28	0.00	-8.82	38.41
222	2022	69.91	0.00	-6.15	5.30
222	1022	69.91	0.00	-6.15	34.77
223	2023	73.55	0.00	-4.46	5.24
223	1023	73.55	0.00	-4.46	26.59
224	2024	76.66	0.00	-5.05	4.70
224	1024	76.66	0.00	-5.05	28.87
225	2025	79.77	0.00	-7.08	-0.60
225	1025	79.77	0.00	-7.08	33.29
226	2026	82.88	0.00	-9.05	-5.76
226	1026	82.88	0.00	-9.05	37.55
227	2027	85.99	0.00	-10.60	-9.24
227	1027	85.99	0.00	-10.60	41.54
228	2028	89.10	0.00	-11.53	-11.18

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.VY-

TREN IPF75-B EJE IZDO Vy-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY- + [1; 1]TRENI.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	-11.53	44.02
229	2029	92.21	0.00	-11.71	-11.43
229	1029	92.21	0.00	-11.71	44.66
230	2030	95.32	0.00	-11.10	-9.78
230	1030	95.32	0.00	-11.10	43.38
231	2031	98.43	0.00	-9.68	-5.64
231	1031	98.43	0.00	-9.68	40.73
232	2032	101.54	0.00	-7.61	0.81
232	1032	101.54	0.00	-7.61	37.22
233	2033	104.65	0.00	-5.10	8.83
233	1033	104.65	0.00	-5.10	33.23
234	2034	107.76	0.00	-1.91	2.81
234	1034	107.76	0.00	-1.91	11.96
401	1001	0.00	0.00	-1.91	11.83
401	1	0.00	0.00	-1.91	13.28
402	1002	3.05	0.00	-5.10	33.05
402	2	3.05	0.00	-5.10	36.91
403	1003	6.10	0.00	-7.44	36.65
403	3	6.10	0.00	-7.44	42.28
404	1004	9.15	0.00	-9.41	39.87
404	4	9.15	0.00	-9.41	47.00
405	1005	12.20	0.00	-10.75	42.33
405	5	12.20	0.00	-10.75	50.46
406	1006	15.25	0.00	-11.34	43.57
406	6	15.25	0.00	-11.34	52.13
407	1007	18.30	0.00	-11.15	42.96
407	7	18.30	0.00	-11.15	51.39
408	1008	21.35	0.00	-10.27	40.61
408	8	21.35	0.00	-10.27	48.38
409	1009	24.40	0.00	-8.81	36.85
409	9	24.40	0.00	-8.81	43.50
410	1010	27.45	0.00	-6.96	32.84
410	10	27.45	0.00	-6.96	38.11
411	1011	30.50	0.00	-5.03	28.72
411	11	30.50	0.00	-5.03	32.51
412	1012	33.55	0.00	-4.45	26.51
412	12	33.55	0.00	-4.45	29.88
413	1013	37.19	0.00	-6.15	34.73
413	13	37.19	0.00	-6.15	39.38
414	1014	40.82	0.00	-8.81	38.38
414	14	40.82	0.00	-8.81	45.03
415	1015	44.46	0.00	-11.39	42.96
415	15	44.46	0.00	-11.39	51.56
416	1016	48.10	0.00	-13.37	47.40
416	16	48.10	0.00	-13.37	57.50
417	1017	51.73	0.00	-14.41	49.97
417	17	51.73	0.00	-14.41	60.86
418	1018	55.37	0.00	-14.41	49.98
418	18	55.37	0.00	-14.41	60.86
419	1019	59.01	0.00	-13.38	47.43
419	19	59.01	0.00	-13.38	57.53

CÁLCULO TENSIONAL

Hipótesis de cálculo:

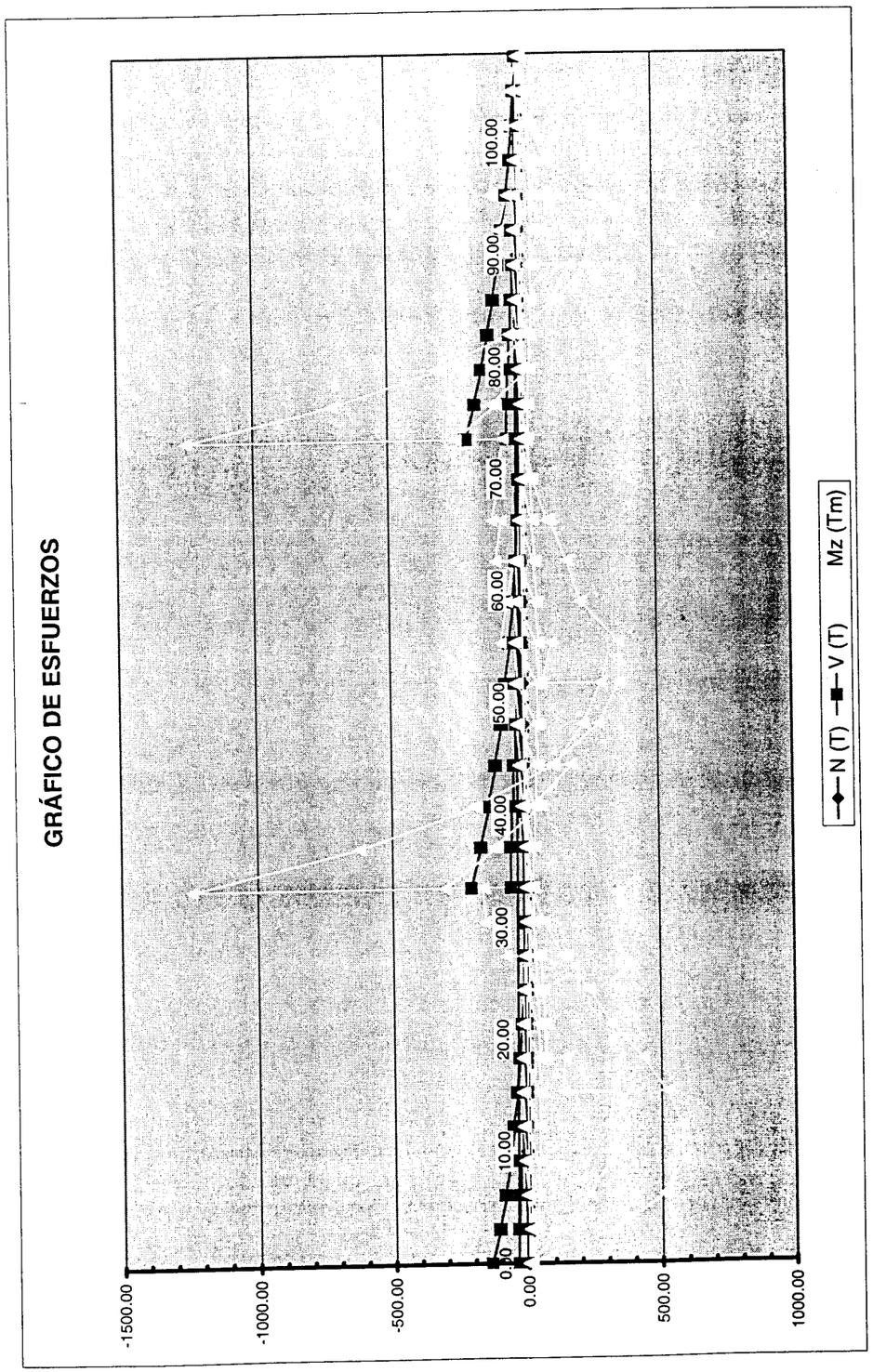
IPF75BI.VY-

TREN IPF75-B EJE IZDO Vy-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.VY- + [1; 1]TRENI.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-11.40	42.99
420	20	62.64	0.00	-11.40	51.61
421	1021	66.28	0.00	-8.82	38.41
421	21	66.28	0.00	-8.82	45.08
422	1022	69.91	0.00	-6.15	34.77
422	22	69.91	0.00	-6.15	39.43
423	1023	73.55	0.00	-4.46	26.59
423	23	73.55	0.00	-4.46	29.96
424	1024	76.66	0.00	-5.05	28.87
424	24	76.66	0.00	-5.05	32.68
425	1025	79.77	0.00	-7.08	33.29
425	25	79.77	0.00	-7.08	38.63
426	1026	82.88	0.00	-9.05	37.55
426	26	82.88	0.00	-9.05	44.39
427	1027	85.99	0.00	-10.61	41.54
427	27	85.99	0.00	-10.61	49.56
428	1028	89.10	0.00	-11.53	44.02
428	28	89.10	0.00	-11.53	52.74
429	1029	92.21	0.00	-11.71	44.66
429	29	92.21	0.00	-11.71	53.53
430	1030	95.32	0.00	-11.10	43.38
430	30	95.32	0.00	-11.10	51.78
431	1031	98.43	0.00	-9.68	40.73
431	31	98.43	0.00	-9.68	48.06
432	1032	101.54	0.00	-7.61	37.22
432	32	101.54	0.00	-7.61	42.97
433	1033	104.65	0.00	-5.10	33.23
433	33	104.65	0.00	-5.10	37.09
434	1034	107.76	0.00	-1.91	11.96
434	34	107.76	0.00	-1.91	13.41



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.VY+

TREN IPF75-B EJE DCHO Vy+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY+ + [1; 1]TREND.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	9.00	-0.16
1	2	3.05	0.00	9.00	-27.58
2	2	3.05	0.00	9.87	-27.91
2	3	6.10	0.00	9.87	-58.03
3	3	6.10	0.00	10.43	-57.57
3	4	9.15	0.00	10.43	-89.37
4	4	9.15	0.00	10.52	-89.76
4	5	12.20	0.00	10.52	-121.84
5	5	12.20	0.00	10.58	-63.12
5	6	15.25	0.00	10.58	-95.37
6	6	15.25	0.00	13.47	48.14
6	7	18.30	0.00	13.47	7.06
7	7	18.30	0.00	21.34	156.23
7	8	21.35	0.00	21.34	91.16
8	8	21.35	0.00	28.85	89.88
8	9	24.40	0.00	28.85	1.89
9	9	24.40	0.00	34.87	105.22
9	10	27.45	0.00	34.87	-1.15
10	10	27.45	0.00	40.20	50.96
10	11	30.50	0.00	40.20	-71.67
11	11	30.50	0.00	43.70	-49.46
11	12	33.55	0.00	43.70	-182.76
12	10012	33.55	0.00	12.19	-29.96
12	13	37.19	0.00	12.19	-74.31
13	13	37.19	0.00	11.00	-83.15
13	14	40.82	0.00	11.00	-123.14
14	14	40.82	0.00	9.19	-103.41
14	15	44.46	0.00	9.19	-136.84
15	15	44.46	0.00	8.50	-36.25
15	16	48.10	0.00	8.50	-67.14
16	16	48.10	0.00	8.34	-67.49
16	17	51.73	0.00	8.34	-97.81
17	17	51.73	0.00	10.75	45.96
17	18	55.37	0.00	10.75	6.86
18	18	55.37	0.00	18.88	278.03
18	19	59.01	0.00	18.88	209.38
19	19	59.01	0.00	29.69	211.35
19	20	62.64	0.00	29.69	103.36
20	20	62.64	0.00	38.79	209.52
20	21	66.28	0.00	38.79	68.44
21	21	66.28	0.00	46.47	87.49
21	22	69.91	0.00	46.47	-81.52
22	22	69.91	0.00	50.87	-92.41
22	23	73.55	0.00	50.87	-277.39
23	10023	73.55	0.00	1.06	-160.61
23	24	76.66	0.00	1.06	-163.90
24	24	76.66	0.00	-0.24	-141.28
24	25	79.77	0.00	-0.24	-140.53
25	25	79.77	0.00	-1.33	-41.79
25	26	82.88	0.00	-1.33	-37.67
26	26	82.88	0.00	-0.81	67.60

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.VY+

TREN IPF75-B EJE DCHO Vy+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY+ + [1; 1]TREND.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-0.81	70.13
27	27	85.99	0.00	0.26	70.23
27	28	89.10	0.00	0.26	69.44
28	28	89.10	0.00	1.85	149.03
28	29	92.21	0.00	1.85	143.28
29	29	92.21	0.00	8.21	333.40
29	30	95.32	0.00	8.21	307.86
30	30	95.32	0.00	18.44	369.48
30	31	98.43	0.00	18.44	312.13
31	31	98.43	0.00	27.46	311.50
31	32	101.54	0.00	27.46	226.11
32	32	101.54	0.00	33.86	224.42
32	33	104.65	0.00	33.86	119.13
33	33	104.65	0.00	36.90	116.29
33	34	107.76	0.00	36.90	1.53
101	101	0.00	0.00	6.52	0.20
101	102	3.05	0.00	13.30	8.02
102	102	3.05	0.00	11.47	8.41
102	103	6.10	0.00	21.50	55.25
103	103	6.10	0.00	19.53	55.53
103	104	9.15	0.00	32.57	111.77
104	104	9.15	0.00	30.25	112.06
104	105	12.20	0.00	46.10	284.97
105	105	12.20	0.00	43.09	153.29
105	106	15.25	0.00	67.70	291.83
106	106	15.25	0.00	63.33	292.43
106	107	18.30	0.00	86.50	259.35
107	107	18.30	0.00	81.86	260.30
107	108	21.35	0.00	107.32	152.82
108	108	21.35	0.00	102.97	154.13
108	109	24.40	0.00	130.54	-46.89
109	109	24.40	0.00	126.96	-45.34
109	110	27.45	0.00	156.71	-355.96
110	110	27.45	0.00	154.26	-354.41
110	111	30.50	0.00	186.30	-790.95
111	111	30.50	0.00	185.21	-767.54
111	112	33.55	0.00	220.49	-1348.24
112	10112	33.55	0.00	-1.57	17.15
112	113	37.19	0.00	5.49	47.87
113	113	37.19	0.00	3.84	60.73
113	114	40.82	0.00	13.97	117.15
114	114	40.82	0.00	11.80	120.99
114	115	44.46	0.00	24.92	184.52
115	115	44.46	0.00	21.90	184.72
115	116	48.10	0.00	37.77	236.62
116	116	48.10	0.00	33.83	237.02
116	117	51.73	0.00	54.66	387.75
117	117	51.73	0.00	48.28	388.41
117	118	55.37	0.00	74.15	385.72
118	118	55.37	0.00	67.29	386.86
118	119	59.01	0.00	95.85	299.98

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.VY+

TREN IPF75-B EJE DCHO Vy+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY+ + [1; 1]TREND.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	89.29	301.63
119	120	62.64	0.00	120.66	105.99
120	120	62.64	0.00	115.23	108.02
120	121	66.28	0.00	149.61	-223.65
121	121	66.28	0.00	146.01	-217.64
121	122	69.91	0.00	183.56	-714.17
122	122	69.91	0.00	182.04	-699.15
122	123	73.55	0.00	223.57	-1384.37
123	10123	73.55	0.00	-11.95	1.09
123	124	76.66	0.00	-6.15	57.80
124	124	76.66	0.00	-7.70	79.55
124	125	79.77	0.00	0.12	158.44
125	125	79.77	0.00	-1.88	158.18
125	126	82.88	0.00	8.01	250.19
126	126	82.88	0.00	5.08	249.93
126	127	85.99	0.00	17.93	346.93
127	127	85.99	0.00	13.69	346.74
127	128	89.10	0.00	30.57	476.86
128	128	89.10	0.00	25.02	476.89
128	129	92.21	0.00	43.66	578.29
129	129	92.21	0.00	37.14	578.68
129	130	95.32	0.00	58.04	642.39
130	130	95.32	0.00	51.14	643.31
130	131	98.43	0.00	74.62	648.88
131	131	98.43	0.00	68.24	650.47
131	132	101.54	0.00	94.81	569.94
132	132	101.54	0.00	90.06	572.25
132	133	104.65	0.00	120.27	368.38
133	133	104.65	0.00	118.27	371.32
133	134	107.76	0.00	153.39	-1.57
301	101	0.00	0.00	1.42	9.59
301	2001	0.00	0.00	1.42	8.50
302	102	3.05	0.00	3.73	25.67
302	2002	3.05	0.00	3.73	22.86
303	103	6.10	0.00	6.47	35.47
303	2003	6.10	0.00	6.47	30.56
304	104	9.15	0.00	8.84	41.85
304	2004	9.15	0.00	8.84	35.17
305	105	12.20	0.00	10.44	46.80
305	2005	12.20	0.00	10.44	38.89
306	106	15.25	0.00	11.13	48.82
306	2006	15.25	0.00	11.13	40.40
307	107	18.30	0.00	10.94	48.05
307	2007	18.30	0.00	10.94	39.78
308	108	21.35	0.00	9.93	44.68
308	2008	21.35	0.00	9.93	37.17
309	109	24.40	0.00	8.25	39.17
309	2009	24.40	0.00	8.25	32.93
310	110	27.45	0.00	6.07	32.06
310	2010	27.45	0.00	6.07	27.47
311	111	30.50	0.00	3.86	24.96

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.VY+

TREN IPF75-B EJE DCHO Vy+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY+ + [1; 1]TREND.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	3.86	22.05
312	112	33.55	0.00	3.18	22.26
312	2012	33.55	0.00	3.18	19.85
313	113	37.19	0.00	4.87	29.87
313	2013	37.19	0.00	4.87	26.19
314	114	40.82	0.00	7.94	38.63
314	2014	40.82	0.00	7.94	32.62
315	115	44.46	0.00	10.95	47.22
315	2015	44.46	0.00	10.95	38.94
316	116	48.10	0.00	13.21	54.52
316	2016	48.10	0.00	13.21	44.52
317	117	51.73	0.00	14.40	58.29
317	2017	51.73	0.00	14.40	47.42
318	118	55.37	0.00	14.39	58.31
318	2018	55.37	0.00	14.39	47.42
319	119	59.01	0.00	13.22	54.52
319	2019	59.01	0.00	13.22	44.54
320	120	62.64	0.00	10.95	47.24
320	2020	62.64	0.00	10.95	38.97
321	121	66.28	0.00	7.95	38.92
321	2021	66.28	0.00	7.95	32.89
322	122	69.91	0.00	4.88	29.91
322	2022	69.91	0.00	4.88	26.23
323	123	73.55	0.00	3.18	21.76
323	2023	73.55	0.00	3.18	19.35
324	124	76.66	0.00	3.87	25.08
324	2024	76.66	0.00	3.87	22.14
325	125	79.77	0.00	6.19	32.56
325	2025	79.77	0.00	6.19	27.87
326	126	82.88	0.00	8.49	40.06
326	2026	82.88	0.00	8.49	33.64
327	127	85.99	0.00	10.28	45.89
327	2027	85.99	0.00	10.28	38.12
328	128	89.10	0.00	11.34	49.46
328	2028	89.10	0.00	11.34	40.89
329	129	92.21	0.00	11.55	50.29
329	2029	92.21	0.00	11.55	41.55
330	130	95.32	0.00	10.83	48.15
330	2030	95.32	0.00	10.83	39.96
331	131	98.43	0.00	9.14	42.93
331	2031	98.43	0.00	9.14	36.02
332	132	101.54	0.00	6.63	36.09
332	2032	101.54	0.00	6.63	31.08
333	133	104.65	0.00	3.75	26.17
333	2033	104.65	0.00	3.75	23.34
334	134	107.76	0.00	1.43	9.70
334	2034	107.76	0.00	1.43	8.61
201	2001	0.00	0.00	1.42	8.50
201	1001	0.00	0.00	1.42	1.68
202	2002	3.05	0.00	3.73	22.86
202	1002	3.05	0.00	3.73	4.97

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BD.VY+
TREN IPF75-B EJE DCHO Vy+
[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY+ + [1; 1]TREND.EnvTrenGen.VY+
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	6.47	30.56
203	1003	6.10	0.00	6.47	-0.45
204	2004	9.15	0.00	8.84	35.17
204	1004	9.15	0.00	8.84	-7.17
205	2005	12.20	0.00	10.44	38.89
205	1005	12.20	0.00	10.44	-11.09
206	2006	15.25	0.00	11.13	40.40
206	1006	15.25	0.00	11.13	-12.87
207	2007	18.30	0.00	10.94	39.78
207	1007	18.30	0.00	10.94	-12.58
208	2008	21.35	0.00	9.93	37.17
208	1008	21.35	0.00	9.93	-10.38
209	2009	24.40	0.00	8.25	32.93
209	1009	24.40	0.00	8.25	-6.56
210	2010	27.45	0.00	6.07	27.47
210	1010	27.45	0.00	6.07	-1.60
211	2011	30.50	0.00	3.86	22.05
211	1011	30.50	0.00	3.86	3.57
212	2012	33.55	0.00	3.18	19.85
212	1012	33.55	0.00	3.18	4.63
213	2013	37.19	0.00	4.87	26.19
213	1013	37.19	0.00	4.87	2.88
214	2014	40.82	0.00	7.94	32.62
214	1014	40.82	0.00	7.94	-5.45
215	2015	44.46	0.00	10.95	38.94
215	1015	44.46	0.00	10.95	-13.47
216	2016	48.10	0.00	13.21	44.52
216	1016	48.10	0.00	13.21	-18.75
217	2017	51.73	0.00	14.40	47.42
217	1017	51.73	0.00	14.40	-21.50
218	2018	55.37	0.00	14.39	47.42
218	1018	55.37	0.00	14.39	-21.50
219	2019	59.01	0.00	13.22	44.54
219	1019	59.01	0.00	13.22	-18.74
220	2020	62.64	0.00	10.95	38.97
220	1020	62.64	0.00	10.95	-13.47
221	2021	66.28	0.00	7.95	32.89
221	1021	66.28	0.00	7.95	-5.18
222	2022	69.91	0.00	4.88	26.23
222	1022	69.91	0.00	4.88	2.84
223	2023	73.55	0.00	3.18	19.35
223	1023	73.55	0.00	3.18	4.12
224	2024	76.66	0.00	3.87	22.14
224	1024	76.66	0.00	3.87	3.64
225	2025	79.77	0.00	6.19	27.87
225	1025	79.77	0.00	6.19	-1.78
226	2026	82.88	0.00	8.49	33.64
226	1026	82.88	0.00	8.49	-7.03
227	2027	85.99	0.00	10.28	38.12
227	1027	85.99	0.00	10.28	-11.08
228	2028	89.10	0.00	11.34	40.89

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BD.VY+
TREN IPF75-B EJE DCHO Vy+
[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY+ + [1; 1]TREND.EnvTrenGen.VY+
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	11.34	-13.40
229	2029	92.21	0.00	11.55	41.55
229	1029	92.21	0.00	11.55	-13.73
230	2030	95.32	0.00	10.83	39.96
230	1030	95.32	0.00	10.83	-11.85
231	2031	98.43	0.00	9.14	36.02
231	1031	98.43	0.00	9.14	-7.69
232	2032	101.54	0.00	6.63	31.08
232	1032	101.54	0.00	6.63	-0.63
233	2033	104.65	0.00	3.75	23.34
233	1033	104.65	0.00	3.75	5.36
234	2034	107.76	0.00	1.43	8.61
234	1034	107.76	0.00	1.43	1.76
401	1001	0.00	0.00	1.42	1.68
401	1	0.00	0.00	1.42	0.61
402	1002	3.05	0.00	3.73	4.97
402	2	3.05	0.00	3.73	2.15
403	1003	6.10	0.00	6.47	-0.45
403	3	6.10	0.00	6.47	-5.36
404	1004	9.15	0.00	8.84	-7.17
404	4	9.15	0.00	8.84	-13.85
405	1005	12.20	0.00	10.44	-11.09
405	5	12.20	0.00	10.44	-19.00
406	1006	15.25	0.00	11.13	-12.87
406	6	15.25	0.00	11.13	-21.29
407	1007	18.30	0.00	10.94	-12.58
407	7	18.30	0.00	10.94	-20.85
408	1008	21.35	0.00	9.93	-10.38
408	8	21.35	0.00	9.93	-17.90
409	1009	24.40	0.00	8.25	-6.56
409	9	24.40	0.00	8.25	-12.80
410	1010	27.45	0.00	6.07	-1.60
410	10	27.45	0.00	6.07	-6.18
411	1011	30.50	0.00	3.86	3.57
411	11	30.50	0.00	3.86	0.66
412	1012	33.55	0.00	3.18	4.63
412	12	33.55	0.00	3.18	2.22
413	1013	37.19	0.00	4.87	2.88
413	13	37.19	0.00	4.87	-0.80
414	1014	40.82	0.00	7.94	-5.45
414	14	40.82	0.00	7.94	-11.46
415	1015	44.46	0.00	10.95	-13.47
415	15	44.46	0.00	10.95	-21.75
416	1016	48.10	0.00	13.21	-18.75
416	16	48.10	0.00	13.21	-28.74
417	1017	51.73	0.00	14.40	-21.50
417	17	51.73	0.00	14.40	-32.39
418	1018	55.37	0.00	14.39	-21.50
418	18	55.37	0.00	14.39	-32.38
419	1019	59.01	0.00	13.22	-18.74
419	19	59.01	0.00	13.22	-28.74

CÁLCULO TENSIONAL

Hipótesis de cálculo:

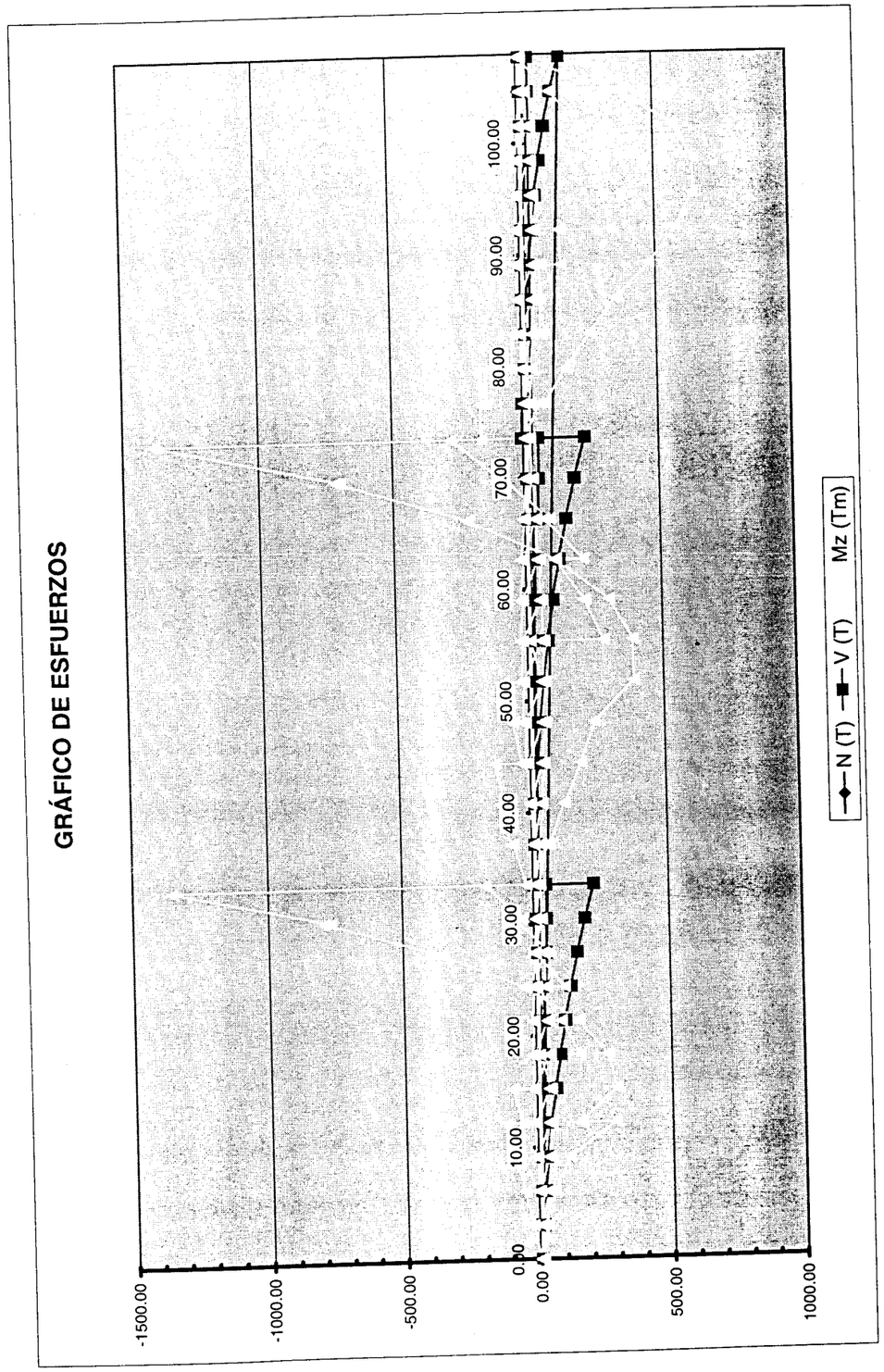
IPF75BD.VY+

TREN IPF75-B EJE DCHO Vy+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY+ + [1; 1]TREND.EnvTrenGen.VY+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	10.95	-13.47
420	20	62.64	0.00	10.95	-21.74
421	1021	66.28	0.00	7.95	-5.18
421	21	66.28	0.00	7.95	-11.21
422	1022	69.91	0.00	4.88	2.84
422	22	69.91	0.00	4.88	-0.84
423	1023	73.55	0.00	3.18	4.12
423	23	73.55	0.00	3.18	1.72
424	1024	76.66	0.00	3.87	3.64
424	24	76.66	0.00	3.87	0.71
425	1025	79.77	0.00	6.19	-1.78
425	25	79.77	0.00	6.19	-6.46
426	1026	82.88	0.00	8.49	-7.03
426	26	82.88	0.00	8.49	-13.45
427	1027	85.99	0.00	10.28	-11.08
427	27	85.99	0.00	10.28	-18.83
428	1028	89.10	0.00	11.34	-13.40
428	28	89.10	0.00	11.34	-21.98
429	1029	92.21	0.00	11.55	-13.73
429	29	92.21	0.00	11.55	-22.46
430	1030	95.32	0.00	10.83	-11.85
430	30	95.32	0.00	10.83	-20.04
431	1031	98.43	0.00	9.14	-7.69
431	31	98.43	0.00	9.14	-14.60
432	1032	101.54	0.00	6.63	-0.63
432	32	101.54	0.00	6.63	-5.64
433	1033	104.65	0.00	3.75	5.36
433	33	104.65	0.00	3.75	2.53
434	1034	107.76	0.00	1.43	1.76
434	34	107.76	0.00	1.43	0.67



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.VY-

TREN IPF75-B EJE DCHO VY-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY- + [1; 1]TREND.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-36.17	1.47
1	2	3.05	0.00	-36.17	111.77
2	2	3.05	0.00	-33.06	114.51
2	3	6.10	0.00	-33.06	215.33
3	3	6.10	0.00	-26.79	216.92
3	4	9.15	0.00	-26.79	298.65
4	4	9.15	0.00	-18.07	299.30
4	5	12.20	0.00	-18.07	354.40
5	5	12.20	0.00	-8.17	296.00
5	6	15.25	0.00	-8.17	320.93
6	6	15.25	0.00	-2.05	133.77
6	7	18.30	0.00	-2.05	140.05
7	7	18.30	0.00	-0.51	71.64
7	8	21.35	0.00	-0.51	73.21
8	8	21.35	0.00	0.53	72.59
8	9	24.40	0.00	0.53	70.98
9	9	24.40	0.00	1.15	-35.21
9	10	27.45	0.00	1.15	-38.70
10	10	27.45	0.00	0.20	-139.41
10	11	30.50	0.00	0.20	-140.06
11	11	30.50	0.00	-1.04	-163.52
11	12	33.55	0.00	-1.04	-160.35
12	10012	33.55	0.00	-51.02	-279.31
12	13	37.19	0.00	-51.02	-93.79
13	13	37.19	0.00	-46.61	-83.41
13	14	40.82	0.00	-46.61	86.11
14	14	40.82	0.00	-38.93	68.39
14	15	44.46	0.00	-38.93	209.94
15	15	44.46	0.00	-29.63	110.20
15	16	48.10	0.00	-29.63	217.92
16	16	48.10	0.00	-18.71	215.99
16	17	51.73	0.00	-18.71	284.05
17	17	51.73	0.00	-10.28	62.01
17	18	55.37	0.00	-10.28	99.40
18	18	55.37	0.00	-7.69	-92.21
18	19	59.01	0.00	-7.69	-64.23
19	19	59.01	0.00	-7.81	-63.87
19	20	62.64	0.00	-7.81	-35.47
20	20	62.64	0.00	-8.42	-142.43
20	21	66.28	0.00	-8.42	-111.84
21	21	66.28	0.00	-10.34	-132.90
21	22	69.91	0.00	-10.34	-95.32
22	22	69.91	0.00	-11.66	-85.95
22	23	73.55	0.00	-11.66	-43.52
23	10023	73.55	0.00	-45.03	-194.38
23	24	76.66	0.00	-45.03	-54.31
24	24	76.66	0.00	-41.51	-75.69
24	25	79.77	0.00	-41.51	53.44
25	25	79.77	0.00	-36.02	2.45
25	26	82.88	0.00	-36.02	114.46
26	26	82.88	0.00	-29.65	12.02

IPF75

Programa DINTEL PACADAR S.A.
IPF75BD.VY-

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.VY-

TREN IPF75-B EJE DCHO VY-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY- + [1; 1]TREND.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-29.65	104.23
27	27	85.99	0.00	-21.80	105.44
27	28	89.10	0.00	-21.80	173.25
28	28	89.10	0.00	-13.50	11.31
28	29	92.21	0.00	-13.50	53.25
29	29	92.21	0.00	-10.37	-90.64
29	30	95.32	0.00	-10.37	-58.38
30	30	95.32	0.00	-10.23	-120.10
30	31	98.43	0.00	-10.23	-88.25
31	31	98.43	0.00	-10.11	-87.87
31	32	101.54	0.00	-10.11	-56.44
32	32	101.54	0.00	-9.52	-56.91
32	33	104.65	0.00	-9.52	-27.29
33	33	104.65	0.00	-8.63	-26.98
33	34	107.76	0.00	-8.63	-0.15
101	101	0.00	0.00	-151.28	-1.50
101	102	3.05	0.00	-117.26	361.02
102	102	3.05	0.00	-119.36	358.18
102	103	6.10	0.00	-89.59	557.68
103	103	6.10	0.00	-94.25	555.45
103	104	9.15	0.00	-68.05	635.34
104	104	9.15	0.00	-74.25	633.81
104	105	12.20	0.00	-51.09	629.72
105	105	12.20	0.00	-57.76	628.84
105	106	15.25	0.00	-37.15	567.78
106	106	15.25	0.00	-43.45	567.40
106	107	18.30	0.00	-25.09	469.26
107	107	18.30	0.00	-30.46	469.24
107	108	21.35	0.00	-13.77	341.81
108	108	21.35	0.00	-17.88	341.99
108	109	24.40	0.00	-5.30	249.19
109	109	24.40	0.00	-8.14	249.44
109	110	27.45	0.00	1.54	161.17
110	110	27.45	0.00	-0.43	161.43
110	111	30.50	0.00	7.24	86.05
111	111	30.50	0.00	5.72	64.01
111	112	33.55	0.00	11.40	10.23
112	10112	33.55	0.00	-222.58	-1364.94
112	113	37.19	0.00	-181.03	-683.12
113	113	37.19	0.00	-182.67	-697.52
113	114	40.82	0.00	-145.10	-203.92
114	114	40.82	0.00	-148.83	-209.77
114	115	44.46	0.00	-114.42	119.43
115	115	44.46	0.00	-119.97	117.38
115	116	48.10	0.00	-88.57	310.81
116	116	48.10	0.00	-95.23	309.17
116	117	51.73	0.00	-66.62	393.90
117	117	51.73	0.00	-73.56	392.76
117	118	55.37	0.00	-47.64	393.19
118	118	55.37	0.00	-54.07	392.55
118	119	59.01	0.00	-33.07	239.76

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BD.VY-
TREN IPF75-B EJE DCHO VY-
[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY- + [1; 1]TREND.EnvTrenGen.VY-
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	-37.06	239.35
119	120	62.64	0.00	-21.16	184.49
120	120	62.64	0.00	-24.20	184.30
120	121	66.28	0.00	-11.04	117.70
121	121	66.28	0.00	-13.21	113.67
121	122	69.91	0.00	-3.06	54.13
122	122	69.91	0.00	-4.70	40.63
122	123	73.55	0.00	2.37	6.80
123	10123	73.55	0.00	-223.38	-1374.57
123	124	76.66	0.00	-186.99	-776.63
124	124	76.66	0.00	-188.02	-799.86
124	125	79.77	0.00	-155.38	-350.42
125	125	79.77	0.00	-157.88	-352.07
125	126	82.88	0.00	-127.60	-33.28
126	126	82.88	0.00	-131.31	-34.91
126	127	85.99	0.00	-103.27	170.54
127	127	85.99	0.00	-107.82	169.17
127	128	89.10	0.00	-81.94	278.27
128	128	89.10	0.00	-86.80	277.28
128	129	92.21	0.00	-63.22	309.49
129	129	92.21	0.00	-67.80	308.86
129	130	95.32	0.00	-42.89	169.70
130	130	95.32	0.00	-46.01	301.55
130	131	98.43	0.00	-29.87	124.57
131	131	98.43	0.00	-32.30	124.30
131	132	101.54	0.00	-18.96	63.38
132	132	101.54	0.00	-21.01	63.11
132	133	104.65	0.00	-10.74	11.68
133	133	104.65	0.00	-12.59	11.30
133	134	107.76	0.00	-5.68	0.19
301	101	0.00	0.00	-1.19	0.86
301	2001	0.00	0.00	-1.19	1.75
302	102	3.05	0.00	0.16	5.63
302	2002	3.05	0.00	0.16	5.51
303	103	6.10	0.00	0.31	5.55
303	2003	6.10	0.00	0.31	5.31
304	104	9.15	0.00	0.00	5.64
304	2004	9.15	0.00	0.00	5.64
305	105	12.20	0.00	-0.47	4.25
305	2005	12.20	0.00	-0.47	4.59
306	106	15.25	0.00	-0.96	2.87
306	2006	15.25	0.00	-0.96	3.59
307	107	18.30	0.00	-1.44	1.52
307	2007	18.30	0.00	-1.44	2.60
308	108	21.35	0.00	-1.83	0.44
308	2008	21.35	0.00	-1.83	1.82
309	109	24.40	0.00	-2.06	-0.17
309	2009	24.40	0.00	-2.06	1.40
310	110	27.45	0.00	-2.00	0.26
310	2010	27.45	0.00	-2.00	1.76
311	111	30.50	0.00	-1.56	1.20

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BD.VY-
TREN IPF75-B EJE DCHO VY-
[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY- + [1; 1]TREND.EnvTrenGen.VY-
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-1.56	2.39
312	112	33.55	0.00	-1.47	4.26
312	2012	33.55	0.00	-1.47	5.37
313	113	37.19	0.00	-1.95	2.27
313	2013	37.19	0.00	-1.95	3.75
314	114	40.82	0.00	-2.47	1.69
314	2014	40.82	0.00	-2.47	3.55
315	115	44.46	0.00	-2.67	1.81
315	2015	44.46	0.00	-2.67	3.83
316	116	48.10	0.00	-2.64	1.70
316	2016	48.10	0.00	-2.64	3.70
317	117	51.73	0.00	-2.53	1.89
317	2017	51.73	0.00	-2.53	3.81
318	118	55.37	0.00	-2.58	1.91
318	2018	55.37	0.00	-2.58	3.85
319	119	59.01	0.00	-2.72	1.44
319	2019	59.01	0.00	-2.72	3.52
320	120	62.64	0.00	-2.79	1.44
320	2020	62.64	0.00	-2.79	3.56
321	121	66.28	0.00	-2.64	0.94
321	2021	66.28	0.00	-2.64	2.93
322	122	69.91	0.00	-2.14	1.80
322	2022	69.91	0.00	-2.14	3.42
323	123	73.55	0.00	-1.59	4.46
323	2023	73.55	0.00	-1.59	5.67
324	124	76.66	0.00	-1.60	1.66
324	2024	76.66	0.00	-1.60	2.86
325	125	79.77	0.00	-2.02	0.19
325	2025	79.77	0.00	-2.02	1.72
326	126	82.88	0.00	-2.07	-0.18
326	2026	82.88	0.00	-2.07	1.38
327	127	85.99	0.00	-1.81	0.48
327	2027	85.99	0.00	-1.81	1.86
328	128	89.10	0.00	-1.40	1.61
328	2028	89.10	0.00	-1.40	2.67
329	129	92.21	0.00	-0.92	3.00
329	2029	92.21	0.00	-0.92	3.69
330	130	95.32	0.00	-0.42	4.44
330	2030	95.32	0.00	-0.42	4.76
331	131	98.43	0.00	0.04	5.76
331	2031	98.43	0.00	0.04	5.73
332	132	101.54	0.00	0.34	5.59
332	2032	101.54	0.00	0.34	5.33
333	133	104.65	0.00	0.11	5.19
333	2033	104.65	0.00	0.11	5.11
334	134	107.76	0.00	-1.35	0.42
334	2034	107.76	0.00	-1.35	1.43
201	2001	0.00	0.00	-1.19	1.75
201	1001	0.00	0.00	-1.19	7.45
202	2002	3.05	0.00	0.16	5.51
202	1002	3.05	0.00	0.16	4.72

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BD.VY-

TREN IPF75-B EJE DCHO VY-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY- + [1; 1]TREND.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	0.31	5.31
203	1003	6.10	0.00	0.31	3.80
204	2004	9.15	0.00	0.00	5.64
204	1004	9.15	0.00	0.00	5.64
205	2005	12.20	0.00	-0.47	4.59
205	1005	12.20	0.00	-0.47	6.85
206	2006	15.25	0.00	-0.96	3.59
206	1006	15.25	0.00	-0.96	8.20
207	2007	18.30	0.00	-1.44	2.60
207	1007	18.30	0.00	-1.44	9.47
208	2008	21.35	0.00	-1.83	1.82
208	1008	21.35	0.00	-1.83	10.58
209	2009	24.40	0.00	-2.06	1.40
209	1009	24.40	0.00	-2.06	11.27
210	2010	27.45	0.00	-2.00	1.76
210	1010	27.45	0.00	-2.00	11.35
211	2011	30.50	0.00	-1.56	2.39
211	1011	30.50	0.00	-1.56	9.89
212	2012	33.55	0.00	-1.47	5.37
212	1012	33.55	0.00	-1.47	12.41
213	2013	37.19	0.00	-1.95	3.75
213	1013	37.19	0.00	-1.95	13.14
214	2014	40.82	0.00	-2.47	3.55
214	1014	40.82	0.00	-2.47	15.38
215	2015	44.46	0.00	-2.67	3.83
215	1015	44.46	0.00	-2.67	16.60
216	2016	48.10	0.00	-2.64	3.70
216	1016	48.10	0.00	-2.64	16.33
217	2017	51.73	0.00	-2.53	3.81
217	1017	51.73	0.00	-2.53	15.97
218	2018	55.37	0.00	-2.58	3.85
218	1018	55.37	0.00	-2.58	16.20
219	2019	59.01	0.00	-2.72	3.52
219	1019	59.01	0.00	-2.72	16.56
220	2020	62.64	0.00	-2.79	3.56
220	1020	62.64	0.00	-2.79	16.93
221	2021	66.28	0.00	-2.64	2.93
221	1021	66.28	0.00	-2.64	15.57
222	2022	69.91	0.00	-2.14	3.42
222	1022	69.91	0.00	-2.14	13.63
223	2023	73.55	0.00	-1.59	5.67
223	1023	73.55	0.00	-1.59	13.31
224	2024	76.66	0.00	-1.60	2.86
224	1024	76.66	0.00	-1.60	10.53
225	2025	79.77	0.00	-2.02	1.72
225	1025	79.77	0.00	-2.02	11.40
226	2026	82.88	0.00	-2.07	1.38
226	1026	82.88	0.00	-2.07	11.29
227	2027	85.99	0.00	-1.81	1.86
227	1027	85.99	0.00	-1.81	10.56
228	2028	89.10	0.00	-1.40	2.67

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.VY-

TREN IPF75-B EJE DCHO VY-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY- + [1; 1]TREND.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	-1.40	9.40
229	2029	92.21	0.00	-0.92	3.69
229	1029	92.21	0.00	-0.92	8.09
230	2030	95.32	0.00	-0.42	4.76
230	1030	95.32	0.00	-0.42	6.80
231	2031	98.43	0.00	0.04	5.73
231	1031	98.43	0.00	0.04	5.54
232	2032	101.54	0.00	0.34	5.33
232	1032	101.54	0.00	0.34	3.69
233	2033	104.65	0.00	0.11	5.11
233	1033	104.65	0.00	0.11	4.59
234	2034	107.76	0.00	-1.35	1.43
234	1034	107.76	0.00	-1.35	7.91
401	1001	0.00	0.00	-1.19	7.45
401	1	0.00	0.00	-1.19	8.35
402	1002	3.05	0.00	0.16	4.72
402	2	3.05	0.00	0.16	4.60
403	1003	6.10	0.00	0.31	3.80
403	3	6.10	0.00	0.31	3.55
404	1004	9.15	0.00	0.00	5.64
404	4	9.15	0.00	0.00	5.65
405	1005	12.20	0.00	-0.47	6.85
405	5	12.20	0.00	-0.47	7.20
406	1006	15.25	0.00	-0.96	8.20
406	6	15.25	0.00	-0.96	8.91
407	1007	18.30	0.00	-1.44	9.47
407	7	18.30	0.00	-1.44	10.54
408	1008	21.35	0.00	-1.83	10.58
408	8	21.35	0.00	-1.83	11.96
409	1009	24.40	0.00	-2.07	11.27
409	9	24.40	0.00	-2.07	12.83
410	1010	27.45	0.00	-2.00	11.35
410	10	27.45	0.00	-2.00	12.86
411	1011	30.50	0.00	-1.56	9.89
411	11	30.50	0.00	-1.56	11.08
412	1012	33.55	0.00	-1.47	12.41
412	12	33.55	0.00	-1.47	13.53
413	1013	37.19	0.00	-1.95	13.14
413	13	37.19	0.00	-1.95	14.62
414	1014	40.82	0.00	-2.47	15.38
414	14	40.82	0.00	-2.47	17.25
415	1015	44.46	0.00	-2.67	16.60
415	15	44.46	0.00	-2.67	18.61
416	1016	48.10	0.00	-2.64	16.33
416	16	48.10	0.00	-2.64	18.33
417	1017	51.73	0.00	-2.53	15.97
417	17	51.73	0.00	-2.53	17.89
418	1018	55.37	0.00	-2.58	16.20
418	18	55.37	0.00	-2.58	18.14
419	1019	59.01	0.00	-2.72	16.56
419	19	59.01	0.00	-2.72	18.62

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.VY-

TREN IPF75-B EJE DCHO VY-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.VY- + [1; 1]TREND.EnvTrenGen.VY-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-2.79	16.93
420	20	62.64	0.00	-2.79	19.05
421	1021	66.28	0.00	-2.64	15.57
421	21	66.28	0.00	-2.64	17.55
422	1022	69.91	0.00	-2.14	13.63
422	22	69.91	0.00	-2.14	15.26
423	1023	73.55	0.00	-1.59	13.31
423	23	73.55	0.00	-1.59	14.52
424	1024	76.66	0.00	-1.60	10.53
424	24	76.66	0.00	-1.60	11.74
425	1025	79.77	0.00	-2.02	11.40
425	25	79.77	0.00	-2.02	12.92
426	1026	82.88	0.00	-2.07	11.29
426	26	82.88	0.00	-2.07	12.85
427	1027	85.99	0.00	-1.81	10.56
427	27	85.99	0.00	-1.81	11.93
428	1028	89.10	0.00	-1.40	9.40
428	28	89.10	0.00	-1.40	10.46
429	1029	92.21	0.00	-0.92	8.09
429	29	92.21	0.00	-0.92	8.79
430	1030	95.32	0.00	-0.42	6.80
430	30	95.32	0.00	-0.42	7.12
431	1031	98.43	0.00	0.04	5.54
431	31	98.43	0.00	0.04	5.52
432	1032	101.54	0.00	0.34	3.69
432	32	101.54	0.00	0.34	3.42
433	1033	104.65	0.00	0.11	4.59
433	33	104.65	0.00	0.11	4.51
434	1034	107.76	0.00	-1.35	7.91
434	34	107.76	0.00	-1.35	8.92

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX+

TREN IPF75-B EJE IZDO Mx+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX+ + [1; 1]TRENI.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-110.10	14.40	-0.78
1	2	3.05	0.00	-58.18	8.17	181.49
2	2	3.05	0.00	-96.19	40.46	282.42
2	3	6.10	0.00	-68.40	31.09	422.95
3	3	6.10	0.00	-73.96	66.88	421.47
3	4	9.15	0.00	-49.39	54.62	454.00
4	4	9.15	0.00	-55.63	91.50	453.05
4	5	12.20	0.00	-33.83	75.92	408.06
5	5	12.20	0.00	-39.90	111.49	407.60
5	6	15.25	0.00	-20.45	92.33	308.22
6	6	15.25	0.00	-25.75	124.71	308.09
6	7	18.30	0.00	-8.35	102.16	171.39
7	7	18.30	0.00	-12.52	130.30	171.46
7	8	21.35	0.00	3.35	104.42	3.73
8	8	21.35	0.00	0.47	127.95	3.82
8	9	24.40	0.00	14.12	100.59	-174.71
9	9	24.40	0.00	12.32	120.23	-174.79
9	10	27.45	0.00	23.63	92.90	-351.95
10	10	27.45	0.00	19.25	110.29	-294.95
10	11	30.50	0.00	28.07	84.55	-448.35
11	11	30.50	0.00	23.77	101.57	-392.56
11	12	33.55	0.00	29.61	81.08	-503.30
12	10012	33.55	0.00	-158.00	101.99	-570.10
12	13	37.19	0.00	-94.26	79.16	-87.22
13	13	37.19	0.00	-109.17	105.66	-126.72
13	14	40.82	0.00	-79.80	86.67	132.95
14	14	40.82	0.00	-103.45	118.34	146.90
14	15	44.46	0.00	-59.35	99.31	271.75
15	15	44.46	0.00	-78.93	136.01	317.39
15	16	48.10	0.00	-50.67	115.18	375.85
16	16	48.10	0.00	-58.19	152.99	374.91
16	17	51.73	0.00	-32.62	129.34	341.47
17	17	51.73	0.00	-39.49	164.84	341.02
17	18	55.37	0.00	-16.52	137.60	236.23
18	18	55.37	0.00	-22.06	168.73	236.17
18	19	59.01	0.00	-2.09	138.37	83.24
19	19	59.01	0.00	-5.67	164.23	142.21
19	20	62.64	0.00	11.39	130.97	-106.02
20	20	62.64	0.00	10.74	151.59	-57.16
20	21	66.28	0.00	23.62	116.82	-314.39
21	21	66.28	0.00	22.60	133.16	-314.67
21	22	69.91	0.00	33.86	99.38	-522.25
22	22	69.91	0.00	44.12	114.74	-560.41
22	23	73.55	0.00	51.92	84.12	-783.38
23	10023	73.55	0.00	-187.40	101.42	-849.65
23	24	76.66	0.00	-153.48	77.68	-358.93
24	24	76.66	0.00	-153.51	97.70	-304.84
24	25	79.77	0.00	-123.12	73.34	45.09
25	25	79.77	0.00	-124.72	98.09	99.87
25	26	82.88	0.00	-96.46	75.07	326.43
26	26	82.88	0.00	-102.49	103.47	324.81

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX+

TREN IPF75-B EJE IZDO Mx+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX+ + [1; 1]TRENI.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-72.71	80.86	427.60
27	27	85.99	0.00	-82.94	110.29	452.78
27	28	89.10	0.00	-58.67	90.15	499.38
28	28	89.10	0.00	-65.38	119.69	498.65
28	29	92.21	0.00	-43.26	92.33	480.57
29	29	92.21	0.00	-49.35	119.23	480.25
29	30	95.32	0.00	-24.93	85.06	430.69
30	30	95.32	0.00	-30.25	108.84	430.72
30	31	98.43	0.00	-8.48	75.20	371.03
31	31	98.43	0.00	-13.18	97.15	371.42
31	32	101.54	0.00	4.06	59.31	231.04
32	32	101.54	0.00	0.88	75.01	231.47
32	33	104.65	0.00	14.83	33.09	102.86
33	33	104.65	0.00	28.34	43.61	156.29
33	34	107.76	0.00	23.96	-1.05	-0.37
101	101	0.00	0.00	-3.07	0.91	-0.03
101	102	3.05	0.00	-3.07	0.91	9.31
102	102	3.05	0.00	-9.86	3.18	42.18
102	103	6.10	0.00	-9.86	3.18	72.27
103	103	6.10	0.00	-10.21	9.00	104.30
103	104	9.15	0.00	-10.21	9.00	135.45
104	104	9.15	0.00	-8.39	20.32	192.47
104	105	12.20	0.00	-8.39	20.32	218.05
105	105	12.20	0.00	-3.16	37.52	289.45
105	106	15.25	0.00	-3.16	37.52	299.09
106	106	15.25	0.00	6.33	58.59	336.41
106	107	18.30	0.00	6.33	58.59	317.11
107	107	18.30	0.00	16.76	79.31	316.50
107	108	21.35	0.00	16.76	79.31	265.38
108	108	21.35	0.00	26.75	97.10	271.01
108	109	24.40	0.00	26.75	97.10	189.42
109	109	24.40	0.00	34.81	110.44	187.79
109	110	27.45	0.00	34.81	110.44	81.63
110	110	27.45	0.00	40.78	117.68	79.81
110	111	30.50	0.00	40.78	117.68	-44.57
111	111	30.50	0.00	44.47	118.26	-46.43
111	112	33.55	0.00	44.47	118.26	-182.05
112	10112	33.55	0.00	-3.00	112.27	-183.63
112	113	37.19	0.00	-3.00	112.27	-172.70
113	113	37.19	0.00	-4.77	101.19	-176.43
113	114	40.82	0.00	-4.77	101.19	-159.09
114	114	40.82	0.00	-5.05	88.56	-159.47
114	115	44.46	0.00	-5.05	88.56	-141.11
115	115	44.46	0.00	-6.53	76.57	-124.75
115	116	48.10	0.00	-6.53	76.57	-101.03
116	116	48.10	0.00	-7.10	67.95	-34.55
116	117	51.73	0.00	-7.10	67.95	-8.72
117	117	51.73	0.00	-3.77	66.76	36.20
117	118	55.37	0.00	-3.77	66.76	49.90
118	118	55.37	0.00	5.71	75.07	182.71
118	119	59.01	0.00	5.71	75.07	161.95

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX+

TREN IPF75-B EJE IZDO Mx+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX+ + [1; 1]TRENI.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	18.08	90.58	246.52
119	120	62.64	0.00	18.08	90.58	180.78
120	120	62.64	0.00	29.36	104.66	201.87
120	121	66.28	0.00	29.36	104.66	95.10
121	121	66.28	0.00	37.09	112.28	94.97
121	122	69.91	0.00	37.09	112.28	-39.93
122	122	69.91	0.00	43.85	111.53	-44.79
122	123	73.55	0.00	43.85	111.53	-204.24
123	10123	73.55	0.00	-5.45	103.94	-206.71
123	124	76.66	0.00	-5.45	103.94	-189.77
124	124	76.66	0.00	-4.96	93.18	-190.65
124	125	79.77	0.00	-4.96	93.18	-175.21
125	125	79.77	0.00	-5.30	80.40	-175.68
125	126	82.88	0.00	-5.30	80.40	-159.22
126	126	82.88	0.00	-5.96	66.99	-159.40
126	127	85.99	0.00	-5.96	66.99	-140.88
127	127	85.99	0.00	-6.93	54.23	-133.77
127	128	89.10	0.00	-6.93	54.23	-112.22
128	128	89.10	0.00	-7.17	42.19	-112.05
128	129	92.21	0.00	-7.17	42.19	-89.73
129	129	92.21	0.00	-5.84	31.70	-50.52
129	130	95.32	0.00	-5.84	31.70	-32.36
130	130	95.32	0.00	-1.08	24.40	28.06
130	131	98.43	0.00	-1.08	24.40	31.40
131	131	98.43	0.00	10.10	20.39	125.41
131	132	101.54	0.00	10.10	20.39	93.97
132	132	101.54	0.00	19.76	17.27	131.68
132	133	104.65	0.00	19.76	17.27	70.22
133	133	104.65	0.00	28.23	8.85	88.98
133	134	107.76	0.00	28.23	8.85	1.16
301	101	0.00	0.00	-0.28	1.31	6.52
301	2001	0.00	0.00	-0.28	1.31	6.74
302	102	3.05	0.00	-3.96	2.45	2.33
302	2002	3.05	0.00	-3.96	2.45	5.34
303	103	6.10	0.00	-6.14	2.05	-5.54
303	2003	6.10	0.00	-6.14	2.05	-0.88
304	104	9.15	0.00	-8.48	1.47	-12.89
304	2004	9.15	0.00	-8.48	1.47	-6.47
305	105	12.20	0.00	-8.53	0.84	-14.22
305	2005	12.20	0.00	-8.53	0.84	-7.77
306	106	15.25	0.00	-6.45	0.36	-9.60
306	2006	15.25	0.00	-6.45	0.36	-4.72
307	107	18.30	0.00	-4.12	0.10	-3.37
307	2007	18.30	0.00	-4.12	0.10	-0.25
308	108	21.35	0.00	-1.72	0.03	5.64
308	2008	21.35	0.00	-1.72	0.03	6.94
309	109	24.40	0.00	0.20	0.22	12.15
309	2009	24.40	0.00	0.20	0.22	12.01
310	110	27.45	0.00	0.07	0.53	11.07
310	2010	27.45	0.00	0.07	0.53	11.01
311	111	30.50	0.00	-0.05	0.98	9.57

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX+

TREN IPF75-B EJE IZDO Mx+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX+ + [1; 1]TRENI.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.05	0.98	9.60
312	112	33.55	0.00	-1.63	1.71	5.88
312	2012	33.55	0.00	-1.63	1.71	7.12
313	113	37.19	0.00	-4.85	2.41	-2.80
313	2013	37.19	0.00	-4.85	2.41	0.87
314	114	40.82	0.00	-7.33	2.37	-11.80
314	2014	40.82	0.00	-7.33	2.37	-6.27
315	115	44.46	0.00	-10.25	1.96	-20.72
315	2015	44.46	0.00	-10.25	1.96	-12.97
316	116	48.10	0.00	-8.65	1.49	-11.79
316	2016	48.10	0.00	-8.65	1.49	-5.25
317	117	51.73	0.00	-6.95	1.04	-7.54
317	2017	51.73	0.00	-6.95	1.04	-2.30
318	118	55.37	0.00	-5.03	0.68	-3.02
318	2018	55.37	0.00	-5.03	0.68	0.79
319	119	59.01	0.00	-2.87	0.47	2.67
319	2019	59.01	0.00	-2.87	0.47	4.84
320	120	62.64	0.00	0.52	0.43	17.27
320	2020	62.64	0.00	0.52	0.43	16.87
321	121	66.28	0.00	0.12	0.73	16.88
321	2021	66.28	0.00	0.12	0.73	16.80
322	122	69.91	0.00	-0.19	1.25	14.75
322	2022	69.91	0.00	-0.19	1.25	14.90
323	123	73.55	0.00	-2.16	1.82	7.82
323	2023	73.55	0.00	-2.16	1.82	9.46
324	124	76.66	0.00	-4.18	2.02	0.55
324	2024	76.66	0.00	-4.18	2.02	3.72
325	125	79.77	0.00	-5.99	2.02	-6.11
325	2025	79.77	0.00	-5.99	2.02	-1.59
326	126	82.88	0.00	-7.74	1.74	-12.75
326	2026	82.88	0.00	-7.74	1.74	-6.89
327	127	85.99	0.00	-7.55	1.31	-11.51
327	2027	85.99	0.00	-7.55	1.31	-5.80
328	128	89.10	0.00	-6.63	0.90	-7.12
328	2028	89.10	0.00	-6.63	0.90	-2.11
329	129	92.21	0.00	-4.96	0.57	-2.98
329	2029	92.21	0.00	-4.96	0.57	0.76
330	130	95.32	0.00	-2.18	0.42	4.11
330	2030	95.32	0.00	-2.18	0.42	5.76
331	131	98.43	0.00	-1.19	0.42	5.96
331	2031	98.43	0.00	-1.19	0.42	6.85
332	132	101.54	0.00	-1.82	0.44	3.96
332	2032	101.54	0.00	-1.82	0.44	5.34
333	133	104.65	0.00	-1.64	0.42	3.54
333	2033	104.65	0.00	-1.64	0.42	4.78
334	134	107.76	0.00	-1.10	0.22	0.87
334	2034	107.76	0.00	-1.10	0.22	1.70
201	2001	0.00	0.00	-0.28	1.31	6.74
201	1001	0.00	0.00	-0.28	1.31	8.07
202	2002	3.05	0.00	-3.96	2.45	5.34
202	1002	3.05	0.00	-3.96	2.45	24.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX+

TREN IPF75-B EJE IZDO Mx+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX+ + [1; 1]TRENI.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-6.14	2.05	-0.88
203	1003	6.10	0.00	-6.14	2.05	28.55
204	2004	9.15	0.00	-8.48	1.47	-6.47
204	1004	9.15	0.00	-8.48	1.47	34.09
205	2005	12.20	0.00	-8.53	0.84	-7.77
205	1005	12.20	0.00	-8.53	0.84	33.05
206	2006	15.25	0.00	-6.45	0.36	-4.72
206	1006	15.25	0.00	-6.45	0.36	26.14
207	2007	18.30	0.00	-4.12	0.10	-0.25
207	1007	18.30	0.00	-4.12	0.10	19.49
208	2008	21.35	0.00	-1.72	0.03	6.94
208	1008	21.35	0.00	-1.72	0.03	15.21
209	2009	24.40	0.00	0.20	0.22	12.01
209	1009	24.40	0.00	0.20	0.22	11.07
210	2010	27.45	0.00	0.07	0.53	11.01
210	1010	27.45	0.00	0.07	0.53	10.63
211	2011	30.50	0.00	-0.05	0.98	9.60
211	1011	30.50	0.00	-0.05	0.98	9.81
212	2012	33.55	0.00	-1.63	1.71	7.12
212	1012	33.55	0.00	-1.63	1.71	14.92
213	2013	37.19	0.00	-4.85	2.41	0.87
213	1013	37.19	0.00	-4.85	2.41	24.06
214	2014	40.82	0.00	-7.33	2.37	-6.27
214	1014	40.82	0.00	-7.33	2.37	28.80
215	2015	44.46	0.00	-10.25	1.96	-12.97
215	1015	44.46	0.00	-10.25	1.96	36.11
216	2016	48.10	0.00	-8.65	1.49	-5.25
216	1016	48.10	0.00	-8.65	1.49	36.13
217	2017	51.73	0.00	-6.95	1.04	-2.30
217	1017	51.73	0.00	-6.95	1.04	30.94
218	2018	55.37	0.00	-5.03	0.68	0.79
218	1018	55.37	0.00	-5.03	0.68	24.88
219	2019	59.01	0.00	-2.87	0.47	4.84
219	1019	59.01	0.00	-2.87	0.47	18.61
220	2020	62.64	0.00	0.52	0.43	16.87
220	1020	62.64	0.00	0.52	0.43	14.34
221	2021	66.28	0.00	0.12	0.73	16.80
221	1021	66.28	0.00	0.12	0.73	16.22
222	2022	69.91	0.00	-0.19	1.25	14.90
222	1022	69.91	0.00	-0.19	1.25	15.84
223	2023	73.55	0.00	-2.16	1.82	9.46
223	1023	73.55	0.00	-2.16	1.82	19.80
224	2024	76.66	0.00	-4.18	2.02	3.72
224	1024	76.66	0.00	-4.18	2.02	23.76
225	2025	79.77	0.00	-5.99	2.02	-1.59
225	1025	79.77	0.00	-5.99	2.02	27.06
226	2026	82.88	0.00	-7.74	1.74	-6.89
226	1026	82.88	0.00	-7.74	1.74	30.19
227	2027	85.99	0.00	-7.55	1.31	-5.80
227	1027	85.99	0.00	-7.55	1.31	30.36
228	2028	89.10	0.00	-6.63	0.90	-2.11

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX+

TREN IPF75-B EJE IZDO Mx+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX+ + [1; 1]TRENI.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-6.63	0.90	29.58
229	2029	92.21	0.00	-4.96	0.57	0.76
229	1029	92.21	0.00	-4.96	0.57	24.48
230	2030	95.32	0.00	-2.18	0.42	5.76
230	1030	95.32	0.00	-2.18	0.42	16.22
231	2031	98.43	0.00	-1.19	0.42	6.85
231	1031	98.43	0.00	-1.19	0.42	12.57
232	2032	101.54	0.00	-1.82	0.44	5.34
232	1032	101.54	0.00	-1.82	0.44	14.06
233	2033	104.65	0.00	-1.64	0.42	4.78
233	1033	104.65	0.00	-1.64	0.42	12.60
234	2034	107.76	0.00	-1.10	0.22	1.70
234	1034	107.76	0.00	-1.10	0.22	6.97
401	1001	0.00	0.00	-0.28	1.31	8.07
401	1	0.00	0.00	-0.28	1.31	8.29
402	1002	3.05	0.00	-3.96	2.45	24.26
402	2	3.05	0.00	-3.96	2.45	27.26
403	1003	6.10	0.00	-6.14	2.05	28.55
403	3	6.10	0.00	-6.14	2.05	33.20
404	1004	9.15	0.00	-8.48	1.47	34.09
404	4	9.15	0.00	-8.48	1.47	40.51
405	1005	12.20	0.00	-8.53	0.84	33.05
405	5	12.20	0.00	-8.53	0.84	39.50
406	1006	15.25	0.00	-6.45	0.36	26.14
406	6	15.25	0.00	-6.45	0.36	31.02
407	1007	18.30	0.00	-4.12	0.10	19.49
407	7	18.30	0.00	-4.12	0.10	22.60
408	1008	21.35	0.00	-1.72	0.03	15.21
408	8	21.35	0.00	-1.72	0.03	16.51
409	1009	24.40	0.00	0.20	0.22	11.07
409	9	24.40	0.00	0.20	0.22	10.90
410	1010	27.45	0.00	0.07	0.53	10.63
410	10	27.45	0.00	0.07	0.53	10.57
411	1011	30.50	0.00	-0.05	0.98	9.81
411	11	30.50	0.00	-0.05	0.98	9.84
412	1012	33.55	0.00	-1.63	1.71	14.92
412	12	33.55	0.00	-1.63	1.71	16.16
413	1013	37.19	0.00	-4.85	2.41	24.06
413	13	37.19	0.00	-4.85	2.41	27.74
414	1014	40.82	0.00	-7.33	2.37	28.80
414	14	40.82	0.00	-7.33	2.37	34.33
415	1015	44.46	0.00	-10.25	1.96	36.10
415	15	44.46	0.00	-10.25	1.96	43.85
416	1016	48.10	0.00	-8.65	1.49	36.13
416	16	48.10	0.00	-8.65	1.49	42.66
417	1017	51.73	0.00	-6.95	1.04	30.94
417	17	51.73	0.00	-6.95	1.04	36.20
418	1018	55.37	0.00	-5.03	0.68	24.88
418	18	55.37	0.00	-5.03	0.68	28.69
419	1019	59.01	0.00	-2.87	0.47	18.61
419	19	59.01	0.00	-2.87	0.47	20.78

CÁLCULO TENSIONAL

Hipótesis de cálculo:

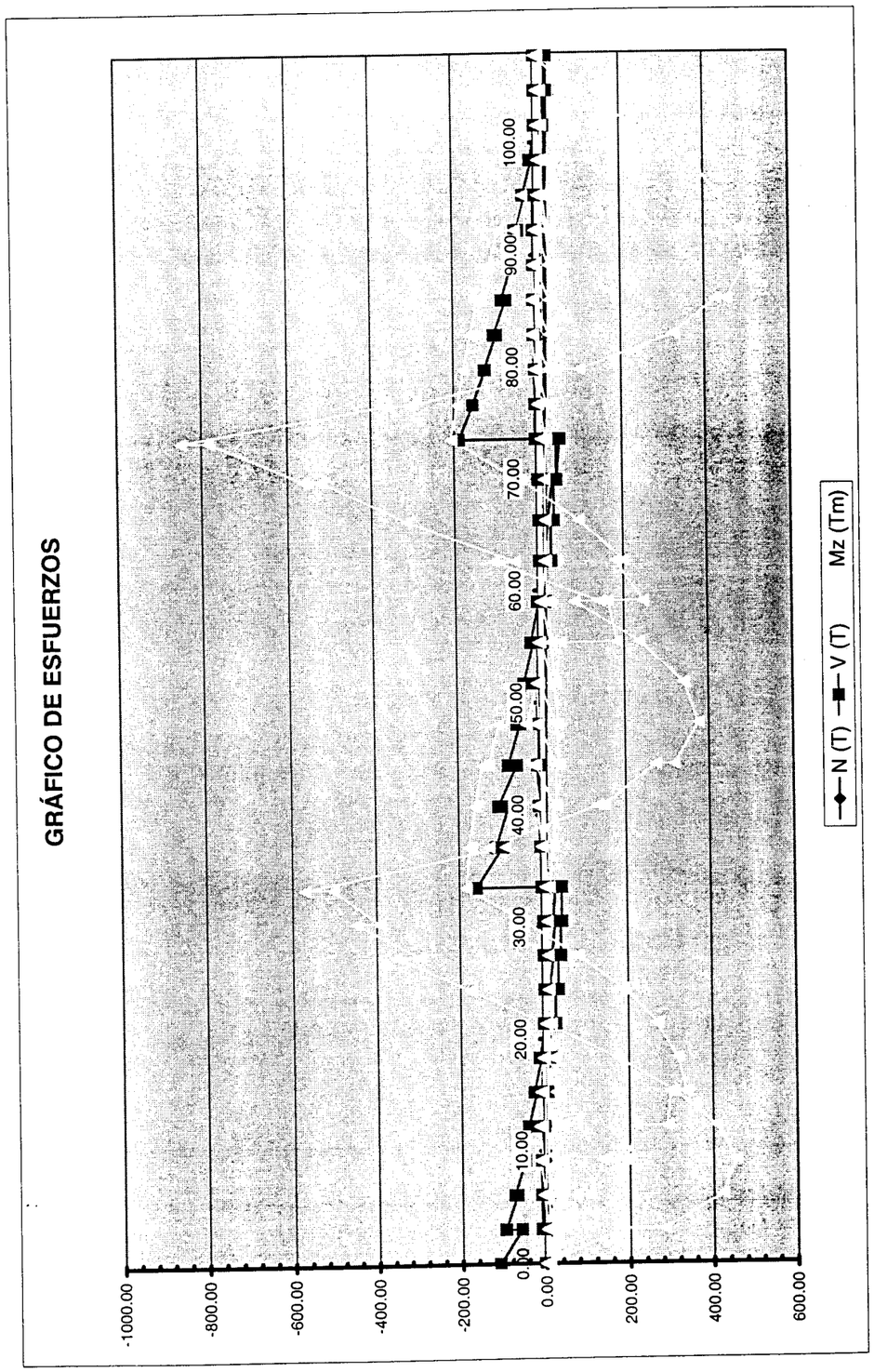
IPF75BI.MX+

TREN IPF75-B EJE IZDO Mx+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX+ + [1; 1]TRENI.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	0.52	0.43	14.34
420	20	62.64	0.00	0.52	0.43	13.95
421	1021	66.28	0.00	0.12	0.73	16.22
421	21	66.28	0.00	0.12	0.73	16.13
422	1022	69.91	0.00	-0.19	1.25	15.84
422	22	69.91	0.00	-0.19	1.25	15.98
423	1023	73.55	0.00	-2.16	1.82	19.80
423	23	73.55	0.00	-2.16	1.82	21.43
424	1024	76.66	0.00	-4.18	2.02	23.76
424	24	76.66	0.00	-4.18	2.02	26.92
425	1025	79.77	0.00	-5.99	2.02	27.06
425	25	79.77	0.00	-5.99	2.02	31.58
426	1026	82.88	0.00	-7.74	1.74	30.19
426	26	82.88	0.00	-7.74	1.74	36.04
427	1027	85.99	0.00	-7.55	1.31	30.36
427	27	85.99	0.00	-7.55	1.31	36.07
428	1028	89.10	0.00	-6.63	0.90	29.58
428	28	89.10	0.00	-6.63	0.90	34.58
429	1029	92.21	0.00	-4.96	0.57	24.48
429	29	92.21	0.00	-4.96	0.57	28.23
430	1030	95.32	0.00	-2.18	0.42	16.22
430	30	95.32	0.00	-2.18	0.42	17.89
431	1031	98.43	0.00	-1.19	0.42	12.57
431	31	98.43	0.00	-1.19	0.42	13.47
432	1032	101.54	0.00	-1.82	0.44	14.06
432	32	101.54	0.00	-1.82	0.44	15.43
433	1033	104.65	0.00	-1.64	0.42	12.60
433	33	104.65	0.00	-1.64	0.42	13.85
434	1034	107.76	0.00	-1.10	0.22	6.97
434	34	107.76	0.00	-1.10	0.22	7.81



CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BI.MX-
TREN IPF75-B EJE IZDO Mx-
[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX- + [1; 1]TRENI.EnvTrenGen.MX-
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-23.59	1.16	-0.36
1	2	3.05	0.00	-28.13	-42.77	150.83
2	2	3.05	0.00	-14.61	-32.55	99.72
2	3	6.10	0.00	-0.93	-73.80	223.89
3	3	6.10	0.00	-4.04	-58.45	223.47
3	4	9.15	0.00	12.60	-95.56	357.57
4	4	9.15	0.00	8.05	-74.17	357.21
4	5	12.20	0.00	29.83	-107.47	418.43
5	5	12.20	0.00	24.69	-84.33	418.40
5	6	15.25	0.00	48.76	-118.10	468.28
6	6	15.25	0.00	42.84	-91.92	468.58
6	7	18.30	0.00	64.58	-119.06	486.46
7	7	18.30	0.00	58.09	-90.31	487.17
7	8	21.35	0.00	81.97	-110.26	442.57
8	8	21.35	0.00	71.92	-81.50	417.36
8	9	24.40	0.00	101.27	-104.08	318.98
9	9	24.40	0.00	95.40	-76.28	320.54
9	10	27.45	0.00	123.16	-99.16	101.68
10	10	27.45	0.00	121.69	-74.80	46.09
10	11	30.50	0.00	151.54	-98.93	-292.00
11	11	30.50	0.00	151.53	-78.99	-346.83
11	12	33.55	0.00	184.41	-102.01	-821.91
12	10012	33.55	0.00	-50.53	-84.57	-755.04
12	13	37.19	0.00	-42.68	-115.26	-536.62
13	13	37.19	0.00	-32.54	-99.62	-497.91
13	14	40.82	0.00	-21.32	-133.28	-295.59
14	14	40.82	0.00	-22.48	-116.63	-295.32
14	15	44.46	0.00	-9.81	-151.05	-44.67
15	15	44.46	0.00	-10.42	-130.40	-91.78
15	16	48.10	0.00	6.44	-163.47	151.18
16	16	48.10	0.00	2.88	-137.54	93.25
16	17	51.73	0.00	22.75	-167.81	242.66
17	17	51.73	0.00	17.16	-136.61	242.73
17	18	55.37	0.00	40.07	-163.84	345.20
18	18	55.37	0.00	33.15	-128.28	345.65
18	19	59.01	0.00	58.67	-151.93	377.39
19	19	59.01	0.00	51.12	-114.12	378.33
19	20	62.64	0.00	79.34	-134.92	318.62
20	20	62.64	0.00	59.87	-98.25	272.80
20	21	66.28	0.00	103.81	-117.23	147.22
21	21	66.28	0.00	80.29	-85.61	132.44
21	22	69.91	0.00	109.64	-104.54	-128.62
22	22	69.91	0.00	94.77	-78.08	-89.70
22	23	73.55	0.00	158.32	-100.80	-572.18
23	10023	73.55	0.00	-29.74	-79.92	-506.01
23	24	76.66	0.00	-23.79	-100.78	-392.61
24	24	76.66	0.00	-28.04	-83.76	-447.77
24	25	79.77	0.00	-19.08	-109.95	-291.49
25	25	79.77	0.00	-23.41	-92.52	-347.78
25	26	82.88	0.00	-11.94	-120.37	-167.87
26	26	82.88	0.00	-13.79	-100.56	-167.81

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75BI.MX-
TREN IPF75-B EJE IZDO Mx-
[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX- + [1; 1]TRENI.EnvTrenGen.MX-
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	0.04	-128.49	13.13
27	27	85.99	0.00	-2.94	-104.62	13.05
27	28	89.10	0.00	13.11	-131.04	182.75
28	28	89.10	0.00	8.79	-102.40	182.69
28	29	92.21	0.00	26.44	-125.49	321.75
29	29	92.21	0.00	20.95	-92.49	321.90
29	30	95.32	0.00	40.68	-112.07	422.97
30	30	95.32	0.00	34.39	-75.83	423.48
30	31	98.43	0.00	56.49	-91.71	469.03
31	31	98.43	0.00	50.10	-54.20	470.03
31	32	101.54	0.00	75.00	-66.70	436.10
32	32	101.54	0.00	69.35	-30.50	437.66
32	33	104.65	0.00	97.55	-40.05	292.36
33	33	104.65	0.00	59.70	-7.96	189.87
33	34	107.76	0.00	112.36	-14.27	-0.81
101	101	0.00	0.00	-27.54	-8.37	1.11
101	102	3.05	0.00	-27.54	-8.37	85.11
102	102	3.05	0.00	-19.06	-16.55	66.87
102	103	6.10	0.00	-19.06	-16.55	124.98
103	103	6.10	0.00	-9.57	-19.92	88.81
103	104	9.15	0.00	-9.57	-19.92	117.99
104	104	9.15	0.00	1.36	-24.43	27.48
104	105	12.20	0.00	1.36	-24.43	23.33
105	105	12.20	0.00	5.97	-32.06	-34.23
105	106	15.25	0.00	5.97	-32.06	-52.41
106	106	15.25	0.00	7.23	-42.77	-89.88
106	107	18.30	0.00	7.23	-42.77	-111.93
107	107	18.30	0.00	6.97	-54.89	-112.09
107	108	21.35	0.00	6.97	-54.89	-133.36
108	108	21.35	0.00	6.00	-67.75	-140.21
108	109	24.40	0.00	6.00	-67.75	-158.48
109	109	24.40	0.00	5.34	-81.15	-158.30
109	110	27.45	0.00	5.34	-81.15	-174.60
110	110	27.45	0.00	5.04	-93.90	-174.13
110	111	30.50	0.00	5.04	-93.90	-189.52
111	111	30.50	0.00	5.54	-104.63	-188.63
111	112	33.55	0.00	5.54	-104.63	-205.53
112	10112	33.55	0.00	-43.49	-112.29	-203.07
112	113	37.19	0.00	-43.49	-112.29	-44.91
113	113	37.19	0.00	-36.76	-113.15	-40.01
113	114	40.82	0.00	-36.76	-113.15	93.66
114	114	40.82	0.00	-29.03	-105.61	93.83
114	115	44.46	0.00	-29.03	-105.61	199.40
115	115	44.46	0.00	-17.75	-91.67	178.54
115	116	48.10	0.00	-17.75	-91.67	243.09
116	116	48.10	0.00	-5.34	-76.30	158.92
116	117	51.73	0.00	-5.34	-76.30	178.36
117	117	51.73	0.00	4.20	-68.28	91.07
117	118	55.37	0.00	4.20	-68.28	75.76
118	118	55.37	0.00	7.52	-69.78	-15.55
118	119	59.01	0.00	7.52	-69.78	-42.88

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX-

TREN IPF75-B EJE IZDO Mx-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX- + [1; 1]TRENI.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	6.88	-78.82	-109.75
119	120	62.64	0.00	6.88	-78.82	-134.74
120	120	62.64	0.00	5.28	-91.33	-151.28
120	121	66.28	0.00	5.28	-91.33	-170.46
121	121	66.28	0.00	4.84	-104.55	-170.07
121	122	69.91	0.00	4.84	-104.55	-187.70
122	122	69.91	0.00	2.94	-116.26	-184.01
122	123	73.55	0.00	2.94	-116.26	-194.68
123	10123	73.55	0.00	-45.79	-122.72	-193.04
123	124	76.66	0.00	-45.79	-122.72	-50.61
124	124	76.66	0.00	-42.10	-122.27	-48.68
124	125	79.77	0.00	-42.10	-122.27	82.27
125	125	79.77	0.00	-36.01	-114.82	84.09
125	126	82.88	0.00	-36.01	-114.82	196.06
126	126	82.88	0.00	-27.72	-100.94	197.76
126	127	85.99	0.00	-27.72	-100.94	283.94
127	127	85.99	0.00	-17.41	-82.37	278.10
127	128	89.10	0.00	-17.41	-82.37	332.22
128	128	89.10	0.00	-6.60	-60.68	332.87
128	129	92.21	0.00	-6.60	-60.68	353.38
129	129	92.21	0.00	3.24	-38.71	314.35
129	130	95.32	0.00	3.24	-38.71	304.27
130	130	95.32	0.00	8.63	-20.84	228.90
130	131	98.43	0.00	8.63	-20.84	202.04
131	131	98.43	0.00	9.97	-9.18	135.87
131	132	101.54	0.00	9.97	-9.18	104.87
132	132	101.54	0.00	10.18	-3.20	75.89
132	133	104.65	0.00	10.18	-3.20	44.22
133	133	104.65	0.00	3.40	-0.92	10.55
133	134	107.76	0.00	3.40	-0.92	-0.03
301	101	0.00	0.00	-1.10	-0.22	0.88
301	2001	0.00	0.00	-1.10	-0.22	1.72
302	102	3.05	0.00	-1.62	-0.44	3.59
302	2002	3.05	0.00	-1.62	-0.44	4.83
303	103	6.10	0.00	-1.77	-0.44	4.07
303	2003	6.10	0.00	-1.77	-0.44	5.42
304	104	9.15	0.00	-1.15	-0.43	6.06
304	2004	9.15	0.00	-1.15	-0.43	6.94
305	105	12.20	0.00	-2.05	-0.42	4.39
305	2005	12.20	0.00	-2.05	-0.42	5.94
306	106	15.25	0.00	-3.58	-0.56	1.13
306	2006	15.25	0.00	-3.58	-0.56	3.83
307	107	18.30	0.00	-6.35	-0.86	-6.41
307	2007	18.30	0.00	-6.35	-0.86	-1.61
308	108	21.35	0.00	-7.27	-1.25	-10.78
308	2008	21.35	0.00	-7.27	-1.25	-5.28
309	109	24.40	0.00	-7.59	-1.67	-12.15
309	2009	24.40	0.00	-7.59	-1.67	-6.41
310	110	27.45	0.00	-5.87	-1.94	-5.84
310	2010	27.45	0.00	-5.87	-1.94	-1.41
311	111	30.50	0.00	-4.17	-1.96	0.48

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX-

TREN IPF75-B EJE IZDO Mx-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX- + [1; 1]TRENI.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-4.17	-1.96	3.65
312	112	33.55	0.00	-2.26	-1.77	7.43
312	2012	33.55	0.00	-2.26	-1.77	9.13
313	113	37.19	0.00	-0.33	-1.22	14.22
313	2013	37.19	0.00	-0.33	-1.22	14.48
314	114	40.82	0.00	0.00	-0.73	16.44
314	2014	40.82	0.00	0.00	-0.73	16.44
315	115	44.46	0.00	0.45	-0.44	16.98
315	2015	44.46	0.00	0.45	-0.44	16.64
316	116	48.10	0.00	-2.83	-0.48	2.85
316	2016	48.10	0.00	-2.83	-0.48	5.00
317	117	51.73	0.00	-4.97	-0.69	-2.74
317	2017	51.73	0.00	-4.97	-0.69	1.00
318	118	55.37	0.00	-6.87	-1.04	-7.24
318	2018	55.37	0.00	-6.87	-1.04	-2.04
319	119	59.01	0.00	-8.55	-1.50	-11.42
319	2019	59.01	0.00	-8.55	-1.50	-4.96
320	120	62.64	0.00	-10.25	-1.96	-20.71
320	2020	62.64	0.00	-10.25	-1.96	-12.96
321	121	66.28	0.00	-7.33	-2.37	-11.81
321	2021	66.28	0.00	-7.33	-2.37	-6.27
322	122	69.91	0.00	-4.85	-2.41	-2.80
322	2022	69.91	0.00	-4.85	-2.41	0.87
323	123	73.55	0.00	-1.64	-1.71	5.89
323	2023	73.55	0.00	-1.64	-1.71	7.13
324	124	76.66	0.00	-0.02	-0.98	9.65
324	2024	76.66	0.00	-0.02	-0.98	9.67
325	125	79.77	0.00	0.08	-0.52	11.13
325	2025	79.77	0.00	0.08	-0.52	11.06
326	126	82.88	0.00	0.14	-0.21	12.21
326	2026	82.88	0.00	0.14	-0.21	12.11
327	127	85.99	0.00	-1.76	-0.02	5.55
327	2027	85.99	0.00	-1.76	-0.02	6.88
328	128	89.10	0.00	-4.22	-0.10	-3.67
328	2028	89.10	0.00	-4.22	-0.10	-0.46
329	129	92.21	0.00	-6.64	-0.38	-10.13
329	2029	92.21	0.00	-6.64	-0.38	-5.12
330	130	95.32	0.00	-8.77	-0.88	-14.94
330	2030	95.32	0.00	-8.77	-0.88	-8.31
331	131	98.43	0.00	-8.73	-1.53	-13.55
331	2031	98.43	0.00	-8.73	-1.53	-6.95
332	132	101.54	0.00	-6.27	-2.12	-5.77
332	2032	101.54	0.00	-6.27	-2.12	-1.02
333	133	104.65	0.00	-3.92	-2.55	2.64
333	2033	104.65	0.00	-3.92	-2.55	5.60
334	134	107.76	0.00	-0.19	-1.37	6.87
334	2034	107.76	0.00	-0.19	-1.37	7.02
201	2001	0.00	0.00	-1.10	-0.22	1.72
201	1001	0.00	0.00	-1.10	-0.22	6.97
202	2002	3.05	0.00	-1.62	-0.44	4.83
202	1002	3.05	0.00	-1.62	-0.44	12.58

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BI.MX-

TREN IPF75-B EJE IZDO Mx-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX- + [1; 1]TRENI.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	-1.77	-0.44	5.42
203	1003	6.10	0.00	-1.77	-0.44	13.93
204	2004	9.15	0.00	-1.15	-0.43	6.94
204	1004	9.15	0.00	-1.15	-0.43	12.44
205	2005	12.20	0.00	-2.05	-0.42	5.94
205	1005	12.20	0.00	-2.05	-0.42	15.78
206	2006	15.25	0.00	-3.58	-0.56	3.83
206	1006	15.25	0.00	-3.58	-0.56	20.96
207	2007	18.30	0.00	-6.35	-0.86	-1.61
207	1007	18.30	0.00	-6.35	-0.86	28.81
208	2008	21.35	0.00	-7.27	-1.25	-5.28
208	1008	21.35	0.00	-7.27	-1.25	29.53
209	2009	24.40	0.00	-7.59	-1.67	-6.41
209	1009	24.40	0.00	-7.59	-1.67	29.93
210	2010	27.45	0.00	-5.87	-1.94	-1.41
210	1010	27.45	0.00	-5.87	-1.94	26.68
211	2011	30.50	0.00	-4.17	-1.96	3.65
211	1011	30.50	0.00	-4.17	-1.96	23.65
212	2012	33.55	0.00	-2.26	-1.77	9.13
212	1012	33.55	0.00	-2.26	-1.77	19.96
213	2013	37.19	0.00	-0.33	-1.22	14.48
213	1013	37.19	0.00	-0.33	-1.22	16.11
214	2014	40.82	0.00	0.00	-0.73	16.44
214	1014	40.82	0.00	0.00	-0.73	16.45
215	2015	44.46	0.00	0.45	-0.44	16.64
215	1015	44.46	0.00	0.45	-0.44	14.49
216	2016	48.10	0.00	-2.83	-0.48	5.00
216	1016	48.10	0.00	-2.83	-0.48	18.56
217	2017	51.73	0.00	-4.97	-0.69	1.00
217	1017	51.73	0.00	-4.97	-0.69	24.79
218	2018	55.37	0.00	-6.87	-1.04	-2.04
218	1018	55.37	0.00	-6.87	-1.04	30.85
219	2019	59.01	0.00	-8.55	-1.50	-4.96
219	1019	59.01	0.00	-8.55	-1.50	36.00
220	2020	62.64	0.00	-10.25	-1.96	-12.96
220	1020	62.64	0.00	-10.25	-1.96	36.13
221	2021	66.28	0.00	-7.33	-2.37	-6.27
221	1021	66.28	0.00	-7.33	-2.37	28.81
222	2022	69.91	0.00	-4.85	-2.41	0.87
222	1022	69.91	0.00	-4.85	-2.41	24.11
223	2023	73.55	0.00	-1.64	-1.71	7.13
223	1023	73.55	0.00	-1.64	-1.71	14.97
224	2024	76.66	0.00	-0.02	-0.98	9.67
224	1024	76.66	0.00	-0.02	-0.98	9.79
225	2025	79.77	0.00	0.08	-0.52	11.06
225	1025	79.77	0.00	0.08	-0.52	10.64
226	2026	82.88	0.00	0.14	-0.21	12.11
226	1026	82.88	0.00	0.14	-0.21	11.44
227	2027	85.99	0.00	-1.76	-0.02	6.88
227	1027	85.99	0.00	-1.76	-0.02	15.27
228	2028	89.10	0.00	-4.22	-0.10	-0.46

CÁLCULO TENSIONAL

Hipótesis de cálculo:

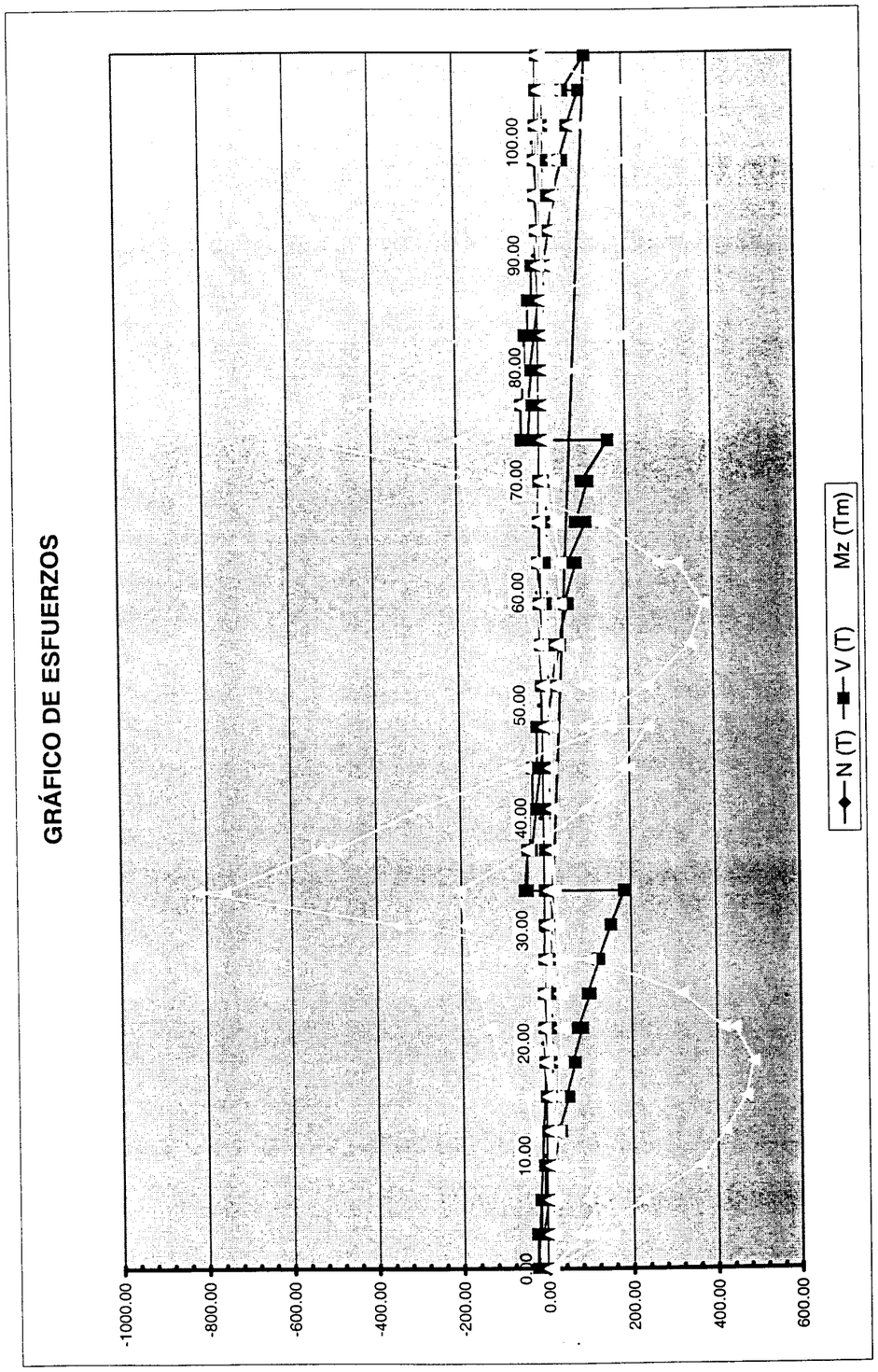
IPF75BI.MX-

TREN IPF75-B EJE IZDO Mx-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MX- + [1; 1]TRENI.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	-4.22	-0.10	19.76
229	2029	92.21	0.00	-6.64	-0.38	-5.12
229	1029	92.21	0.00	-6.64	-0.38	26.66
230	2030	95.32	0.00	-8.77	-0.88	-8.31
230	1030	95.32	0.00	-8.77	-0.88	33.66
231	2031	98.43	0.00	-8.73	-1.53	-6.95
231	1031	98.43	0.00	-8.73	-1.53	34.89
232	2032	101.54	0.00	-6.27	-2.12	-1.02
232	1032	101.54	0.00	-6.27	-2.12	29.00
233	2033	104.65	0.00	-3.92	-2.55	5.60
233	1033	104.65	0.00	-3.92	-2.55	24.38
234	2034	107.76	0.00	-0.19	-1.37	7.02
234	1034	107.76	0.00	-0.19	-1.37	7.92
401	1001	0.00	0.00	-1.10	-0.22	6.97
401	1	0.00	0.00	-1.10	-0.22	7.80
402	1002	3.05	0.00	-1.62	-0.44	12.58
402	2	3.05	0.00	-1.62	-0.44	13.82
403	1003	6.10	0.00	-1.77	-0.44	13.93
403	3	6.10	0.00	-1.77	-0.44	15.28
404	1004	9.15	0.00	-1.15	-0.43	12.44
404	4	9.15	0.00	-1.15	-0.43	13.31
405	1005	12.20	0.00	-2.05	-0.42	15.78
405	5	12.20	0.00	-2.05	-0.42	17.34
406	1006	15.25	0.00	-3.58	-0.56	20.96
406	6	15.25	0.00	-3.58	-0.56	23.66
407	1007	18.30	0.00	-6.35	-0.86	28.81
407	7	18.30	0.00	-6.35	-0.86	33.60
408	1008	21.35	0.00	-7.27	-1.25	29.53
408	8	21.35	0.00	-7.27	-1.25	35.02
409	1009	24.40	0.00	-7.59	-1.67	29.93
409	9	24.40	0.00	-7.59	-1.67	35.65
410	1010	27.45	0.00	-5.88	-1.94	26.68
410	10	27.45	0.00	-5.88	-1.94	31.12
411	1011	30.50	0.00	-4.17	-1.96	23.65
411	11	30.50	0.00	-4.17	-1.96	26.80
412	1012	33.55	0.00	-2.26	-1.77	19.96
412	12	33.55	0.00	-2.26	-1.77	21.67
413	1013	37.19	0.00	-0.33	-1.22	16.11
413	13	37.19	0.00	-0.33	-1.22	16.38
414	1014	40.82	0.00	0.00	-0.73	16.45
414	14	40.82	0.00	0.00	-0.73	16.44
415	1015	44.46	0.00	0.45	-0.44	14.49
415	15	44.46	0.00	0.45	-0.44	14.14
416	1016	48.10	0.00	-2.83	-0.48	18.56
416	16	48.10	0.00	-2.83	-0.48	20.69
417	1017	51.73	0.00	-4.97	-0.69	24.79
417	17	51.73	0.00	-4.97	-0.69	28.55
418	1018	55.37	0.00	-6.87	-1.04	30.85
418	18	55.37	0.00	-6.87	-1.04	36.04
419	1019	59.01	0.00	-8.56	-1.50	36.00
419	19	59.01	0.00	-8.56	-1.50	42.47



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX+

TREN IPF75-B EJE DCHO Mx+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX+ + [1; 1]TREND.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	-28.08	9.59	1.40
1	2	3.05	0.00	-28.08	9.59	87.03
2	2	3.05	0.00	-20.55	18.25	70.60
2	3	6.10	0.00	-20.55	18.25	133.26
3	3	6.10	0.00	-8.78	20.22	77.93
3	4	9.15	0.00	-8.78	20.22	104.71
4	4	9.15	0.00	2.00	22.78	13.59
4	5	12.20	0.00	2.00	22.78	7.49
5	5	12.20	0.00	6.96	29.33	-68.02
5	6	15.25	0.00	6.96	29.33	-89.24
6	6	15.25	0.00	7.04	39.69	-104.36
6	7	18.30	0.00	7.04	39.69	-125.84
7	7	18.30	0.00	6.24	51.70	-126.05
7	8	21.35	0.00	6.24	51.70	-145.08
8	8	21.35	0.00	4.66	64.97	-151.60
8	9	24.40	0.00	4.66	64.97	-165.80
9	9	24.40	0.00	3.22	79.01	-165.66
9	10	27.45	0.00	3.22	79.01	-175.47
10	10	27.45	0.00	2.00	92.73	-175.00
10	11	30.50	0.00	2.00	92.73	-181.10
11	11	30.50	0.00	1.49	104.63	-180.15
11	12	33.55	0.00	1.49	104.63	-184.71
12	10012	33.55	0.00	-40.59	113.36	-182.29
12	13	37.19	0.00	-40.59	113.36	-34.71
13	13	37.19	0.00	-35.02	114.29	-30.24
13	14	40.82	0.00	-35.02	114.29	97.14
14	14	40.82	0.00	-28.25	106.20	99.49
14	15	44.46	0.00	-28.25	106.20	202.22
15	15	44.46	0.00	-17.50	90.01	183.91
15	16	48.10	0.00	-17.50	90.01	247.54
16	16	48.10	0.00	-5.98	71.72	202.25
16	17	51.73	0.00	-5.98	71.72	223.98
17	17	51.73	0.00	4.53	61.23	82.27
17	18	55.37	0.00	4.53	61.23	65.82
18	18	55.37	0.00	6.71	62.78	-67.66
18	19	59.01	0.00	6.71	62.78	-92.02
19	19	59.01	0.00	5.91	72.81	-122.30
19	20	62.64	0.00	5.91	72.81	-143.80
20	20	62.64	0.00	3.38	87.12	-160.55
20	21	66.28	0.00	3.38	87.12	-172.88
21	21	66.28	0.00	1.79	102.10	-172.52
21	22	69.91	0.00	1.79	102.10	-179.02
22	22	69.91	0.00	-1.20	116.34	-175.99
22	23	73.55	0.00	-1.20	116.34	-171.61
23	10023	73.55	0.00	-42.62	124.57	-169.78
23	24	76.66	0.00	-42.62	124.57	-37.23
24	24	76.66	0.00	-39.84	125.19	-35.02
24	25	79.77	0.00	-39.84	125.19	88.92
25	25	79.77	0.00	-34.44	117.98	91.18
25	26	82.88	0.00	-34.44	117.98	198.30
26	26	82.88	0.00	-26.58	103.48	200.07

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX+

TREN IPF75-B EJE DCHO Mx+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX+ + [1; 1]TREND.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-26.58	103.48	282.74
27	27	85.99	0.00	-16.56	83.44	277.48
27	28	89.10	0.00	-16.56	83.44	328.99
28	28	89.10	0.00	-5.86	60.06	329.74
28	29	92.21	0.00	-5.86	60.06	347.95
29	29	92.21	0.00	3.84	36.27	309.38
29	30	95.32	0.00	3.84	36.27	297.46
30	30	95.32	0.00	8.92	17.60	222.45
30	31	98.43	0.00	8.92	17.60	194.70
31	31	98.43	0.00	9.08	6.42	124.29
31	32	101.54	0.00	9.08	6.42	96.06
32	32	101.54	0.00	3.73	1.93	30.25
32	33	104.65	0.00	3.73	1.93	18.66
33	33	104.65	0.00	-1.08	0.55	-3.44
33	34	107.76	0.00	-1.08	0.55	-0.10
101	101	0.00	0.00	-55.87	0.29	-0.87
101	102	3.05	0.00	-61.69	37.49	256.64
102	102	3.05	0.00	-18.28	28.13	120.19
102	103	6.10	0.00	-2.10	62.95	246.48
103	103	6.10	0.00	-4.82	49.73	245.96
103	104	9.15	0.00	12.63	81.20	393.39
104	104	9.15	0.00	8.41	61.94	392.93
104	105	12.20	0.00	31.54	89.51	458.93
105	105	12.20	0.00	26.58	68.08	458.86
105	106	15.25	0.00	52.15	95.81	512.88
106	106	15.25	0.00	46.35	71.23	513.22
106	107	18.30	0.00	69.52	92.79	531.93
107	107	18.30	0.00	65.70	65.70	497.74
107	108	21.35	0.00	91.15	80.85	439.57
108	108	21.35	0.00	86.98	55.71	329.55
108	109	24.40	0.00	118.35	72.53	193.75
109	109	24.40	0.00	119.43	49.65	103.92
109	110	27.45	0.00	149.18	67.22	-183.73
110	110	27.45	0.00	146.59	48.60	-181.93
110	111	30.50	0.00	178.63	67.73	-595.08
111	111	30.50	0.00	177.56	53.42	-593.52
111	112	33.55	0.00	212.85	72.37	-1150.89
112	10112	33.55	0.00	-108.03	60.06	-1150.04
112	113	37.19	0.00	-100.17	86.46	-721.21
113	113	37.19	0.00	-81.06	73.33	-697.36
113	114	40.82	0.00	-69.47	103.10	-312.99
114	114	40.82	0.00	-26.20	88.83	-320.39
114	115	44.46	0.00	-12.98	120.69	-44.11
115	115	44.46	0.00	-12.49	104.12	-94.68
115	116	48.10	0.00	5.27	134.41	170.70
116	116	48.10	0.00	2.44	111.85	108.60
116	117	51.73	0.00	24.40	138.19	339.78
117	117	51.73	0.00	18.33	110.51	271.43
117	118	55.37	0.00	42.64	133.37	381.80
118	118	55.37	0.00	36.01	100.89	382.30
118	119	59.01	0.00	63.14	119.83	414.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX+

TREN IPF75-B EJE DCHO Mx+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX+ + [1; 1]TREND.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	46.16	85.05	351.65
119	120	62.64	0.00	85.88	100.86	348.22
120	120	62.64	0.00	64.96	69.69	297.80
120	121	66.28	0.00	93.41	83.69	140.56
121	121	66.28	0.00	44.99	60.27	134.32
121	122	69.91	0.00	76.43	74.94	2.72
122	122	69.91	0.00	62.26	57.55	-95.41
122	123	73.55	0.00	96.79	74.68	-346.49
123	10123	73.55	0.00	-43.59	60.69	-346.44
123	124	76.66	0.00	-37.80	78.12	-191.32
124	124	76.66	0.00	-15.29	64.82	-116.07
124	125	79.77	0.00	-21.37	86.67	-24.95
125	125	79.77	0.00	-12.87	71.94	-92.31
125	126	82.88	0.00	-0.98	97.24	62.46
126	126	82.88	0.00	-8.42	80.16	-27.83
126	127	85.99	0.00	6.04	105.69	146.69
127	127	85.99	0.00	-4.51	85.06	22.40
127	128	89.10	0.00	12.37	109.10	209.12
128	128	89.10	0.00	8.60	84.61	209.00
128	129	92.21	0.00	27.24	105.30	361.48
129	129	92.21	0.00	22.14	76.12	361.61
129	130	95.32	0.00	43.04	93.24	471.96
130	130	95.32	0.00	37.13	60.86	472.53
130	131	98.43	0.00	60.61	74.30	521.68
131	131	98.43	0.00	54.72	41.19	522.86
131	132	101.54	0.00	81.28	51.41	484.40
132	132	101.54	0.00	76.46	20.83	486.25
132	133	104.65	0.00	106.67	28.56	324.68
133	133	104.65	0.00	36.86	5.63	119.46
133	134	107.76	0.00	65.53	10.55	-0.24
301	101	0.00	0.00	0.90	0.20	6.47
301	2001	0.00	0.00	0.90	0.20	5.79
302	102	3.05	0.00	1.25	0.41	11.02
302	2002	3.05	0.00	1.25	0.41	10.09
303	103	6.10	0.00	1.36	0.41	12.38
303	2003	6.10	0.00	1.36	0.41	11.35
304	104	9.15	0.00	0.62	0.41	9.42
304	2004	9.15	0.00	0.62	0.41	8.95
305	105	12.20	0.00	1.62	0.44	14.22
305	2005	12.20	0.00	1.62	0.44	12.98
306	106	15.25	0.00	3.12	0.60	20.21
306	2006	15.25	0.00	3.12	0.60	17.85
307	107	18.30	0.00	5.93	0.98	30.04
307	2007	18.30	0.00	5.93	0.98	25.56
308	108	21.35	0.00	7.04	1.43	33.29
308	2008	21.35	0.00	7.04	1.43	27.96
309	109	24.40	0.00	7.21	1.92	32.75
309	2009	24.40	0.00	7.21	1.92	27.30
310	110	27.45	0.00	5.65	2.21	29.00
310	2010	27.45	0.00	5.65	2.21	24.73
311	111	30.50	0.00	3.19	2.21	21.15

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX+

TREN IPF75-B EJE DCHO Mx+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX+ + [1; 1]TREND.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	3.19	2.21	18.74
312	112	33.55	0.00	1.08	1.95	15.58
312	2012	33.55	0.00	1.08	1.95	14.75
313	113	37.19	0.00	-0.82	1.27	10.74
313	2013	37.19	0.00	-0.82	1.27	11.35
314	114	40.82	0.00	-1.88	0.70	7.03
314	2014	40.82	0.00	-1.88	0.70	8.45
315	115	44.46	0.00	-1.24	0.40	8.17
315	2015	44.46	0.00	-1.24	0.40	9.10
316	116	48.10	0.00	2.42	0.47	17.46
316	2016	48.10	0.00	2.42	0.47	15.64
317	117	51.73	0.00	4.63	0.73	25.73
317	2017	51.73	0.00	4.63	0.73	22.23
318	118	55.37	0.00	6.48	1.16	32.14
318	2018	55.37	0.00	6.48	1.16	27.24
319	119	59.01	0.00	8.09	1.71	38.46
319	2019	59.01	0.00	8.09	1.71	32.36
320	120	62.64	0.00	9.21	2.22	40.60
320	2020	62.64	0.00	9.21	2.22	33.64
321	121	66.28	0.00	7.39	2.68	33.54
321	2021	66.28	0.00	7.39	2.68	27.96
322	122	69.91	0.00	3.75	2.70	21.76
322	2022	69.91	0.00	3.75	2.70	18.92
323	123	73.55	0.00	0.57	1.88	11.03
323	2023	73.55	0.00	0.57	1.88	10.59
324	124	76.66	0.00	-0.90	1.02	5.62
324	2024	76.66	0.00	-0.90	1.02	6.29
325	125	79.77	0.00	-1.49	0.50	3.73
325	2025	79.77	0.00	-1.49	0.50	4.85
326	126	82.88	0.00	-1.07	0.16	6.13
326	2026	82.88	0.00	-1.07	0.16	6.93
327	127	85.99	0.00	1.43	-0.03	12.32
327	2027	85.99	0.00	1.43	-0.03	11.24
328	128	89.10	0.00	3.74	0.07	19.15
328	2028	89.10	0.00	3.74	0.07	16.32
329	129	92.21	0.00	6.53	0.40	29.57
329	2029	92.21	0.00	6.53	0.40	24.64
330	130	95.32	0.00	8.62	0.98	37.75
330	2030	95.32	0.00	8.62	0.98	31.24
331	131	98.43	0.00	8.47	1.75	39.04
331	2031	98.43	0.00	8.47	1.75	32.64
332	132	101.54	0.00	5.53	2.44	29.11
332	2032	101.54	0.00	5.53	2.44	24.94
333	133	104.65	0.00	2.59	2.94	20.70
333	2033	104.65	0.00	2.59	2.94	18.75
334	134	107.76	0.00	-0.79	1.58	3.79
334	2034	107.76	0.00	-0.79	1.58	4.38
201	2001	0.00	0.00	0.90	0.20	5.79
201	1001	0.00	0.00	0.90	0.20	1.48
202	2002	3.05	0.00	1.25	0.41	10.09
202	1002	3.05	0.00	1.25	0.41	4.09

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX+

TREN IPF75-B EJE DCHO Mx+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX+ + [1; 1]TREND.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
203	2003	6.10	0.00	1.36	0.41	11.35
203	1003	6.10	0.00	1.36	0.41	4.84
204	2004	9.15	0.00	0.62	0.41	8.95
204	1004	9.15	0.00	0.62	0.41	5.95
205	2005	12.20	0.00	1.62	0.44	12.98
205	1005	12.20	0.00	1.62	0.44	5.20
206	2006	15.25	0.00	3.12	0.60	17.85
206	1006	15.25	0.00	3.12	0.60	2.91
207	2007	18.30	0.00	5.93	0.98	25.56
207	1007	18.30	0.00	5.93	0.98	-2.81
208	2008	21.35	0.00	7.04	1.43	27.96
208	1008	21.35	0.00	7.04	1.43	-5.76
209	2009	24.40	0.00	7.22	1.92	27.30
209	1009	24.40	0.00	7.22	1.92	-7.26
210	2010	27.45	0.00	5.65	2.21	24.73
210	1010	27.45	0.00	5.65	2.21	-2.33
211	2011	30.50	0.00	3.19	2.21	18.74
211	1011	30.50	0.00	3.19	2.21	3.45
212	2012	33.55	0.00	1.08	1.95	14.75
212	1012	33.55	0.00	1.08	1.95	9.59
213	2013	37.19	0.00	-0.82	1.27	11.36
213	1013	37.19	0.00	-0.82	1.27	15.30
214	2014	40.82	0.00	-1.88	0.70	8.45
214	1014	40.82	0.00	-1.88	0.70	17.43
215	2015	44.46	0.00	-1.24	0.40	9.10
215	1015	44.46	0.00	-1.24	0.40	15.03
216	2016	48.10	0.00	2.42	0.47	15.64
216	1016	48.10	0.00	2.42	0.47	4.07
217	2017	51.73	0.00	4.63	0.73	22.23
217	1017	51.73	0.00	4.63	0.73	0.06
218	2018	55.37	0.00	6.48	1.16	27.24
218	1018	55.37	0.00	6.48	1.16	-3.80
219	2019	59.01	0.00	8.09	1.71	32.36
219	1019	59.01	0.00	8.09	1.71	-6.36
220	2020	62.64	0.00	9.21	2.22	33.64
220	1020	62.64	0.00	9.21	2.22	-10.46
221	2021	66.28	0.00	7.39	2.68	27.96
221	1021	66.28	0.00	7.39	2.68	-7.43
222	2022	69.91	0.00	3.75	2.70	18.92
222	1022	69.91	0.00	3.75	2.70	0.93
223	2023	73.55	0.00	0.57	1.88	10.59
223	1023	73.55	0.00	0.57	1.88	7.90
224	2024	76.66	0.00	-0.90	1.02	6.29
224	1024	76.66	0.00	-0.90	1.02	10.64
225	2025	79.77	0.00	-1.49	0.50	4.85
225	1025	79.77	0.00	-1.49	0.50	12.03
226	2026	82.88	0.00	-1.07	0.16	6.93
226	1026	82.88	0.00	-1.07	0.16	12.04
227	2027	85.99	0.00	1.43	-0.03	11.24
227	1027	85.99	0.00	1.43	-0.03	4.40
228	2028	89.10	0.00	3.74	0.07	16.32

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX+

TREN IPF75-B EJE DCHO Mx+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX+ + [1; 1]TREND.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
228	1028	89.10	0.00	3.74	0.07	-1.59
229	2029	92.21	0.00	6.53	0.40	24.64
229	1029	92.21	0.00	6.53	0.40	-6.60
230	2030	95.32	0.00	8.62	0.98	31.24
230	1030	95.32	0.00	8.62	0.98	-10.01
231	2031	98.43	0.00	8.47	1.75	32.64
231	1031	98.43	0.00	8.47	1.75	-7.91
232	2032	101.54	0.00	5.53	2.44	24.94
232	1032	101.54	0.00	5.53	2.44	-1.52
233	2033	104.65	0.00	2.59	2.94	18.75
233	1033	104.65	0.00	2.59	2.94	6.36
234	2034	107.76	0.00	-0.79	1.58	4.38
234	1034	107.76	0.00	-0.79	1.58	8.18
401	1001	0.00	0.00	0.90	0.20	1.48
401	1	0.00	0.00	0.90	0.20	0.81
402	1002	3.05	0.00	1.25	0.41	4.09
402	2	3.05	0.00	1.25	0.41	3.15
403	1003	6.10	0.00	1.36	0.41	4.84
403	3	6.10	0.00	1.36	0.41	3.81
404	1004	9.15	0.00	0.62	0.41	5.95
404	4	9.15	0.00	0.62	0.41	5.48
405	1005	12.20	0.00	1.62	0.44	5.20
405	5	12.20	0.00	1.62	0.44	3.98
406	1006	15.25	0.00	3.12	0.60	2.91
406	6	15.25	0.00	3.12	0.60	0.54
407	1007	18.30	0.00	5.93	0.98	-2.81
407	7	18.30	0.00	5.93	0.98	-7.29
408	1008	21.35	0.00	7.04	1.43	-5.76
408	8	21.35	0.00	7.04	1.43	-11.08
409	1009	24.40	0.00	7.22	1.92	-7.26
409	9	24.40	0.00	7.22	1.92	-12.72
410	1010	27.45	0.00	5.65	2.21	-2.33
410	10	27.45	0.00	5.65	2.21	-6.60
411	1011	30.50	0.00	3.19	2.21	3.45
411	11	30.50	0.00	3.19	2.21	1.03
412	1012	33.55	0.00	1.08	1.95	9.59
412	12	33.55	0.00	1.08	1.95	8.78
413	1013	37.19	0.00	-0.82	1.27	15.30
413	13	37.19	0.00	-0.82	1.27	15.92
414	1014	40.82	0.00	-1.88	0.70	17.43
414	14	40.82	0.00	-1.88	0.70	18.84
415	1015	44.46	0.00	-1.24	0.40	15.03
415	15	44.46	0.00	-1.24	0.40	15.96
416	1016	48.10	0.00	2.42	0.47	4.07
416	16	48.10	0.00	2.42	0.47	2.25
417	1017	51.73	0.00	4.63	0.73	0.06
417	17	51.73	0.00	4.63	0.73	-3.44
418	1018	55.37	0.00	6.48	1.16	-3.80
418	18	55.37	0.00	6.48	1.16	-8.70
419	1019	59.01	0.00	8.09	1.71	-6.36
419	19	59.01	0.00	8.09	1.71	-12.47

CÁLCULO TENSIONAL

Hipótesis de cálculo:

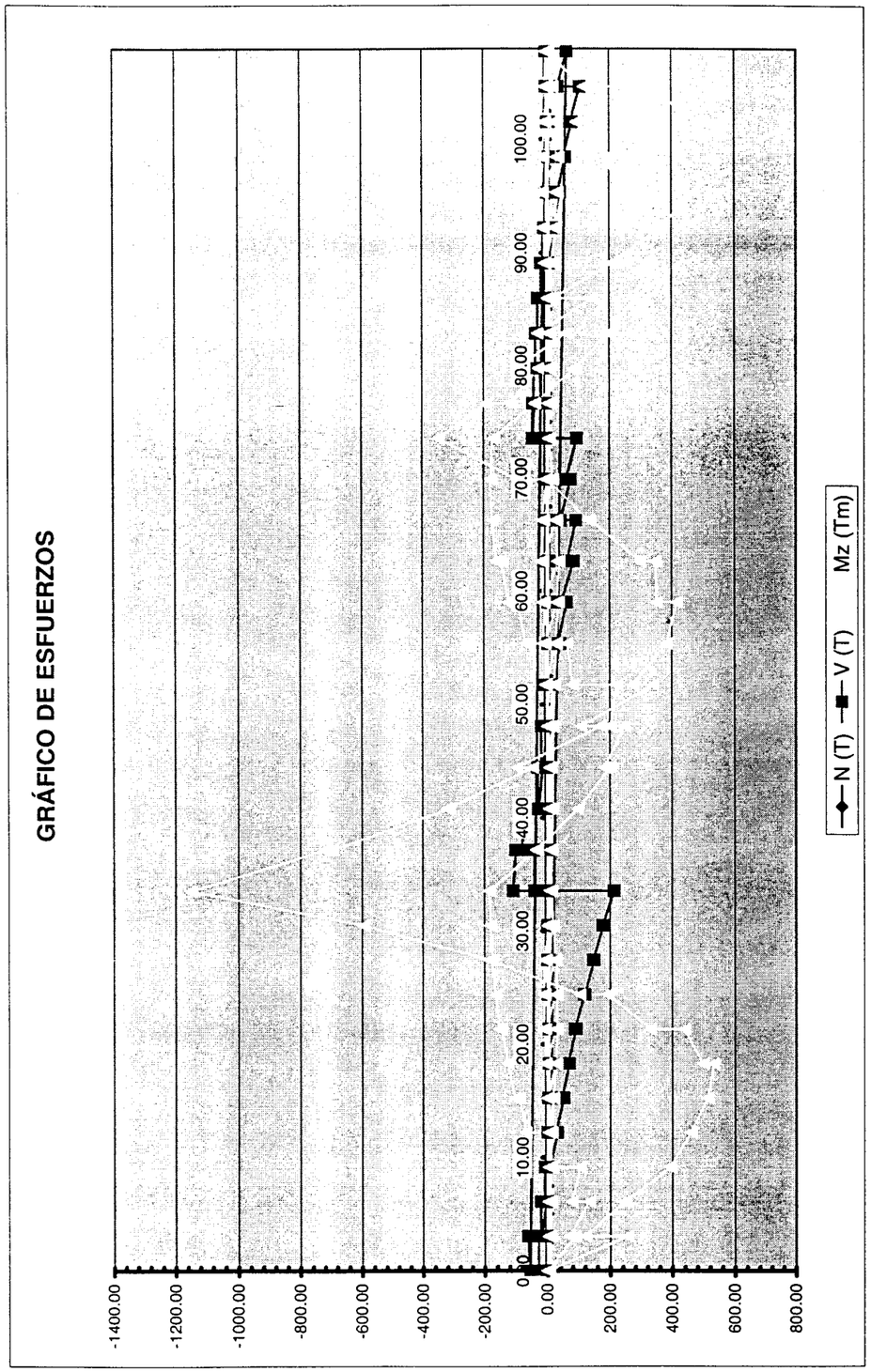
IPF75BD.MX+

TREN IPF75-B EJE DCHO Mx+

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX+ + [1; 1]TREND.EnvTrenGen.MX+

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	9.21	2.22	-10.46
420	20	62.64	0.00	9.21	2.22	-17.42
421	1021	66.28	0.00	7.39	2.68	-7.43
421	21	66.28	0.00	7.39	2.68	-13.02
422	1022	69.91	0.00	3.75	2.70	0.93
422	22	69.91	0.00	3.75	2.70	-1.91
423	1023	73.55	0.00	0.57	1.88	7.90
423	23	73.55	0.00	0.57	1.88	7.48
424	1024	76.66	0.00	-0.90	1.02	10.64
424	24	76.66	0.00	-0.90	1.02	11.32
425	1025	79.77	0.00	-1.49	0.50	12.03
425	25	79.77	0.00	-1.49	0.50	13.16
426	1026	82.88	0.00	-1.07	0.16	12.04
426	26	82.88	0.00	-1.07	0.16	12.83
427	1027	85.99	0.00	1.43	-0.03	4.40
427	27	85.99	0.00	1.43	-0.03	3.32
428	1028	89.10	0.00	3.74	0.07	-1.59
428	28	89.10	0.00	3.74	0.07	-4.43
429	1029	92.21	0.00	6.53	0.40	-6.60
429	29	92.21	0.00	6.53	0.40	-11.54
430	1030	95.32	0.00	8.62	0.98	-10.01
430	30	95.32	0.00	8.62	0.98	-16.52
431	1031	98.43	0.00	8.47	1.75	-7.91
431	31	98.43	0.00	8.47	1.75	-14.31
432	1032	101.54	0.00	5.53	2.44	-1.52
432	32	101.54	0.00	5.53	2.44	-5.70
433	1033	104.65	0.00	2.59	2.94	6.36
433	33	104.65	0.00	2.59	2.94	4.40
434	1034	107.76	0.00	-0.79	1.58	8.18
434	34	107.76	0.00	-0.79	1.58	8.77



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX-

TREN IPF75-B EJE DCHO MX-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX- + [1; 1]TREND.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
1	1	0.00	0.00	1.34	-0.54	-0.11
1	2	3.05	0.00	1.34	-0.54	-4.19
2	2	3.05	0.00	-3.53	-1.90	17.53
2	3	6.10	0.00	-3.53	-1.90	28.27
3	3	6.10	0.00	-9.53	-6.32	93.98
3	4	9.15	0.00	-9.53	-6.32	123.05
4	4	9.15	0.00	-8.64	-17.17	185.08
4	5	12.20	0.00	-8.64	-17.17	211.44
5	5	12.20	0.00	-4.52	-35.09	302.00
5	6	15.25	0.00	-4.52	-35.09	315.79
6	6	15.25	0.00	5.58	-57.85	330.56
6	7	18.30	0.00	5.58	-57.85	313.53
7	7	18.30	0.00	15.89	-80.13	312.81
7	8	21.35	0.00	15.89	-80.13	264.35
8	8	21.35	0.00	25.57	-99.30	269.42
8	9	24.40	0.00	25.57	-99.30	191.45
9	9	24.40	0.00	33.18	-113.19	189.62
9	10	27.45	0.00	33.18	-113.19	88.43
10	10	27.45	0.00	38.46	-120.17	86.24
10	11	30.50	0.00	38.46	-120.17	-31.08
11	11	30.50	0.00	41.25	-119.74	-33.20
11	12	33.55	0.00	41.25	-119.74	-159.04
12	10012	33.55	0.00	1.03	-112.06	-160.81
12	13	37.19	0.00	1.03	-112.06	-164.56
13	13	37.19	0.00	-1.77	-98.52	-167.63
13	14	40.82	0.00	-1.77	-98.52	-161.16
14	14	40.82	0.00	-3.19	-84.21	-161.51
14	15	44.46	0.00	-3.19	-84.21	-149.89
15	15	44.46	0.00	-5.57	-70.51	-133.32
15	16	48.10	0.00	-5.57	-70.51	-113.06
16	16	48.10	0.00	-6.25	-60.95	-82.98
16	17	51.73	0.00	-6.25	-60.95	-60.23
17	17	51.73	0.00	-4.05	-59.71	25.70
17	18	55.37	0.00	-4.05	-59.71	40.44
18	18	55.37	0.00	6.33	-70.50	228.75
18	19	59.01	0.00	6.33	-70.50	205.76
19	19	59.01	0.00	17.84	-88.94	251.30
19	20	62.64	0.00	17.84	-88.94	186.40
20	20	62.64	0.00	28.61	-105.26	204.95
20	21	66.28	0.00	28.61	-105.26	100.92
21	21	66.28	0.00	35.40	-113.43	98.57
21	22	69.91	0.00	35.40	-113.43	-30.14
22	22	69.91	0.00	40.96	-112.59	-34.53
22	23	73.55	0.00	40.96	-112.59	-183.47
23	10023	73.55	0.00	-1.42	-103.88	-185.89
23	24	76.66	0.00	-1.42	-103.88	-181.47
24	24	76.66	0.00	-1.95	-91.93	-182.41
24	25	79.77	0.00	-1.95	-91.93	-176.32
25	25	79.77	0.00	-3.20	-78.18	-176.79
25	26	82.88	0.00	-3.20	-78.18	-166.85
26	26	82.88	0.00	-4.65	-64.14	-166.97

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX-

TREN IPF75-B EJE DCHO MX-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX- + [1; 1]TREND.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
26	27	85.99	0.00	-4.65	-64.14	-152.52
27	27	85.99	0.00	-6.22	-50.95	-145.73
27	28	89.10	0.00	-6.22	-50.95	-126.37
28	28	89.10	0.00	-7.01	-39.05	-126.15
28	29	92.21	0.00	-7.01	-39.05	-104.36
29	29	92.21	0.00	-6.05	-28.92	-65.40
29	30	95.32	0.00	-6.05	-28.92	-46.58
30	30	95.32	0.00	-1.55	-22.77	13.88
30	31	98.43	0.00	-1.55	-22.77	18.73
31	31	98.43	0.00	10.84	-20.81	125.02
31	32	101.54	0.00	10.84	-20.81	91.29
32	32	101.54	0.00	21.40	-19.16	140.96
32	33	104.65	0.00	21.40	-19.16	74.42
33	33	104.65	0.00	28.86	-10.15	91.25
33	34	107.76	0.00	28.86	-10.15	1.46
101	101	0.00	0.00	-63.76	-10.58	-0.21
101	102	3.05	0.00	-35.62	-5.77	113.31
102	102	3.05	0.00	-105.22	-29.19	313.78
102	103	6.10	0.00	-75.45	-21.59	470.17
103	103	6.10	0.00	-80.18	-51.80	468.40
103	104	9.15	0.00	-53.98	-41.74	505.38
104	104	9.15	0.00	-59.69	-74.18	504.27
104	105	12.20	0.00	-36.53	-61.01	455.76
105	105	12.20	0.00	-42.20	-92.65	455.23
105	106	15.25	0.00	-21.59	-75.92	346.73
106	106	15.25	0.00	-26.47	-104.40	346.62
106	107	18.30	0.00	-8.11	-84.23	196.69
107	107	18.30	0.00	-14.29	-108.18	231.80
107	108	21.35	0.00	2.40	-84.64	55.05
108	108	21.35	0.00	-5.68	-104.95	138.54
108	109	24.40	0.00	8.60	-79.97	-33.18
109	109	24.40	0.00	1.08	-96.86	58.42
109	110	27.45	0.00	12.81	-72.07	-93.22
110	110	27.45	0.00	21.21	-86.48	-26.47
110	111	30.50	0.00	14.98	-65.26	-111.75
111	111	30.50	0.00	13.43	-78.25	-111.95
111	112	33.55	0.00	19.11	-61.12	-189.25
112	10112	33.55	0.00	-88.63	-75.19	-189.69
112	113	37.19	0.00	-54.09	-57.99	31.95
113	113	37.19	0.00	-75.78	-75.71	7.12
113	114	40.82	0.00	-44.31	-60.99	136.70
114	114	40.82	0.00	-92.86	-84.47	141.16
114	115	44.46	0.00	-64.39	-70.44	296.79
115	115	44.46	0.00	-85.46	-101.63	346.97
115	116	48.10	0.00	-45.57	-85.80	348.80
116	116	48.10	0.00	-62.62	-120.54	412.30
116	117	51.73	0.00	-35.44	-101.60	377.95
117	117	51.73	0.00	-42.02	-134.00	377.46
117	118	55.37	0.00	-17.65	-111.14	264.61
118	118	55.37	0.00	-23.69	-138.67	333.27
118	119	59.01	0.00	-1.59	-112.26	97.98

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX-

TREN IPF75-B EJE DCHO MX-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX- + [1; 1]TREND.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
119	119	59.01	0.00	-4.42	-134.68	161.19
119	120	62.64	0.00	13.54	-104.18	-109.88
120	120	62.64	0.00	14.03	-120.64	-57.46
120	121	66.28	0.00	27.47	-88.43	-340.93
121	121	66.28	0.00	70.76	-102.30	-331.80
121	122	69.91	0.00	82.39	-72.41	-721.49
122	122	69.91	0.00	94.15	-85.40	-622.40
122	123	73.55	0.00	101.99	-59.06	-1028.68
123	10123	73.55	0.00	-191.81	-71.13	-1029.20
123	124	76.66	0.00	-155.41	-51.59	-529.46
124	124	76.66	0.00	-180.51	-65.55	-606.18
124	125	79.77	0.00	-147.87	-46.31	-180.11
125	125	79.77	0.00	-150.51	-65.23	-182.01
125	126	82.88	0.00	-120.23	-47.62	113.88
126	126	82.88	0.00	-119.42	-71.11	202.29
126	127	85.99	0.00	-87.61	-54.36	342.73
127	127	85.99	0.00	-85.63	-80.31	465.48
127	128	89.10	0.00	-63.74	-65.02	546.01
128	128	89.10	0.00	-70.37	-92.94	545.17
128	129	92.21	0.00	-46.79	-71.24	526.29
129	129	92.21	0.00	-52.80	-96.60	525.93
129	130	95.32	0.00	-26.86	-68.56	472.27
130	130	95.32	0.00	-32.00	-90.64	472.33
130	131	98.43	0.00	-8.86	-62.79	407.94
131	131	98.43	0.00	-13.25	-82.61	408.42
131	132	101.54	0.00	4.83	-50.50	254.22
132	132	101.54	0.00	2.69	-64.05	270.55
132	133	104.65	0.00	18.34	-28.75	124.71
133	133	104.65	0.00	62.34	-38.42	265.67
133	134	107.76	0.00	56.69	-0.58	-0.91
301	101	0.00	0.00	-0.64	-1.51	4.20
301	2001	0.00	0.00	-0.64	-1.51	4.68
302	102	3.05	0.00	2.68	-2.83	21.02
302	2002	3.05	0.00	2.68	-2.83	19.00
303	103	6.10	0.00	5.40	-2.34	28.62
303	2003	6.10	0.00	5.40	-2.34	24.52
304	104	9.15	0.00	8.19	-1.68	38.04
304	2004	9.15	0.00	8.19	-1.68	31.85
305	105	12.20	0.00	8.35	-0.94	36.89
305	2005	12.20	0.00	8.35	-0.94	30.57
306	106	15.25	0.00	6.32	-0.38	28.86
306	2006	15.25	0.00	6.32	-0.38	24.08
307	107	18.30	0.00	3.63	-0.08	18.77
307	2007	18.30	0.00	3.63	-0.08	16.02
308	108	21.35	0.00	1.05	0.02	11.64
308	2008	21.35	0.00	1.05	0.02	10.83
309	109	24.40	0.00	-1.06	-0.16	6.14
309	2009	24.40	0.00	-1.06	-0.16	6.95
310	110	27.45	0.00	-1.48	-0.52	3.78
310	2010	27.45	0.00	-1.48	-0.52	4.90
311	111	30.50	0.00	-0.89	-1.03	5.67

IPF75 Programa DINTEL PACADAR S.A. 17/11/02
IPF75BD.MX-

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75BD.MX-

TREN IPF75-B EJE DCHO MX-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX- + [1; 1]TREND.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
311	2011	30.50	0.00	-0.89	-1.03	6.34
312	112	33.55	0.00	0.57	-1.86	11.01
312	2012	33.55	0.00	0.57	-1.86	10.57
313	113	37.19	0.00	3.76	-2.70	21.75
313	2013	37.19	0.00	3.76	-2.70	18.90
314	114	40.82	0.00	7.38	-2.68	33.55
314	2014	40.82	0.00	7.38	-2.68	27.95
315	115	44.46	0.00	9.82	-2.22	41.56
315	2015	44.46	0.00	9.82	-2.22	34.14
316	116	48.10	0.00	8.19	-1.70	38.72
316	2016	48.10	0.00	8.19	-1.70	32.53
317	117	51.73	0.00	6.57	-1.14	32.32
317	2017	51.73	0.00	6.57	-1.14	27.36
318	118	55.37	0.00	4.70	-0.72	25.91
318	2018	55.37	0.00	4.70	-0.72	22.35
319	119	59.01	0.00	2.46	-0.46	17.57
319	2019	59.01	0.00	2.46	-0.46	15.72
320	120	62.64	0.00	-0.73	-0.39	8.89
320	2020	62.64	0.00	-0.73	-0.39	9.43
321	121	66.28	0.00	-2.05	-0.70	6.54
321	2021	66.28	0.00	-2.05	-0.70	8.08
322	122	69.91	0.00	-1.00	-1.30	10.25
322	2022	69.91	0.00	-1.00	-1.30	11.00
323	123	73.55	0.00	0.95	-2.00	15.22
323	2023	73.55	0.00	0.95	-2.00	14.51
324	124	76.66	0.00	3.18	-2.29	21.21
324	2024	76.66	0.00	3.18	-2.29	18.79
325	125	79.77	0.00	5.78	-2.31	29.49
325	2025	79.77	0.00	5.78	-2.31	25.12
326	126	82.88	0.00	7.45	-1.99	33.58
326	2026	82.88	0.00	7.45	-1.99	27.95
327	127	85.99	0.00	7.00	-1.50	33.78
327	2027	85.99	0.00	7.00	-1.50	28.48
328	128	89.10	0.00	6.23	-1.04	31.08
328	2028	89.10	0.00	6.23	-1.04	26.38
329	129	92.21	0.00	4.57	-0.62	24.96
329	2029	92.21	0.00	4.57	-0.62	21.50
330	130	95.32	0.00	1.74	-0.44	14.63
330	2030	95.32	0.00	1.74	-0.44	13.31
331	131	98.43	0.00	0.67	-0.40	9.59
331	2031	98.43	0.00	0.67	-0.40	9.08
332	132	101.54	0.00	1.41	-0.39	12.53
332	2032	101.54	0.00	1.41	-0.39	11.48
333	133	104.65	0.00	1.29	-0.38	11.32
333	2033	104.65	0.00	1.29	-0.38	10.36
334	134	107.76	0.00	0.90	-0.19	6.46
334	2034	107.76	0.00	0.90	-0.19	5.78
201	2001	0.00	0.00	-0.64	-1.51	4.68
201	1001	0.00	0.00	-0.64	-1.51	7.72
202	2002	3.05	0.00	2.68	-2.83	19.00
202	1002	3.05	0.00	2.68	-2.83	6.16

CÁLCULO TENSIONAL

Hipótesis de cálculo:

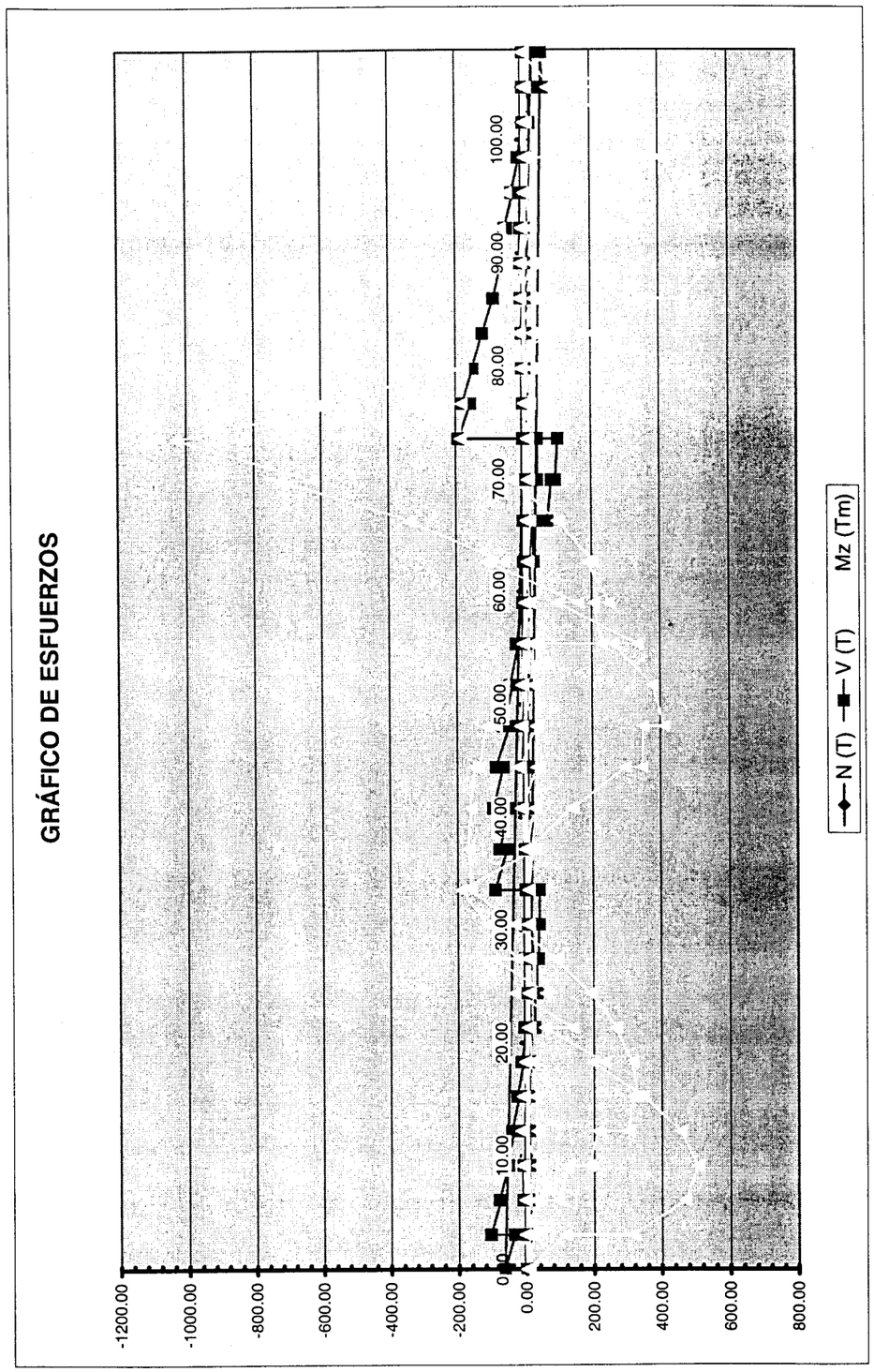
IPF75BD.MX-

TREN IPF75-B EJE DCHO MX-

[1; 1]CUNIFD + [1; 1]SCUNIFD.ENV_TREN_GENERICO.MX- + [1; 1]TREND.EnvTrenGen.MX-

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mx (Tm)	Mz (Tm)
420	1020	62.64	0.00	-0.73	-0.39	12.91
420	20	62.64	0.00	-0.73	-0.39	13.46
421	1021	66.28	0.00	-2.05	-0.70	17.89
421	21	66.28	0.00	-2.05	-0.70	19.44
422	1022	69.91	0.00	-1.00	-1.30	15.78
422	22	69.91	0.00	-1.00	-1.30	16.55
423	1023	73.55	0.00	0.95	-2.00	9.98
423	23	73.55	0.00	0.95	-2.00	9.26
424	1024	76.66	0.00	3.18	-2.29	3.56
424	24	76.66	0.00	3.18	-2.29	1.14
425	1025	79.77	0.00	5.78	-2.31	-2.52
425	25	79.77	0.00	5.78	-2.31	-6.89
426	1026	82.88	0.00	7.45	-1.99	-7.70
426	26	82.88	0.00	7.45	-1.99	-13.33
427	1027	85.99	0.00	7.00	-1.50	-5.03
427	27	85.99	0.00	7.00	-1.50	-10.31
428	1028	89.10	0.00	6.22	-1.04	-3.38
428	28	89.10	0.00	6.22	-1.04	-8.08
429	1029	92.21	0.00	4.57	-0.62	-0.37
429	29	92.21	0.00	4.57	-0.62	-3.82
430	1030	95.32	0.00	1.74	-0.44	4.99
430	30	95.32	0.00	1.74	-0.44	3.67
431	1031	98.43	0.00	0.67	-0.40	5.84
431	31	98.43	0.00	0.67	-0.40	5.34
432	1032	101.54	0.00	1.41	-0.39	4.75
432	32	101.54	0.00	1.41	-0.39	3.69
433	1033	104.65	0.00	1.29	-0.38	4.20
433	33	104.65	0.00	1.29	-0.38	3.23
434	1034	107.76	0.00	0.90	-0.19	1.49
434	34	107.76	0.00	0.90	-0.19	0.80



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75B.MZ+

TREN IPF75-B 2 EJES Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+ + [1; 1]

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-27.42	1.73
1	2	3.05	0.00	-139.16	470.18
2	2	3.05	0.00	-140.04	470.48
2	3	6.10	0.00	-98.43	833.69
3	3	6.10	0.00	-98.95	833.95
3	4	9.15	0.00	-69.23	1090.31
4	4	9.15	0.00	-69.60	1090.49
4	5	12.20	0.00	-29.14	1245.66
5	5	12.20	0.00	-29.38	1245.77
5	6	15.25	0.00	0.13	1290.42
6	6	15.25	0.00	-0.01	1290.39
6	7	18.30	0.00	34.30	1230.17
7	7	18.30	0.00	34.20	1230.06
7	8	21.35	0.00	68.47	1065.53
8	8	21.35	0.00	68.17	1065.34
8	9	24.40	0.00	103.51	792.86
9	9	24.40	0.00	103.20	792.62
9	10	27.45	0.00	117.22	434.10
10	10	27.45	0.00	117.57	433.26
10	11	30.50	0.00	62.53	177.23
11	11	30.50	0.00	62.09	176.70
11	12	33.55	0.00	12.85	88.27
12	10012	33.55	0.00	6.87	88.30
12	13	37.19	0.00	-32.17	125.96
13	13	37.19	0.00	-34.95	125.45
13	14	40.82	0.00	-113.29	399.29
14	14	40.82	0.00	-114.35	400.44
14	15	44.46	0.00	-106.25	797.71
15	15	44.46	0.00	-106.44	797.99
15	16	48.10	0.00	-63.81	1100.02
16	16	48.10	0.00	-63.88	1100.19
16	17	51.73	0.00	-20.89	1251.90
17	17	51.73	0.00	-20.82	1251.98
17	18	55.37	0.00	20.44	1252.68
18	18	55.37	0.00	20.51	1252.62
18	19	59.01	0.00	63.50	1102.29
19	19	59.01	0.00	63.42	1102.12
19	20	62.64	0.00	106.06	801.45
20	20	62.64	0.00	105.86	801.17
20	21	66.28	0.00	115.73	402.29
21	21	66.28	0.00	114.95	401.11
21	22	69.91	0.00	39.09	116.13
22	22	69.91	0.00	33.53	116.60
22	23	73.55	0.00	-5.44	72.58
23	10023	73.55	0.00	-13.65	72.56
23	24	76.66	0.00	-60.07	164.54
24	24	76.66	0.00	-60.70	164.83
24	25	79.77	0.00	-118.40	432.09
25	25	79.77	0.00	-118.10	432.94
25	26	82.88	0.00	-105.84	807.65
26	26	82.88	0.00	-106.15	807.90

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75B.MZ+

TREN IPF75-B 2 EJES Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+ + [1; 1]

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-70.62	1092.81
27	27	85.99	0.00	-70.89	1093.04
27	28	89.10	0.00	-35.52	1266.44
28	28	89.10	0.00	-35.59	1266.56
28	29	92.21	0.00	-0.81	1331.37
29	29	92.21	0.00	-0.93	1331.38
29	30	95.32	0.00	29.55	1286.88
30	30	95.32	0.00	29.33	1286.76
30	31	98.43	0.00	65.04	1128.51
31	31	98.43	0.00	64.61	1128.31
31	32	101.54	0.00	100.10	863.40
32	32	101.54	0.00	99.54	863.12
32	33	104.65	0.00	135.14	486.82
33	33	104.65	0.00	134.26	486.47
33	34	107.76	0.00	28.92	1.80
101	101	0.00	0.00	-30.46	1.51
101	102	3.05	0.00	-152.20	512.32
102	102	3.05	0.00	-150.39	511.84
102	103	6.10	0.00	-106.33	903.04
103	103	6.10	0.00	-105.26	902.65
103	104	9.15	0.00	-68.20	1175.40
104	104	9.15	0.00	-67.57	1175.12
104	105	12.20	0.00	-29.77	1336.67
105	105	12.20	0.00	-29.40	1336.54
105	106	15.25	0.00	1.91	1378.53
106	106	15.25	0.00	2.15	1378.54
106	107	18.30	0.00	38.32	1308.36
107	107	18.30	0.00	38.56	1308.49
107	108	21.35	0.00	74.94	1127.24
108	108	21.35	0.00	75.23	1127.45
108	109	24.40	0.00	112.52	828.87
109	109	24.40	0.00	113.15	829.16
109	110	27.45	0.00	127.00	438.16
110	110	27.45	0.00	128.64	437.82
110	111	30.50	0.00	37.42	166.04
111	111	30.50	0.00	54.44	166.14
111	112	33.55	0.00	15.59	70.88
112	10112	33.55	0.00	3.61	70.90
112	113	37.19	0.00	-39.16	121.79
113	113	37.19	0.00	-17.53	121.22
113	114	40.82	0.00	-121.12	415.51
114	114	40.82	0.00	-120.87	416.12
114	115	44.46	0.00	-113.26	838.61
115	115	44.46	0.00	-112.77	838.31
115	116	48.10	0.00	-67.71	1159.13
116	116	48.10	0.00	-67.60	1158.92
116	117	51.73	0.00	-22.01	1319.30
117	117	51.73	0.00	-22.08	1319.24
117	118	55.37	0.00	21.69	1319.96
118	118	55.37	0.00	21.60	1320.03
118	119	59.01	0.00	67.21	1161.08

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75B.MZ+
TREN IPF75-B 2 EJES Mz+
[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+ + [1; 1]
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	67.31	1161.27
119	120	62.64	0.00	112.39	841.82
120	120	62.64	0.00	112.90	842.10
120	121	66.28	0.00	122.43	417.65
121	121	66.28	0.00	123.92	417.02
121	122	69.91	0.00	42.47	111.71
122	122	69.91	0.00	40.49	112.31
122	123	73.55	0.00	-2.18	55.08
123	10123	73.55	0.00	-16.44	55.04
123	124	76.66	0.00	-34.70	154.98
124	124	76.66	0.00	-35.60	154.76
124	125	79.77	0.00	-129.35	436.73
125	125	79.77	0.00	-127.76	437.09
125	126	82.88	0.00	-115.79	844.95
126	126	82.88	0.00	-115.17	844.65
126	127	85.99	0.00	-77.69	1156.15
127	127	85.99	0.00	-77.42	1155.94
127	128	89.10	0.00	-39.86	1346.43
128	128	89.10	0.00	-39.64	1346.31
128	129	92.21	0.00	-2.97	1421.32
129	129	92.21	0.00	-2.78	1421.31
129	130	95.32	0.00	29.56	1379.66
130	130	95.32	0.00	29.90	1379.80
130	131	98.43	0.00	67.96	1215.53
131	131	98.43	0.00	68.56	1215.80
131	132	101.54	0.00	106.34	934.02
132	132	101.54	0.00	107.45	934.40
132	133	104.65	0.00	145.07	529.21
133	133	104.65	0.00	146.94	529.67
133	134	107.76	0.00	31.95	1.56
301	101	0.00	0.00	1.54	18.95
301	2001	0.00	0.00	0.82	18.01
302	102	3.05	0.00	1.77	37.54
302	2002	3.05	0.00	1.04	36.72
303	103	6.10	0.00	4.78	44.25
303	2003	6.10	0.00	4.19	40.86
304	104	9.15	0.00	7.54	51.74
304	2004	9.15	0.00	7.31	46.17
305	105	12.20	0.00	9.85	57.25
305	2005	12.20	0.00	9.43	49.91
306	106	15.25	0.00	11.13	60.33
306	2006	15.25	0.00	10.36	52.12
307	107	18.30	0.00	11.29	60.63
307	2007	18.30	0.00	10.65	52.39
308	108	21.35	0.00	10.20	58.21
308	2008	21.35	0.00	10.08	50.54
309	109	24.40	0.00	8.55	53.14
309	2009	24.40	0.00	8.17	46.81
310	110	27.45	0.00	6.11	46.07
310	2010	27.45	0.00	5.24	41.82
311	111	30.50	0.00	3.24	39.42

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75B.MZ+
TREN IPF75-B 2 EJES Mz+
[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+ + [1; 1]
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	2.59	37.33
312	112	33.55	0.00	1.37	38.99
312	2012	33.55	0.00	0.64	38.28
313	113	37.19	0.00	4.42	48.74
313	2013	37.19	0.00	3.69	45.64
314	114	40.82	0.00	8.45	58.97
314	2014	40.82	0.00	7.73	52.89
315	115	44.46	0.00	11.63	68.46
315	2015	44.46	0.00	11.42	59.81
316	116	48.10	0.00	14.14	74.99
316	2016	48.10	0.00	13.45	64.48
317	117	51.73	0.00	15.42	78.27
317	2017	51.73	0.00	14.67	66.75
318	118	55.37	0.00	15.45	78.41
318	2018	55.37	0.00	14.71	66.86
319	119	59.01	0.00	14.24	75.28
319	2019	59.01	0.00	13.72	64.74
320	120	62.64	0.00	11.76	68.90
320	2020	62.64	0.00	11.55	60.15
321	121	66.28	0.00	8.60	59.46
321	2021	66.28	0.00	7.85	53.25
322	122	69.91	0.00	4.56	49.26
322	2022	69.91	0.00	3.72	46.01
323	123	73.55	0.00	1.55	39.21
323	2023	73.55	0.00	0.54	38.45
324	124	76.66	0.00	3.30	39.71
324	2024	76.66	0.00	2.64	37.56
325	125	79.77	0.00	6.25	46.61
325	2025	79.77	0.00	5.37	42.26
326	126	82.88	0.00	8.81	54.03
326	2026	82.88	0.00	8.43	47.51
327	127	85.99	0.00	10.55	59.37
327	2027	85.99	0.00	10.43	51.44
328	128	89.10	0.00	11.67	61.94
328	2028	89.10	0.00	11.03	53.43
329	129	92.21	0.00	11.54	61.69
329	2029	92.21	0.00	10.63	53.18
330	130	95.32	0.00	10.21	58.49
330	2030	95.32	0.00	9.80	50.89
331	131	98.43	0.00	7.82	52.74
331	2031	98.43	0.00	7.59	46.91
332	132	101.54	0.00	4.69	44.83
332	2032	101.54	0.00	4.34	41.35
333	133	104.65	0.00	1.48	37.86
333	2033	104.65	0.00	1.07	37.02
334	134	107.76	0.00	1.65	19.40
334	2034	107.76	0.00	1.18	18.28
201	2001	0.00	0.00	0.82	18.01
201	1001	0.00	0.00	-2.00	22.32
202	2002	3.05	0.00	1.04	36.72
202	1002	3.05	0.00	-3.52	43.42

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75B.MZ+

TREN IPF75-B 2 EJES Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+ + [1; 1]

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	4.19	40.86
203	1003	6.10	0.00	-5.73	45.75
204	2004	9.15	0.00	7.31	46.17
204	1004	9.15	0.00	-8.39	50.26
205	2005	12.20	0.00	9.43	49.91
205	1005	12.20	0.00	-9.96	53.61
206	2006	15.25	0.00	10.36	52.12
206	1006	15.25	0.00	-10.99	55.27
207	2007	18.30	0.00	10.65	52.39
207	1007	18.30	0.00	-11.41	55.59
208	2008	21.35	0.00	10.09	50.54
208	1008	21.35	0.00	-10.84	54.29
209	2009	24.40	0.00	8.17	46.81
209	1009	24.40	0.00	-9.32	51.39
210	2010	27.45	0.00	5.24	41.82
210	1010	27.45	0.00	-6.89	47.44
211	2011	30.50	0.00	2.59	37.33
211	1011	30.50	0.00	-4.42	44.29
212	2012	33.55	0.00	0.64	38.28
212	1012	33.55	0.00	-3.98	47.19
213	2013	37.19	0.00	3.69	45.64
213	1013	37.19	0.00	-5.72	53.85
214	2014	40.82	0.00	7.73	52.89
214	1014	40.82	0.00	-9.42	59.26
215	2015	44.46	0.00	11.42	59.81
215	1015	44.46	0.00	-12.78	64.93
216	2016	48.10	0.00	13.45	64.48
216	1016	48.10	0.00	-14.37	68.76
217	2017	51.73	0.00	14.67	66.75
217	1017	51.73	0.00	-14.97	70.30
218	2018	55.37	0.00	14.71	66.86
218	1018	55.37	0.00	-15.04	70.45
219	2019	59.01	0.00	13.72	64.74
219	1019	59.01	0.00	-14.66	69.02
220	2020	62.64	0.00	11.55	60.15
220	1020	62.64	0.00	-12.91	65.28
221	2021	66.28	0.00	7.85	53.25
221	1021	66.28	0.00	-9.81	59.67
222	2022	69.91	0.00	3.72	46.01
222	1022	69.91	0.00	-5.81	54.21
223	2023	73.55	0.00	0.54	38.45
223	1023	73.55	0.00	-4.09	47.55
224	2024	76.66	0.00	2.64	37.56
224	1024	76.66	0.00	-4.50	44.62
225	2025	79.77	0.00	5.37	42.26
225	1025	79.77	0.00	-7.03	47.93
226	2026	82.88	0.00	8.43	47.51
226	1026	82.88	0.00	-9.56	52.06
227	2027	85.99	0.00	10.43	51.44
227	1027	85.99	0.00	-11.14	55.15
228	2028	89.10	0.00	11.03	53.43

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75B.MZ+

TREN IPF75-B 2 EJES Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+ + [1; 1]

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	-11.76	56.55
229	2029	92.21	0.00	10.63	53.18
229	1029	92.21	0.00	-11.34	56.22
230	2030	95.32	0.00	9.80	50.89
230	1030	95.32	0.00	-10.28	54.53
231	2031	98.43	0.00	7.59	46.91
231	1031	98.43	0.00	-8.62	51.00
232	2032	101.54	0.00	4.34	41.35
232	1032	101.54	0.00	-5.87	46.28
233	2033	104.65	0.00	1.07	37.02
233	1033	104.65	0.00	-3.61	43.89
234	2034	107.76	0.00	1.18	18.28
234	1034	107.76	0.00	-2.04	22.63
401	1001	0.00	0.00	-2.00	22.32
401	1	0.00	0.00	-2.38	23.99
402	1002	3.05	0.00	-3.52	43.42
402	2	3.05	0.00	-3.92	46.20
403	1003	6.10	0.00	-5.73	45.75
403	3	6.10	0.00	-6.23	50.27
404	1004	9.15	0.00	-8.39	50.26
404	4	9.15	0.00	-8.60	56.72
405	1005	12.20	0.00	-9.96	53.61
405	5	12.20	0.00	-9.96	61.14
406	1006	15.25	0.00	-11.00	55.27
406	6	15.25	0.00	-11.56	63.82
407	1007	18.30	0.00	-11.41	55.59
407	7	18.30	0.00	-12.01	64.36
408	1008	21.35	0.00	-10.84	54.29
408	8	21.35	0.00	-11.22	62.62
409	1009	24.40	0.00	-9.32	51.39
409	9	24.40	0.00	-9.88	58.70
410	1010	27.45	0.00	-6.90	47.44
410	10	27.45	0.00	-7.98	53.00
411	1011	30.50	0.00	-4.42	44.29
411	11	30.50	0.00	-5.38	48.02
412	1012	33.55	0.00	-3.98	47.19
412	12	33.55	0.00	-4.15	50.28
413	1013	37.19	0.00	-5.72	53.85
413	13	37.19	0.00	-6.79	58.68
414	1014	40.82	0.00	-9.42	59.26
414	14	40.82	0.00	-10.14	66.76
415	1015	44.46	0.00	-12.78	64.93
415	15	44.46	0.00	-12.98	74.67
416	1016	48.10	0.00	-14.37	68.76
416	16	48.10	0.00	-14.77	79.79
417	1017	51.73	0.00	-14.97	70.30
417	17	51.73	0.00	-16.04	82.06
418	1018	55.37	0.00	-15.04	70.45
418	18	55.37	0.00	-16.25	82.20
419	1019	59.01	0.00	-14.66	69.02
419	19	59.01	0.00	-14.89	80.16

CÁLCULO TENSIONAL

Hipótesis de cálculo:

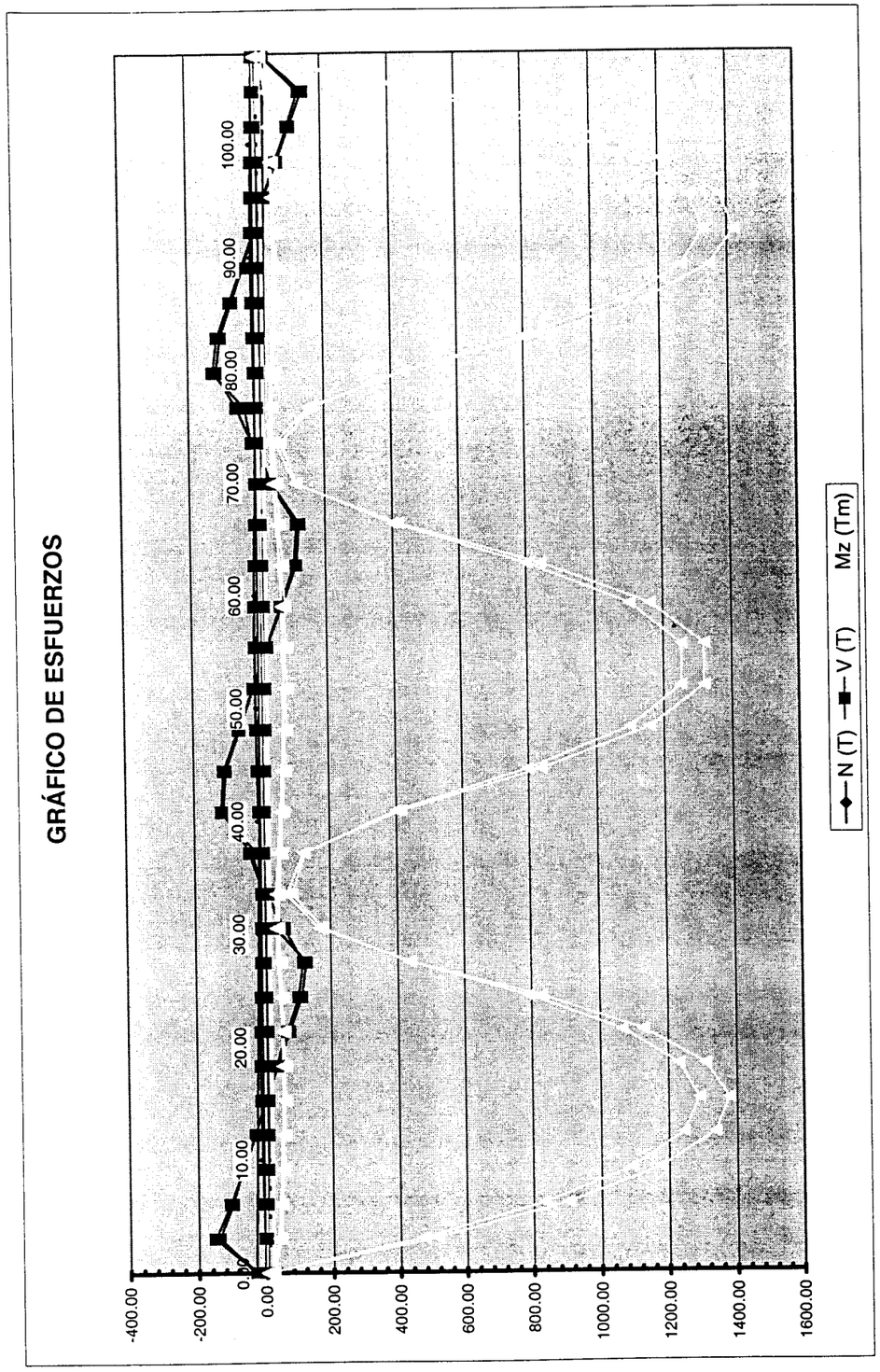
IPF75B.MZ+

TREN IPF75-B 2 EJES Mz+

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ+ + [1; 1]TRENI.EnvTrenGen.MZ+ + [1; 1]

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-12.91	65.28
420	20	62.64	0.00	-13.11	75.14
421	1021	66.28	0.00	-9.81	59.67
421	21	66.28	0.00	-10.30	67.35
422	1022	69.91	0.00	-5.81	54.21
422	22	69.91	0.00	-7.17	59.27
423	1023	73.55	0.00	-4.09	47.55
423	23	73.55	0.00	-4.24	50.67
424	1024	76.66	0.00	-4.50	44.62
424	24	76.66	0.00	-5.55	48.41
425	1025	79.77	0.00	-7.03	47.93
425	25	79.77	0.00	-8.12	53.58
426	1026	82.88	0.00	-9.56	52.06
426	26	82.88	0.00	-10.12	59.55
427	1027	85.99	0.00	-11.14	55.15
427	27	85.99	0.00	-11.52	63.74
428	1028	89.10	0.00	-11.76	56.55
428	28	89.10	0.00	-12.36	65.60
429	1029	92.21	0.00	-11.34	56.22
429	29	92.21	0.00	-11.89	65.06
430	1030	95.32	0.00	-10.28	54.53
430	30	95.32	0.00	-10.28	62.30
431	1031	98.43	0.00	-8.62	51.00
431	31	98.43	0.00	-8.83	57.66
432	1032	101.54	0.00	-5.87	46.28
432	32	101.54	0.00	-6.17	50.90
433	1033	104.65	0.00	-3.61	43.89
433	33	104.65	0.00	-4.01	46.73
434	1034	107.76	0.00	-2.04	22.63
434	34	107.76	0.00	-2.47	24.42



CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75B.MZ-

TREN IPF75-B 2 EJES Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ- + [1; 1]C

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-125.23	-1.51
1	2	3.05	0.00	19.41	-54.57
2	2	3.05	0.00	18.73	-54.47
2	3	6.10	0.00	21.72	-116.15
3	3	6.10	0.00	21.14	-116.06
3	4	9.15	0.00	24.29	-185.18
4	4	9.15	0.00	23.89	-185.13
4	5	12.20	0.00	27.06	-262.68
5	5	12.20	0.00	26.73	-262.71
5	6	15.25	0.00	29.72	-348.78
6	6	15.25	0.00	29.31	-348.83
6	7	18.30	0.00	32.30	-442.79
7	7	18.30	0.00	31.81	-442.84
7	8	21.35	0.00	34.80	-544.38
8	8	21.35	0.00	34.17	-544.43
8	9	24.40	0.00	37.52	-653.79
9	9	24.40	0.00	36.57	-653.85
9	10	27.45	0.00	64.75	-790.92
10	10	27.45	0.00	62.80	-790.39
10	11	30.50	0.00	127.04	-1080.28
11	11	30.50	0.00	125.67	-1079.89
11	12	33.55	0.00	225.74	-1619.96
12	10012	33.55	0.00	-240.56	-1619.66
12	13	37.19	0.00	-136.00	-941.31
13	13	37.19	0.00	-135.38	-940.63
13	14	40.82	0.00	-46.76	-610.88
14	14	40.82	0.00	-47.56	-611.69
14	15	44.46	0.00	-9.12	-516.79
15	15	44.46	0.00	-10.27	-516.74
15	16	48.10	0.00	-6.36	-486.15
16	16	48.10	0.00	-7.24	-486.10
16	17	51.73	0.00	-3.67	-466.23
17	17	51.73	0.00	-4.47	-466.20
17	18	55.37	0.00	6.94	-472.86
18	18	55.37	0.00	6.15	-472.89
18	19	59.01	0.00	9.72	-501.74
19	19	59.01	0.00	8.81	-501.78
19	20	62.64	0.00	12.72	-541.29
20	20	62.64	0.00	11.55	-541.33
20	21	66.28	0.00	48.22	-642.13
21	21	66.28	0.00	47.14	-641.29
21	22	69.91	0.00	133.49	-969.91
22	22	69.91	0.00	136.81	-970.57
22	23	73.55	0.00	241.18	-1644.37
23	10023	73.55	0.00	-228.89	-1644.64
23	24	76.66	0.00	-130.90	-1083.31
24	24	76.66	0.00	-132.08	-1083.44
24	25	79.77	0.00	-62.59	-783.31
25	25	79.77	0.00	-64.56	-783.86
25	26	82.88	0.00	-35.94	-644.19
26	26	82.88	0.00	-36.89	-644.12

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75B.MZ-

TREN IPF75-B 2 EJES Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ- + [1; 1]C

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-33.46	-534.67
27	27	85.99	0.00	-34.07	-534.62
27	28	89.10	0.00	-31.02	-433.39
28	28	89.10	0.00	-31.53	-433.32
28	29	92.21	0.00	-28.48	-340.05
29	29	92.21	0.00	-28.86	-339.99
29	30	95.32	0.00	-25.81	-254.93
30	30	95.32	0.00	-26.15	-254.92
30	31	98.43	0.00	-22.92	-178.75
31	31	98.43	0.00	-23.29	-178.80
31	32	101.54	0.00	-20.08	-111.46
32	32	101.54	0.00	-20.66	-111.55
32	33	104.65	0.00	-17.58	-52.01
33	33	104.65	0.00	-18.31	-52.13
33	34	107.76	0.00	130.06	-1.56
101	101	0.00	0.00	-139.48	-1.73
101	102	3.05	0.00	17.17	-47.51
102	102	3.05	0.00	17.10	-47.46
102	103	6.10	0.00	20.39	-104.78
103	103	6.10	0.00	20.52	-104.74
103	104	9.15	0.00	23.69	-172.13
104	104	9.15	0.00	23.86	-172.08
104	105	12.20	0.00	27.03	-249.72
105	105	12.20	0.00	27.31	-249.67
105	106	15.25	0.00	30.48	-337.78
106	106	15.25	0.00	30.81	-337.72
106	107	18.30	0.00	34.26	-437.11
107	107	18.30	0.00	34.77	-437.06
107	108	21.35	0.00	37.94	-547.94
108	108	21.35	0.00	38.56	-547.88
108	109	24.40	0.00	42.33	-670.44
109	109	24.40	0.00	42.91	-670.40
109	110	27.45	0.00	73.84	-828.91
110	110	27.45	0.00	73.82	-828.28
110	111	30.50	0.00	174.25	-1167.70
111	111	30.50	0.00	159.02	-1167.63
111	112	33.55	0.00	252.03	-1783.49
112	10112	33.55	0.00	-265.30	-1783.20
112	113	37.19	0.00	-153.73	-1024.23
113	113	37.19	0.00	-173.22	-1023.86
113	114	40.82	0.00	-58.54	-642.91
114	114	40.82	0.00	-57.02	-643.84
114	115	44.46	0.00	-15.23	-522.00
115	115	44.46	0.00	-14.43	-522.03
115	116	48.10	0.00	-10.09	-477.77
116	116	48.10	0.00	-9.27	-477.79
116	117	51.73	0.00	-5.45	-451.01
117	117	51.73	0.00	-4.70	-451.03
117	118	55.37	0.00	7.20	-457.79
118	118	55.37	0.00	8.02	-457.77
118	119	59.01	0.00	11.80	-493.82

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75B.MZ-

TREN IPF75-B 2 EJES Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ- + [1; 1]C

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	12.63	-493.80
119	120	62.64	0.00	16.96	-547.29
120	120	62.64	0.00	17.81	-547.29
120	121	66.28	0.00	57.67	-675.21
121	121	66.28	0.00	57.95	-674.25
121	122	69.91	0.00	150.75	-1054.86
122	122	69.91	0.00	154.84	-1055.30
122	123	73.55	0.00	266.18	-1810.58
123	10123	73.55	0.00	-255.32	-1810.87
123	124	76.66	0.00	-182.04	-1172.86
124	124	76.66	0.00	-179.35	-1172.83
124	125	79.77	0.00	-73.59	-820.84
125	125	79.77	0.00	-73.62	-821.50
125	126	82.88	0.00	-42.21	-660.04
126	126	82.88	0.00	-41.63	-660.08
126	127	85.99	0.00	-37.80	-537.42
127	127	85.99	0.00	-37.16	-537.47
127	128	89.10	0.00	-33.92	-426.95
128	128	89.10	0.00	-33.44	-426.99
128	129	92.21	0.00	-29.93	-328.29
129	129	92.21	0.00	-29.59	-328.35
129	130	95.32	0.00	-26.36	-241.35
130	130	95.32	0.00	-26.10	-241.41
130	131	98.43	0.00	-22.86	-165.27
131	131	98.43	0.00	-22.68	-165.32
131	132	101.54	0.00	-19.45	-99.81
132	132	101.54	0.00	-19.34	-99.87
132	133	104.65	0.00	-15.99	-44.80
133	133	104.65	0.00	-16.06	-44.85
133	134	107.76	0.00	141.37	-1.80
301	101	0.00	0.00	-2.49	-1.20
301	2001	0.00	0.00	-1.78	0.43
302	102	3.05	0.00	-3.50	-0.58
302	2002	3.05	0.00	-2.76	1.56
303	103	6.10	0.00	-5.75	-5.41
303	2003	6.10	0.00	-5.19	-1.27
304	104	9.15	0.00	-8.19	-11.48
304	2004	9.15	0.00	-7.87	-5.39
305	105	12.20	0.00	-10.19	-16.08
305	2005	12.20	0.00	-9.77	-8.50
306	106	15.25	0.00	-11.68	-19.04
306	2006	15.25	0.00	-10.60	-10.49
307	107	18.30	0.00	-11.94	-19.75
307	2007	18.30	0.00	-11.30	-10.99
308	108	21.35	0.00	-11.12	-18.15
308	2008	21.35	0.00	-11.00	-9.78
309	109	24.40	0.00	-9.81	-14.18
309	2009	24.40	0.00	-9.42	-6.88
310	110	27.45	0.00	-7.71	-8.30
310	2010	27.45	0.00	-6.84	-2.85
311	111	30.50	0.00	-5.15	-2.73

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75B.MZ-
TREN IPF75-B 2 EJES Mz-
[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ- + [1; 1]C
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-3.60	0.62
312	112	33.55	0.00	-3.46	0.13
312	2012	33.55	0.00	-2.22	2.04
313	113	37.19	0.00	-6.67	-5.38
313	2013	37.19	0.00	-5.94	-0.55
314	114	40.82	0.00	-10.27	-14.19
314	2014	40.82	0.00	-9.55	-6.75
315	115	44.46	0.00	-12.96	-22.21
315	2015	44.46	0.00	-12.69	-12.56
316	116	48.10	0.00	-15.06	-27.57
316	2016	48.10	0.00	-14.32	-16.38
317	117	51.73	0.00	-16.13	-30.25
317	2017	51.73	0.00	-15.34	-18.24
318	118	55.37	0.00	-16.16	-30.35
318	2018	55.37	0.00	-15.37	-18.30
319	119	59.01	0.00	-15.14	-27.81
319	2019	59.01	0.00	-14.64	-16.57
320	120	62.64	0.00	-13.09	-22.57
320	2020	62.64	0.00	-12.88	-12.81
321	121	66.28	0.00	-10.49	-14.62
321	2021	66.28	0.00	-9.69	-7.03
322	122	69.91	0.00	-6.84	-5.80
322	2022	69.91	0.00	-6.07	-0.80
323	123	73.55	0.00	-3.71	0.00
323	2023	73.55	0.00	-2.26	2.03
324	124	76.66	0.00	-5.23	-2.86
324	2024	76.66	0.00	-3.66	0.54
325	125	79.77	0.00	-7.86	-8.63
325	2025	79.77	0.00	-6.99	-3.08
326	126	82.88	0.00	-10.06	-14.76
326	2026	82.88	0.00	-9.67	-7.29
327	127	85.99	0.00	-11.45	-18.94
327	2027	85.99	0.00	-11.33	-10.33
328	128	89.10	0.00	-12.29	-20.64
328	2028	89.10	0.00	-11.65	-11.63
329	129	92.21	0.00	-12.03	-19.91
329	2029	92.21	0.00	-10.80	-11.10
330	130	95.32	0.00	-10.56	-16.85
330	2030	95.32	0.00	-10.09	-9.03
331	131	98.43	0.00	-8.51	-12.04
331	2031	98.43	0.00	-8.20	-5.77
332	132	101.54	0.00	-5.66	-5.66
332	2032	101.54	0.00	-5.33	-1.42
333	133	104.65	0.00	-3.24	-0.64
333	2033	104.65	0.00	-2.82	1.55
334	134	107.76	0.00	-2.61	-1.50
334	2034	107.76	0.00	-1.98	0.25
201	2001	0.00	0.00	-1.78	0.43
201	1001	0.00	0.00	0.77	1.39
202	2002	3.05	0.00	-2.76	1.56
202	1002	3.05	0.00	1.58	2.63

CÁLCULO TENSIONAL

Hipótesis de cálculo:
IPF75B.MZ-
TREN IPF75-B 2 EJES Mz-
[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ- + [1; 1]C
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	-5.19	-1.27
203	1003	6.10	0.00	4.44	-0.73
204	2004	9.15	0.00	-7.87	-5.39
204	1004	9.15	0.00	7.43	-5.83
205	2005	12.20	0.00	-9.77	-8.50
205	1005	12.20	0.00	9.13	-9.51
206	2006	15.25	0.00	-10.60	-10.49
206	1006	15.25	0.00	10.13	-11.13
207	2007	18.30	0.00	-11.30	-10.99
207	1007	18.30	0.00	10.45	-11.14
208	2008	21.35	0.00	-11.00	-9.78
208	1008	21.35	0.00	9.62	-9.31
209	2009	24.40	0.00	-9.42	-6.88
209	1009	24.40	0.00	7.77	-5.70
210	2010	27.45	0.00	-6.84	-2.85
210	1010	27.45	0.00	5.03	-1.15
211	2011	30.50	0.00	-3.60	0.62
211	1011	30.50	0.00	1.88	2.27
212	2012	33.55	0.00	-2.22	2.04
212	1012	33.55	0.00	1.50	3.22
213	2013	37.19	0.00	-5.94	-0.55
213	1013	37.19	0.00	3.39	1.47
214	2014	40.82	0.00	-9.55	-6.75
214	1014	40.82	0.00	7.34	-4.77
215	2015	44.46	0.00	-12.69	-12.56
215	1015	44.46	0.00	11.13	-11.55
216	2016	48.10	0.00	-14.32	-16.38
216	1016	48.10	0.00	13.13	-16.42
217	2017	51.73	0.00	-15.34	-18.24
217	1017	51.73	0.00	14.01	-18.64
218	2018	55.37	0.00	-15.37	-18.30
218	1018	55.37	0.00	14.05	-18.71
219	2019	59.01	0.00	-14.64	-16.57
219	1019	59.01	0.00	13.42	-16.52
220	2020	62.64	0.00	-12.88	-12.81
220	1020	62.64	0.00	11.21	-11.69
221	2021	66.28	0.00	-9.69	-7.03
221	1021	66.28	0.00	7.67	-4.91
222	2022	69.91	0.00	-6.07	-0.80
222	1022	69.91	0.00	3.41	1.46
223	2023	73.55	0.00	-2.26	2.03
223	1023	73.55	0.00	1.51	3.23
224	2024	76.66	0.00	-3.66	0.54
224	1024	76.66	0.00	1.92	2.25
225	2025	79.77	0.00	-6.99	-3.08
225	1025	79.77	0.00	5.16	-1.34
226	2026	82.88	0.00	-9.67	-7.29
226	1026	82.88	0.00	8.01	-6.15
227	2027	85.99	0.00	-11.32	-10.33
227	1027	85.99	0.00	9.94	-9.93
228	2028	89.10	0.00	-11.65	-11.63

CÁLCULO TENSIONAL

Hipótesis de cálculo:

IPF75B.MZ-

TREN IPF75-B 2 EJES Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ- + [1; 1]C

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	10.83	-11.87
229	2029	92.21	0.00	-10.80	-11.10
229	1029	92.21	0.00	10.52	-11.87
230	2030	95.32	0.00	-10.09	-9.03
230	1030	95.32	0.00	9.50	-10.15
231	2031	98.43	0.00	-8.20	-5.77
231	1031	98.43	0.00	7.71	-6.26
232	2032	101.54	0.00	-5.33	-1.42
232	1032	101.54	0.00	4.58	-0.89
233	2033	104.65	0.00	-2.82	1.55
233	1033	104.65	0.00	1.62	2.64
234	2034	107.76	0.00	-1.98	0.25
234	1034	107.76	0.00	0.78	1.39
401	1001	0.00	0.00	0.77	1.39
401	1	0.00	0.00	1.28	0.62
402	1002	3.05	0.00	1.58	2.63
402	2	3.05	0.00	2.33	1.12
403	1003	6.10	0.00	4.44	-0.73
403	3	6.10	0.00	4.92	-4.30
404	1004	9.15	0.00	7.43	-5.83
404	4	9.15	0.00	7.64	-11.56
405	1005	12.20	0.00	9.13	-9.51
405	5	12.20	0.00	9.13	-16.41
406	1006	15.25	0.00	10.13	-11.13
406	6	15.25	0.00	10.73	-19.07
407	1007	18.30	0.00	10.45	-11.14
407	7	18.30	0.00	11.33	-19.25
408	1008	21.35	0.00	9.62	-9.31
408	8	21.35	0.00	10.32	-16.83
409	1009	24.40	0.00	7.77	-5.70
409	9	24.40	0.00	8.65	-11.95
410	1010	27.45	0.00	5.03	-1.15
410	10	27.45	0.00	6.10	-5.28
411	1011	30.50	0.00	1.88	2.27
411	11	30.50	0.00	3.32	0.25
412	1012	33.55	0.00	1.50	3.22
412	12	33.55	0.00	1.59	2.10
413	1013	37.19	0.00	3.39	1.47
413	13	37.19	0.00	4.39	-1.53
414	1014	40.82	0.00	7.34	-4.77
414	14	40.82	0.00	8.34	-10.83
415	1015	44.46	0.00	11.13	-11.55
415	15	44.46	0.00	11.63	-20.24
416	1016	48.10	0.00	13.13	-16.42
416	16	48.10	0.00	13.80	-26.66
417	1017	51.73	0.00	14.01	-18.64
417	17	51.73	0.00	15.29	-29.71
418	1018	55.37	0.00	14.05	-18.71
418	18	55.37	0.00	15.48	-29.79
419	1019	59.01	0.00	13.42	-16.52
419	19	59.01	0.00	13.90	-26.86

CÁLCULO TENSIONAL

Hipótesis de cálculo:

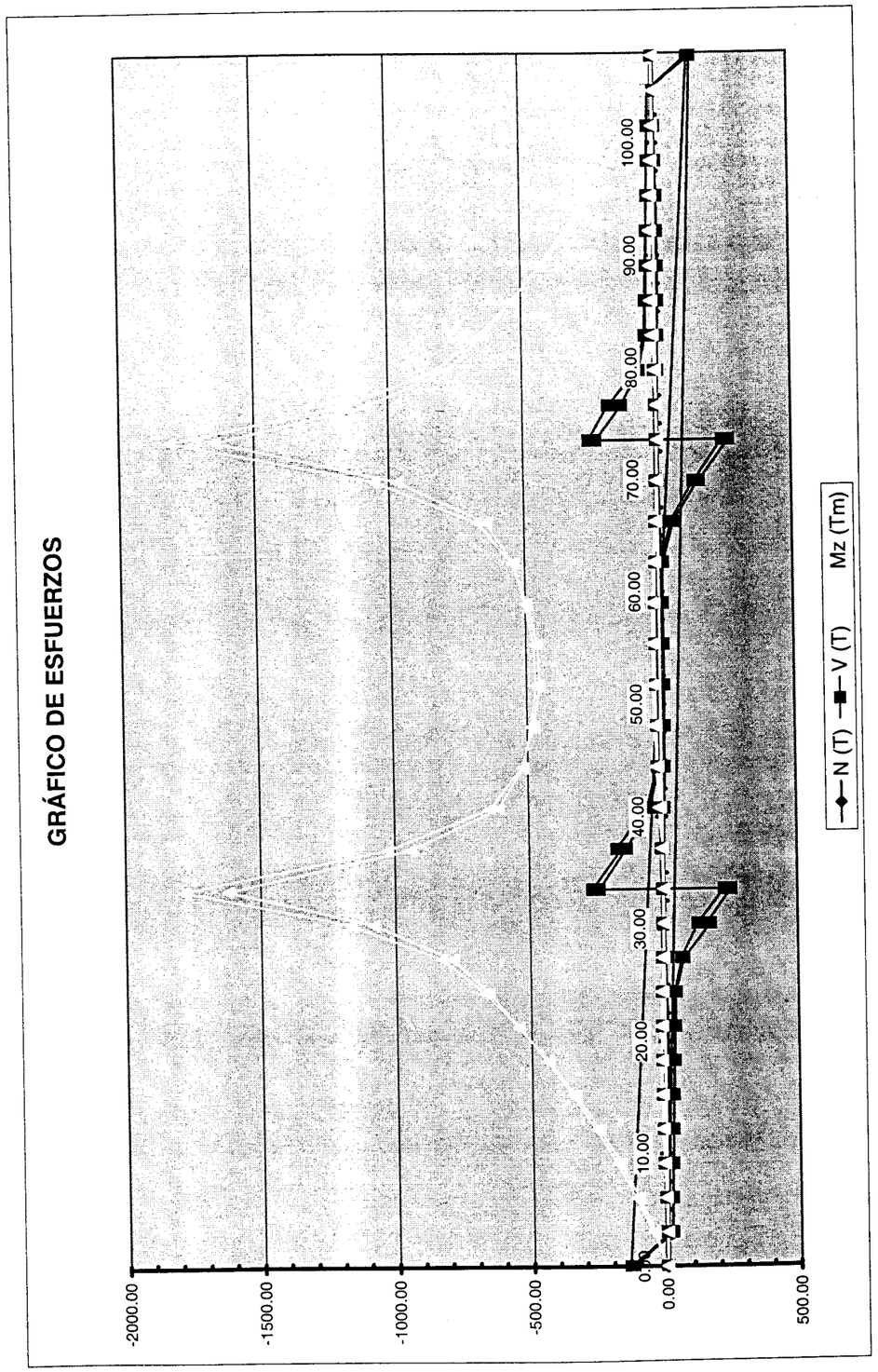
IPF75B.MZ-

TREN IPF75-B 2 EJES Mz-

[1; 1]CUNIFI + [1; 1]SCUNIFI.ENV_TREN_GENERICO.MZ- + [1; 1]TRENI.EnvTrenGen.MZ- + [1; 1]C

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	11.21	-11.69
420	20	62.64	0.00	11.72	-20.47
421	1021	66.28	0.00	7.67	-4.91
421	21	66.28	0.00	8.46	-11.10
422	1022	69.91	0.00	3.41	1.46
422	22	69.91	0.00	4.70	-1.73
423	1023	73.55	0.00	1.51	3.23
423	23	73.55	0.00	1.60	2.09
424	1024	76.66	0.00	1.92	2.25
424	24	76.66	0.00	3.44	0.16
425	1025	79.77	0.00	5.16	-1.34
425	25	79.77	0.00	6.23	-5.58
426	1026	82.88	0.00	8.01	-6.15
426	26	82.88	0.00	8.90	-12.57
427	1027	85.99	0.00	9.94	-9.93
427	27	85.99	0.00	10.65	-17.71
428	1028	89.10	0.00	10.83	-11.87
428	28	89.10	0.00	11.71	-20.27
429	1029	92.21	0.00	10.52	-11.87
429	29	92.21	0.00	11.12	-20.10
430	1030	95.32	0.00	9.50	-10.15
430	30	95.32	0.00	9.56	-17.33
431	1031	98.43	0.00	7.71	-6.26
431	31	98.43	0.00	7.99	-12.21
432	1032	101.54	0.00	4.58	-0.89
432	32	101.54	0.00	4.86	-4.54
433	1033	104.65	0.00	1.62	2.64
433	33	104.65	0.00	2.37	1.09
434	1034	107.76	0.00	0.78	1.39
434	34	107.76	0.00	1.33	0.50



Programa DINTEL PACADAR S.A.
IPF75B.MZ-
IPF75.xls

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

2.2.3.4 DEFINICIÓN DE PRETENSADO
ESTIMACIÓN DE PÉRDIDAS DE PRETENSADO

En este apartado se recogen los pretensados sobre los diferentes vigas en las distintas fases de ejecución.

1º. Pretensado en fuller:

FASE 3: PRETF3I. Pretensado de vigas en eje Izdo (nudos 1-33).

PRETF3D Pretensado de vigas en eje Dcho (Nudo 101-133)

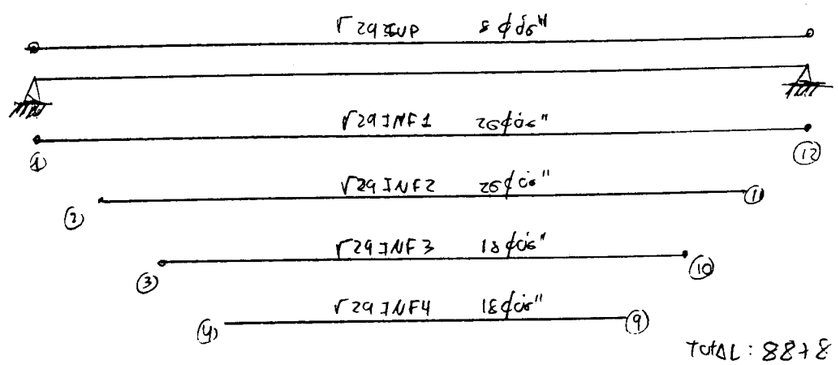
FASE 4: El pretensado introducido en la fase constructiva 3 fuimbter se introduce sobre la fase de estructura ideal para obtener posteriormente las redistribuciones, Dichos pretensados son:

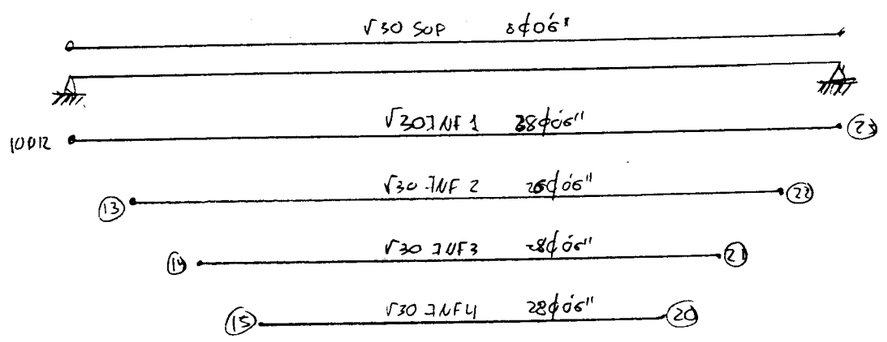
PRET I Pretensado de vigas en eje Izdo (Nudos 1-33)

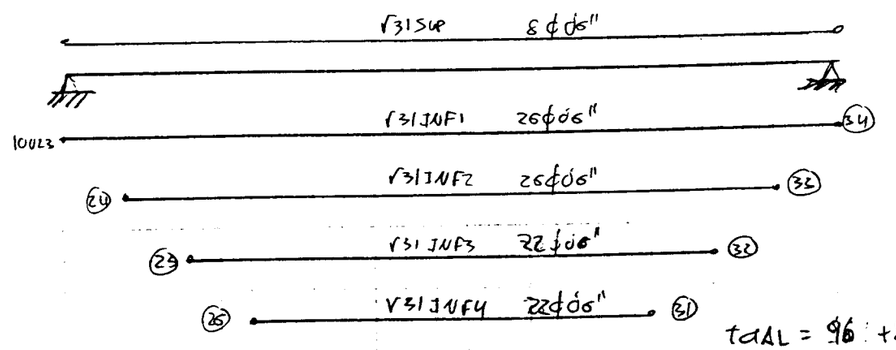
PRETD Pretensado de viga en eje Dcho (Nudo 101-133)

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

MODELO DE PRETENSADO: FASE 1

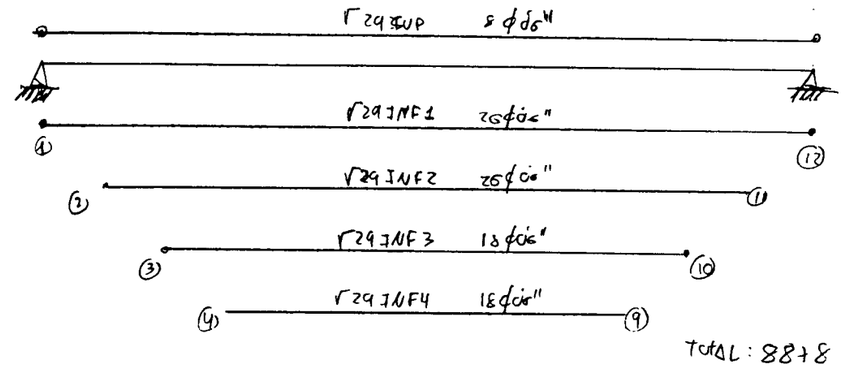


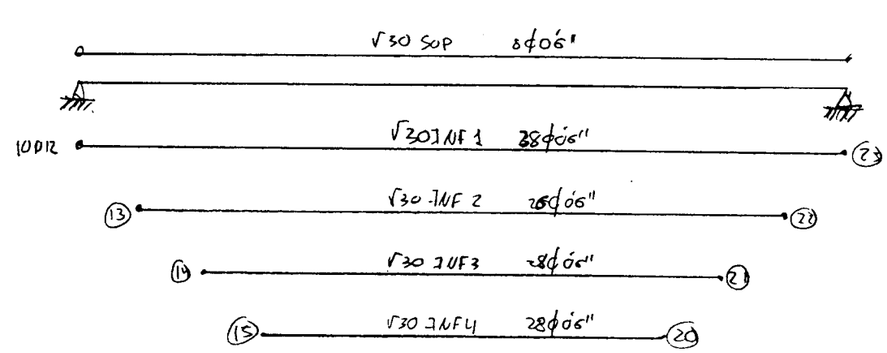


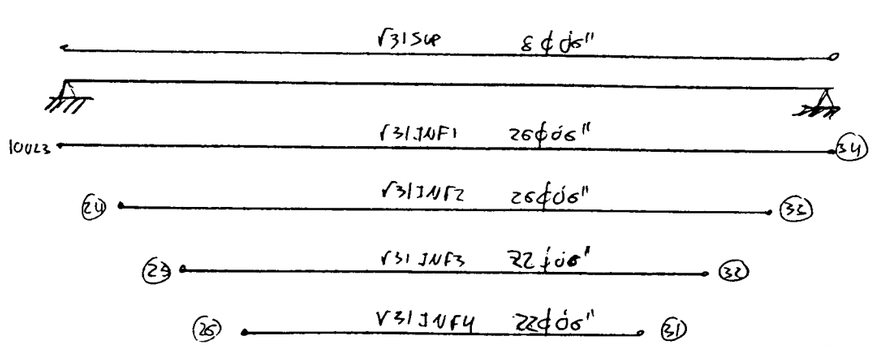


PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

MODELO DE PRETENSADO: FASE 4







CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	-635.32	0.00	-254.68
1	2	3.05	-635.32	0.00	-254.69
2	2	3.05	-1104.88	0.00	-708.28
2	3	6.10	-1104.88	0.00	-708.29
3	3	6.10	-1429.96	0.00	-1006.72
3	4	9.15	-1429.96	0.00	-1006.73
4	4	9.15	-1755.04	0.00	-1289.55
4	5	12.20	-1755.04	0.00	-1289.55
5	5	12.20	-1755.04	0.00	-1289.55
5	6	15.25	-1755.04	0.00	-1289.56
6	6	15.25	-1755.04	0.00	-1289.56
6	7	18.30	-1755.04	0.00	-1289.56
7	7	18.30	-1755.04	0.00	-1289.56
7	8	21.35	-1755.04	0.00	-1289.56
8	8	21.35	-1755.04	0.00	-1289.56
8	9	24.40	-1755.04	0.00	-1289.55
9	9	24.40	-1429.96	0.00	-1006.73
9	10	27.45	-1429.96	0.00	-1006.72
10	10	27.45	-1104.88	0.00	-708.30
10	11	30.50	-1104.88	0.00	-708.29
11	11	30.50	-635.32	0.00	-254.69
11	12	33.55	-635.32	0.00	-254.68
12	10012	33.55	-671.44	0.00	-291.30
12	13	37.19	-671.44	0.00	-291.30
13	13	37.19	-1141.00	0.00	-744.89
13	14	40.82	-1141.00	0.00	-744.89
14	14	40.82	-1646.68	0.00	-1209.10
14	15	44.46	-1646.68	0.00	-1209.10
15	15	44.46	-2152.36	0.00	-1649.04
15	16	48.10	-2152.36	0.00	-1649.04
16	16	48.10	-2152.36	0.00	-1649.04
16	17	51.73	-2152.36	0.00	-1649.05
17	17	51.73	-2152.36	0.00	-1649.05
17	18	55.37	-2152.36	0.00	-1649.04
18	18	55.37	-2152.36	0.00	-1649.04
18	19	59.01	-2152.36	0.00	-1649.02
19	19	59.01	-2152.36	0.00	-1649.02
19	20	62.64	-2152.36	0.00	-1649.03
20	20	62.64	-1646.68	0.00	-1209.08
20	21	66.28	-1646.68	0.00	-1209.09
21	21	66.28	-1141.00	0.00	-744.88
21	22	69.91	-1141.00	0.00	-744.89
22	22	69.91	-671.44	0.00	-291.29
22	23	73.55	-671.44	0.00	-291.30
23	10023	73.55	-635.32	0.00	-254.68
23	24	76.66	-635.32	0.00	-254.67
24	24	76.66	-1104.88	0.00	-708.26
24	25	79.77	-1104.88	0.00	-708.26
25	25	79.77	-1466.08	0.00	-1039.84
25	26	82.88	-1466.08	0.00	-1039.84
26	26	82.88	-1827.28	0.00	-1354.08

f1.pret.esf

Programa DINTEL PACADAR S.A.
PRETF1I.TOT.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	-1827.28	0.00	-1354.08
27	27	85.99	-1827.28	0.00	-1354.08
27	28	89.10	-1827.28	0.00	-1354.08
28	28	89.10	-1827.28	0.00	-1354.08
28	29	92.21	-1827.28	0.00	-1354.09
29	29	92.21	-1827.28	0.00	-1354.09
29	30	95.32	-1827.28	0.00	-1354.09
30	30	95.32	-1827.28	0.00	-1354.09
30	31	98.43	-1827.28	0.00	-1354.09
31	31	98.43	-1466.08	0.00	-1039.85
31	32	101.54	-1466.08	0.00	-1039.85
32	32	101.54	-1104.88	0.00	-708.27
32	33	104.65	-1104.88	0.00	-708.27
33	33	104.65	-635.32	0.00	-254.68
33	34	107.76	-635.32	0.00	-254.68
101	101	0.00	0.00	0.00	0.00
101	102	3.05	0.00	0.00	0.00
102	102	3.05	0.00	0.00	0.00
102	103	6.10	0.00	0.00	0.00
103	103	6.10	0.00	0.00	0.00
103	104	9.15	0.00	0.00	0.00
104	104	9.15	0.00	0.00	0.00
104	105	12.20	0.00	0.00	0.00
105	105	12.20	0.00	0.00	0.00
105	106	15.25	0.00	0.00	0.00
106	106	15.25	0.00	0.00	0.00
106	107	18.30	0.00	0.00	0.00
107	107	18.30	0.00	0.00	0.00
107	108	21.35	0.00	0.00	0.00
108	108	21.35	0.00	0.00	0.00
108	109	24.40	0.00	0.00	0.00
109	109	24.40	0.00	0.00	0.00
109	110	27.45	0.00	0.00	0.00
110	110	27.45	0.00	0.00	0.00
110	111	30.50	0.00	0.00	0.00
111	111	30.50	0.00	0.00	0.00
111	112	33.55	0.00	0.00	0.00
112	10112	33.55	0.00	0.00	0.00
112	113	37.19	0.00	0.00	0.00
113	113	37.19	0.00	0.00	0.00
113	114	40.82	0.00	0.00	0.00
114	114	40.82	0.00	0.00	0.00
114	115	44.46	0.00	0.00	0.00
115	115	44.46	0.00	0.00	0.00
115	116	48.10	0.00	0.00	0.00
116	116	48.10	0.00	0.00	0.00
116	117	51.73	0.00	0.00	0.00
117	117	51.73	0.00	0.00	0.00
117	118	55.37	0.00	0.00	0.00
118	118	55.37	0.00	0.00	0.00
118	119	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.00	0.00
119	120	62.64	0.00	0.00	0.00
120	120	62.64	0.00	0.00	0.00
120	121	66.28	0.00	0.00	0.00
121	121	66.28	0.00	0.00	0.00
121	122	69.91	0.00	0.00	0.00
122	122	69.91	0.00	0.00	0.00
122	123	73.55	0.00	0.00	0.00
123	10123	73.55	0.00	0.00	0.00
123	124	76.66	0.00	0.00	0.00
124	124	76.66	0.00	0.00	0.00
124	125	79.77	0.00	0.00	0.00
125	125	79.77	0.00	0.00	0.00
125	126	82.88	0.00	0.00	0.00
126	126	82.88	0.00	0.00	0.00
126	127	85.99	0.00	0.00	0.00
127	127	85.99	0.00	0.00	0.00
127	128	89.10	0.00	0.00	0.00
128	128	89.10	0.00	0.00	0.00
128	129	92.21	0.00	0.00	0.00
129	129	92.21	0.00	0.00	0.00
129	130	95.32	0.00	0.00	0.00
130	130	95.32	0.00	0.00	0.00
130	131	98.43	0.00	0.00	0.00
131	131	98.43	0.00	0.00	0.00
131	132	101.54	0.00	0.00	0.00
132	132	101.54	0.00	0.00	0.00
132	133	104.65	0.00	0.00	0.00
133	133	104.65	0.00	0.00	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

f1.pret.esf

Programa DINTEL PACADAR S.A.
PRETF1I.TOT.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.01	0.00
419	19	59.01	0.00	0.01	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	-635.32	0.00	-254.68
1	2	3.05	-635.32	0.00	-254.69
2	2	3.05	-1104.88	0.00	-708.28
2	3	6.10	-1104.88	0.00	-708.29
3	3	6.10	-1429.96	0.00	-1006.72
3	4	9.15	-1429.96	0.00	-1006.73
4	4	9.15	-1755.04	0.00	-1289.55
4	5	12.20	-1755.04	0.00	-1289.55
5	5	12.20	-1755.04	0.00	-1289.55
5	6	15.25	-1755.04	0.00	-1289.56
6	6	15.25	-1755.04	0.00	-1289.56
6	7	18.30	-1755.04	0.00	-1289.56
7	7	18.30	-1755.04	0.00	-1289.56
7	8	21.35	-1755.04	0.00	-1289.56
8	8	21.35	-1755.04	0.00	-1289.56
8	9	24.40	-1755.04	0.00	-1289.55
9	9	24.40	-1429.96	0.00	-1006.73
9	10	27.45	-1429.96	0.00	-1006.72
10	10	27.45	-1104.88	0.00	-708.30
10	11	30.50	-1104.88	0.00	-708.29
11	11	30.50	-635.32	0.00	-254.69
11	12	33.55	-635.32	0.00	-254.68
12	10012	33.55	-671.44	0.00	-291.30
12	13	37.19	-671.44	0.00	-291.30
13	13	37.19	-1141.00	0.00	-744.89
13	14	40.82	-1141.00	0.00	-744.89
14	14	40.82	-1646.68	0.00	-1209.10
14	15	44.46	-1646.68	0.00	-1209.10
15	15	44.46	-2152.36	0.00	-1649.04
15	16	48.10	-2152.36	0.00	-1649.04
16	16	48.10	-2152.36	0.00	-1649.04
16	17	51.73	-2152.36	0.00	-1649.05
17	17	51.73	-2152.36	0.00	-1649.05
17	18	55.37	-2152.36	0.00	-1649.04
18	18	55.37	-2152.36	0.00	-1649.04
18	19	59.01	-2152.36	0.00	-1649.02
19	19	59.01	-2152.36	0.00	-1649.02
19	20	62.64	-2152.36	0.00	-1649.03
20	20	62.64	-1646.68	0.00	-1209.08
20	21	66.28	-1646.68	0.00	-1209.09
21	21	66.28	-1141.00	0.00	-744.88
21	22	69.91	-1141.00	0.00	-744.89
22	22	69.91	-671.44	0.00	-291.29
22	23	73.55	-671.44	0.00	-291.30
23	10023	73.55	-635.32	0.00	-254.68
23	24	76.66	-635.32	0.00	-254.67
24	24	76.66	-1104.88	0.00	-708.26
24	25	79.77	-1104.88	0.00	-708.26
25	25	79.77	-1466.08	0.00	-1039.84
25	26	82.88	-1466.08	0.00	-1039.84
26	26	82.88	-1827.28	0.00	-1354.08

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	-1827.28	0.00	-1354.08
27	27	85.99	-1827.28	0.00	-1354.08
27	28	89.10	-1827.28	0.00	-1354.08
28	28	89.10	-1827.28	0.00	-1354.08
28	29	92.21	-1827.28	0.00	-1354.09
29	29	92.21	-1827.28	0.00	-1354.09
29	30	95.32	-1827.28	0.00	-1354.09
30	30	95.32	-1827.28	0.00	-1354.09
30	31	98.43	-1827.28	0.00	-1354.09
31	31	98.43	-1466.08	0.00	-1039.85
31	32	101.54	-1466.08	0.00	-1039.85
32	32	101.54	-1104.88	0.00	-708.27
32	33	104.65	-1104.88	0.00	-708.27
33	33	104.65	-635.32	0.00	-254.68
33	34	107.76	-635.32	0.00	-254.68
101	101	0.00	0.00	0.00	0.00
101	102	3.05	0.00	0.00	0.00
102	102	3.05	0.00	0.00	0.00
102	103	6.10	0.00	0.00	0.00
103	103	6.10	0.00	0.00	0.00
103	104	9.15	0.00	0.00	0.00
104	104	9.15	0.00	0.00	0.00
104	105	12.20	0.00	0.00	0.00
105	105	12.20	0.00	0.00	0.00
105	106	15.25	0.00	0.00	0.00
106	106	15.25	0.00	0.00	0.00
106	107	18.30	0.00	0.00	0.00
107	107	18.30	0.00	0.00	0.00
107	108	21.35	0.00	0.00	0.00
108	108	21.35	0.00	0.00	0.00
108	109	24.40	0.00	0.00	0.00
109	109	24.40	0.00	0.00	0.00
109	110	27.45	0.00	0.00	0.00
110	110	27.45	0.00	0.00	0.00
110	111	30.50	0.00	0.00	0.00
111	111	30.50	0.00	0.00	0.00
111	112	33.55	0.00	0.00	0.00
112	10112	33.55	0.00	0.00	0.00
112	113	37.19	0.00	0.00	0.00
113	113	37.19	0.00	0.00	0.00
113	114	40.82	0.00	0.00	0.00
114	114	40.82	0.00	0.00	0.00
114	115	44.46	0.00	0.00	0.00
115	115	44.46	0.00	0.00	0.00
115	116	48.10	0.00	0.00	0.00
116	116	48.10	0.00	0.00	0.00
116	117	51.73	0.00	0.00	0.00
117	117	51.73	0.00	0.00	0.00
117	118	55.37	0.00	0.00	0.00
118	118	55.37	0.00	0.00	0.00
118	119	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.00	0.00
119	120	62.64	0.00	0.00	0.00
120	120	62.64	0.00	0.00	0.00
120	121	66.28	0.00	0.00	0.00
121	121	66.28	0.00	0.00	0.00
121	122	69.91	0.00	0.00	0.00
122	122	69.91	0.00	0.00	0.00
122	123	73.55	0.00	0.00	0.00
123	10123	73.55	0.00	0.00	0.00
123	124	76.66	0.00	0.00	0.00
124	124	76.66	0.00	0.00	0.00
124	125	79.77	0.00	0.00	0.00
125	125	79.77	0.00	0.00	0.00
125	126	82.88	0.00	0.00	0.00
126	126	82.88	0.00	0.00	0.00
126	127	85.99	0.00	0.00	0.00
127	127	85.99	0.00	0.00	0.00
127	128	89.10	0.00	0.00	0.00
128	128	89.10	0.00	0.00	0.00
128	129	92.21	0.00	0.00	0.00
129	129	92.21	0.00	0.00	0.00
129	130	95.32	0.00	0.00	0.00
130	130	95.32	0.00	0.00	0.00
130	131	98.43	0.00	0.00	0.00
131	131	98.43	0.00	0.00	0.00
131	132	101.54	0.00	0.00	0.00
132	132	101.54	0.00	0.00	0.00
132	133	104.65	0.00	0.00	0.00
133	133	104.65	0.00	0.00	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.01	0.00
419	19	59.01	0.00	0.01	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [1; 1]PRETF1I.FAM2.TOT + [1; 1]PRETF1I.FAM3.TOT + [1; 1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	3.05	0.00	0.00	-0.01
2	2	3.05	0.00	0.00	-0.01
2	3	6.10	0.00	0.00	-0.02
3	3	6.10	0.00	0.00	-0.02
3	4	9.15	0.00	0.00	-0.03
4	4	9.15	0.00	0.00	-0.03
4	5	12.20	0.00	0.00	-0.04
5	5	12.20	0.00	0.00	-0.04
5	6	15.25	0.00	0.00	-0.04
6	6	15.25	0.00	0.00	-0.04
6	7	18.30	0.00	0.00	-0.04
7	7	18.30	0.00	0.00	-0.04
7	8	21.35	0.00	0.00	-0.04
8	8	21.35	0.00	0.00	-0.04
8	9	24.40	0.00	0.00	-0.04
9	9	24.40	0.00	0.00	-0.04
9	10	27.45	0.00	0.00	-0.03
10	10	27.45	0.00	0.00	-0.03
10	11	30.50	0.00	0.00	-0.01
11	11	30.50	0.00	0.00	-0.01
11	12	33.55	0.00	0.00	0.00
12	10012	33.55	0.00	0.00	0.00
12	13	37.19	0.00	0.00	0.01
13	13	37.19	0.00	0.00	0.01
13	14	40.82	0.00	0.00	0.01
14	14	40.82	0.00	0.00	0.01
14	15	44.46	0.00	0.00	0.01
15	15	44.46	0.00	0.00	0.01
15	16	48.10	0.00	0.00	0.01
16	16	48.10	0.00	0.00	0.01
16	17	51.73	0.00	0.00	0.01
17	17	51.73	0.00	0.00	0.01
17	18	55.37	0.00	0.00	0.02
18	18	55.37	0.00	0.00	0.02
18	19	59.01	0.00	0.00	0.03
19	19	59.01	0.00	0.00	0.03
19	20	62.64	0.00	0.00	0.03
20	20	62.64	0.00	0.00	0.03
20	21	66.28	0.00	0.00	0.02
21	21	66.28	0.00	0.00	0.02
21	22	69.91	0.00	0.00	0.01
22	22	69.91	0.00	0.00	0.01
22	23	73.55	0.00	0.00	0.00
23	10023	73.55	0.00	0.00	0.00
23	24	76.66	0.00	0.00	0.01
24	24	76.66	0.00	0.00	0.01
24	25	79.77	0.00	0.00	0.02
25	25	79.77	0.00	0.00	0.02
25	26	82.88	0.00	0.00	0.02
26	26	82.88	0.00	0.00	0.02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.00	0.02
27	27	85.99	0.00	0.00	0.02
27	28	89.10	0.00	0.00	0.02
28	28	89.10	0.00	0.00	0.02
28	29	92.21	0.00	0.00	0.01
29	29	92.21	0.00	0.00	0.01
29	30	95.32	0.00	0.00	0.01
30	30	95.32	0.00	0.00	0.01
30	31	98.43	0.00	0.00	0.01
31	31	98.43	0.00	0.00	0.01
31	32	101.54	0.00	0.00	0.01
32	32	101.54	0.00	0.00	0.01
32	33	104.65	0.00	0.00	0.00
33	33	104.65	0.00	0.00	0.00
33	34	107.76	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	3.05	0.00	0.00	0.00
102	102	3.05	0.00	0.00	0.00
102	103	6.10	0.00	0.00	0.00
103	103	6.10	0.00	0.00	0.00
103	104	9.15	0.00	0.00	0.00
104	104	9.15	0.00	0.00	0.00
104	105	12.20	0.00	0.00	0.00
105	105	12.20	0.00	0.00	0.00
105	106	15.25	0.00	0.00	0.00
106	106	15.25	0.00	0.00	0.00
106	107	18.30	0.00	0.00	0.00
107	107	18.30	0.00	0.00	0.00
107	108	21.35	0.00	0.00	0.00
108	108	21.35	0.00	0.00	0.00
108	109	24.40	0.00	0.00	0.00
109	109	24.40	0.00	0.00	0.00
109	110	27.45	0.00	0.00	0.00
110	110	27.45	0.00	0.00	0.00
110	111	30.50	0.00	0.00	0.00
111	111	30.50	0.00	0.00	0.00
111	112	33.55	0.00	0.00	0.00
112	10112	33.55	0.00	0.00	0.00
112	113	37.19	0.00	0.00	0.00
113	113	37.19	0.00	0.00	0.00
113	114	40.82	0.00	0.00	0.00
114	114	40.82	0.00	0.00	0.00
114	115	44.46	0.00	0.00	0.00
115	115	44.46	0.00	0.00	0.00
115	116	48.10	0.00	0.00	0.00
116	116	48.10	0.00	0.00	0.00
116	117	51.73	0.00	0.00	0.00
117	117	51.73	0.00	0.00	0.00
117	118	55.37	0.00	0.00	0.00
118	118	55.37	0.00	0.00	0.00
118	119	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.00	0.00
119	120	62.64	0.00	0.00	0.00
120	120	62.64	0.00	0.00	0.00
120	121	66.28	0.00	0.00	0.00
121	121	66.28	0.00	0.00	0.00
121	122	69.91	0.00	0.00	0.00
122	122	69.91	0.00	0.00	0.00
122	123	73.55	0.00	0.00	0.00
123	10123	73.55	0.00	0.00	0.00
123	124	76.66	0.00	0.00	0.00
124	124	76.66	0.00	0.00	0.00
124	125	79.77	0.00	0.00	0.00
125	125	79.77	0.00	0.00	0.00
125	126	82.88	0.00	0.00	0.00
126	126	82.88	0.00	0.00	0.00
126	127	85.99	0.00	0.00	0.00
127	127	85.99	0.00	0.00	0.00
127	128	89.10	0.00	0.00	0.00
128	128	89.10	0.00	0.00	0.00
128	129	92.21	0.00	0.00	0.00
129	129	92.21	0.00	0.00	0.00
129	130	95.32	0.00	0.00	0.00
130	130	95.32	0.00	0.00	0.00
130	131	98.43	0.00	0.00	0.00
131	131	98.43	0.00	0.00	0.00
131	132	101.54	0.00	0.00	0.00
132	132	101.54	0.00	0.00	0.00
132	133	104.65	0.00	0.00	0.00
133	133	104.65	0.00	0.00	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.01	0.00
419	19	59.01	0.00	0.01	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	3.05	0.00	0.00	-0.01
2	2	3.05	0.00	0.00	-0.01
2	3	6.10	0.00	0.00	-0.02
3	3	6.10	0.00	0.00	-0.02
3	4	9.15	0.00	0.00	-0.03
4	4	9.15	0.00	0.00	-0.03
4	5	12.20	0.00	0.00	-0.04
5	5	12.20	0.00	0.00	-0.04
5	6	15.25	0.00	0.00	-0.04
6	6	15.25	0.00	0.00	-0.04
6	7	18.30	0.00	0.00	-0.04
7	7	18.30	0.00	0.00	-0.04
7	8	21.35	0.00	0.00	-0.04
8	8	21.35	0.00	0.00	-0.04
8	9	24.40	0.00	0.00	-0.04
9	9	24.40	0.00	0.00	-0.04
9	10	27.45	0.00	0.00	-0.03
10	10	27.45	0.00	0.00	-0.03
10	11	30.50	0.00	0.00	-0.01
11	11	30.50	0.00	0.00	-0.01
11	12	33.55	0.00	0.00	0.00
12	10012	33.55	0.00	0.00	0.00
12	13	37.19	0.00	0.00	0.01
13	13	37.19	0.00	0.00	0.01
13	14	40.82	0.00	0.00	0.01
14	14	40.82	0.00	0.00	0.01
14	15	44.46	0.00	0.00	0.01
15	15	44.46	0.00	0.00	0.01
15	16	48.10	0.00	0.00	0.01
16	16	48.10	0.00	0.00	0.01
16	17	51.73	0.00	0.00	0.01
17	17	51.73	0.00	0.00	0.01
17	18	55.37	0.00	0.00	0.02
18	18	55.37	0.00	0.00	0.02
18	19	59.01	0.00	0.00	0.03
19	19	59.01	0.00	0.00	0.03
19	20	62.64	0.00	0.00	0.03
20	20	62.64	0.00	0.00	0.03
20	21	66.28	0.00	0.00	0.02
21	21	66.28	0.00	0.00	0.02
21	22	69.91	0.00	0.00	0.01
22	22	69.91	0.00	0.00	0.01
22	23	73.55	0.00	0.00	0.00
23	10023	73.55	0.00	0.00	0.00
23	24	76.66	0.00	0.00	0.01
24	24	76.66	0.00	0.00	0.01
24	25	79.77	0.00	0.00	0.02
25	25	79.77	0.00	0.00	0.02
25	26	82.88	0.00	0.00	0.02
26	26	82.88	0.00	0.00	0.02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.00	0.02
27	27	85.99	0.00	0.00	0.02
27	28	89.10	0.00	0.00	0.02
28	28	89.10	0.00	0.00	0.02
28	29	92.21	0.00	0.00	0.01
29	29	92.21	0.00	0.00	0.01
29	30	95.32	0.00	0.00	0.01
30	30	95.32	0.00	0.00	0.01
30	31	98.43	0.00	0.00	0.01
31	31	98.43	0.00	0.00	0.01
31	32	101.54	0.00	0.00	0.01
32	32	101.54	0.00	0.00	0.01
32	33	104.65	0.00	0.00	0.00
33	33	104.65	0.00	0.00	0.00
33	34	107.76	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	3.05	0.00	0.00	0.00
102	102	3.05	0.00	0.00	0.00
102	103	6.10	0.00	0.00	0.00
103	103	6.10	0.00	0.00	0.00
103	104	9.15	0.00	0.00	0.00
104	104	9.15	0.00	0.00	0.00
104	105	12.20	0.00	0.00	0.00
105	105	12.20	0.00	0.00	0.00
105	106	15.25	0.00	0.00	0.00
106	106	15.25	0.00	0.00	0.00
106	107	18.30	0.00	0.00	0.00
107	107	18.30	0.00	0.00	0.00
107	108	21.35	0.00	0.00	0.00
108	108	21.35	0.00	0.00	0.00
108	109	24.40	0.00	0.00	0.00
109	109	24.40	0.00	0.00	0.00
109	110	27.45	0.00	0.00	0.00
110	110	27.45	0.00	0.00	0.00
110	111	30.50	0.00	0.00	0.00
111	111	30.50	0.00	0.00	0.00
111	112	33.55	0.00	0.00	0.00
112	10112	33.55	0.00	0.00	0.00
112	113	37.19	0.00	0.00	0.00
113	113	37.19	0.00	0.00	0.00
113	114	40.82	0.00	0.00	0.00
114	114	40.82	0.00	0.00	0.00
114	115	44.46	0.00	0.00	0.00
115	115	44.46	0.00	0.00	0.00
115	116	48.10	0.00	0.00	0.00
116	116	48.10	0.00	0.00	0.00
116	117	51.73	0.00	0.00	0.00
117	117	51.73	0.00	0.00	0.00
117	118	55.37	0.00	0.00	0.00
118	118	55.37	0.00	0.00	0.00
118	119	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.00	0.00
119	120	62.64	0.00	0.00	0.00
120	120	62.64	0.00	0.00	0.00
120	121	66.28	0.00	0.00	0.00
121	121	66.28	0.00	0.00	0.00
121	122	69.91	0.00	0.00	0.00
122	122	69.91	0.00	0.00	0.00
122	123	73.55	0.00	0.00	0.00
123	10123	73.55	0.00	0.00	0.00
123	124	76.66	0.00	0.00	0.00
124	124	76.66	0.00	0.00	0.00
124	125	79.77	0.00	0.00	0.00
125	125	79.77	0.00	0.00	0.00
125	126	82.88	0.00	0.00	0.00
126	126	82.88	0.00	0.00	0.00
126	127	85.99	0.00	0.00	0.00
127	127	85.99	0.00	0.00	0.00
127	128	89.10	0.00	0.00	0.00
128	128	89.10	0.00	0.00	0.00
128	129	92.21	0.00	0.00	0.00
129	129	92.21	0.00	0.00	0.00
129	130	95.32	0.00	0.00	0.00
130	130	95.32	0.00	0.00	0.00
130	131	98.43	0.00	0.00	0.00
131	131	98.43	0.00	0.00	0.00
131	132	101.54	0.00	0.00	0.00
132	132	101.54	0.00	0.00	0.00
132	133	104.65	0.00	0.00	0.00
133	133	104.65	0.00	0.00	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

f1.pret.esf

Programa DINTEL PACADAR S.A.
PRETF1I.HIP.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.01	0.00
419	19	59.01	0.00	0.01	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1I.FAM1.TOT + [-1;-1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.TOT + [-1;-1]PRETF1I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	-635.32	0.00	-254.68
1	2	3.05	-635.32	0.00	-254.68
2	2	3.05	-1104.88	0.00	-708.27
2	3	6.10	-1104.88	0.00	-708.27
3	3	6.10	-1429.96	0.00	-1006.70
3	4	9.15	-1429.96	0.00	-1006.70
4	4	9.15	-1755.04	0.00	-1289.52
4	5	12.20	-1755.04	0.00	-1289.52
5	5	12.20	-1755.04	0.00	-1289.52
5	6	15.25	-1755.04	0.00	-1289.52
6	6	15.25	-1755.04	0.00	-1289.52
6	7	18.30	-1755.04	0.00	-1289.52
7	7	18.30	-1755.04	0.00	-1289.52
7	8	21.35	-1755.04	0.00	-1289.52
8	8	21.35	-1755.04	0.00	-1289.52
8	9	24.40	-1755.04	0.00	-1289.52
9	9	24.40	-1429.96	0.00	-1006.70
9	10	27.45	-1429.96	0.00	-1006.70
10	10	27.45	-1104.88	0.00	-708.27
10	11	30.50	-1104.88	0.00	-708.27
11	11	30.50	-635.32	0.00	-254.68
11	12	33.55	-635.32	0.00	-254.68
12	10012	33.55	-671.44	0.00	-291.30
12	13	37.19	-671.44	0.00	-291.30
13	13	37.19	-1141.00	0.00	-744.90
13	14	40.82	-1141.00	0.00	-744.90
14	14	40.82	-1646.68	0.00	-1209.11
14	15	44.46	-1646.68	0.00	-1209.11
15	15	44.46	-2152.36	0.00	-1649.06
15	16	48.10	-2152.36	0.00	-1649.06
16	16	48.10	-2152.36	0.00	-1649.06
16	17	51.73	-2152.36	0.00	-1649.06
17	17	51.73	-2152.36	0.00	-1649.06
17	18	55.37	-2152.36	0.00	-1649.06
18	18	55.37	-2152.36	0.00	-1649.06
18	19	59.01	-2152.36	0.00	-1649.06
19	19	59.01	-2152.36	0.00	-1649.06
19	20	62.64	-2152.36	0.00	-1649.06
20	20	62.64	-1646.68	0.00	-1209.11
20	21	66.28	-1646.68	0.00	-1209.11
21	21	66.28	-1141.00	0.00	-744.90
21	22	69.91	-1141.00	0.00	-744.90
22	22	69.91	-671.44	0.00	-291.30
22	23	73.55	-671.44	0.00	-291.30
23	10023	73.55	-635.32	0.00	-254.68
23	24	76.66	-635.32	0.00	-254.68
24	24	76.66	-1104.88	0.00	-708.27
24	25	79.77	-1104.88	0.00	-708.27
25	25	79.77	-1466.08	0.00	-1039.86
25	26	82.88	-1466.08	0.00	-1039.86
26	26	82.88	-1827.28	0.00	-1354.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	-1827.28	0.00	-1354.10
27	27	85.99	-1827.28	0.00	-1354.10
27	28	89.10	-1827.28	0.00	-1354.10
28	28	89.10	-1827.28	0.00	-1354.10
28	29	92.21	-1827.28	0.00	-1354.10
29	29	92.21	-1827.28	0.00	-1354.10
29	30	95.32	-1827.28	0.00	-1354.10
30	30	95.32	-1827.28	0.00	-1354.10
30	31	98.43	-1827.28	0.00	-1354.10
31	31	98.43	-1466.08	0.00	-1039.86
31	32	101.54	-1466.08	0.00	-1039.86
32	32	101.54	-1104.88	0.00	-708.27
32	33	104.65	-1104.88	0.00	-708.27
33	33	104.65	-635.32	0.00	-254.68
33	34	107.76	-635.32	0.00	-254.68
101	101	0.00	0.00	0.00	0.00
101	102	0.00	0.00	0.00	0.00
102	102	0.00	0.00	0.00	0.00
102	103	0.00	0.00	0.00	0.00
103	103	0.00	0.00	0.00	0.00
103	104	0.00	0.00	0.00	0.00
104	104	0.00	0.00	0.00	0.00
104	105	0.00	0.00	0.00	0.00
105	105	0.00	0.00	0.00	0.00
105	106	0.00	0.00	0.00	0.00
106	106	0.00	0.00	0.00	0.00
106	107	0.00	0.00	0.00	0.00
107	107	0.00	0.00	0.00	0.00
107	108	0.00	0.00	0.00	0.00
108	108	0.00	0.00	0.00	0.00
108	109	0.00	0.00	0.00	0.00
109	109	0.00	0.00	0.00	0.00
109	110	0.00	0.00	0.00	0.00
110	110	0.00	0.00	0.00	0.00
110	111	0.00	0.00	0.00	0.00
111	111	0.00	0.00	0.00	0.00
111	112	0.00	0.00	0.00	0.00
112	10112	0.00	0.00	0.00	0.00
112	113	0.00	0.00	0.00	0.00
113	113	0.00	0.00	0.00	0.00
113	114	0.00	0.00	0.00	0.00
114	114	0.00	0.00	0.00	0.00
114	115	0.00	0.00	0.00	0.00
115	115	0.00	0.00	0.00	0.00
115	116	0.00	0.00	0.00	0.00
116	116	0.00	0.00	0.00	0.00
116	117	0.00	0.00	0.00	0.00
117	117	0.00	0.00	0.00	0.00
117	118	0.00	0.00	0.00	0.00
118	118	0.00	0.00	0.00	0.00
118	119	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	0.00	0.00	0.00	0.00
119	120	0.00	0.00	0.00	0.00
120	120	0.00	0.00	0.00	0.00
120	121	0.00	0.00	0.00	0.00
121	121	0.00	0.00	0.00	0.00
121	122	0.00	0.00	0.00	0.00
122	122	0.00	0.00	0.00	0.00
122	123	0.00	0.00	0.00	0.00
123	10123	0.00	0.00	0.00	0.00
123	124	0.00	0.00	0.00	0.00
124	124	0.00	0.00	0.00	0.00
124	125	0.00	0.00	0.00	0.00
125	125	0.00	0.00	0.00	0.00
125	126	0.00	0.00	0.00	0.00
126	126	0.00	0.00	0.00	0.00
126	127	0.00	0.00	0.00	0.00
127	127	0.00	0.00	0.00	0.00
127	128	0.00	0.00	0.00	0.00
128	128	0.00	0.00	0.00	0.00
128	129	0.00	0.00	0.00	0.00
129	129	0.00	0.00	0.00	0.00
129	130	0.00	0.00	0.00	0.00
130	130	0.00	0.00	0.00	0.00
130	131	0.00	0.00	0.00	0.00
131	131	0.00	0.00	0.00	0.00
131	132	0.00	0.00	0.00	0.00
132	132	0.00	0.00	0.00	0.00
132	133	0.00	0.00	0.00	0.00
133	133	0.00	0.00	0.00	0.00
133	134	0.00	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	0.00	0.00	0.00	0.00
302	2002	0.00	0.00	0.00	0.00
303	103	0.00	0.00	0.00	0.00
303	2003	0.00	0.00	0.00	0.00
304	104	0.00	0.00	0.00	0.00
304	2004	0.00	0.00	0.00	0.00
305	105	0.00	0.00	0.00	0.00
305	2005	0.00	0.00	0.00	0.00
306	106	0.00	0.00	0.00	0.00
306	2006	0.00	0.00	0.00	0.00
307	107	0.00	0.00	0.00	0.00
307	2007	0.00	0.00	0.00	0.00
308	108	0.00	0.00	0.00	0.00
308	2008	0.00	0.00	0.00	0.00
309	109	0.00	0.00	0.00	0.00
309	2009	0.00	0.00	0.00	0.00
310	110	0.00	0.00	0.00	0.00
310	2010	0.00	0.00	0.00	0.00
311	111	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

f1.pret.esf

Programa DINTEL PACADAR S.A.
PRETF1I.ISO.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.FA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.FA

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	0.00	0.00	0.00	0.00
402	2	0.00	0.00	0.00	0.00
403	1003	0.00	0.00	0.00	0.00
403	3	0.00	0.00	0.00	0.00
404	1004	0.00	0.00	0.00	0.00
404	4	0.00	0.00	0.00	0.00
405	1005	0.00	0.00	0.00	0.00
405	5	0.00	0.00	0.00	0.00
406	1006	0.00	0.00	0.00	0.00
406	6	0.00	0.00	0.00	0.00
407	1007	0.00	0.00	0.00	0.00
407	7	0.00	0.00	0.00	0.00
408	1008	0.00	0.00	0.00	0.00
408	8	0.00	0.00	0.00	0.00
409	1009	0.00	0.00	0.00	0.00
409	9	0.00	0.00	0.00	0.00
410	1010	0.00	0.00	0.00	0.00
410	10	0.00	0.00	0.00	0.00
411	1011	0.00	0.00	0.00	0.00
411	11	0.00	0.00	0.00	0.00
412	1012	0.00	0.00	0.00	0.00
412	12	0.00	0.00	0.00	0.00
413	1013	0.00	0.00	0.00	0.00
413	13	0.00	0.00	0.00	0.00
414	1014	0.00	0.00	0.00	0.00
414	14	0.00	0.00	0.00	0.00
415	1015	0.00	0.00	0.00	0.00
415	15	0.00	0.00	0.00	0.00
416	1016	0.00	0.00	0.00	0.00
416	16	0.00	0.00	0.00	0.00
417	1017	0.00	0.00	0.00	0.00
417	17	0.00	0.00	0.00	0.00
418	1018	0.00	0.00	0.00	0.00
418	18	0.00	0.00	0.00	0.00
419	1019	0.00	0.00	0.00	0.00
419	19	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	0.00	0.00	0.00	0.00
420	20	0.00	0.00	0.00	0.00
421	1021	0.00	0.00	0.00	0.00
421	21	0.00	0.00	0.00	0.00
422	1022	0.00	0.00	0.00	0.00
422	22	0.00	0.00	0.00	0.00
423	1023	0.00	0.00	0.00	0.00
423	23	0.00	0.00	0.00	0.00
424	1024	0.00	0.00	0.00	0.00
424	24	0.00	0.00	0.00	0.00
425	1025	0.00	0.00	0.00	0.00
425	25	0.00	0.00	0.00	0.00
426	1026	0.00	0.00	0.00	0.00
426	26	0.00	0.00	0.00	0.00
427	1027	0.00	0.00	0.00	0.00
427	27	0.00	0.00	0.00	0.00
428	1028	0.00	0.00	0.00	0.00
428	28	0.00	0.00	0.00	0.00
429	1029	0.00	0.00	0.00	0.00
429	29	0.00	0.00	0.00	0.00
430	1030	0.00	0.00	0.00	0.00
430	30	0.00	0.00	0.00	0.00
431	1031	0.00	0.00	0.00	0.00
431	31	0.00	0.00	0.00	0.00
432	1032	0.00	0.00	0.00	0.00
432	32	0.00	0.00	0.00	0.00
433	1033	0.00	0.00	0.00	0.00
433	33	0.00	0.00	0.00	0.00
434	1034	0.00	0.00	0.00	0.00
434	34	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.ISO.Tinf
Pretensado Isostático (t=INF)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	-635.32	0.00	-254.68
1	2	3.05	-635.32	0.00	-254.68
2	2	3.05	-1104.88	0.00	-708.27
2	3	6.10	-1104.88	0.00	-708.27
3	3	6.10	-1429.96	0.00	-1006.70
3	4	9.15	-1429.96	0.00	-1006.70
4	4	9.15	-1755.04	0.00	-1289.52
4	5	12.20	-1755.04	0.00	-1289.52
5	5	12.20	-1755.04	0.00	-1289.52
5	6	15.25	-1755.04	0.00	-1289.52
6	6	15.25	-1755.04	0.00	-1289.52
6	7	18.30	-1755.04	0.00	-1289.52
7	7	18.30	-1755.04	0.00	-1289.52
7	8	21.35	-1755.04	0.00	-1289.52
8	8	21.35	-1755.04	0.00	-1289.52
8	9	24.40	-1755.04	0.00	-1289.52
9	9	24.40	-1429.96	0.00	-1006.70
9	10	27.45	-1429.96	0.00	-1006.70
10	10	27.45	-1104.88	0.00	-708.27
10	11	30.50	-1104.88	0.00	-708.27
11	11	30.50	-635.32	0.00	-254.68
11	12	33.55	-635.32	0.00	-254.68
12	10012	33.55	-671.44	0.00	-291.30
12	13	37.19	-671.44	0.00	-291.30
13	13	37.19	-1141.00	0.00	-744.90
13	14	40.82	-1141.00	0.00	-744.90
14	14	40.82	-1646.68	0.00	-1209.11
14	15	44.46	-1646.68	0.00	-1209.11
15	15	44.46	-2152.36	0.00	-1649.06
15	16	48.10	-2152.36	0.00	-1649.06
16	16	48.10	-2152.36	0.00	-1649.06
16	17	51.73	-2152.36	0.00	-1649.06
17	17	51.73	-2152.36	0.00	-1649.06
17	18	55.37	-2152.36	0.00	-1649.06
18	18	55.37	-2152.36	0.00	-1649.06
18	19	59.01	-2152.36	0.00	-1649.06
19	19	59.01	-2152.36	0.00	-1649.06
19	20	62.64	-2152.36	0.00	-1649.06
20	20	62.64	-1646.68	0.00	-1209.11
20	21	66.28	-1646.68	0.00	-1209.11
21	21	66.28	-1141.00	0.00	-744.90
21	22	69.91	-1141.00	0.00	-744.90
22	22	69.91	-671.44	0.00	-291.30
22	23	73.55	-671.44	0.00	-291.30
23	10023	73.55	-635.32	0.00	-254.68
23	24	76.66	-635.32	0.00	-254.68
24	24	76.66	-1104.88	0.00	-708.27
24	25	79.77	-1104.88	0.00	-708.27
25	25	79.77	-1466.08	0.00	-1039.86
25	26	82.88	-1466.08	0.00	-1039.86
26	26	82.88	-1827.28	0.00	-1354.10

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1I.ISO.Tinf
Pretensado Isostático (t=INF)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	-1827.28	0.00	-1354.10
27	27	85.99	-1827.28	0.00	-1354.10
27	28	89.10	-1827.28	0.00	-1354.10
28	28	89.10	-1827.28	0.00	-1354.10
28	29	92.21	-1827.28	0.00	-1354.10
29	29	92.21	-1827.28	0.00	-1354.10
29	30	95.32	-1827.28	0.00	-1354.10
30	30	95.32	-1827.28	0.00	-1354.10
30	31	98.43	-1827.28	0.00	-1039.86
31	31	98.43	-1466.08	0.00	-1039.86
31	32	101.54	-1466.08	0.00	-708.27
32	32	101.54	-1104.88	0.00	-708.27
32	33	104.65	-1104.88	0.00	-254.68
33	33	104.65	-635.32	0.00	-254.68
33	34	107.76	-635.32	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	0.00	0.00	0.00	0.00
102	102	0.00	0.00	0.00	0.00
102	103	0.00	0.00	0.00	0.00
103	103	0.00	0.00	0.00	0.00
103	104	0.00	0.00	0.00	0.00
104	104	0.00	0.00	0.00	0.00
104	105	0.00	0.00	0.00	0.00
105	105	0.00	0.00	0.00	0.00
105	106	0.00	0.00	0.00	0.00
106	106	0.00	0.00	0.00	0.00
106	107	0.00	0.00	0.00	0.00
107	107	0.00	0.00	0.00	0.00
107	108	0.00	0.00	0.00	0.00
108	108	0.00	0.00	0.00	0.00
108	109	0.00	0.00	0.00	0.00
109	109	0.00	0.00	0.00	0.00
109	110	0.00	0.00	0.00	0.00
110	110	0.00	0.00	0.00	0.00
110	111	0.00	0.00	0.00	0.00
111	111	0.00	0.00	0.00	0.00
111	112	0.00	0.00	0.00	0.00
112	10112	0.00	0.00	0.00	0.00
112	113	0.00	0.00	0.00	0.00
113	113	0.00	0.00	0.00	0.00
113	114	0.00	0.00	0.00	0.00
114	114	0.00	0.00	0.00	0.00
114	115	0.00	0.00	0.00	0.00
115	115	0.00	0.00	0.00	0.00
115	116	0.00	0.00	0.00	0.00
116	116	0.00	0.00	0.00	0.00
116	117	0.00	0.00	0.00	0.00
117	117	0.00	0.00	0.00	0.00
117	118	0.00	0.00	0.00	0.00
118	118	0.00	0.00	0.00	0.00
118	119	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	0.00	0.00	0.00	0.00
119	120	0.00	0.00	0.00	0.00
120	120	0.00	0.00	0.00	0.00
120	121	0.00	0.00	0.00	0.00
121	121	0.00	0.00	0.00	0.00
121	122	0.00	0.00	0.00	0.00
122	122	0.00	0.00	0.00	0.00
122	123	0.00	0.00	0.00	0.00
123	10123	0.00	0.00	0.00	0.00
123	124	0.00	0.00	0.00	0.00
124	124	0.00	0.00	0.00	0.00
124	125	0.00	0.00	0.00	0.00
125	125	0.00	0.00	0.00	0.00
125	126	0.00	0.00	0.00	0.00
126	126	0.00	0.00	0.00	0.00
126	127	0.00	0.00	0.00	0.00
127	127	0.00	0.00	0.00	0.00
127	128	0.00	0.00	0.00	0.00
128	128	0.00	0.00	0.00	0.00
128	129	0.00	0.00	0.00	0.00
129	129	0.00	0.00	0.00	0.00
129	130	0.00	0.00	0.00	0.00
130	130	0.00	0.00	0.00	0.00
130	131	0.00	0.00	0.00	0.00
131	131	0.00	0.00	0.00	0.00
131	132	0.00	0.00	0.00	0.00
132	132	0.00	0.00	0.00	0.00
132	133	0.00	0.00	0.00	0.00
133	133	0.00	0.00	0.00	0.00
133	134	0.00	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	0.00	0.00	0.00	0.00
302	2002	0.00	0.00	0.00	0.00
303	103	0.00	0.00	0.00	0.00
303	2003	0.00	0.00	0.00	0.00
304	104	0.00	0.00	0.00	0.00
304	2004	0.00	0.00	0.00	0.00
305	105	0.00	0.00	0.00	0.00
305	2005	0.00	0.00	0.00	0.00
306	106	0.00	0.00	0.00	0.00
306	2006	0.00	0.00	0.00	0.00
307	107	0.00	0.00	0.00	0.00
307	2007	0.00	0.00	0.00	0.00
308	108	0.00	0.00	0.00	0.00
308	2008	0.00	0.00	0.00	0.00
309	109	0.00	0.00	0.00	0.00
309	2009	0.00	0.00	0.00	0.00
310	110	0.00	0.00	0.00	0.00
310	2010	0.00	0.00	0.00	0.00
311	111	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	0.00	0.00	0.00	0.00
402	2	0.00	0.00	0.00	0.00
403	1003	0.00	0.00	0.00	0.00
403	3	0.00	0.00	0.00	0.00
404	1004	0.00	0.00	0.00	0.00
404	4	0.00	0.00	0.00	0.00
405	1005	0.00	0.00	0.00	0.00
405	5	0.00	0.00	0.00	0.00
406	1006	0.00	0.00	0.00	0.00
406	6	0.00	0.00	0.00	0.00
407	1007	0.00	0.00	0.00	0.00
407	7	0.00	0.00	0.00	0.00
408	1008	0.00	0.00	0.00	0.00
408	8	0.00	0.00	0.00	0.00
409	1009	0.00	0.00	0.00	0.00
409	9	0.00	0.00	0.00	0.00
410	1010	0.00	0.00	0.00	0.00
410	10	0.00	0.00	0.00	0.00
411	1011	0.00	0.00	0.00	0.00
411	11	0.00	0.00	0.00	0.00
412	1012	0.00	0.00	0.00	0.00
412	12	0.00	0.00	0.00	0.00
413	1013	0.00	0.00	0.00	0.00
413	13	0.00	0.00	0.00	0.00
414	1014	0.00	0.00	0.00	0.00
414	14	0.00	0.00	0.00	0.00
415	1015	0.00	0.00	0.00	0.00
415	15	0.00	0.00	0.00	0.00
416	1016	0.00	0.00	0.00	0.00
416	16	0.00	0.00	0.00	0.00
417	1017	0.00	0.00	0.00	0.00
417	17	0.00	0.00	0.00	0.00
418	1018	0.00	0.00	0.00	0.00
418	18	0.00	0.00	0.00	0.00
419	1019	0.00	0.00	0.00	0.00
419	19	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1I.FAM1.ISO + [1; 1]PRETF1I.FAM2.ISO + [1; 1]PRETF1I.FAM3.ISO + [1; 1]PRETF1I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	0.00	0.00	0.00	0.00
420	20	0.00	0.00	0.00	0.00
421	1021	0.00	0.00	0.00	0.00
421	21	0.00	0.00	0.00	0.00
422	1022	0.00	0.00	0.00	0.00
422	22	0.00	0.00	0.00	0.00
423	1023	0.00	0.00	0.00	0.00
423	23	0.00	0.00	0.00	0.00
424	1024	0.00	0.00	0.00	0.00
424	24	0.00	0.00	0.00	0.00
425	1025	0.00	0.00	0.00	0.00
425	25	0.00	0.00	0.00	0.00
426	1026	0.00	0.00	0.00	0.00
426	26	0.00	0.00	0.00	0.00
427	1027	0.00	0.00	0.00	0.00
427	27	0.00	0.00	0.00	0.00
428	1028	0.00	0.00	0.00	0.00
428	28	0.00	0.00	0.00	0.00
429	1029	0.00	0.00	0.00	0.00
429	29	0.00	0.00	0.00	0.00
430	1030	0.00	0.00	0.00	0.00
430	30	0.00	0.00	0.00	0.00
431	1031	0.00	0.00	0.00	0.00
431	31	0.00	0.00	0.00	0.00
432	1032	0.00	0.00	0.00	0.00
432	32	0.00	0.00	0.00	0.00
433	1033	0.00	0.00	0.00	0.00
433	33	0.00	0.00	0.00	0.00
434	1034	0.00	0.00	0.00	0.00
434	34	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	3.05	0.00	0.00	0.00
2	2	3.05	0.00	0.00	0.00
2	3	6.10	0.00	0.00	0.00
3	3	6.10	0.00	0.00	0.00
3	4	9.15	0.00	0.00	0.00
4	4	9.15	0.00	0.00	0.00
4	5	12.20	0.00	0.00	0.00
5	5	12.20	0.00	0.00	0.00
5	6	15.25	0.00	0.00	0.00
6	6	15.25	0.00	0.00	0.00
6	7	18.30	0.00	0.00	0.00
7	7	18.30	0.00	0.00	0.00
7	8	21.35	0.00	0.00	0.00
8	8	21.35	0.00	0.00	0.00
8	9	24.40	0.00	0.00	0.00
9	9	24.40	0.00	0.00	0.00
9	10	27.45	0.00	0.00	0.00
10	10	27.45	0.00	0.00	0.00
10	11	30.50	0.00	0.00	0.00
11	11	30.50	0.00	0.00	0.00
11	12	33.55	0.00	0.00	0.00
12	10012	33.55	0.00	0.00	0.00
12	13	37.19	0.00	0.00	0.00
13	13	37.19	0.00	0.00	0.00
13	14	40.82	0.00	0.00	0.00
14	14	40.82	0.00	0.00	0.00
14	15	44.46	0.00	0.00	0.00
15	15	44.46	0.00	0.00	0.00
15	16	48.10	0.00	0.00	0.00
16	16	48.10	0.00	0.00	0.00
16	17	51.73	0.00	0.00	0.00
17	17	51.73	0.00	0.00	0.00
17	18	55.37	0.00	0.00	0.00
18	18	55.37	0.00	0.00	0.00
18	19	59.01	0.00	0.00	0.00
19	19	59.01	0.00	0.00	0.00
19	20	62.64	0.00	0.00	0.00
20	20	62.64	0.00	0.00	0.00
20	21	66.28	0.00	0.00	0.00
21	21	66.28	0.00	0.00	0.00
21	22	69.91	0.00	0.00	0.00
22	22	69.91	0.00	0.00	0.00
22	23	73.55	0.00	0.00	0.00
23	10023	73.55	0.00	0.00	0.00
23	24	76.66	0.00	0.00	0.00
24	24	76.66	0.00	0.00	0.00
24	25	79.77	0.00	0.00	0.00
25	25	79.77	0.00	0.00	0.00
25	26	82.88	0.00	0.00	0.00
26	26	82.88	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.To
Pretensado Total (t=0)
[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.00	0.00
27	27	85.99	0.00	0.00	0.00
27	28	89.10	0.00	0.00	0.00
28	28	89.10	0.00	0.00	0.00
28	29	92.21	0.00	0.00	0.00
29	29	92.21	0.00	0.00	0.00
29	30	95.32	0.00	0.00	0.00
30	30	95.32	0.00	0.00	0.00
30	31	98.43	0.00	0.00	0.00
31	31	98.43	0.00	0.00	0.00
31	32	101.54	0.00	0.00	0.00
32	32	101.54	0.00	0.00	0.00
32	33	104.65	0.00	0.00	0.00
33	33	104.65	0.00	0.00	0.00
33	34	107.76	0.00	0.00	0.00
101	101	0.00	-635.32	0.00	-254.68
101	102	3.05	-635.32	0.00	-254.69
102	102	3.05	-1104.88	0.00	-708.28
102	103	6.10	-1104.88	0.00	-708.29
103	103	6.10	-1429.96	0.00	-1006.72
103	104	9.15	-1429.96	0.00	-1006.73
104	104	9.15	-1755.04	0.00	-1289.55
104	105	12.20	-1755.04	0.00	-1289.55
105	105	12.20	-1755.04	0.00	-1289.55
105	106	15.25	-1755.04	0.00	-1289.56
106	106	15.25	-1755.04	0.00	-1289.56
106	107	18.30	-1755.04	0.00	-1289.56
107	107	18.30	-1755.04	0.00	-1289.56
107	108	21.35	-1755.04	0.00	-1289.56
108	108	21.35	-1755.04	0.00	-1289.56
108	109	24.40	-1755.04	0.00	-1289.55
109	109	24.40	-1429.96	0.00	-1006.73
109	110	27.45	-1429.96	0.00	-1006.72
110	110	27.45	-1104.88	0.00	-708.30
110	111	30.50	-1104.88	0.00	-708.29
111	111	30.50	-635.32	0.00	-254.69
111	112	33.55	-635.32	0.00	-254.68
112	10112	33.55	-671.44	0.00	-291.30
112	113	37.19	-671.44	0.00	-291.30
113	113	37.19	-1141.00	0.00	-744.89
113	114	40.82	-1141.00	0.00	-744.89
114	114	40.82	-1646.68	0.00	-1209.10
114	115	44.46	-1646.68	0.00	-1209.10
115	115	44.46	-2152.36	0.00	-1649.04
115	116	48.10	-2152.36	0.00	-1649.04
116	116	48.10	-2152.36	0.00	-1649.04
116	117	51.73	-2152.36	0.00	-1649.05
117	117	51.73	-2152.36	0.00	-1649.05
117	118	55.37	-2152.36	0.00	-1649.04
118	118	55.37	-2152.36	0.00	-1649.04
118	119	59.01	-2152.36	0.00	-1649.02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.To
Pretensado Total (t=0)
[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	-2152.36	0.00	-1649.02
119	120	62.64	-2152.36	0.00	-1649.03
120	120	62.64	-1646.68	0.00	-1209.08
120	121	66.28	-1646.68	0.00	-1209.09
121	121	66.28	-1141.00	0.00	-744.88
121	122	69.91	-1141.00	0.00	-744.89
122	122	69.91	-671.44	0.00	-291.29
122	123	73.55	-671.44	0.00	-291.30
123	10123	73.55	-635.32	0.00	-254.68
123	124	76.66	-635.32	0.00	-254.67
124	124	76.66	-1104.88	0.00	-708.26
124	125	79.77	-1104.88	0.00	-708.26
125	125	79.77	-1466.08	0.00	-1039.84
125	126	82.88	-1466.08	0.00	-1039.84
126	126	82.88	-1827.28	0.00	-1354.08
126	127	85.99	-1827.28	0.00	-1354.08
127	127	85.99	-1827.28	0.00	-1354.08
127	128	89.10	-1827.28	0.00	-1354.08
128	128	89.10	-1827.28	0.00	-1354.08
128	129	92.21	-1827.28	0.00	-1354.09
129	129	92.21	-1827.28	0.00	-1354.09
129	130	95.32	-1827.28	0.00	-1354.09
130	130	95.32	-1827.28	0.00	-1354.09
130	131	98.43	-1827.28	0.00	-1354.09
131	131	98.43	-1466.08	0.00	-1039.85
131	132	101.54	-1466.08	0.00	-1039.85
132	132	101.54	-1104.88	0.00	-708.27
132	133	104.65	-1104.88	0.00	-708.27
133	133	104.65	-635.32	0.00	-254.68
133	134	107.76	-635.32	0.00	-254.68
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	-0.01	0.00
319	2019	59.01	0.00	-0.01	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	3.05	0.00	0.00	0.00
2	2	3.05	0.00	0.00	0.00
2	3	6.10	0.00	0.00	0.00
3	3	6.10	0.00	0.00	0.00
3	4	9.15	0.00	0.00	0.00
4	4	9.15	0.00	0.00	0.00
4	5	12.20	0.00	0.00	0.00
5	5	12.20	0.00	0.00	0.00
5	6	15.25	0.00	0.00	0.00
6	6	15.25	0.00	0.00	0.00
6	7	18.30	0.00	0.00	0.00
7	7	18.30	0.00	0.00	0.00
7	8	21.35	0.00	0.00	0.00
8	8	21.35	0.00	0.00	0.00
8	9	24.40	0.00	0.00	0.00
9	9	24.40	0.00	0.00	0.00
9	10	27.45	0.00	0.00	0.00
10	10	27.45	0.00	0.00	0.00
10	11	30.50	0.00	0.00	0.00
11	11	30.50	0.00	0.00	0.00
11	12	33.55	0.00	0.00	0.00
12	10012	33.55	0.00	0.00	0.00
12	13	37.19	0.00	0.00	0.00
13	13	37.19	0.00	0.00	0.00
13	14	40.82	0.00	0.00	0.00
14	14	40.82	0.00	0.00	0.00
14	15	44.46	0.00	0.00	0.00
15	15	44.46	0.00	0.00	0.00
15	16	48.10	0.00	0.00	0.00
16	16	48.10	0.00	0.00	0.00
16	17	51.73	0.00	0.00	0.00
17	17	51.73	0.00	0.00	0.00
17	18	55.37	0.00	0.00	0.00
18	18	55.37	0.00	0.00	0.00
18	19	59.01	0.00	0.00	0.00
19	19	59.01	0.00	0.00	0.00
19	20	62.64	0.00	0.00	0.00
20	20	62.64	0.00	0.00	0.00
20	21	66.28	0.00	0.00	0.00
21	21	66.28	0.00	0.00	0.00
21	22	69.91	0.00	0.00	0.00
22	22	69.91	0.00	0.00	0.00
22	23	73.55	0.00	0.00	0.00
23	10023	73.55	0.00	0.00	0.00
23	24	76.66	0.00	0.00	0.00
24	24	76.66	0.00	0.00	0.00
24	25	79.77	0.00	0.00	0.00
25	25	79.77	0.00	0.00	0.00
25	26	82.88	0.00	0.00	0.00
26	26	82.88	0.00	0.00	0.00

f1.pret.esf
Programa DINTEL PACADAR S.A.
PRETF1D.TOT.Tinf
20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.00	0.00
27	27	85.99	0.00	0.00	0.00
27	28	89.10	0.00	0.00	0.00
28	28	89.10	0.00	0.00	0.00
28	29	92.21	0.00	0.00	0.00
29	29	92.21	0.00	0.00	0.00
29	30	95.32	0.00	0.00	0.00
30	30	95.32	0.00	0.00	0.00
30	31	98.43	0.00	0.00	0.00
31	31	98.43	0.00	0.00	0.00
31	32	101.54	0.00	0.00	0.00
32	32	101.54	0.00	0.00	0.00
32	33	104.65	0.00	0.00	0.00
33	33	104.65	0.00	0.00	0.00
33	34	107.76	0.00	0.00	0.00
101	101	0.00	-635.32	0.00	-254.68
101	102	3.05	-635.32	0.00	-254.69
102	102	3.05	-1104.88	0.00	-708.28
102	103	6.10	-1104.88	0.00	-708.29
103	103	6.10	-1429.96	0.00	-1006.72
103	104	9.15	-1429.96	0.00	-1006.73
104	104	9.15	-1755.04	0.00	-1289.55
104	105	12.20	-1755.04	0.00	-1289.55
105	105	12.20	-1755.04	0.00	-1289.55
105	106	15.25	-1755.04	0.00	-1289.56
106	106	15.25	-1755.04	0.00	-1289.56
106	107	18.30	-1755.04	0.00	-1289.56
107	107	18.30	-1755.04	0.00	-1289.56
107	108	21.35	-1755.04	0.00	-1289.56
108	108	21.35	-1755.04	0.00	-1289.56
108	109	24.40	-1755.04	0.00	-1289.55
109	109	24.40	-1429.96	0.00	-1006.73
109	110	27.45	-1429.96	0.00	-1006.72
110	110	27.45	-1104.88	0.00	-708.30
110	111	30.50	-1104.88	0.00	-708.29
111	111	30.50	-635.32	0.00	-254.69
111	112	33.55	-635.32	0.00	-254.68
112	10112	33.55	-671.44	0.00	-291.30
112	113	37.19	-671.44	0.00	-291.30
113	113	37.19	-1141.00	0.00	-744.89
113	114	40.82	-1141.00	0.00	-744.89
114	114	40.82	-1646.68	0.00	-1209.10
114	115	44.46	-1646.68	0.00	-1209.10
115	115	44.46	-2152.36	0.00	-1649.04
115	116	48.10	-2152.36	0.00	-1649.04
116	116	48.10	-2152.36	0.00	-1649.04
116	117	51.73	-2152.36	0.00	-1649.05
117	117	51.73	-2152.36	0.00	-1649.05
117	118	55.37	-2152.36	0.00	-1649.04
118	118	55.37	-2152.36	0.00	-1649.04
118	119	59.01	-2152.36	0.00	-1649.02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	-2152.36	0.00	-1649.02
119	120	62.64	-2152.36	0.00	-1649.03
120	120	62.64	-1646.68	0.00	-1209.08
120	121	66.28	-1646.68	0.00	-1209.09
121	121	66.28	-1141.00	0.00	-744.88
121	122	69.91	-1141.00	0.00	-744.89
122	122	69.91	-671.44	0.00	-291.29
122	123	73.55	-671.44	0.00	-291.30
123	10123	73.55	-635.32	0.00	-254.68
123	124	76.66	-635.32	0.00	-254.67
124	124	76.66	-1104.88	0.00	-708.26
124	125	79.77	-1104.88	0.00	-708.26
125	125	79.77	-1466.08	0.00	-1039.84
125	126	82.88	-1466.08	0.00	-1039.84
126	126	82.88	-1827.28	0.00	-1354.08
126	127	85.99	-1827.28	0.00	-1354.08
127	127	85.99	-1827.28	0.00	-1354.08
127	128	89.10	-1827.28	0.00	-1354.08
128	128	89.10	-1827.28	0.00	-1354.08
128	129	92.21	-1827.28	0.00	-1354.09
129	129	92.21	-1827.28	0.00	-1354.09
129	130	95.32	-1827.28	0.00	-1354.09
130	130	95.32	-1827.28	0.00	-1354.09
130	131	98.43	-1827.28	0.00	-1354.09
131	131	98.43	-1466.08	0.00	-1039.85
131	132	101.54	-1466.08	0.00	-1039.85
132	132	101.54	-1104.88	0.00	-708.27
132	133	104.65	-1104.88	0.00	-708.27
133	133	104.65	-635.32	0.00	-254.68
133	134	107.76	-635.32	0.00	-254.68
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

f1.pret.esf
Programa DINTEL PACADAR S.A.
PRETF1D.TOT.Tinf
20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	-0.01	0.00
319	2019	59.01	0.00	-0.01	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [1; 1]PRETF1D.FAM2.TOT + [1; 1]PRETF1D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1D.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	3.05	0.00	0.00	0.00
2	2	3.05	0.00	0.00	0.00
2	3	6.10	0.00	0.00	0.00
3	3	6.10	0.00	0.00	0.00
3	4	9.15	0.00	0.00	0.00
4	4	9.15	0.00	0.00	0.00
4	5	12.20	0.00	0.00	0.00
5	5	12.20	0.00	0.00	0.00
5	6	15.25	0.00	0.00	0.00
6	6	15.25	0.00	0.00	0.00
6	7	18.30	0.00	0.00	0.00
7	7	18.30	0.00	0.00	0.00
7	8	21.35	0.00	0.00	0.00
8	8	21.35	0.00	0.00	0.00
8	9	24.40	0.00	0.00	0.00
9	9	24.40	0.00	0.00	0.00
9	10	27.45	0.00	0.00	0.00
10	10	27.45	0.00	0.00	0.00
10	11	30.50	0.00	0.00	0.00
11	11	30.50	0.00	0.00	0.00
11	12	33.55	0.00	0.00	0.00
12	10012	33.55	0.00	0.00	0.00
12	13	37.19	0.00	0.00	0.00
13	13	37.19	0.00	0.00	0.00
13	14	40.82	0.00	0.00	0.00
14	14	40.82	0.00	0.00	0.00
14	15	44.46	0.00	0.00	0.00
15	15	44.46	0.00	0.00	0.00
15	16	48.10	0.00	0.00	0.00
16	16	48.10	0.00	0.00	0.00
16	17	51.73	0.00	0.00	0.00
17	17	51.73	0.00	0.00	0.00
17	18	55.37	0.00	0.00	0.00
18	18	55.37	0.00	0.00	0.00
18	19	59.01	0.00	0.00	0.00
19	19	59.01	0.00	0.00	0.00
19	20	62.64	0.00	0.00	0.00
20	20	62.64	0.00	0.00	0.00
20	21	66.28	0.00	0.00	0.00
21	21	66.28	0.00	0.00	0.00
21	22	69.91	0.00	0.00	0.00
22	22	69.91	0.00	0.00	0.00
22	23	73.55	0.00	0.00	0.00
23	10023	73.55	0.00	0.00	0.00
23	24	76.66	0.00	0.00	0.00
24	24	76.66	0.00	0.00	0.00
24	25	79.77	0.00	0.00	0.00
25	25	79.77	0.00	0.00	0.00
25	26	82.88	0.00	0.00	0.00
26	26	82.88	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.00	0.00
27	27	85.99	0.00	0.00	0.00
27	28	89.10	0.00	0.00	0.00
28	28	89.10	0.00	0.00	0.00
28	29	92.21	0.00	0.00	0.00
29	29	92.21	0.00	0.00	0.00
29	30	95.32	0.00	0.00	0.00
30	30	95.32	0.00	0.00	0.00
30	31	98.43	0.00	0.00	0.00
31	31	98.43	0.00	0.00	0.00
31	32	101.54	0.00	0.00	0.00
32	32	101.54	0.00	0.00	0.00
32	33	104.65	0.00	0.00	0.00
33	33	104.65	0.00	0.00	0.00
33	34	107.76	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	3.05	0.00	0.00	-0.01
102	102	3.05	0.00	0.00	-0.01
102	103	6.10	0.00	0.00	-0.02
103	103	6.10	0.00	0.00	-0.02
103	104	9.15	0.00	0.00	-0.03
104	104	9.15	0.00	0.00	-0.03
104	105	12.20	0.00	0.00	-0.04
105	105	12.20	0.00	0.00	-0.04
105	106	15.25	0.00	0.00	-0.04
106	106	15.25	0.00	0.00	-0.04
106	107	18.30	0.00	0.00	-0.04
107	107	18.30	0.00	0.00	-0.04
107	108	21.35	0.00	0.00	-0.04
108	108	21.35	0.00	0.00	-0.04
108	109	24.40	0.00	0.00	-0.04
109	109	24.40	0.00	0.00	-0.04
109	110	27.45	0.00	0.00	-0.03
110	110	27.45	0.00	0.00	-0.03
110	111	30.50	0.00	0.00	-0.01
111	111	30.50	0.00	0.00	-0.01
111	112	33.55	0.00	0.00	0.00
112	10112	33.55	0.00	0.00	0.00
112	113	37.19	0.00	0.00	0.01
113	113	37.19	0.00	0.00	0.01
113	114	40.82	0.00	0.00	0.01
114	114	40.82	0.00	0.00	0.01
114	115	44.46	0.00	0.00	0.01
115	115	44.46	0.00	0.00	0.01
115	116	48.10	0.00	0.00	0.01
116	116	48.10	0.00	0.00	0.01
116	117	51.73	0.00	0.00	0.01
117	117	51.73	0.00	0.00	0.01
117	118	55.37	0.00	0.00	0.02
118	118	55.37	0.00	0.00	0.02
118	119	59.01	0.00	0.00	0.03

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.00	0.03
119	120	62.64	0.00	0.00	0.03
120	120	62.64	0.00	0.00	0.03
120	121	66.28	0.00	0.00	0.02
121	121	66.28	0.00	0.00	0.02
121	122	69.91	0.00	0.00	0.01
122	122	69.91	0.00	0.00	0.01
122	123	73.55	0.00	0.00	0.00
123	10123	73.55	0.00	0.00	0.00
123	124	76.66	0.00	0.00	0.01
124	124	76.66	0.00	0.00	0.01
124	125	79.77	0.00	0.00	0.02
125	125	79.77	0.00	0.00	0.02
125	126	82.88	0.00	0.00	0.02
126	126	82.88	0.00	0.00	0.02
126	127	85.99	0.00	0.00	0.02
127	127	85.99	0.00	0.00	0.02
127	128	89.10	0.00	0.00	0.02
128	128	89.10	0.00	0.00	0.02
128	129	92.21	0.00	0.00	0.01
129	129	92.21	0.00	0.00	0.01
129	130	95.32	0.00	0.00	0.01
130	130	95.32	0.00	0.00	0.01
130	131	98.43	0.00	0.00	0.01
131	131	98.43	0.00	0.00	0.01
131	132	101.54	0.00	0.00	0.01
132	132	101.54	0.00	0.00	0.01
132	133	104.65	0.00	0.00	0.00
133	133	104.65	0.00	0.00	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	-0.01	0.00
319	2019	59.01	0.00	-0.01	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.To

Pretensado Hiperestático (t=0)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	3.05	0.00	0.00	0.00
2	2	3.05	0.00	0.00	0.00
2	3	6.10	0.00	0.00	0.00
3	3	6.10	0.00	0.00	0.00
3	4	9.15	0.00	0.00	0.00
4	4	9.15	0.00	0.00	0.00
4	5	12.20	0.00	0.00	0.00
5	5	12.20	0.00	0.00	0.00
5	6	15.25	0.00	0.00	0.00
6	6	15.25	0.00	0.00	0.00
6	7	18.30	0.00	0.00	0.00
7	7	18.30	0.00	0.00	0.00
7	8	21.35	0.00	0.00	0.00
8	8	21.35	0.00	0.00	0.00
8	9	24.40	0.00	0.00	0.00
9	9	24.40	0.00	0.00	0.00
9	10	27.45	0.00	0.00	0.00
10	10	27.45	0.00	0.00	0.00
10	11	30.50	0.00	0.00	0.00
11	11	30.50	0.00	0.00	0.00
11	12	33.55	0.00	0.00	0.00
12	10012	33.55	0.00	0.00	0.00
12	13	37.19	0.00	0.00	0.00
13	13	37.19	0.00	0.00	0.00
13	14	40.82	0.00	0.00	0.00
14	14	40.82	0.00	0.00	0.00
14	15	44.46	0.00	0.00	0.00
15	15	44.46	0.00	0.00	0.00
15	16	48.10	0.00	0.00	0.00
16	16	48.10	0.00	0.00	0.00
16	17	51.73	0.00	0.00	0.00
17	17	51.73	0.00	0.00	0.00
17	18	55.37	0.00	0.00	0.00
18	18	55.37	0.00	0.00	0.00
18	19	59.01	0.00	0.00	0.00
19	19	59.01	0.00	0.00	0.00
19	20	62.64	0.00	0.00	0.00
20	20	62.64	0.00	0.00	0.00
20	21	66.28	0.00	0.00	0.00
21	21	66.28	0.00	0.00	0.00
21	22	69.91	0.00	0.00	0.00
22	22	69.91	0.00	0.00	0.00
22	23	73.55	0.00	0.00	0.00
23	10023	73.55	0.00	0.00	0.00
23	24	76.66	0.00	0.00	0.00
24	24	76.66	0.00	0.00	0.00
24	25	79.77	0.00	0.00	0.00
25	25	79.77	0.00	0.00	0.00
25	26	82.88	0.00	0.00	0.00
26	26	82.88	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.00	0.00
27	27	85.99	0.00	0.00	0.00
27	28	89.10	0.00	0.00	0.00
28	28	89.10	0.00	0.00	0.00
28	29	92.21	0.00	0.00	0.00
29	29	92.21	0.00	0.00	0.00
29	30	95.32	0.00	0.00	0.00
30	30	95.32	0.00	0.00	0.00
30	31	98.43	0.00	0.00	0.00
31	31	98.43	0.00	0.00	0.00
31	32	101.54	0.00	0.00	0.00
32	32	101.54	0.00	0.00	0.00
32	33	104.65	0.00	0.00	0.00
33	33	104.65	0.00	0.00	0.00
33	34	107.76	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	3.05	0.00	0.00	-0.01
102	102	3.05	0.00	0.00	-0.01
102	103	6.10	0.00	0.00	-0.02
103	103	6.10	0.00	0.00	-0.02
103	104	9.15	0.00	0.00	-0.03
104	104	9.15	0.00	0.00	-0.03
104	105	12.20	0.00	0.00	-0.04
105	105	12.20	0.00	0.00	-0.04
105	106	15.25	0.00	0.00	-0.04
106	106	15.25	0.00	0.00	-0.04
106	107	18.30	0.00	0.00	-0.04
107	107	18.30	0.00	0.00	-0.04
107	108	21.35	0.00	0.00	-0.04
108	108	21.35	0.00	0.00	-0.04
108	109	24.40	0.00	0.00	-0.04
109	109	24.40	0.00	0.00	-0.04
109	110	27.45	0.00	0.00	-0.03
110	110	27.45	0.00	0.00	-0.03
110	111	30.50	0.00	0.00	-0.01
111	111	30.50	0.00	0.00	-0.01
111	112	33.55	0.00	0.00	0.00
112	10112	33.55	0.00	0.00	0.00
112	113	37.19	0.00	0.00	0.01
113	113	37.19	0.00	0.00	0.01
113	114	40.82	0.00	0.00	0.01
114	114	40.82	0.00	0.00	0.01
114	115	44.46	0.00	0.00	0.01
115	115	44.46	0.00	0.00	0.01
115	116	48.10	0.00	0.00	0.01
116	116	48.10	0.00	0.00	0.01
116	117	51.73	0.00	0.00	0.01
117	117	51.73	0.00	0.00	0.01
117	118	55.37	0.00	0.00	0.02
118	118	55.37	0.00	0.00	0.02
118	119	59.01	0.00	0.00	0.03

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.00	0.03
119	120	62.64	0.00	0.00	0.03
120	120	62.64	0.00	0.00	0.03
120	121	66.28	0.00	0.00	0.02
121	121	66.28	0.00	0.00	0.02
121	122	69.91	0.00	0.00	0.01
122	122	69.91	0.00	0.00	0.01
122	123	73.55	0.00	0.00	0.00
123	10123	73.55	0.00	0.00	0.00
123	124	76.66	0.00	0.00	0.01
124	124	76.66	0.00	0.00	0.01
124	125	79.77	0.00	0.00	0.02
125	125	79.77	0.00	0.00	0.02
125	126	82.88	0.00	0.00	0.02
126	126	82.88	0.00	0.00	0.02
126	127	85.99	0.00	0.00	0.02
127	127	85.99	0.00	0.00	0.02
127	128	89.10	0.00	0.00	0.02
128	128	89.10	0.00	0.00	0.02
128	129	92.21	0.00	0.00	0.01
129	129	92.21	0.00	0.00	0.01
129	130	95.32	0.00	0.00	0.01
130	130	95.32	0.00	0.00	0.01
130	131	98.43	0.00	0.00	0.01
131	131	98.43	0.00	0.00	0.01
131	132	101.54	0.00	0.00	0.01
132	132	101.54	0.00	0.00	0.01
132	133	104.65	0.00	0.00	0.00
133	133	104.65	0.00	0.00	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.00	0.00
309	2009	24.40	0.00	0.00	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	-0.01	0.00
319	2019	59.01	0.00	-0.01	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	0.00
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.Tinf
Pretensado Hiperestático (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.Tinf
Pretensado Hiperestático (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	0.00	0.00
409	9	24.40	0.00	0.00	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.00	0.00
415	15	44.46	0.00	0.00	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.HIP.Tinf

Pretensado Hiperestático (t=INF)

[1; 1]PRETF1D.FAM1.TOT + [-1;-1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.TOT + [-1;-1]PRETF

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	0.00
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	0.00	0.00	0.00	0.00
2	2	0.00	0.00	0.00	0.00
2	3	0.00	0.00	0.00	0.00
3	3	0.00	0.00	0.00	0.00
3	4	0.00	0.00	0.00	0.00
4	4	0.00	0.00	0.00	0.00
4	5	0.00	0.00	0.00	0.00
5	5	0.00	0.00	0.00	0.00
5	6	0.00	0.00	0.00	0.00
6	6	0.00	0.00	0.00	0.00
6	7	0.00	0.00	0.00	0.00
7	7	0.00	0.00	0.00	0.00
7	8	0.00	0.00	0.00	0.00
8	8	0.00	0.00	0.00	0.00
8	9	0.00	0.00	0.00	0.00
9	9	0.00	0.00	0.00	0.00
9	10	0.00	0.00	0.00	0.00
10	10	0.00	0.00	0.00	0.00
10	11	0.00	0.00	0.00	0.00
11	11	0.00	0.00	0.00	0.00
11	12	0.00	0.00	0.00	0.00
12	10012	0.00	0.00	0.00	0.00
12	13	0.00	0.00	0.00	0.00
13	13	0.00	0.00	0.00	0.00
13	14	0.00	0.00	0.00	0.00
14	14	0.00	0.00	0.00	0.00
14	15	0.00	0.00	0.00	0.00
15	15	0.00	0.00	0.00	0.00
15	16	0.00	0.00	0.00	0.00
16	16	0.00	0.00	0.00	0.00
16	17	0.00	0.00	0.00	0.00
17	17	0.00	0.00	0.00	0.00
17	18	0.00	0.00	0.00	0.00
18	18	0.00	0.00	0.00	0.00
18	19	0.00	0.00	0.00	0.00
19	19	0.00	0.00	0.00	0.00
19	20	0.00	0.00	0.00	0.00
20	20	0.00	0.00	0.00	0.00
20	21	0.00	0.00	0.00	0.00
21	21	0.00	0.00	0.00	0.00
21	22	0.00	0.00	0.00	0.00
22	22	0.00	0.00	0.00	0.00
22	23	0.00	0.00	0.00	0.00
23	10023	0.00	0.00	0.00	0.00
23	24	0.00	0.00	0.00	0.00
24	24	0.00	0.00	0.00	0.00
24	25	0.00	0.00	0.00	0.00
25	25	0.00	0.00	0.00	0.00
25	26	0.00	0.00	0.00	0.00
26	26	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	0.00	0.00	0.00	0.00
27	27	0.00	0.00	0.00	0.00
27	28	0.00	0.00	0.00	0.00
28	28	0.00	0.00	0.00	0.00
28	29	0.00	0.00	0.00	0.00
29	29	0.00	0.00	0.00	0.00
29	30	0.00	0.00	0.00	0.00
30	30	0.00	0.00	0.00	0.00
30	31	0.00	0.00	0.00	0.00
31	31	0.00	0.00	0.00	0.00
31	32	0.00	0.00	0.00	0.00
32	32	0.00	0.00	0.00	0.00
32	33	0.00	0.00	0.00	0.00
33	33	0.00	0.00	0.00	0.00
33	34	0.00	0.00	0.00	0.00
101	101	0.00	-635.32	0.00	-254.68
101	102	3.05	-635.32	0.00	-254.68
102	102	3.05	-1104.88	0.00	-708.27
102	103	6.10	-1104.88	0.00	-708.27
103	103	6.10	-1429.96	0.00	-1006.70
103	104	9.15	-1429.96	0.00	-1006.70
104	104	9.15	-1755.04	0.00	-1289.52
104	105	12.20	-1755.04	0.00	-1289.52
105	105	12.20	-1755.04	0.00	-1289.52
105	106	15.25	-1755.04	0.00	-1289.52
106	106	15.25	-1755.04	0.00	-1289.52
106	107	18.30	-1755.04	0.00	-1289.52
107	107	18.30	-1755.04	0.00	-1289.52
107	108	21.35	-1755.04	0.00	-1289.52
108	108	21.35	-1755.04	0.00	-1289.52
108	109	24.40	-1755.04	0.00	-1289.52
109	109	24.40	-1429.96	0.00	-1006.70
109	110	27.45	-1429.96	0.00	-1006.70
110	110	27.45	-1104.88	0.00	-708.27
110	111	30.50	-1104.88	0.00	-708.27
111	111	30.50	-635.32	0.00	-254.68
111	112	33.55	-635.32	0.00	-254.68
112	10112	33.55	-671.44	0.00	-291.30
112	-113	37.19	-671.44	0.00	-291.30
113	113	37.19	-1141.00	0.00	-744.90
113	114	40.82	-1141.00	0.00	-744.90
114	114	40.82	-1646.68	0.00	-1209.11
114	115	44.46	-1646.68	0.00	-1209.11
115	115	44.46	-2152.36	0.00	-1649.06
115	116	48.10	-2152.36	0.00	-1649.06
116	116	48.10	-2152.36	0.00	-1649.06
116	117	51.73	-2152.36	0.00	-1649.06
117	117	51.73	-2152.36	0.00	-1649.06
117	118	55.37	-2152.36	0.00	-1649.06
118	118	55.37	-2152.36	0.00	-1649.06
118	119	59.01	-2152.36	0.00	-1649.06

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.To
Pretensado Isostático (t=0)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	-2152.36	0.00	-1649.06
119	120	62.64	-2152.36	0.00	-1649.06
120	120	62.64	-1646.68	0.00	-1209.11
120	121	66.28	-1646.68	0.00	-1209.11
121	121	66.28	-1141.00	0.00	-744.90
121	122	69.91	-1141.00	0.00	-744.90
122	122	69.91	-671.44	0.00	-291.30
122	123	73.55	-671.44	0.00	-291.30
123	10123	73.55	-635.32	0.00	-254.68
123	124	76.66	-635.32	0.00	-254.68
124	124	76.66	-1104.88	0.00	-708.27
124	125	79.77	-1104.88	0.00	-708.27
125	125	79.77	-1466.08	0.00	-1039.86
125	126	82.88	-1466.08	0.00	-1039.86
126	126	82.88	-1827.28	0.00	-1354.10
126	127	85.99	-1827.28	0.00	-1354.10
127	127	85.99	-1827.28	0.00	-1354.10
127	128	89.10	-1827.28	0.00	-1354.10
128	128	89.10	-1827.28	0.00	-1354.10
128	129	92.21	-1827.28	0.00	-1354.10
129	129	92.21	-1827.28	0.00	-1354.10
129	130	95.32	-1827.28	0.00	-1354.10
130	130	95.32	-1827.28	0.00	-1354.10
130	131	98.43	-1827.28	0.00	-1354.10
131	131	98.43	-1466.08	0.00	-1039.86
131	132	101.54	-1466.08	0.00	-1039.86
132	132	101.54	-1104.88	0.00	-708.27
132	133	104.65	-1104.88	0.00	-708.27
133	133	104.65	-635.32	0.00	-254.68
133	134	107.76	-635.32	0.00	-254.68
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	0.00	0.00	0.00	0.00
302	2002	0.00	0.00	0.00	0.00
303	103	0.00	0.00	0.00	0.00
303	2003	0.00	0.00	0.00	0.00
304	104	0.00	0.00	0.00	0.00
304	2004	0.00	0.00	0.00	0.00
305	105	0.00	0.00	0.00	0.00
305	2005	0.00	0.00	0.00	0.00
306	106	0.00	0.00	0.00	0.00
306	2006	0.00	0.00	0.00	0.00
307	107	0.00	0.00	0.00	0.00
307	2007	0.00	0.00	0.00	0.00
308	108	0.00	0.00	0.00	0.00
308	2008	0.00	0.00	0.00	0.00
309	109	0.00	0.00	0.00	0.00
309	2009	0.00	0.00	0.00	0.00
310	110	0.00	0.00	0.00	0.00
310	2010	0.00	0.00	0.00	0.00
311	111	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.To
Pretensado Isostático (t=0)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	0.00	0.00	0.00	0.00
402	2	0.00	0.00	0.00	0.00
403	1003	0.00	0.00	0.00	0.00
403	3	0.00	0.00	0.00	0.00
404	1004	0.00	0.00	0.00	0.00
404	4	0.00	0.00	0.00	0.00
405	1005	0.00	0.00	0.00	0.00
405	5	0.00	0.00	0.00	0.00
406	1006	0.00	0.00	0.00	0.00
406	6	0.00	0.00	0.00	0.00
407	1007	0.00	0.00	0.00	0.00
407	7	0.00	0.00	0.00	0.00
408	1008	0.00	0.00	0.00	0.00
408	8	0.00	0.00	0.00	0.00
409	1009	0.00	0.00	0.00	0.00
409	9	0.00	0.00	0.00	0.00
410	1010	0.00	0.00	0.00	0.00
410	10	0.00	0.00	0.00	0.00
411	1011	0.00	0.00	0.00	0.00
411	11	0.00	0.00	0.00	0.00
412	1012	0.00	0.00	0.00	0.00
412	12	0.00	0.00	0.00	0.00
413	1013	0.00	0.00	0.00	0.00
413	13	0.00	0.00	0.00	0.00
414	1014	0.00	0.00	0.00	0.00
414	14	0.00	0.00	0.00	0.00
415	1015	0.00	0.00	0.00	0.00
415	15	0.00	0.00	0.00	0.00
416	1016	0.00	0.00	0.00	0.00
416	16	0.00	0.00	0.00	0.00
417	1017	0.00	0.00	0.00	0.00
417	17	0.00	0.00	0.00	0.00
418	1018	0.00	0.00	0.00	0.00
418	18	0.00	0.00	0.00	0.00
419	1019	0.00	0.00	0.00	0.00
419	19	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	0.00	0.00	0.00	0.00
420	20	0.00	0.00	0.00	0.00
421	1021	0.00	0.00	0.00	0.00
421	21	0.00	0.00	0.00	0.00
422	1022	0.00	0.00	0.00	0.00
422	22	0.00	0.00	0.00	0.00
423	1023	0.00	0.00	0.00	0.00
423	23	0.00	0.00	0.00	0.00
424	1024	0.00	0.00	0.00	0.00
424	24	0.00	0.00	0.00	0.00
425	1025	0.00	0.00	0.00	0.00
425	25	0.00	0.00	0.00	0.00
426	1026	0.00	0.00	0.00	0.00
426	26	0.00	0.00	0.00	0.00
427	1027	0.00	0.00	0.00	0.00
427	27	0.00	0.00	0.00	0.00
428	1028	0.00	0.00	0.00	0.00
428	28	0.00	0.00	0.00	0.00
429	1029	0.00	0.00	0.00	0.00
429	29	0.00	0.00	0.00	0.00
430	1030	0.00	0.00	0.00	0.00
430	30	0.00	0.00	0.00	0.00
431	1031	0.00	0.00	0.00	0.00
431	31	0.00	0.00	0.00	0.00
432	1032	0.00	0.00	0.00	0.00
432	32	0.00	0.00	0.00	0.00
433	1033	0.00	0.00	0.00	0.00
433	33	0.00	0.00	0.00	0.00
434	1034	0.00	0.00	0.00	0.00
434	34	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF1D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	0.00	0.00	0.00	0.00
2	2	0.00	0.00	0.00	0.00
2	3	0.00	0.00	0.00	0.00
3	3	0.00	0.00	0.00	0.00
3	4	0.00	0.00	0.00	0.00
4	4	0.00	0.00	0.00	0.00
4	5	0.00	0.00	0.00	0.00
5	5	0.00	0.00	0.00	0.00
5	6	0.00	0.00	0.00	0.00
6	6	0.00	0.00	0.00	0.00
6	7	0.00	0.00	0.00	0.00
7	7	0.00	0.00	0.00	0.00
7	8	0.00	0.00	0.00	0.00
8	8	0.00	0.00	0.00	0.00
8	9	0.00	0.00	0.00	0.00
9	9	0.00	0.00	0.00	0.00
9	10	0.00	0.00	0.00	0.00
10	10	0.00	0.00	0.00	0.00
10	11	0.00	0.00	0.00	0.00
11	11	0.00	0.00	0.00	0.00
11	12	0.00	0.00	0.00	0.00
12	10012	0.00	0.00	0.00	0.00
12	13	0.00	0.00	0.00	0.00
13	13	0.00	0.00	0.00	0.00
13	14	0.00	0.00	0.00	0.00
14	14	0.00	0.00	0.00	0.00
14	15	0.00	0.00	0.00	0.00
15	15	0.00	0.00	0.00	0.00
15	16	0.00	0.00	0.00	0.00
16	16	0.00	0.00	0.00	0.00
16	17	0.00	0.00	0.00	0.00
17	17	0.00	0.00	0.00	0.00
17	18	0.00	0.00	0.00	0.00
18	18	0.00	0.00	0.00	0.00
18	19	0.00	0.00	0.00	0.00
19	19	0.00	0.00	0.00	0.00
19	20	0.00	0.00	0.00	0.00
20	20	0.00	0.00	0.00	0.00
20	21	0.00	0.00	0.00	0.00
21	21	0.00	0.00	0.00	0.00
21	22	0.00	0.00	0.00	0.00
22	22	0.00	0.00	0.00	0.00
22	23	0.00	0.00	0.00	0.00
23	10023	0.00	0.00	0.00	0.00
23	24	0.00	0.00	0.00	0.00
24	24	0.00	0.00	0.00	0.00
24	25	0.00	0.00	0.00	0.00
25	25	0.00	0.00	0.00	0.00
25	26	0.00	0.00	0.00	0.00
26	26	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	0.00	0.00	0.00	0.00
27	27	0.00	0.00	0.00	0.00
27	28	0.00	0.00	0.00	0.00
28	28	0.00	0.00	0.00	0.00
28	29	0.00	0.00	0.00	0.00
29	29	0.00	0.00	0.00	0.00
29	30	0.00	0.00	0.00	0.00
30	30	0.00	0.00	0.00	0.00
30	31	0.00	0.00	0.00	0.00
31	31	0.00	0.00	0.00	0.00
31	32	0.00	0.00	0.00	0.00
32	32	0.00	0.00	0.00	0.00
32	33	0.00	0.00	0.00	0.00
33	33	0.00	0.00	0.00	0.00
33	34	0.00	0.00	0.00	0.00
101	101	0.00	-635.32	0.00	-254.68
101	102	3.05	-635.32	0.00	-254.68
102	102	3.05	-1104.88	0.00	-708.27
102	103	6.10	-1104.88	0.00	-708.27
103	103	6.10	-1429.96	0.00	-1006.70
103	104	9.15	-1429.96	0.00	-1006.70
104	104	9.15	-1755.04	0.00	-1289.52
104	105	12.20	-1755.04	0.00	-1289.52
105	105	12.20	-1755.04	0.00	-1289.52
105	106	15.25	-1755.04	0.00	-1289.52
106	106	15.25	-1755.04	0.00	-1289.52
106	107	18.30	-1755.04	0.00	-1289.52
107	107	18.30	-1755.04	0.00	-1289.52
107	108	21.35	-1755.04	0.00	-1289.52
108	108	21.35	-1755.04	0.00	-1289.52
108	109	24.40	-1429.96	0.00	-1006.70
109	109	24.40	-1429.96	0.00	-1006.70
109	110	27.45	-1104.88	0.00	-708.27
110	110	27.45	-1104.88	0.00	-708.27
110	111	30.50	-635.32	0.00	-254.68
111	111	30.50	-635.32	0.00	-254.68
111	112	33.55	-671.44	0.00	-291.30
112	10112	33.55	-671.44	0.00	-291.30
112	113	37.19	-1141.00	0.00	-744.90
113	113	37.19	-1141.00	0.00	-744.90
113	114	40.82	-1646.68	0.00	-1209.11
114	114	40.82	-1646.68	0.00	-1209.11
114	115	44.46	-2152.36	0.00	-1649.06
115	115	44.46	-2152.36	0.00	-1649.06
115	116	48.10	-2152.36	0.00	-1649.06
116	116	48.10	-2152.36	0.00	-1649.06
116	117	51.73	-2152.36	0.00	-1649.06
117	117	51.73	-2152.36	0.00	-1649.06
117	118	55.37	-2152.36	0.00	-1649.06
118	118	55.37	-2152.36	0.00	-1649.06
118	119	59.01	-2152.36	0.00	-1649.06

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	-2152.36	0.00	-1649.06
119	120	62.64	-2152.36	0.00	-1649.06
120	120	62.64	-1646.68	0.00	-1209.11
120	121	66.28	-1646.68	0.00	-1209.11
121	121	66.28	-1141.00	0.00	-744.90
121	122	69.91	-1141.00	0.00	-744.90
122	122	69.91	-671.44	0.00	-291.30
122	123	73.55	-671.44	0.00	-291.30
123	10123	73.55	-635.32	0.00	-254.68
123	124	76.66	-635.32	0.00	-254.68
124	124	76.66	-1104.88	0.00	-708.27
124	125	79.77	-1104.88	0.00	-708.27
125	125	79.77	-1466.08	0.00	-1039.86
125	126	82.88	-1466.08	0.00	-1039.86
126	126	82.88	-1827.28	0.00	-1354.10
126	127	85.99	-1827.28	0.00	-1354.10
127	127	85.99	-1827.28	0.00	-1354.10
127	128	89.10	-1827.28	0.00	-1354.10
128	128	89.10	-1827.28	0.00	-1354.10
128	129	92.21	-1827.28	0.00	-1354.10
129	129	92.21	-1827.28	0.00	-1354.10
129	130	95.32	-1827.28	0.00	-1354.10
130	130	95.32	-1827.28	0.00	-1354.10
130	131	98.43	-1827.28	0.00	-1354.10
131	131	98.43	-1466.08	0.00	-1039.86
131	132	101.54	-1466.08	0.00	-1039.86
132	132	101.54	-1104.88	0.00	-708.27
132	133	104.65	-1104.88	0.00	-708.27
133	133	104.65	-635.32	0.00	-254.68
133	134	107.76	-635.32	0.00	-254.68
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	0.00	0.00	0.00	0.00
302	2002	0.00	0.00	0.00	0.00
303	103	0.00	0.00	0.00	0.00
303	2003	0.00	0.00	0.00	0.00
304	104	0.00	0.00	0.00	0.00
304	2004	0.00	0.00	0.00	0.00
305	105	0.00	0.00	0.00	0.00
305	2005	0.00	0.00	0.00	0.00
306	106	0.00	0.00	0.00	0.00
306	2006	0.00	0.00	0.00	0.00
307	107	0.00	0.00	0.00	0.00
307	2007	0.00	0.00	0.00	0.00
308	108	0.00	0.00	0.00	0.00
308	2008	0.00	0.00	0.00	0.00
309	109	0.00	0.00	0.00	0.00
309	2009	0.00	0.00	0.00	0.00
310	110	0.00	0.00	0.00	0.00
310	2010	0.00	0.00	0.00	0.00
311	111	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	0.00	0.00	0.00	0.00
402	2	0.00	0.00	0.00	0.00
403	1003	0.00	0.00	0.00	0.00
403	3	0.00	0.00	0.00	0.00
404	1004	0.00	0.00	0.00	0.00
404	4	0.00	0.00	0.00	0.00
405	1005	0.00	0.00	0.00	0.00
405	5	0.00	0.00	0.00	0.00
406	1006	0.00	0.00	0.00	0.00
406	6	0.00	0.00	0.00	0.00
407	1007	0.00	0.00	0.00	0.00
407	7	0.00	0.00	0.00	0.00
408	1008	0.00	0.00	0.00	0.00
408	8	0.00	0.00	0.00	0.00
409	1009	0.00	0.00	0.00	0.00
409	9	0.00	0.00	0.00	0.00
410	1010	0.00	0.00	0.00	0.00
410	10	0.00	0.00	0.00	0.00
411	1011	0.00	0.00	0.00	0.00
411	11	0.00	0.00	0.00	0.00
412	1012	0.00	0.00	0.00	0.00
412	12	0.00	0.00	0.00	0.00
413	1013	0.00	0.00	0.00	0.00
413	13	0.00	0.00	0.00	0.00
414	1014	0.00	0.00	0.00	0.00
414	14	0.00	0.00	0.00	0.00
415	1015	0.00	0.00	0.00	0.00
415	15	0.00	0.00	0.00	0.00
416	1016	0.00	0.00	0.00	0.00
416	16	0.00	0.00	0.00	0.00
417	1017	0.00	0.00	0.00	0.00
417	17	0.00	0.00	0.00	0.00
418	1018	0.00	0.00	0.00	0.00
418	18	0.00	0.00	0.00	0.00
419	1019	0.00	0.00	0.00	0.00
419	19	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF1D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF1D.FAM1.ISO + [1; 1]PRETF1D.FAM2.ISO + [1; 1]PRETF1D.FAM3.ISO + [1; 1]PRETF1

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	0.00	0.00	0.00	0.00
420	20	0.00	0.00	0.00	0.00
421	1021	0.00	0.00	0.00	0.00
421	21	0.00	0.00	0.00	0.00
422	1022	0.00	0.00	0.00	0.00
422	22	0.00	0.00	0.00	0.00
423	1023	0.00	0.00	0.00	0.00
423	23	0.00	0.00	0.00	0.00
424	1024	0.00	0.00	0.00	0.00
424	24	0.00	0.00	0.00	0.00
425	1025	0.00	0.00	0.00	0.00
425	25	0.00	0.00	0.00	0.00
426	1026	0.00	0.00	0.00	0.00
426	26	0.00	0.00	0.00	0.00
427	1027	0.00	0.00	0.00	0.00
427	27	0.00	0.00	0.00	0.00
428	1028	0.00	0.00	0.00	0.00
428	28	0.00	0.00	0.00	0.00
429	1029	0.00	0.00	0.00	0.00
429	29	0.00	0.00	0.00	0.00
430	1030	0.00	0.00	0.00	0.00
430	30	0.00	0.00	0.00	0.00
431	1031	0.00	0.00	0.00	0.00
431	31	0.00	0.00	0.00	0.00
432	1032	0.00	0.00	0.00	0.00
432	32	0.00	0.00	0.00	0.00
433	1033	0.00	0.00	0.00	0.00
433	33	0.00	0.00	0.00	0.00
434	1034	0.00	0.00	0.00	0.00
434	34	0.00	0.00	0.00	0.00

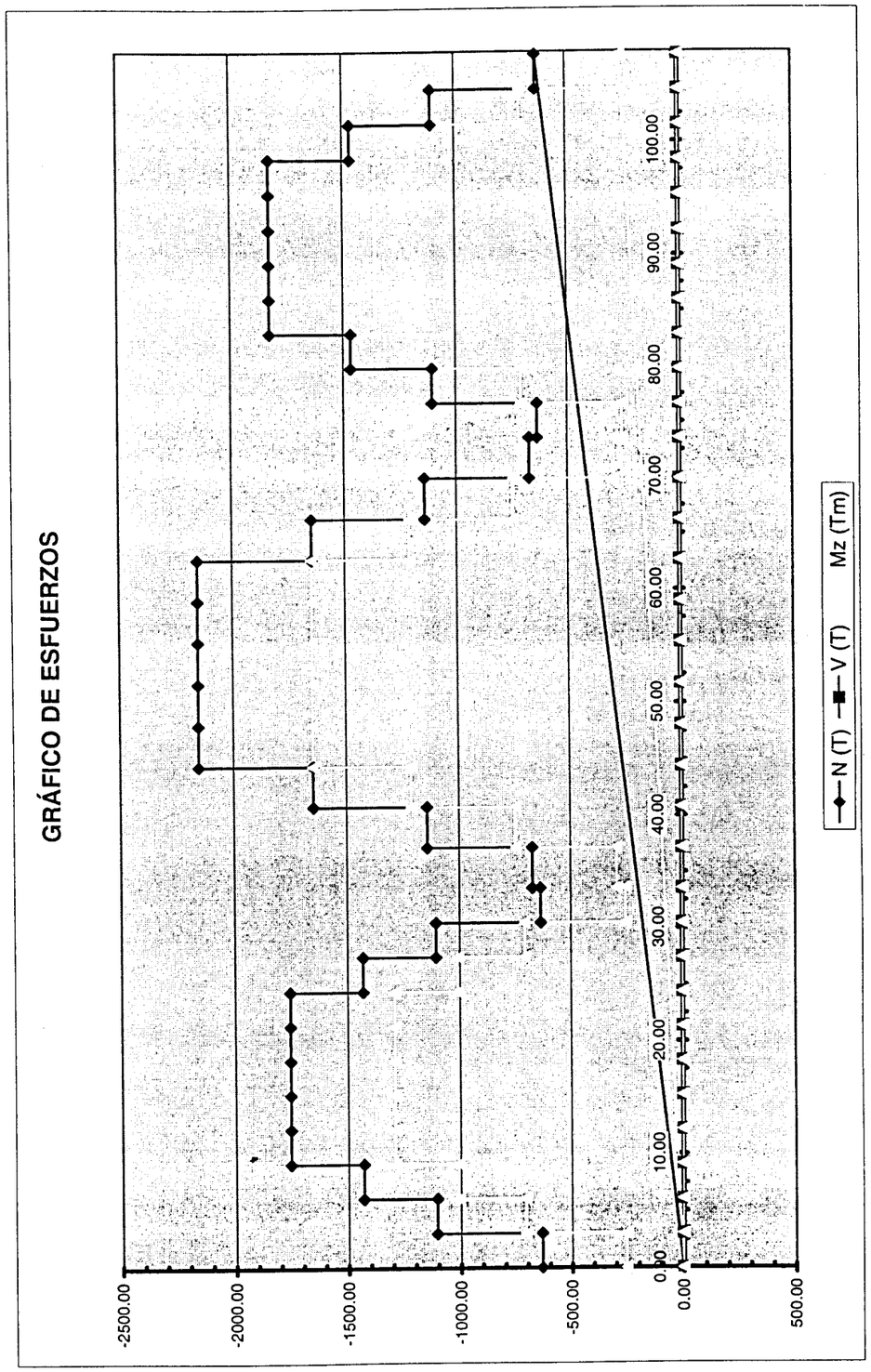
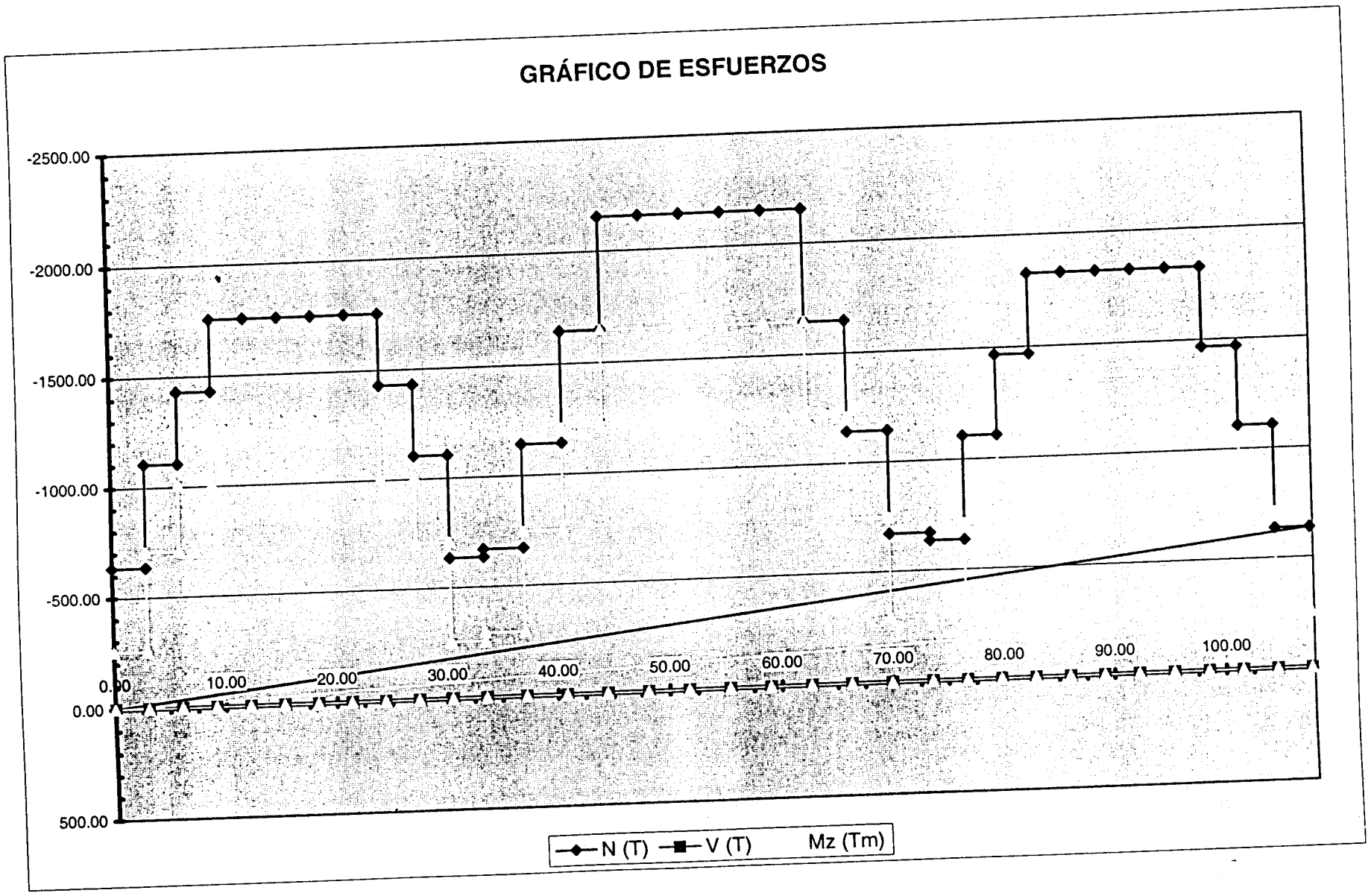
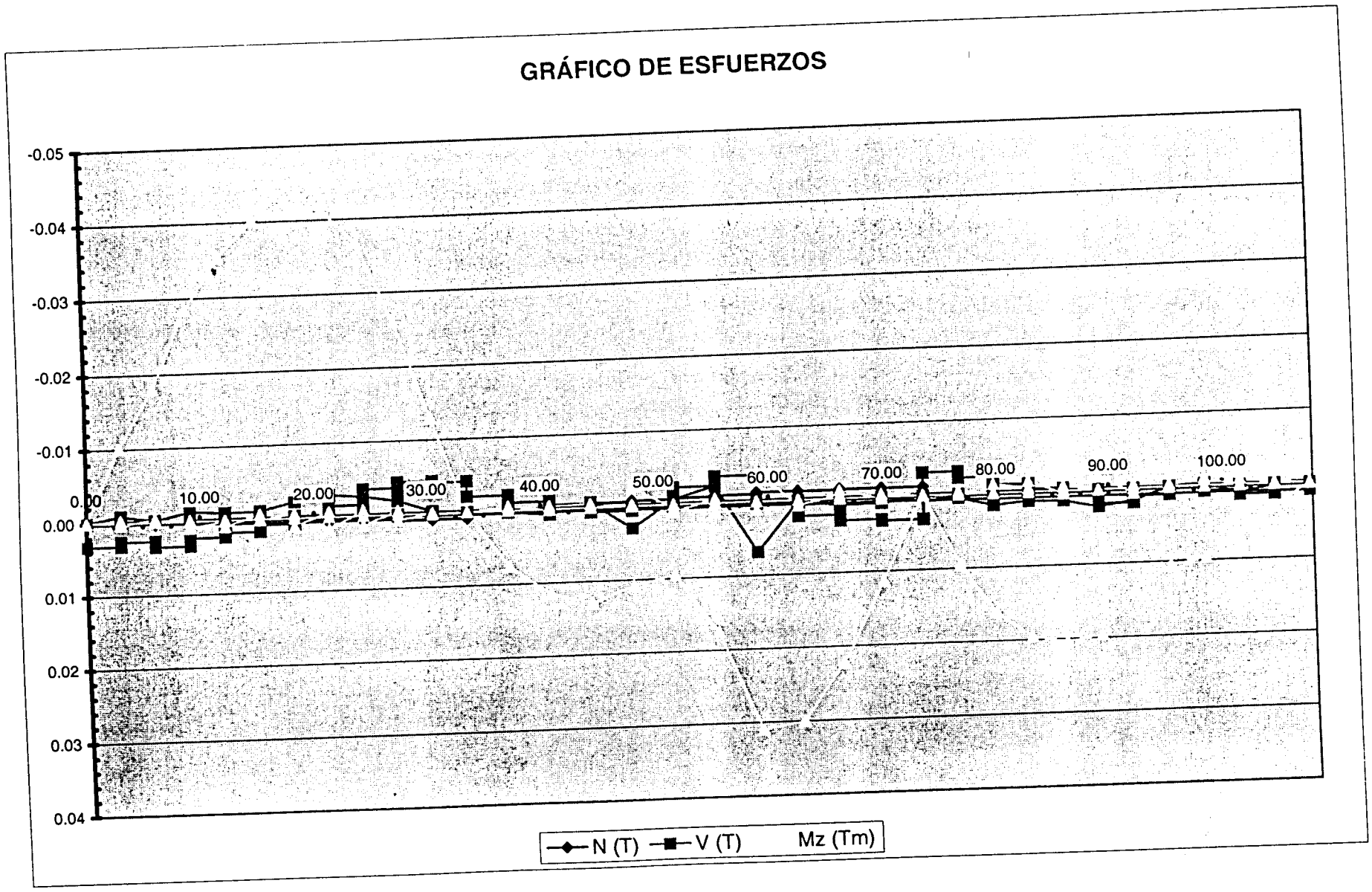
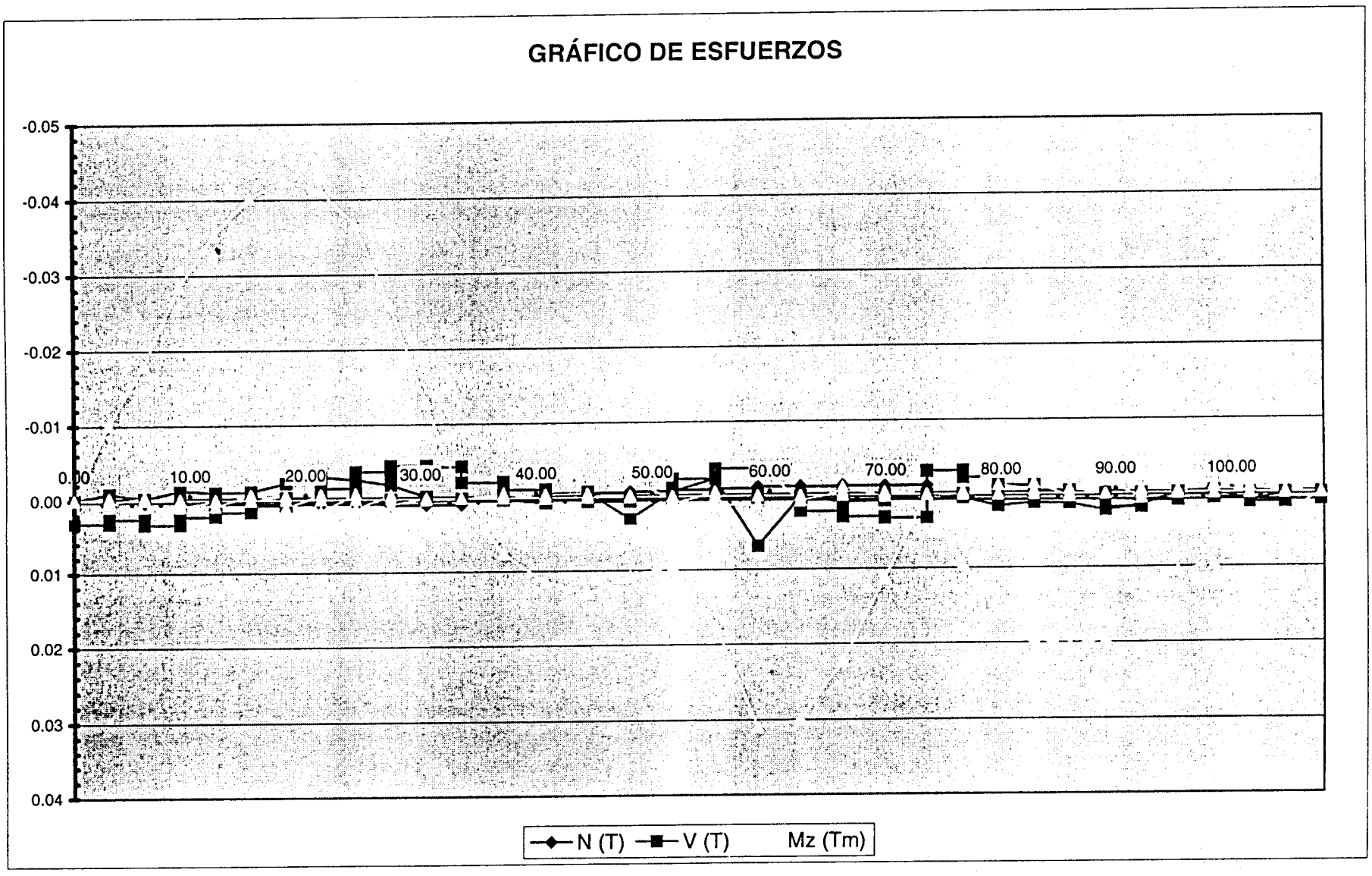
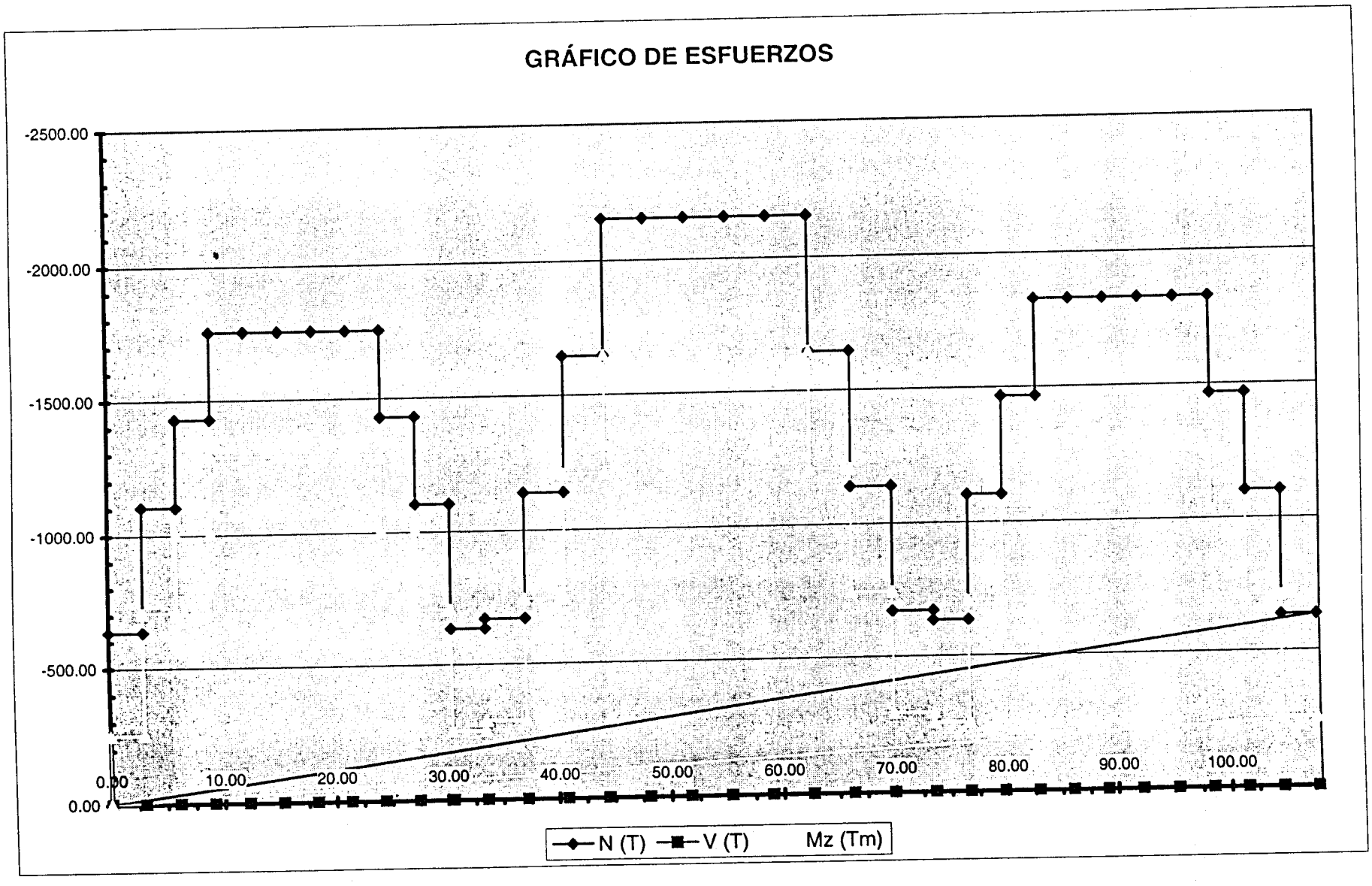


GRÁFICO DE ESFUERZOS




GRÁFICO DE ESFUERZOS
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-0.03
-0.02
-0.01
0.00
0.01
0.02
0.03
0.04
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00
N (T)
V (T)
Mz (Tm)


GRÁFICO DE ESFUERZOS
-0.05
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-0.03
-0.02
-0.01
0.00
0.01
0.02
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N (T)
V (T)
Mz (Tm)


GRÁFICO DE ESFUERZOS
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-1500.00
-1000.00
-500.00
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V (T)
Mz (Tm)

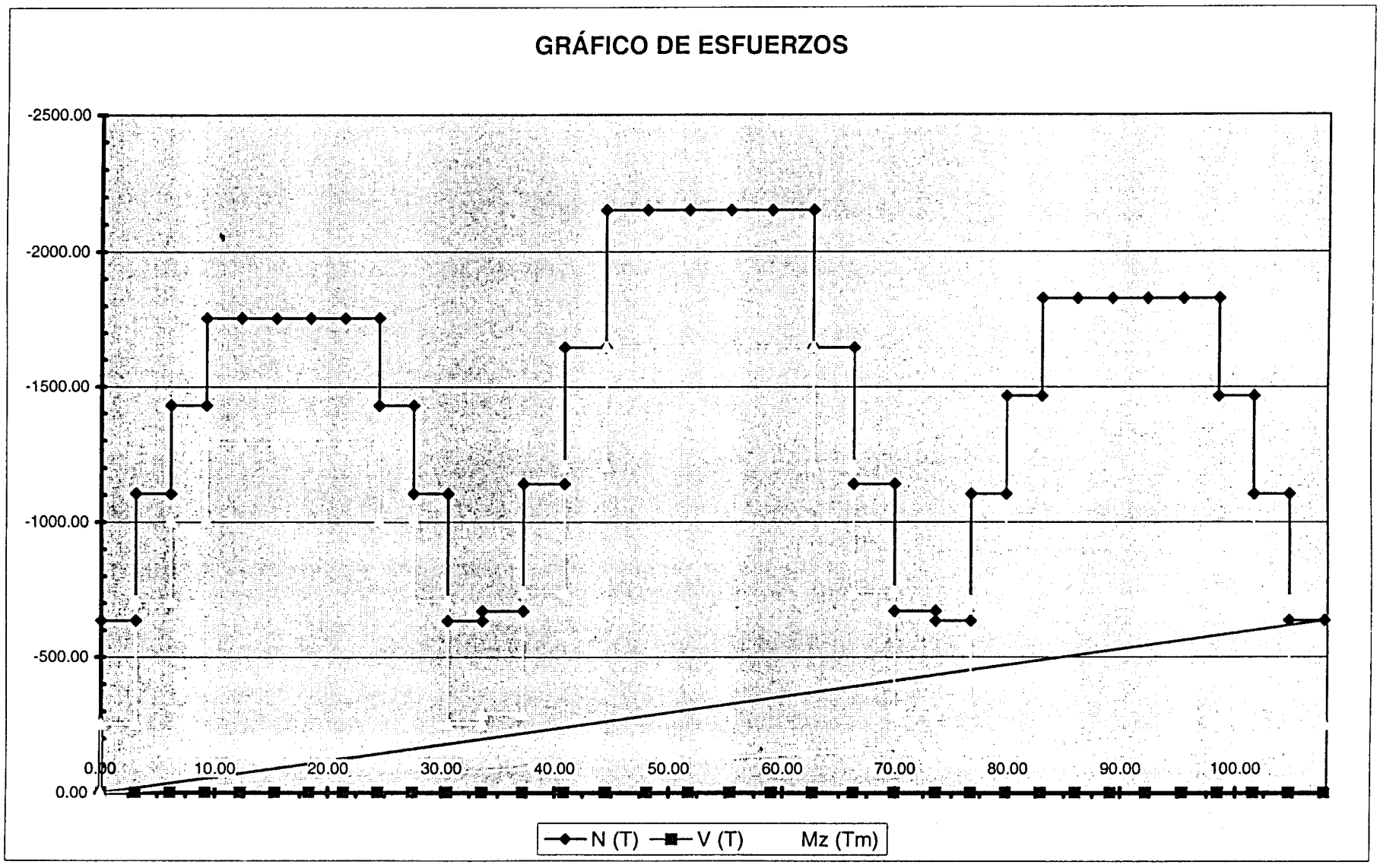

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30.00
40.00
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N (T)
V (T)
Mz (Tm)

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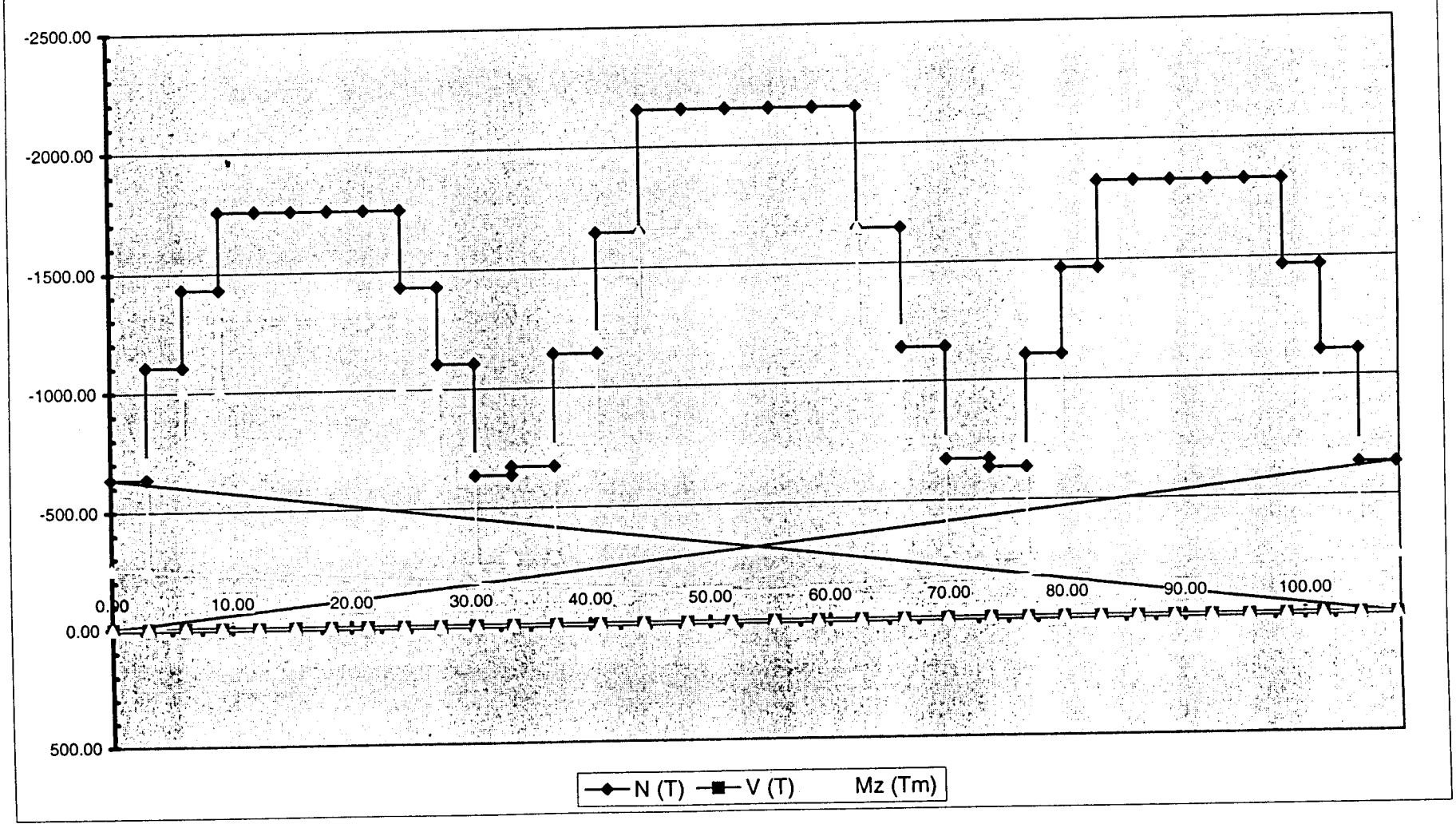
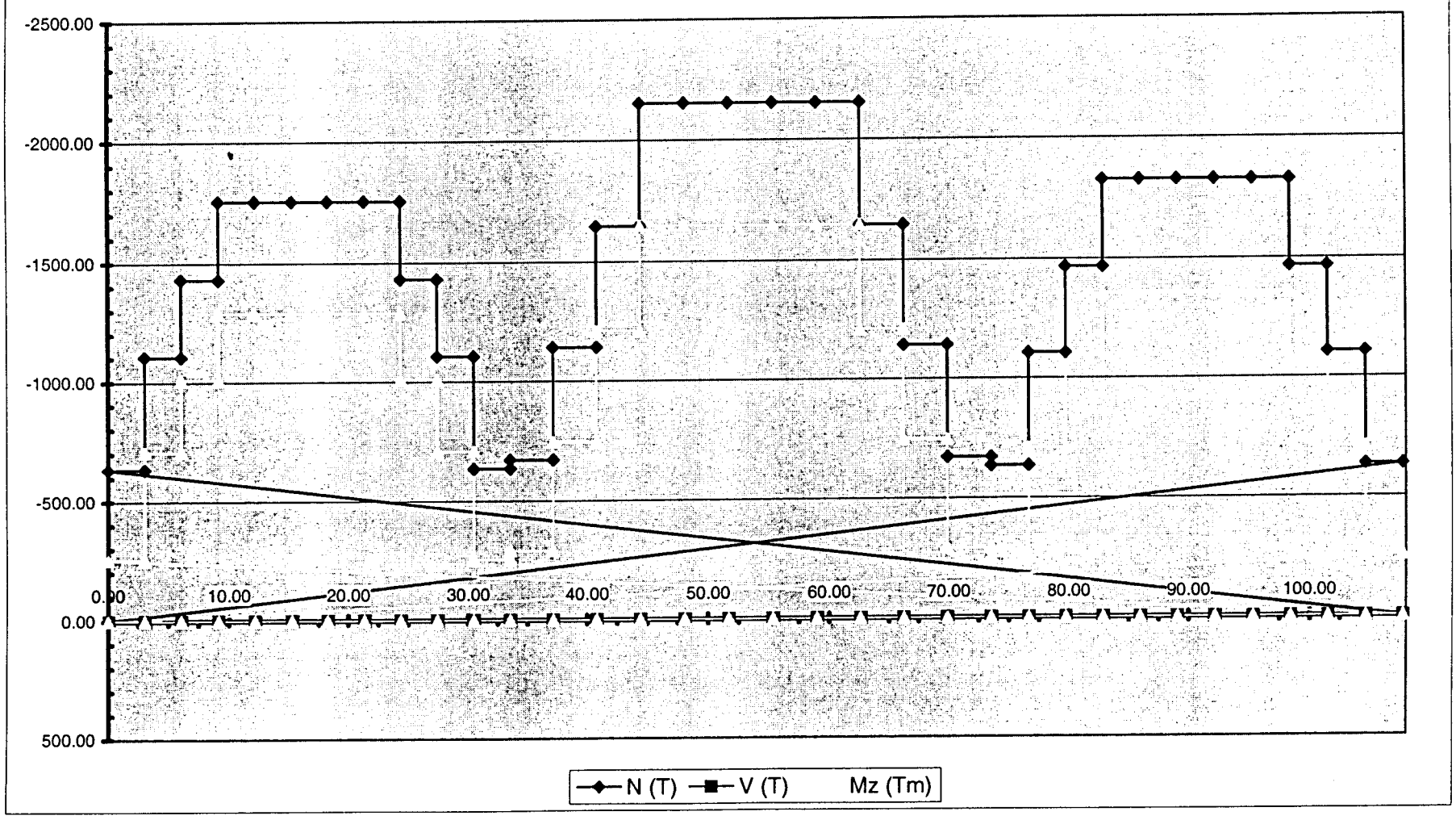
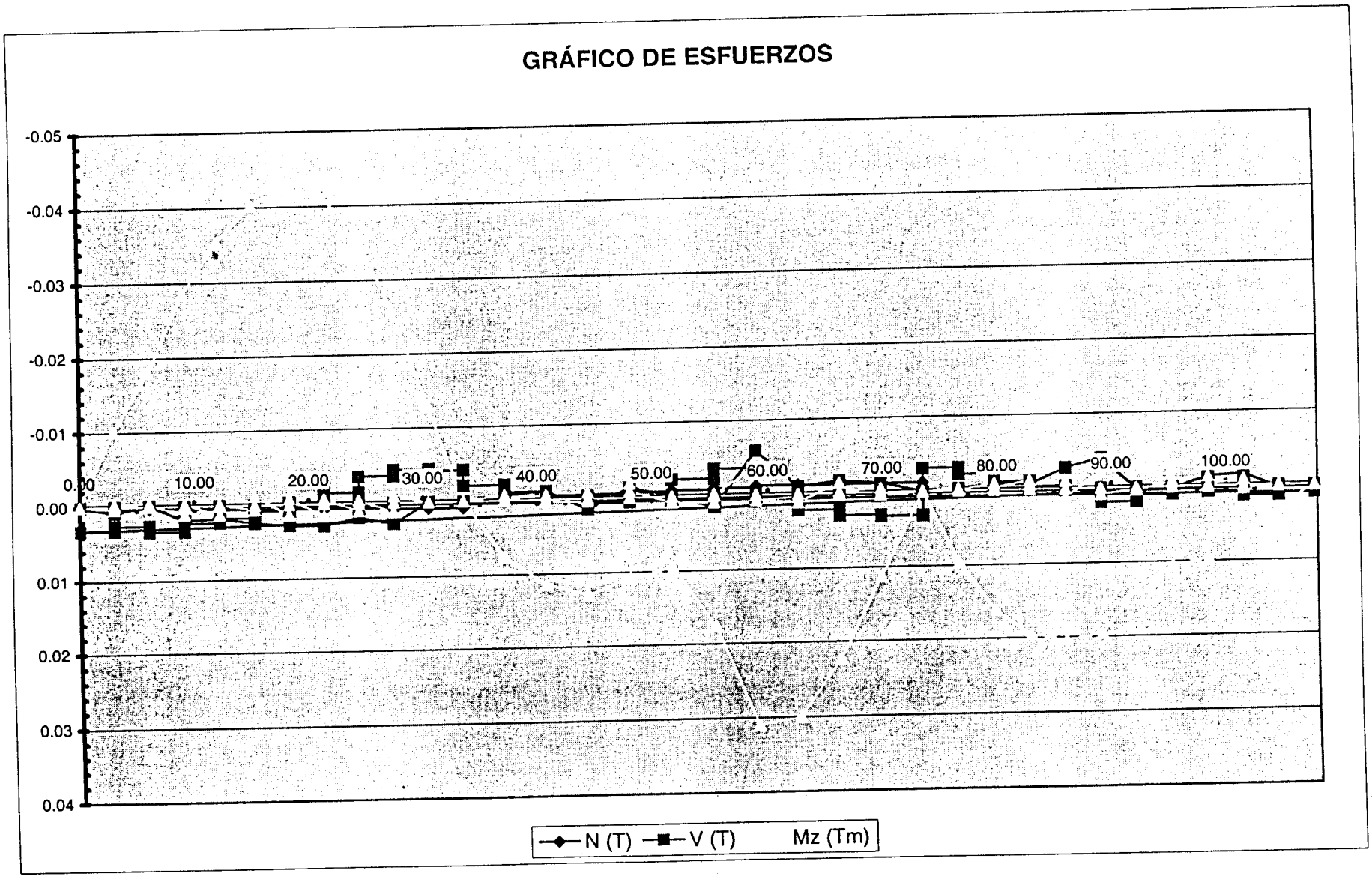


GRÁFICO DE ESFUERZOS




GRÁFICO DE ESFUERZOS
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V (T)
Mz (Tm)

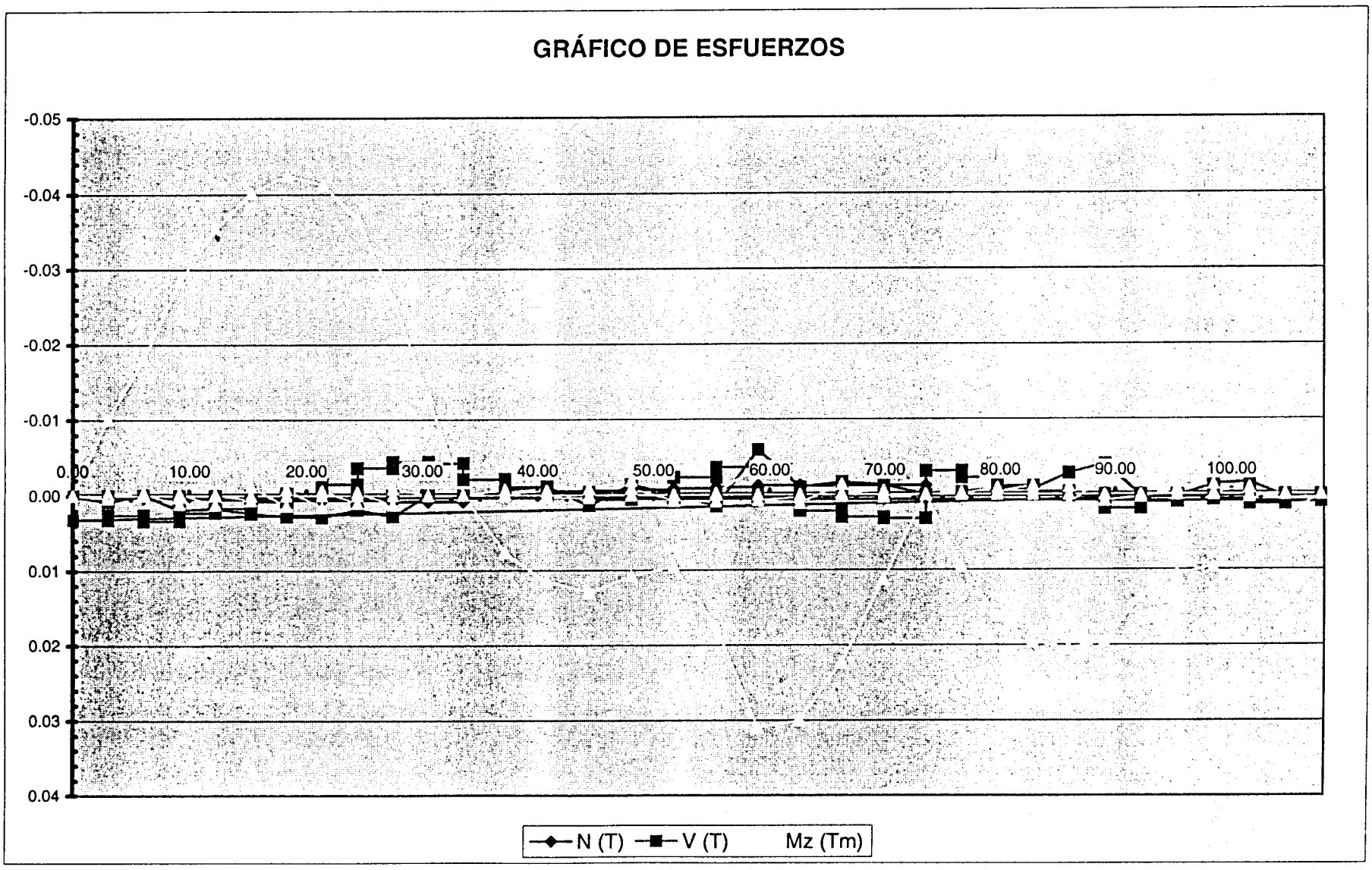

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0.04
0.00
10.00
20.00
30.00
40.00
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80.00
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100.00
N (T)
V (T)
Mz (Tm)

GRÁFICO DE ESFUERZOS

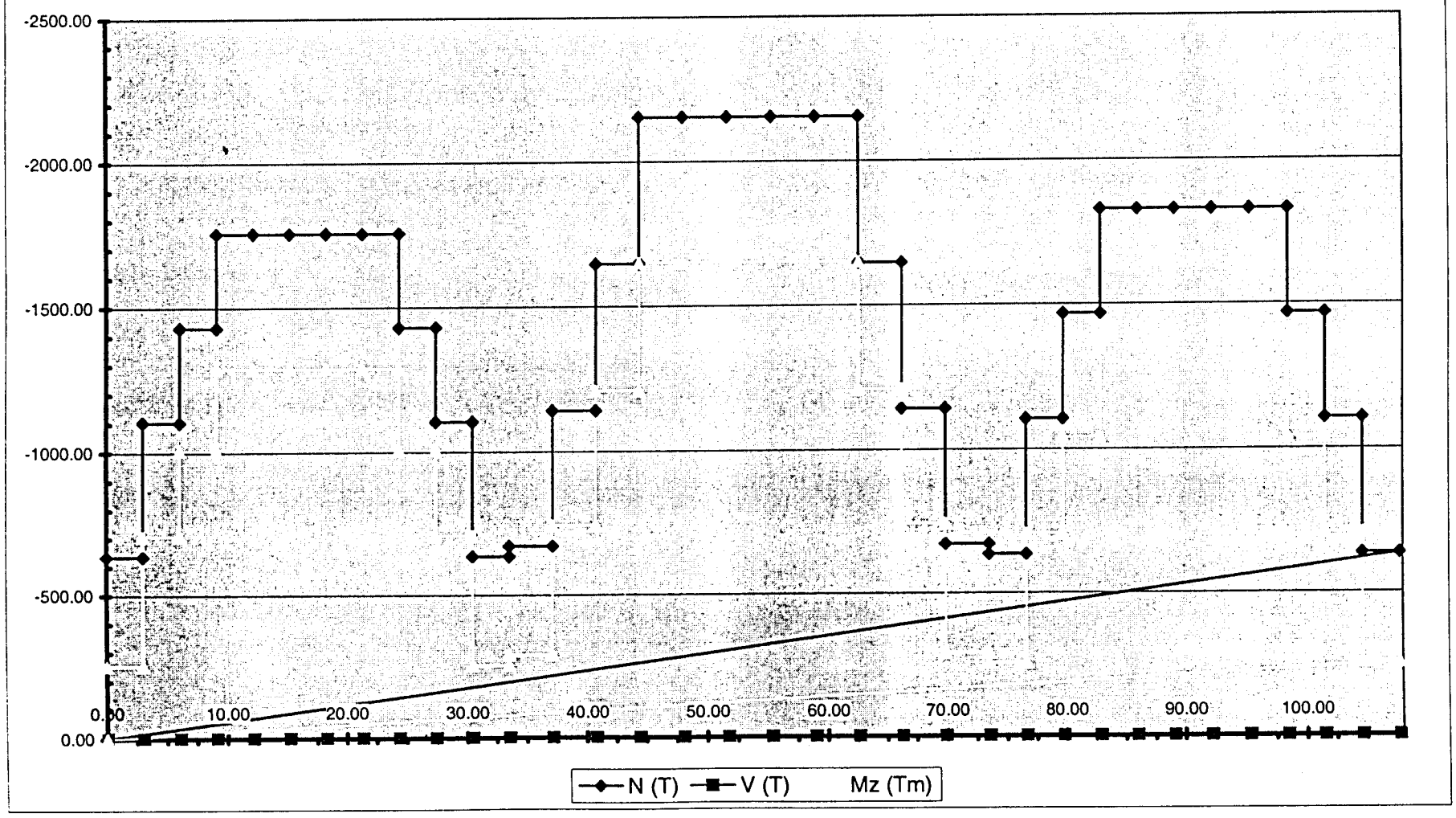
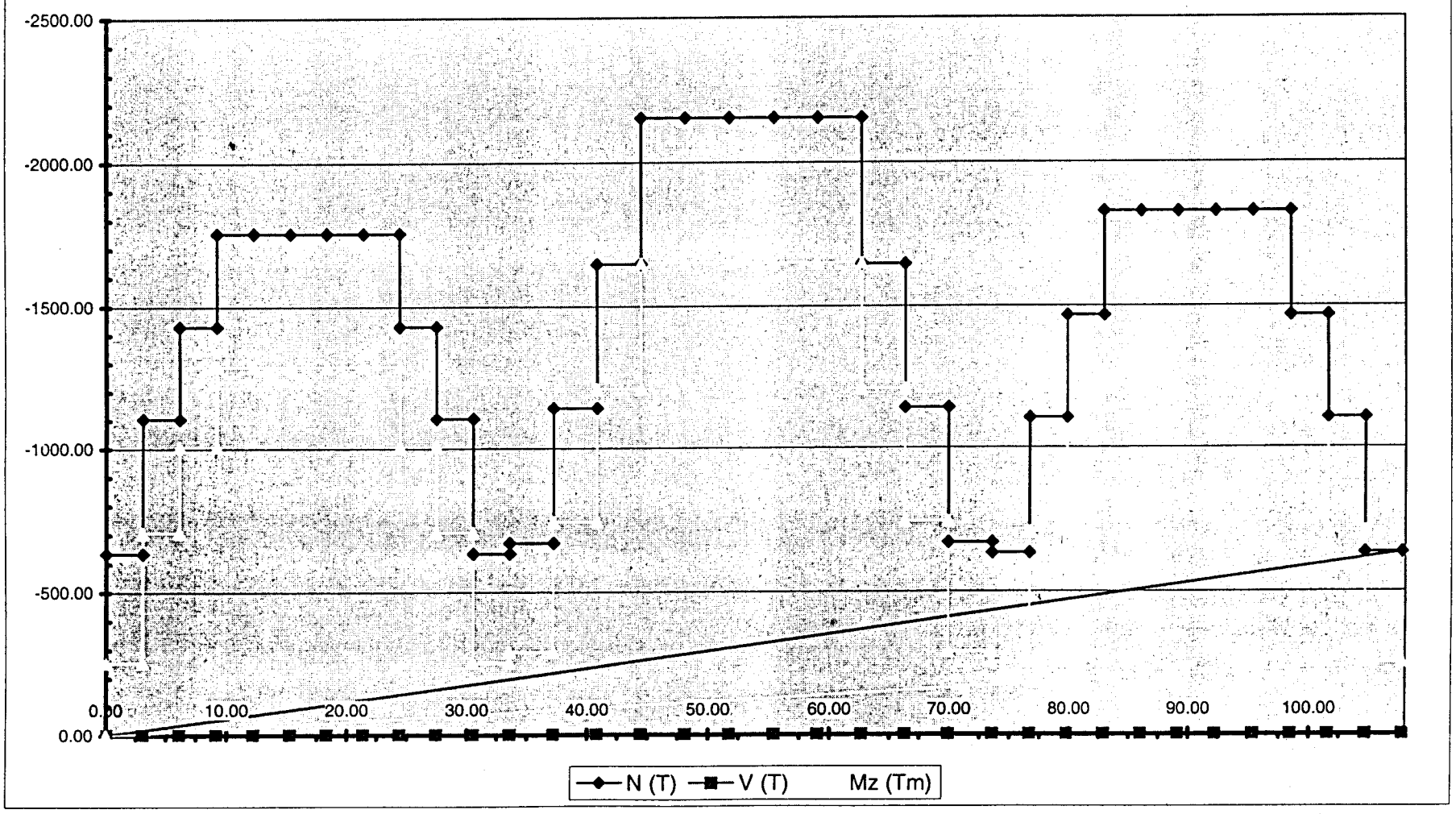
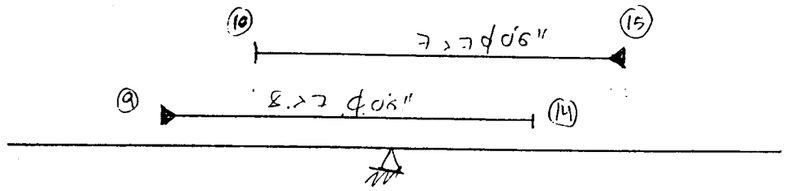


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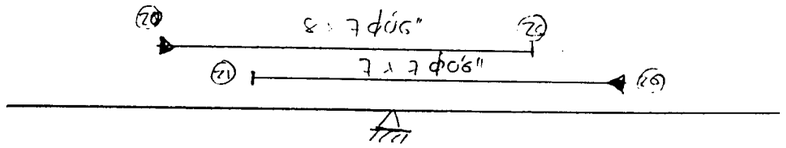


PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

MODELO DE POSTESADO FASE 3



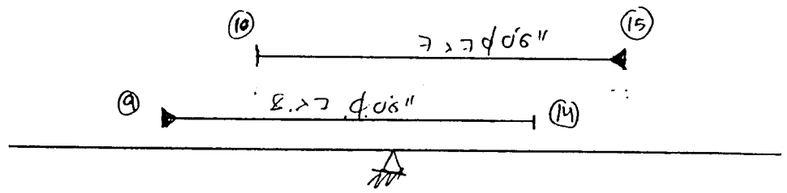
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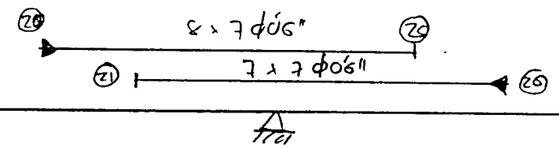
P-30

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

MODELO DE POSTESADO FASE 4



P-29



P-30

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	13.67	0.00
1	2	3.05	0.00	13.67	-41.69
2	2	3.05	0.00	13.67	-41.69
2	3	6.10	0.00	13.67	-83.39
3	3	6.10	0.00	13.67	-83.39
3	4	9.15	0.00	13.67	-125.08
4	4	9.15	0.00	13.67	-125.08
4	5	12.20	0.00	13.67	-166.77
5	5	12.20	0.00	13.67	-166.77
5	6	15.25	0.00	13.67	-208.46
6	6	15.25	0.00	13.67	-208.46
6	7	18.30	0.00	13.67	-250.16
7	7	18.30	0.00	13.67	-250.16
7	8	21.35	0.00	13.67	-291.85
8	8	21.35	0.00	13.67	-291.85
8	9	24.40	0.00	13.67	-333.54
9	9	24.40	-919.94	19.59	443.26
9	10	27.45	-924.15	19.59	386.78
10	10	27.45	-1800.13	22.10	1117.60
10	11	30.50	-1807.94	22.10	1056.28
11	11	30.50	-1780.57	22.50	1055.18
11	12	33.55	-1740.01	22.50	954.91
12	10012	33.55	-1730.40	-15.62	954.99
12	13	37.19	-1793.93	-15.62	1061.33
13	13	37.19	-1812.46	-14.86	1063.11
13	14	40.82	-1803.15	-14.86	1109.89
14	14	40.82	-802.16	-10.35	275.01
14	15	44.46	-797.77	-10.35	309.22
15	15	44.46	6.06	0.18	-377.41
15	16	48.10	6.06	0.18	-378.05
16	16	48.10	6.06	0.18	-378.05
16	17	51.73	6.06	0.18	-378.70
17	17	51.73	6.06	0.18	-378.70
17	18	55.37	6.06	0.18	-379.35
18	18	55.37	6.06	0.18	-379.35
18	19	59.01	6.06	0.18	-379.99
19	19	59.01	6.06	0.18	-379.99
19	20	62.64	6.06	0.18	-380.64
20	20	62.64	-918.84	10.53	404.61
20	21	66.28	-923.86	10.53	370.24
21	21	66.28	-1794.10	14.86	1100.22
21	22	69.91	-1803.41	14.86	1053.45
22	22	69.91	-1785.95	15.54	1051.74
22	23	73.55	-1734.53	15.54	955.11
23	10023	73.55	-1744.33	-22.77	955.08
23	24	76.66	-1791.66	-22.77	1062.81
24	24	76.66	-1819.86	-22.31	1063.98
24	25	79.77	-1811.90	-22.31	1127.14
25	25	79.77	-804.34	-19.59	291.81
25	26	82.88	-800.58	-19.59	349.80
26	26	82.88	0.00	-13.33	-331.54

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3I.TOT.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-13.33	-290.10
27	27	85.99	0.00	-13.33	-290.10
27	28	89.10	0.00	-13.33	-248.66
28	28	89.10	0.00	-13.33	-248.66
28	29	92.21	0.00	-13.33	-207.21
29	29	92.21	0.00	-13.33	-207.21
29	30	95.32	0.00	-13.33	-165.77
30	30	95.32	0.00	-13.33	-165.77
30	31	98.43	0.00	-13.33	-124.33
31	31	98.43	0.00	-13.33	-124.33
31	32	101.54	0.00	-13.33	-82.89
32	32	101.54	0.00	-13.33	-82.89
32	33	104.65	0.00	-13.33	-41.44
33	33	104.65	0.00	-13.33	-41.44
33	34	107.76	0.00	-13.33	0.00
101	101	0.00	0.00	-0.98	0.00
101	102	3.05	0.00	-0.98	2.99
102	102	3.05	0.00	-0.98	2.99
102	103	6.10	0.00	-0.98	5.97
103	103	6.10	0.00	-0.98	5.97
103	104	9.15	0.00	-0.98	8.96
104	104	9.15	0.00	-0.98	8.96
104	105	12.20	0.00	-0.98	11.94
105	105	12.20	0.00	-0.98	11.94
105	106	15.25	0.00	-0.98	14.93
106	106	15.25	0.00	-0.98	14.93
106	107	18.30	0.00	-0.98	17.92
107	107	18.30	0.00	-0.98	17.92
107	108	21.35	0.00	-0.98	20.90
108	108	21.35	0.00	-0.98	20.90
108	109	24.40	0.00	-0.98	23.89
109	109	24.40	-79.66	-6.90	26.78
109	110	27.45	-79.66	-6.90	47.84
110	110	27.45	-143.72	-9.41	50.25
110	111	30.50	-143.72	-9.41	78.96
111	111	30.50	-171.08	-9.81	80.05
111	112	33.55	-171.08	-9.81	109.98
112	10112	33.55	-180.69	15.65	109.90
112	113	37.19	-180.69	15.65	53.00
113	113	37.19	-162.16	14.89	51.23
113	114	40.82	-162.16	14.89	-2.92
114	114	40.82	-88.03	10.38	-6.63
114	115	44.46	-88.03	10.38	-44.37
115	115	44.46	-6.06	-0.15	-48.66
115	116	48.10	-6.06	-0.15	-48.12
116	116	48.10	-6.06	-0.15	-48.12
116	117	51.73	-6.06	-0.15	-47.57
117	117	51.73	-6.06	-0.15	-47.57
117	118	55.37	-6.06	-0.15	-47.03
118	118	55.37	-6.06	-0.15	-47.03
118	119	59.01	-6.06	-0.15	-46.48

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	-6.06	-0.15	-46.48
119	120	62.64	-6.06	-0.15	-45.94
120	120	62.64	-93.50	-10.50	-41.57
120	121	66.28	-93.50	-10.50	-3.39
121	121	66.28	-163.78	-14.83	0.24
121	122	69.91	-163.78	-14.83	54.17
122	122	69.91	-181.24	-15.52	55.88
122	123	73.55	-181.24	-15.52	112.30
123	10123	73.55	-171.44	10.29	112.33
123	124	76.66	-171.44	10.29	80.33
124	124	76.66	-143.24	9.83	79.16
124	125	79.77	-143.24	9.83	48.59
125	125	79.77	-76.64	7.11	46.08
125	126	82.88	-76.64	7.11	23.97
126	126	82.88	0.00	0.85	21.08
126	127	85.99	0.00	0.85	18.44
127	127	85.99	0.00	0.85	18.44
127	128	89.10	0.00	0.85	15.81
128	128	89.10	0.00	0.85	15.81
128	129	92.21	0.00	0.85	13.17
129	129	92.21	0.00	0.85	13.17
129	130	95.32	0.00	0.85	10.54
130	130	95.32	0.00	0.85	10.54
130	131	98.43	0.00	0.85	7.90
131	131	98.43	0.00	0.85	7.90
131	132	101.54	0.00	0.85	5.27
132	132	101.54	0.00	0.85	5.27
132	133	104.65	0.00	0.85	2.63
133	133	104.65	0.00	0.85	2.63
133	134	107.76	0.00	0.85	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	5.93	18.66
309	2009	24.40	0.00	5.93	14.18
310	110	27.45	0.00	2.51	7.90
310	2010	27.45	0.00	2.51	6.00
311	111	30.50	0.00	0.40	1.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.40	0.95
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.76	2.38
313	2013	37.19	0.00	0.76	1.81
314	114	40.82	0.00	4.51	14.21
314	2014	40.82	0.00	4.51	10.80
315	115	44.46	0.00	10.53	33.16
315	2015	44.46	0.00	10.53	25.20
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	10.35	32.60
320	2020	62.64	0.00	10.35	24.78
321	121	66.28	0.00	4.33	13.65
321	2021	66.28	0.00	4.33	10.37
322	122	69.91	0.00	0.68	2.15
322	2022	69.91	0.00	0.68	1.64
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.46	1.46
324	2024	76.66	0.00	0.46	1.11
325	125	79.77	0.00	2.72	8.56
325	2025	79.77	0.00	2.72	6.51
326	126	82.88	0.00	6.26	19.73
326	2026	82.88	0.00	6.26	14.99
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	5.93	14.18
209	1009	24.40	0.00	5.93	-14.18
210	2010	27.45	0.00	2.51	6.00
210	1010	27.45	0.00	2.51	-6.00
211	2011	30.50	0.00	0.40	0.95
211	1011	30.50	0.00	0.40	-0.95
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	0.76	1.81
213	1013	37.19	0.00	0.76	-1.81
214	2014	40.82	0.00	4.51	10.80
214	1014	40.82	0.00	4.51	-10.80
215	2015	44.46	0.00	10.53	25.20
215	1015	44.46	0.00	10.53	-25.20
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	10.35	24.78
220	1020	62.64	0.00	10.35	-24.78
221	2021	66.28	0.00	4.33	10.37
221	1021	66.28	0.00	4.33	-10.37
222	2022	69.91	0.00	0.68	1.64
222	1022	69.91	0.00	0.68	-1.64
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	0.46	1.11
224	1024	76.66	0.00	0.46	-1.11
225	2025	79.77	0.00	2.72	6.51
225	1025	79.77	0.00	2.72	-6.51
226	2026	82.88	0.00	6.26	14.99
226	1026	82.88	0.00	6.26	-14.99
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3I.TOT.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	5.93	-14.18
409	9	24.40	0.00	5.93	-18.66
410	1010	27.45	0.00	2.51	-6.00
410	10	27.45	0.00	2.51	-7.90
411	1011	30.50	0.00	0.40	-0.95
411	11	30.50	0.00	0.40	-1.26
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.76	-1.81
413	13	37.19	0.00	0.76	-2.38
414	1014	40.82	0.00	4.51	-10.80
414	14	40.82	0.00	4.51	-14.21
415	1015	44.46	0.00	10.53	-25.20
415	15	44.46	0.00	10.53	-33.16
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	10.35	-24.78
420	20	62.64	0.00	10.35	-32.60
421	1021	66.28	0.00	4.33	-10.37
421	21	66.28	0.00	4.33	-13.65
422	1022	69.91	0.00	0.68	-1.64
422	22	69.91	0.00	0.68	-2.15
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.46	-1.11
424	24	76.66	0.00	0.46	-1.46
425	1025	79.77	0.00	2.72	-6.51
425	25	79.77	0.00	2.72	-8.56
426	1026	82.88	0.00	6.26	-14.99
426	26	82.88	0.00	6.26	-19.73
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	13.67	0.00
1	2	3.05	0.00	13.67	-41.69
2	2	3.05	0.00	13.67	-41.69
2	3	6.10	0.00	13.67	-83.39
3	3	6.10	0.00	13.67	-83.39
3	4	9.15	0.00	13.67	-125.08
4	4	9.15	0.00	13.67	-125.08
4	5	12.20	0.00	13.67	-166.77
5	5	12.20	0.00	13.67	-166.77
5	6	15.25	0.00	13.67	-208.46
6	6	15.25	0.00	13.67	-208.46
6	7	18.30	0.00	13.67	-250.16
7	7	18.30	0.00	13.67	-250.16
7	8	21.35	0.00	13.67	-291.85
8	8	21.35	0.00	13.67	-291.85
8	9	24.40	0.00	13.67	-333.54
9	9	24.40	-919.94	19.59	443.26
9	10	27.45	-924.15	19.59	386.78
10	10	27.45	-1800.13	22.10	1117.60
10	11	30.50	-1807.94	22.10	1056.28
11	11	30.50	-1780.57	22.50	1055.18
11	12	33.55	-1740.01	22.50	954.91
12	10012	33.55	-1730.40	-15.62	954.99
12	13	37.19	-1793.93	-15.62	1061.33
13	13	37.19	-1812.46	-14.86	1063.11
13	14	40.82	-1803.15	-14.86	1109.89
14	14	40.82	-802.16	-10.35	275.01
14	15	44.46	-797.77	-10.35	309.22
15	15	44.46	6.06	0.18	-377.41
15	16	48.10	6.06	0.18	-378.05
16	16	48.10	6.06	0.18	-378.05
16	17	51.73	6.06	0.18	-378.70
17	17	51.73	6.06	0.18	-378.70
17	18	55.37	6.06	0.18	-379.35
18	18	55.37	6.06	0.18	-379.35
18	19	59.01	6.06	0.18	-379.99
19	19	59.01	6.06	0.18	-379.99
19	20	62.64	6.06	0.18	-380.64
20	20	62.64	-918.84	10.53	404.61
20	21	66.28	-923.86	10.53	370.24
21	21	66.28	-1794.10	14.86	1100.22
21	22	69.91	-1803.41	14.86	1053.45
22	22	69.91	-1785.95	15.54	1051.74
22	23	73.55	-1734.53	15.54	955.11
23	10023	73.55	-1744.33	-22.77	955.08
23	24	76.66	-1791.66	-22.77	1062.81
24	24	76.66	-1819.86	-22.31	1063.98
24	25	79.77	-1811.90	-22.31	1127.14
25	25	79.77	-804.34	-19.59	291.81
25	26	82.88	-800.58	-19.59	349.80
26	26	82.88	0.00	-13.33	-331.54

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.Tinf
Pretensado Total (t=INF)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-13.33	-290.10
27	27	85.99	0.00	-13.33	-290.10
27	28	89.10	0.00	-13.33	-248.66
28	28	89.10	0.00	-13.33	-248.66
28	29	92.21	0.00	-13.33	-207.21
29	29	92.21	0.00	-13.33	-207.21
29	30	95.32	0.00	-13.33	-165.77
30	30	95.32	0.00	-13.33	-165.77
30	31	98.43	0.00	-13.33	-124.33
31	31	98.43	0.00	-13.33	-124.33
31	32	101.54	0.00	-13.33	-82.89
32	32	101.54	0.00	-13.33	-82.89
32	33	104.65	0.00	-13.33	-41.44
33	33	104.65	0.00	-13.33	-41.44
33	34	107.76	0.00	-13.33	0.00
101	101	0.00	0.00	-0.98	0.00
101	102	3.05	0.00	-0.98	2.99
102	102	3.05	0.00	-0.98	2.99
102	103	6.10	0.00	-0.98	5.97
103	103	6.10	0.00	-0.98	5.97
103	104	9.15	0.00	-0.98	8.96
104	104	9.15	0.00	-0.98	8.96
104	105	12.20	0.00	-0.98	11.94
105	105	12.20	0.00	-0.98	11.94
105	106	15.25	0.00	-0.98	14.93
106	106	15.25	0.00	-0.98	14.93
106	107	18.30	0.00	-0.98	17.92
107	107	18.30	0.00	-0.98	17.92
107	108	21.35	0.00	-0.98	20.90
108	108	21.35	0.00	-0.98	20.90
108	109	24.40	0.00	-0.98	23.89
109	109	24.40	-79.66	-6.90	26.78
109	110	27.45	-79.66	-6.90	47.84
110	110	27.45	-143.72	-9.41	50.25
110	111	30.50	-143.72	-9.41	78.96
111	111	30.50	-171.08	-9.81	80.05
111	112	33.55	-171.08	-9.81	109.98
112	10112	33.55	-180.69	15.65	109.90
112	113	37.19	-180.69	15.65	53.00
113	113	37.19	-162.16	14.89	51.23
113	114	40.82	-162.16	14.89	-2.92
114	114	40.82	-88.03	10.38	-6.63
114	115	44.46	-88.03	10.38	-44.37
115	115	44.46	-6.06	-0.15	-48.66
115	116	48.10	-6.06	-0.15	-48.12
116	116	48.10	-6.06	-0.15	-48.12
116	117	51.73	-6.06	-0.15	-47.57
117	117	51.73	-6.06	-0.15	-47.57
117	118	55.37	-6.06	-0.15	-47.03
118	118	55.37	-6.06	-0.15	-47.03
118	119	59.01	-6.06	-0.15	-46.48

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3I.TOT.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.Tinf
Pretensado Total (t=INF)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	-6.06	-0.15	-46.48
119	120	62.64	-6.06	-0.15	-45.94
120	120	62.64	-93.50	-10.50	-41.57
120	121	66.28	-93.50	-10.50	-3.39
121	121	66.28	-163.78	-14.83	0.24
121	122	69.91	-163.78	-14.83	54.17
122	122	69.91	-181.24	-15.52	55.88
122	123	73.55	-181.24	-15.52	112.30
123	10123	73.55	-171.44	10.29	112.33
123	124	76.66	-171.44	10.29	80.33
124	124	76.66	-143.24	9.83	79.16
124	125	79.77	-143.24	9.83	48.59
125	125	79.77	-76.64	7.11	46.08
125	126	82.88	-76.64	7.11	23.97
126	126	82.88	0.00	0.85	21.08
126	127	85.99	0.00	0.85	18.44
127	127	85.99	0.00	0.85	18.44
127	128	89.10	0.00	0.85	15.81
128	128	89.10	0.00	0.85	15.81
128	129	92.21	0.00	0.85	13.17
129	129	92.21	0.00	0.85	13.17
129	130	95.32	0.00	0.85	10.54
130	130	95.32	0.00	0.85	10.54
130	131	98.43	0.00	0.85	7.90
131	131	98.43	0.00	0.85	7.90
131	132	101.54	0.00	0.85	5.27
132	132	101.54	0.00	0.85	5.27
132	133	104.65	0.00	0.85	2.63
133	133	104.65	0.00	0.85	2.63
133	134	107.76	0.00	0.85	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	5.93	18.66
309	2009	24.40	0.00	5.93	14.18
310	110	27.45	0.00	2.51	7.90
310	2010	27.45	0.00	2.51	6.00
311	111	30.50	0.00	0.40	1.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.40	0.95
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.76	2.38
313	2013	37.19	0.00	0.76	1.81
314	114	40.82	0.00	4.51	14.21
314	2014	40.82	0.00	4.51	10.80
315	115	44.46	0.00	10.53	33.16
315	2015	44.46	0.00	10.53	25.20
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	10.35	32.60
320	2020	62.64	0.00	10.35	24.78
321	121	66.28	0.00	4.33	13.65
321	2021	66.28	0.00	4.33	10.37
322	122	69.91	0.00	0.68	2.15
322	2022	69.91	0.00	0.68	1.64
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.46	1.46
324	2024	76.66	0.00	0.46	1.11
325	125	79.77	0.00	2.72	8.56
325	2025	79.77	0.00	2.72	6.51
326	126	82.88	0.00	6.26	19.73
326	2026	82.88	0.00	6.26	14.99
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	5.93	14.18
209	1009	24.40	0.00	5.93	-14.18
210	2010	27.45	0.00	2.51	6.00
210	1010	27.45	0.00	2.51	-6.00
211	2011	30.50	0.00	0.40	0.95
211	1011	30.50	0.00	0.40	-0.95
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	0.76	1.81
213	1013	37.19	0.00	0.76	-1.81
214	2014	40.82	0.00	4.51	10.80
214	1014	40.82	0.00	4.51	-10.80
215	2015	44.46	0.00	10.53	25.20
215	1015	44.46	0.00	10.53	-25.20
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	10.35	24.78
220	1020	62.64	0.00	10.35	-24.78
221	2021	66.28	0.00	4.33	10.37
221	1021	66.28	0.00	4.33	-10.37
222	2022	69.91	0.00	0.68	1.64
222	1022	69.91	0.00	0.68	-1.64
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	0.46	1.11
224	1024	76.66	0.00	0.46	-1.11
225	2025	79.77	0.00	2.72	6.51
225	1025	79.77	0.00	2.72	-6.51
226	2026	82.88	0.00	6.26	14.99
226	1026	82.88	0.00	6.26	-14.99
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	5.93	-14.18
409	9	24.40	0.00	5.93	-18.66
410	1010	27.45	0.00	2.51	-6.00
410	10	27.45	0.00	2.51	-7.90
411	1011	30.50	0.00	0.40	-0.95
411	11	30.50	0.00	0.40	-1.26
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.76	-1.81
413	13	37.19	0.00	0.76	-2.38
414	1014	40.82	0.00	4.51	-10.80
414	14	40.82	0.00	4.51	-14.21
415	1015	44.46	0.00	10.53	-25.20
415	15	44.46	0.00	10.53	-33.16
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3I.FAM1.TOT + [1; 1]PRETF3I.FAM2.TOT + [1; 1]PRETF3I.FAM3.TOT + [1; 1]PRETF3I.

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	10.35	-24.78
420	20	62.64	0.00	10.35	-32.60
421	1021	66.28	0.00	4.33	-10.37
421	21	66.28	0.00	4.33	-13.65
422	1022	69.91	0.00	0.68	-1.64
422	22	69.91	0.00	0.68	-2.15
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.46	-1.11
424	24	76.66	0.00	0.46	-1.46
425	1025	79.77	0.00	2.72	-6.51
425	25	79.77	0.00	2.72	-8.56
426	1026	82.88	0.00	6.26	-14.99
426	26	82.88	0.00	6.26	-19.73
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.HIP.To

Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	13.67	0.00
1	2	3.05	0.00	13.67	-41.69
2	2	3.05	0.00	13.67	-41.69
2	3	6.10	0.00	13.67	-83.39
3	3	6.10	0.00	13.67	-83.39
3	4	9.15	0.00	13.67	-125.08
4	4	9.15	0.00	13.67	-125.08
4	5	12.20	0.00	13.67	-166.77
5	5	12.20	0.00	13.67	-166.77
5	6	15.25	0.00	13.67	-208.46
6	6	15.25	0.00	13.67	-208.46
6	7	18.30	0.00	13.67	-250.16
7	7	18.30	0.00	13.67	-250.16
7	8	21.35	0.00	13.67	-291.85
8	8	21.35	0.00	13.67	-291.85
8	9	24.40	0.00	13.67	-333.54
9	9	24.40	79.66	19.59	-336.43
9	10	27.45	79.66	19.59	-396.19
10	10	27.45	143.72	22.10	-398.60
10	11	30.50	143.72	22.10	-466.02
11	11	30.50	171.09	22.50	-467.11
11	12	33.55	171.09	22.50	-535.74
12	10012	33.55	180.69	-15.62	-535.66
12	13	37.19	180.69	-15.62	-478.87
13	13	37.19	162.16	-14.86	-477.09
13	14	40.82	162.16	-14.86	-423.05
14	14	40.82	88.03	-10.35	-419.34
14	15	44.46	88.03	-10.35	-381.70
15	15	44.46	6.06	0.18	-377.41
15	16	48.10	6.06	0.18	-378.05
16	16	48.10	6.06	0.18	-378.05
16	17	51.73	6.06	0.18	-378.70
17	17	51.73	6.06	0.18	-378.70
17	18	55.37	6.06	0.18	-379.35
18	18	55.37	6.06	0.18	-379.35
18	19	59.01	6.06	0.18	-379.99
19	19	59.01	6.06	0.18	-379.99
19	20	62.64	6.06	0.18	-380.64
20	20	62.64	93.50	10.53	-385.01
20	21	66.28	93.50	10.53	-423.30
21	21	66.28	163.78	14.86	-426.92
21	22	69.91	163.78	14.86	-480.96
22	22	69.91	181.24	15.54	-482.67
22	23	73.55	181.24	15.54	-539.19
23	10023	73.55	171.44	-22.77	-539.22
23	24	76.66	171.44	-22.77	-468.41
24	24	76.66	143.24	-22.31	-467.24
24	25	79.77	143.24	-22.31	-397.87
25	25	79.77	76.64	-19.59	-395.35
25	26	82.88	76.64	-19.59	-334.43
26	26	82.88	0.00	-13.33	-331.54

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-13.33	-290.10
27	27	85.99	0.00	-13.33	-290.10
27	28	89.10	0.00	-13.33	-248.66
28	28	89.10	0.00	-13.33	-248.66
28	29	92.21	0.00	-13.33	-207.21
29	29	92.21	0.00	-13.33	-207.21
29	30	95.32	0.00	-13.33	-165.77
30	30	95.32	0.00	-13.33	-165.77
30	31	98.43	0.00	-13.33	-124.33
31	31	98.43	0.00	-13.33	-124.33
31	32	101.54	0.00	-13.33	-82.89
32	32	101.54	0.00	-13.33	-82.89
32	33	104.65	0.00	-13.33	-41.44
33	33	104.65	0.00	-13.33	-41.44
33	34	107.76	0.00	-13.33	0.00
101	101	0.00	0.00	-0.98	0.00
101	102	3.05	0.00	-0.98	2.99
102	102	3.05	0.00	-0.98	2.99
102	103	6.10	0.00	-0.98	5.97
103	103	6.10	0.00	-0.98	5.97
103	104	9.15	0.00	-0.98	8.96
104	104	9.15	0.00	-0.98	8.96
104	105	12.20	0.00	-0.98	11.94
105	105	12.20	0.00	-0.98	11.94
105	106	15.25	0.00	-0.98	14.93
106	106	15.25	0.00	-0.98	14.93
106	107	18.30	0.00	-0.98	17.92
107	107	18.30	0.00	-0.98	17.92
107	108	21.35	0.00	-0.98	20.90
108	108	21.35	0.00	-0.98	20.90
108	109	24.40	0.00	-0.98	23.89
109	109	24.40	-79.66	-6.90	26.78
109	110	27.45	-79.66	-6.90	47.84
110	110	27.45	-143.72	-9.41	50.25
110	111	30.50	-143.72	-9.41	78.96
111	111	30.50	-171.08	-9.81	80.05
111	112	33.55	-171.08	-9.81	109.98
112	10112	33.55	-180.69	15.65	109.90
112	113	37.19	-180.69	15.65	53.00
113	113	37.19	-162.16	14.89	51.23
113	114	40.82	-162.16	14.89	-2.92
114	114	40.82	-88.03	10.38	-6.63
114	115	44.46	-88.03	10.38	-44.37
115	115	44.46	-6.06	-0.15	-48.66
115	116	48.10	-6.06	-0.15	-48.12
116	116	48.10	-6.06	-0.15	-48.12
116	117	51.73	-6.06	-0.15	-47.57
117	117	51.73	-6.06	-0.15	-47.57
117	118	55.37	-6.06	-0.15	-47.03
118	118	55.37	-6.06	-0.15	-47.03
118	119	59.01	-6.06	-0.15	-46.48

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	-6.06	-0.15	-46.48
119	120	62.64	-6.06	-0.15	-45.94
120	120	62.64	-93.50	-10.50	-41.57
120	121	66.28	-93.50	-10.50	-3.39
121	121	66.28	-163.78	-14.83	0.24
121	122	69.91	-163.78	-14.83	54.17
122	122	69.91	-181.24	-15.52	55.88
122	123	73.55	-181.24	-15.52	112.30
123	10123	73.55	-171.44	10.29	112.33
123	124	76.66	-171.44	10.29	80.33
124	124	76.66	-143.24	9.83	79.16
124	125	79.77	-143.24	9.83	48.59
125	125	79.77	-76.64	7.11	46.08
125	126	82.88	-76.64	7.11	23.97
126	126	82.88	0.00	0.85	21.08
126	127	85.99	0.00	0.85	18.44
127	127	85.99	0.00	0.85	18.44
127	128	89.10	0.00	0.85	15.81
128	128	89.10	0.00	0.85	15.81
128	129	92.21	0.00	0.85	13.17
129	129	92.21	0.00	0.85	13.17
129	130	95.32	0.00	0.85	10.54
130	130	95.32	0.00	0.85	10.54
130	131	98.43	0.00	0.85	7.90
131	131	98.43	0.00	0.85	7.90
131	132	101.54	0.00	0.85	5.27
132	132	101.54	0.00	0.85	5.27
132	133	104.65	0.00	0.85	2.63
133	133	104.65	0.00	0.85	2.63
133	134	107.76	0.00	0.85	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	5.93	18.66
309	2009	24.40	0.00	5.93	14.18
310	110	27.45	0.00	2.51	7.90
310	2010	27.45	0.00	2.51	6.00
311	111	30.50	0.00	0.40	1.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.40	0.95
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.76	2.38
313	2013	37.19	0.00	0.76	1.81
314	114	40.82	0.00	4.51	14.21
314	2014	40.82	0.00	4.51	10.80
315	115	44.46	0.00	10.53	33.16
315	2015	44.46	0.00	10.53	25.20
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	10.35	32.60
320	2020	62.64	0.00	10.35	24.78
321	121	66.28	0.00	4.33	13.65
321	2021	66.28	0.00	4.33	10.37
322	122	69.91	0.00	0.68	2.15
322	2022	69.91	0.00	0.68	1.64
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.46	1.46
324	2024	76.66	0.00	0.46	1.11
325	125	79.77	0.00	2.72	8.56
325	2025	79.77	0.00	2.72	6.51
326	126	82.88	0.00	6.26	19.73
326	2026	82.88	0.00	6.26	14.99
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	5.93	14.18
209	1009	24.40	0.00	5.93	-14.18
210	2010	27.45	0.00	2.51	6.00
210	1010	27.45	0.00	2.51	-6.00
211	2011	30.50	0.00	0.40	0.95
211	1011	30.50	0.00	0.40	-0.95
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	0.76	1.81
213	1013	37.19	0.00	0.76	-1.81
214	2014	40.82	0.00	4.51	10.80
214	1014	40.82	0.00	4.51	-10.80
215	2015	44.46	0.00	10.53	25.20
215	1015	44.46	0.00	10.53	-25.20
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	10.35	24.78
220	1020	62.64	0.00	10.35	-24.78
221	2021	66.28	0.00	4.33	10.37
221	1021	66.28	0.00	4.33	-10.37
222	2022	69.91	0.00	0.68	1.64
222	1022	69.91	0.00	0.68	-1.64
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	0.46	1.11
224	1024	76.66	0.00	0.46	-1.11
225	2025	79.77	0.00	2.72	6.51
225	1025	79.77	0.00	2.72	-6.51
226	2026	82.88	0.00	6.26	14.99
226	1026	82.88	0.00	6.26	-14.99
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	5.93	-14.18
409	9	24.40	0.00	5.93	-18.66
410	1010	27.45	0.00	2.51	-6.00
410	10	27.45	0.00	2.51	-7.90
411	1011	30.50	0.00	0.40	-0.95
411	11	30.50	0.00	0.40	-1.26
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.76	-1.81
413	13	37.19	0.00	0.76	-2.38
414	1014	40.82	0.00	4.51	-10.80
414	14	40.82	0.00	4.51	-14.21
415	1015	44.46	0.00	10.53	-25.20
415	15	44.46	0.00	10.53	-33.16
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	-5.93	14.18
409	9	24.40	0.00	-5.93	18.66
410	1010	27.45	0.00	-2.51	6.00
410	10	27.45	0.00	-2.51	7.90
411	1011	30.50	0.00	-0.40	0.95
411	11	30.50	0.00	-0.40	1.26
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	-0.76	1.81
413	13	37.19	0.00	-0.76	2.38
414	1014	40.82	0.00	-4.51	10.80
414	14	40.82	0.00	-4.51	14.21
415	1015	44.46	0.00	-10.53	25.20
415	15	44.46	0.00	-10.53	33.16
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3D.TOT.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-10.35	24.78
420	20	62.64	0.00	-10.35	32.60
421	1021	66.28	0.00	-4.33	10.37
421	21	66.28	0.00	-4.33	13.65
422	1022	69.91	0.00	-0.68	1.64
422	22	69.91	0.00	-0.68	2.15
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	-0.46	1.11
424	24	76.66	0.00	-0.46	1.46
425	1025	79.77	0.00	-2.72	6.51
425	25	79.77	0.00	-2.72	8.56
426	1026	82.88	0.00	-6.26	14.99
426	26	82.88	0.00	-6.26	19.73
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-0.98	0.00
1	2	3.05	0.00	-0.98	2.99
2	2	3.05	0.00	-0.98	2.99
2	3	6.10	0.00	-0.98	5.97
3	3	6.10	0.00	-0.98	5.97
3	4	9.15	0.00	-0.98	8.96
4	4	9.15	0.00	-0.98	8.96
4	5	12.20	0.00	-0.98	11.94
5	5	12.20	0.00	-0.98	11.94
5	6	15.25	0.00	-0.98	14.93
6	6	15.25	0.00	-0.98	14.93
6	7	18.30	0.00	-0.98	17.92
7	7	18.30	0.00	-0.98	17.92
7	8	21.35	0.00	-0.98	20.90
8	8	21.35	0.00	-0.98	20.90
8	9	24.40	0.00	-0.98	23.89
9	9	24.40	-79.66	-6.90	26.78
9	10	27.45	-79.66	-6.90	47.84
10	10	27.45	-143.72	-9.41	50.25
10	11	30.50	-143.72	-9.41	78.96
11	11	30.50	-171.08	-9.81	80.05
11	12	33.55	-171.08	-9.81	109.98
12	10012	33.55	-180.69	15.65	109.90
12	13	37.19	-180.69	15.65	53.00
13	13	37.19	-162.16	14.89	51.23
13	14	40.82	-162.16	14.89	-2.92
14	14	40.82	-88.03	10.38	-6.63
14	15	44.46	-88.03	10.38	-44.37
15	15	44.46	-6.06	-0.15	-48.66
15	16	48.10	-6.06	-0.15	-48.12
16	16	48.10	-6.06	-0.15	-48.12
16	17	51.73	-6.06	-0.15	-47.57
17	17	51.73	-6.06	-0.15	-47.57
17	18	55.37	-6.06	-0.15	-47.03
18	18	55.37	-6.06	-0.15	-47.03
18	19	59.01	-6.06	-0.15	-46.48
19	19	59.01	-6.06	-0.15	-46.48
19	20	62.64	-6.06	-0.15	-45.94
20	20	62.64	-93.50	-10.50	-41.57
20	21	66.28	-93.50	-10.50	-3.39
21	21	66.28	-163.78	-14.83	0.24
21	22	69.91	-163.78	-14.83	54.17
22	22	69.91	-181.24	-15.52	55.88
22	23	73.55	-181.24	-15.52	112.30
23	10023	73.55	-171.44	10.29	112.33
23	24	76.66	-171.44	10.29	80.33
24	24	76.66	-143.24	9.83	79.16
24	25	79.77	-143.24	9.83	48.59
25	25	79.77	-76.64	7.11	46.08
25	26	82.88	-76.64	7.11	23.97
26	26	82.88	0.00	0.85	21.08

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3D.TOT.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.85	18.44
27	27	85.99	0.00	0.85	18.44
27	28	89.10	0.00	0.85	15.81
28	28	89.10	0.00	0.85	15.81
28	29	92.21	0.00	0.85	13.17
29	29	92.21	0.00	0.85	13.17
29	30	95.32	0.00	0.85	10.54
30	30	95.32	0.00	0.85	10.54
30	31	98.43	0.00	0.85	7.90
31	31	98.43	0.00	0.85	7.90
31	32	101.54	0.00	0.85	5.27
32	32	101.54	0.00	0.85	5.27
32	33	104.65	0.00	0.85	2.63
33	33	104.65	0.00	0.85	2.63
33	34	107.76	0.00	0.85	0.00
101	101	0.00	0.00	13.67	0.00
101	102	3.05	0.00	13.67	-41.69
102	102	3.05	0.00	13.67	-41.69
102	103	6.10	0.00	13.67	-83.38
103	103	6.10	0.00	13.67	-83.38
103	104	9.15	0.00	13.67	-125.08
104	104	9.15	0.00	13.67	-125.08
104	105	12.20	0.00	13.67	-166.77
105	105	12.20	0.00	13.67	-166.77
105	106	15.25	0.00	13.67	-208.46
106	106	15.25	0.00	13.67	-208.46
106	107	18.30	0.00	13.67	-250.16
107	107	18.30	0.00	13.67	-250.16
107	108	21.35	0.00	13.67	-291.85
108	108	21.35	0.00	13.67	-291.85
108	109	24.40	0.00	13.67	-333.54
109	109	24.40	-919.94	19.59	443.25
109	110	27.45	-924.15	19.59	386.77
110	110	27.45	-1800.13	22.10	1117.59
110	111	30.50	-1807.94	22.10	1056.27
111	111	30.50	-1780.58	22.50	1055.18
111	112	33.55	-1740.01	22.50	954.90
112	10112	33.55	-1730.40	-15.62	954.98
112	113	37.19	-1793.93	-15.62	1061.33
113	113	37.19	-1812.46	-14.86	1063.10
113	114	40.82	-1803.15	-14.86	1109.89
114	114	40.82	-802.16	-10.35	275.01
114	115	44.46	-797.77	-10.35	309.22
115	115	44.46	6.06	0.18	-377.41
115	116	48.10	6.06	0.18	-378.05
116	116	48.10	6.06	0.18	-378.05
116	117	51.73	6.06	0.18	-378.70
117	117	51.73	6.06	0.18	-378.70
117	118	55.37	6.06	0.18	-379.34
118	118	55.37	6.06	0.18	-379.34
118	119	59.01	6.06	0.18	-379.99

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	6.06	0.18	-379.99
119	120	62.64	6.06	0.18	-380.64
120	120	62.64	-918.84	10.53	404.61
120	121	66.28	-923.86	10.53	370.24
121	121	66.28	-1794.10	14.86	1100.22
121	122	69.91	-1803.41	14.86	1053.44
122	122	69.91	-1785.95	15.54	1051.73
122	123	73.55	-1734.53	15.54	955.10
123	10123	73.55	-1744.33	-22.77	955.07
123	124	76.66	-1791.66	-22.77	1062.81
124	124	76.66	-1819.86	-22.31	1063.97
124	125	79.77	-1811.90	-22.31	1127.14
125	125	79.77	-804.34	-19.59	291.81
125	126	82.88	-800.58	-19.59	349.80
126	126	82.88	0.00	-13.33	-331.54
126	127	85.99	0.00	-13.33	-290.10
127	127	85.99	0.00	-13.33	-290.10
127	128	89.10	0.00	-13.33	-248.66
128	128	89.10	0.00	-13.33	-248.66
128	129	92.21	0.00	-13.33	-207.21
129	129	92.21	0.00	-13.33	-207.21
129	130	95.32	0.00	-13.33	-165.77
130	130	95.32	0.00	-13.33	-165.77
130	131	98.43	0.00	-13.33	-124.33
131	131	98.43	0.00	-13.33	-124.33
131	132	101.54	0.00	-13.33	-82.88
132	132	101.54	0.00	-13.33	-82.88
132	133	104.65	0.00	-13.33	-41.44
133	133	104.65	0.00	-13.33	-41.44
133	134	107.76	0.00	-13.33	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	-5.93	-18.66
309	2009	24.40	0.00	-5.93	-14.18
310	110	27.45	0.00	-2.51	-7.90
310	2010	27.45	0.00	-2.51	-6.00
311	111	30.50	0.00	-0.40	-1.26

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3D.TOT.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-0.40	-0.95
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	-0.76	-2.38
313	2013	37.19	0.00	-0.76	-1.81
314	114	40.82	0.00	-4.51	-14.21
314	2014	40.82	0.00	-4.51	-10.80
315	115	44.46	0.00	-10.53	-33.16
315	2015	44.46	0.00	-10.53	-25.20
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	-10.35	-32.60
320	2020	62.64	0.00	-10.35	-24.78
321	121	66.28	0.00	-4.33	-13.65
321	2021	66.28	0.00	-4.33	-10.37
322	122	69.91	0.00	-0.68	-2.15
322	2022	69.91	0.00	-0.68	-1.64
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	-0.46	-1.46
324	2024	76.66	0.00	-0.46	-1.11
325	125	79.77	0.00	-2.72	-8.56
325	2025	79.77	0.00	-2.72	-6.51
326	126	82.88	0.00	-6.26	-19.73
326	2026	82.88	0.00	-6.26	-14.99
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	-5.93	-14.18
209	1009	24.40	0.00	-5.93	14.18
210	2010	27.45	0.00	-2.51	-6.00
210	1010	27.45	0.00	-2.51	6.00
211	2011	30.50	0.00	-0.40	-0.95
211	1011	30.50	0.00	-0.40	0.95
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	-0.76	-1.81
213	1013	37.19	0.00	-0.76	1.81
214	2014	40.82	0.00	-4.51	-10.80
214	1014	40.82	0.00	-4.51	10.80
215	2015	44.46	0.00	-10.53	-25.20
215	1015	44.46	0.00	-10.53	25.20
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	-10.35	-24.78
220	1020	62.64	0.00	-10.35	24.78
221	2021	66.28	0.00	-4.33	-10.37
221	1021	66.28	0.00	-4.33	10.37
222	2022	69.91	0.00	-0.68	-1.64
222	1022	69.91	0.00	-0.68	1.64
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	-0.46	-1.11
224	1024	76.66	0.00	-0.46	1.11
225	2025	79.77	0.00	-2.72	-6.51
225	1025	79.77	0.00	-2.72	6.51
226	2026	82.88	0.00	-6.26	-14.99
226	1026	82.88	0.00	-6.26	14.99
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3D.TOT.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	-5.93	14.18
409	9	24.40	0.00	-5.93	18.66
410	1010	27.45	0.00	-2.51	6.00
410	10	27.45	0.00	-2.51	7.90
411	1011	30.50	0.00	-0.40	0.95
411	11	30.50	0.00	-0.40	1.26
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	-0.76	1.81
413	13	37.19	0.00	-0.76	2.38
414	1014	40.82	0.00	-4.51	10.80
414	14	40.82	0.00	-4.51	14.21
415	1015	44.46	0.00	-10.53	25.20
415	15	44.46	0.00	-10.53	33.16
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.Tinf

Pretensado Total (t=INF)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-10.35	24.78
420	20	62.64	0.00	-10.35	32.60
421	1021	66.28	0.00	-4.33	10.37
421	21	66.28	0.00	-4.33	13.65
422	1022	69.91	0.00	-0.68	1.64
422	22	69.91	0.00	-0.68	2.15
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	-0.46	1.11
424	24	76.66	0.00	-0.46	1.46
425	1025	79.77	0.00	-2.72	6.51
425	25	79.77	0.00	-2.72	8.56
426	1026	82.88	0.00	-6.26	14.99
426	26	82.88	0.00	-6.26	19.73
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.To

Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-0.98	0.00
1	2	3.05	0.00	-0.98	2.99
2	2	3.05	0.00	-0.98	2.99
2	3	6.10	0.00	-0.98	5.97
3	3	6.10	0.00	-0.98	5.97
3	4	9.15	0.00	-0.98	8.96
4	4	9.15	0.00	-0.98	8.96
4	5	12.20	0.00	-0.98	11.94
5	5	12.20	0.00	-0.98	11.94
5	6	15.25	0.00	-0.98	14.93
6	6	15.25	0.00	-0.98	14.93
6	7	18.30	0.00	-0.98	17.92
7	7	18.30	0.00	-0.98	17.92
7	8	21.35	0.00	-0.98	20.90
8	8	21.35	0.00	-0.98	20.90
8	9	24.40	0.00	-0.98	23.89
9	9	24.40	-79.66	-6.90	26.78
9	10	27.45	-79.66	-6.90	47.84
10	10	27.45	-143.72	-9.41	50.25
10	11	30.50	-143.72	-9.41	78.96
11	11	30.50	-171.08	-9.81	80.05
11	12	33.55	-171.08	-9.81	109.98
12	10012	33.55	-180.69	15.65	109.90
12	13	37.19	-180.69	15.65	53.00
13	13	37.19	-162.16	14.89	51.23
13	14	40.82	-162.16	14.89	-2.92
14	14	40.82	-88.03	10.38	-6.63
14	15	44.46	-88.03	10.38	-44.37
15	15	44.46	-6.06	-0.15	-48.66
15	16	48.10	-6.06	-0.15	-48.12
16	16	48.10	-6.06	-0.15	-48.12
16	17	51.73	-6.06	-0.15	-47.57
17	17	51.73	-6.06	-0.15	-47.57
17	18	55.37	-6.06	-0.15	-47.03
18	18	55.37	-6.06	-0.15	-47.03
18	19	59.01	-6.06	-0.15	-46.48
19	19	59.01	-6.06	-0.15	-46.48
19	20	62.64	-6.06	-0.15	-45.94
20	20	62.64	-93.50	-10.50	-41.57
20	21	66.28	-93.50	-10.50	-3.39
21	21	66.28	-163.78	-14.83	0.24
21	22	69.91	-163.78	-14.83	54.17
22	22	69.91	-181.24	-15.52	55.88
22	23	73.55	-181.24	-15.52	112.30
23	10023	73.55	-171.44	10.29	112.33
23	24	76.66	-171.44	10.29	80.33
24	24	76.66	-143.24	9.83	79.16
24	25	79.77	-143.24	9.83	48.59
25	25	79.77	-76.64	7.11	46.08
25	26	82.88	-76.64	7.11	23.97
26	26	82.88	0.00	0.85	21.08

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.85	18.44
27	27	85.99	0.00	0.85	18.44
27	28	89.10	0.00	0.85	15.81
28	28	89.10	0.00	0.85	15.81
28	29	92.21	0.00	0.85	13.17
29	29	92.21	0.00	0.85	13.17
29	30	95.32	0.00	0.85	10.54
30	30	95.32	0.00	0.85	10.54
30	31	98.43	0.00	0.85	7.90
31	31	98.43	0.00	0.85	7.90
31	32	101.54	0.00	0.85	5.27
32	32	101.54	0.00	0.85	5.27
32	33	104.65	0.00	0.85	2.63
33	33	104.65	0.00	0.85	2.63
33	34	107.76	0.00	0.85	0.00
101	101	0.00	0.00	13.67	0.00
101	102	3.05	0.00	13.67	-41.69
102	102	3.05	0.00	13.67	-41.69
102	103	6.10	0.00	13.67	-83.38
103	103	6.10	0.00	13.67	-83.38
103	104	9.15	0.00	13.67	-125.08
104	104	9.15	0.00	13.67	-125.08
104	105	12.20	0.00	13.67	-166.77
105	105	12.20	0.00	13.67	-166.77
105	106	15.25	0.00	13.67	-208.46
106	106	15.25	0.00	13.67	-208.46
106	107	18.30	0.00	13.67	-250.16
107	107	18.30	0.00	13.67	-250.16
107	108	21.35	0.00	13.67	-291.85
108	108	21.35	0.00	13.67	-291.85
108	109	24.40	0.00	13.67	-333.54
109	109	24.40	79.66	19.59	-336.43
109	110	27.45	79.66	19.59	-396.20
110	110	27.45	143.72	22.10	-398.61
110	111	30.50	143.72	22.10	-466.02
111	111	30.50	171.08	22.50	-467.12
111	112	33.55	171.09	22.50	-535.75
112	10112	33.55	180.69	-15.62	-535.67
112	113	37.19	180.69	-15.62	-478.87
113	113	37.19	162.16	-14.86	-477.10
113	114	40.82	162.16	-14.86	-423.05
114	114	40.82	88.03	-10.35	-419.34
114	115	44.46	88.03	-10.35	-381.70
115	115	44.46	6.06	0.18	-377.41
115	116	48.10	6.06	0.18	-378.05
116	116	48.10	6.06	0.18	-378.05
116	117	51.73	6.06	0.18	-378.70
117	117	51.73	6.06	0.18	-378.70
117	118	55.37	6.06	0.18	-379.34
118	118	55.37	6.06	0.18	-379.34
118	119	59.01	6.06	0.18	-379.99

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Programa DINTEL PACADAR S.A.
PRETF3D.HIP.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	6.06	0.18	-379.99
119	120	62.64	6.06	0.18	-380.64
120	120	62.64	93.50	10.53	-385.02
120	121	66.28	93.50	10.53	-423.30
121	121	66.28	163.78	14.86	-426.93
121	122	69.91	163.78	14.86	-480.96
122	122	69.91	181.24	15.54	-482.67
122	123	73.55	181.24	15.54	-539.20
123	10123	73.55	171.44	-22.77	-539.23
123	124	76.66	171.44	-22.77	-468.41
124	124	76.66	143.24	-22.31	-467.25
124	125	79.77	143.24	-22.31	-397.87
125	125	79.77	76.64	-19.59	-395.36
125	126	82.88	76.64	-19.59	-334.43
126	126	82.88	0.00	-13.33	-331.54
126	127	85.99	0.00	-13.33	-290.10
127	127	85.99	0.00	-13.33	-290.10
127	128	89.10	0.00	-13.33	-248.66
128	128	89.10	0.00	-13.33	-248.66
128	129	92.21	0.00	-13.33	-207.21
129	129	92.21	0.00	-13.33	-207.21
129	130	95.32	0.00	-13.33	-165.77
130	130	95.32	0.00	-13.33	-165.77
130	131	98.43	0.00	-13.33	-124.33
131	131	98.43	0.00	-13.33	-124.33
131	132	101.54	0.00	-13.33	-82.88
132	132	101.54	0.00	-13.33	-82.88
132	133	104.65	0.00	-13.33	-41.44
133	133	104.65	0.00	-13.33	-41.44
133	134	107.76	0.00	-13.33	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	-5.93	-18.66
309	2009	24.40	0.00	-5.93	-14.18
310	110	27.45	0.00	-2.51	-7.90
310	2010	27.45	0.00	-2.51	-6.00
311	111	30.50	0.00	-0.40	-1.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-0.40	-0.95
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	-0.76	-2.38
313	2013	37.19	0.00	-0.76	-1.81
314	114	40.82	0.00	-4.51	-14.21
314	2014	40.82	0.00	-4.51	-10.80
315	115	44.46	0.00	-10.53	-33.16
315	2015	44.46	0.00	-10.53	-25.20
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	-10.35	-32.60
320	2020	62.64	0.00	-10.35	-24.78
321	121	66.28	0.00	-4.33	-13.65
321	2021	66.28	0.00	-4.33	-10.37
322	122	69.91	0.00	-0.68	-2.15
322	2022	69.91	0.00	-0.68	-1.64
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	-0.46	-1.46
324	2024	76.66	0.00	-0.46	-1.11
325	125	79.77	0.00	-2.72	-8.56
325	2025	79.77	0.00	-2.72	-6.51
326	126	82.88	0.00	-6.26	-19.73
326	2026	82.88	0.00	-6.26	-14.99
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

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Programa DINTEL PACADAR S.A.
PRETF3D.HIP.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	-5.93	-14.18
209	1009	24.40	0.00	-5.93	14.18
210	2010	27.45	0.00	-2.51	-6.00
210	1010	27.45	0.00	-2.51	6.00
211	2011	30.50	0.00	-0.40	-0.95
211	1011	30.50	0.00	-0.40	0.95
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	-0.76	-1.81
213	1013	37.19	0.00	-0.76	1.81
214	2014	40.82	0.00	-4.51	-10.80
214	1014	40.82	0.00	-4.51	10.80
215	2015	44.46	0.00	-10.53	-25.20
215	1015	44.46	0.00	-10.53	25.20
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	-10.35	-24.78
220	1020	62.64	0.00	-10.35	24.78
221	2021	66.28	0.00	-4.33	-10.37
221	1021	66.28	0.00	-4.33	10.37
222	2022	69.91	0.00	-0.68	-1.64
222	1022	69.91	0.00	-0.68	1.64
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	-0.46	-1.11
224	1024	76.66	0.00	-0.46	1.11
225	2025	79.77	0.00	-2.72	-6.51
225	1025	79.77	0.00	-2.72	6.51
226	2026	82.88	0.00	-6.26	-14.99
226	1026	82.88	0.00	-6.26	14.99
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	-5.93	14.18
409	9	24.40	0.00	-5.93	18.66
410	1010	27.45	0.00	-2.51	6.00
410	10	27.45	0.00	-2.51	7.90
411	1011	30.50	0.00	-0.40	0.95
411	11	30.50	0.00	-0.40	1.26
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	-0.76	1.81
413	13	37.19	0.00	-0.76	2.38
414	1014	40.82	0.00	-4.51	10.80
414	14	40.82	0.00	-4.51	14.21
415	1015	44.46	0.00	-10.53	25.20
415	15	44.46	0.00	-10.53	33.16
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

f3.pret.esf Programa DINTEL PACADAR S.A. 20/11/02
PRETF3D.HIP.To

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.To
Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-10.35	24.78
420	20	62.64	0.00	-10.35	32.60
421	1021	66.28	0.00	-4.33	10.37
421	21	66.28	0.00	-4.33	13.65
422	1022	69.91	0.00	-0.68	1.64
422	22	69.91	0.00	-0.68	2.15
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	-0.46	1.11
424	24	76.66	0.00	-0.46	1.46
425	1025	79.77	0.00	-2.72	6.51
425	25	79.77	0.00	-2.72	8.56
426	1026	82.88	0.00	-6.26	14.99
426	26	82.88	0.00	-6.26	19.73
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-0.98	0.00
1	2	3.05	0.00	-0.98	2.99
2	2	3.05	0.00	-0.98	2.99
2	3	6.10	0.00	-0.98	5.97
3	3	6.10	0.00	-0.98	5.97
3	4	9.15	0.00	-0.98	8.96
4	4	9.15	0.00	-0.98	8.96
4	5	12.20	0.00	-0.98	11.94
5	5	12.20	0.00	-0.98	11.94
5	6	15.25	0.00	-0.98	14.93
6	6	15.25	0.00	-0.98	14.93
6	7	18.30	0.00	-0.98	17.92
7	7	18.30	0.00	-0.98	17.92
7	8	21.35	0.00	-0.98	20.90
8	8	21.35	0.00	-0.98	20.90
8	9	24.40	0.00	-0.98	23.89
9	9	24.40	-79.66	-6.90	26.78
9	10	27.45	-79.66	-6.90	47.84
10	10	27.45	-143.72	-9.41	50.25
10	11	30.50	-143.72	-9.41	78.96
11	11	30.50	-171.08	-9.81	80.05
11	12	33.55	-171.08	-9.81	109.98
12	10012	33.55	-180.69	15.65	109.90
12	13	37.19	-180.69	15.65	53.00
13	13	37.19	-162.16	14.89	51.23
13	14	40.82	-162.16	14.89	-2.92
14	14	40.82	-88.03	10.38	-6.63
14	15	44.46	-88.03	10.38	-44.37
15	15	44.46	-6.06	-0.15	-48.66
15	16	48.10	-6.06	-0.15	-48.12
16	16	48.10	-6.06	-0.15	-48.12
16	17	51.73	-6.06	-0.15	-47.57
17	17	51.73	-6.06	-0.15	-47.57
17	18	55.37	-6.06	-0.15	-47.03
18	18	55.37	-6.06	-0.15	-47.03
18	19	59.01	-6.06	-0.15	-46.48
19	19	59.01	-6.06	-0.15	-46.48
19	20	62.64	-6.06	-0.15	-45.94
20	20	62.64	-93.50	-10.50	-41.57
20	21	66.28	-93.50	-10.50	-3.39
21	21	66.28	-163.78	-14.83	0.24
21	22	69.91	-163.78	-14.83	54.17
22	22	69.91	-181.24	-15.52	55.88
22	23	73.55	-181.24	-15.52	112.30
23	10023	73.55	-171.44	10.29	112.33
23	24	76.66	-171.44	10.29	80.33
24	24	76.66	-143.24	9.83	79.16
24	25	79.77	-143.24	9.83	48.59
25	25	79.77	-76.64	7.11	46.08
25	26	82.88	-76.64	7.11	23.97
26	26	82.88	0.00	0.85	21.08

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3D.HIP.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.85	18.44
27	27	85.99	0.00	0.85	18.44
27	28	89.10	0.00	0.85	15.81
28	28	89.10	0.00	0.85	15.81
28	29	92.21	0.00	0.85	13.17
29	29	92.21	0.00	0.85	13.17
29	30	95.32	0.00	0.85	10.54
30	30	95.32	0.00	0.85	10.54
30	31	98.43	0.00	0.85	7.90
31	31	98.43	0.00	0.85	7.90
31	32	101.54	0.00	0.85	5.27
32	32	101.54	0.00	0.85	5.27
32	33	104.65	0.00	0.85	2.63
33	33	104.65	0.00	0.85	2.63
33	34	107.76	0.00	0.85	0.00
101	101	0.00	0.00	13.67	0.00
101	102	3.05	0.00	13.67	-41.69
102	102	3.05	0.00	13.67	-41.69
102	103	6.10	0.00	13.67	-83.38
103	103	6.10	0.00	13.67	-83.38
103	104	9.15	0.00	13.67	-125.08
104	104	9.15	0.00	13.67	-125.08
104	105	12.20	0.00	13.67	-166.77
105	105	12.20	0.00	13.67	-166.77
105	106	15.25	0.00	13.67	-208.46
106	106	15.25	0.00	13.67	-208.46
106	107	18.30	0.00	13.67	-250.16
107	107	18.30	0.00	13.67	-250.16
107	108	21.35	0.00	13.67	-291.85
108	108	21.35	0.00	13.67	-291.85
108	109	24.40	0.00	13.67	-333.54
109	109	24.40	79.66	19.59	-336.43
109	110	27.45	79.66	19.59	-396.20
110	110	27.45	143.72	22.10	-398.61
110	111	30.50	143.72	22.10	-466.02
111	111	30.50	171.08	22.50	-467.12
111	112	33.55	171.09	22.50	-535.75
112	10112	33.55	180.69	-15.62	-535.67
112	113	37.19	180.69	-15.62	-478.87
113	113	37.19	162.16	-14.86	-477.10
113	114	40.82	162.16	-14.86	-423.05
114	114	40.82	88.03	-10.35	-419.34
114	115	44.46	88.03	-10.35	-381.70
115	115	44.46	6.06	0.18	-377.41
115	116	48.10	6.06	0.18	-378.05
116	116	48.10	6.06	0.18	-378.05
116	117	51.73	6.06	0.18	-378.70
117	117	51.73	6.06	0.18	-378.70
117	118	55.37	6.06	0.18	-379.34
118	118	55.37	6.06	0.18	-379.34
118	119	59.01	6.06	0.18	-379.99

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	6.06	0.18	-379.99
119	120	62.64	6.06	0.18	-380.64
120	120	62.64	93.50	10.53	-385.02
120	121	66.28	93.50	10.53	-423.30
121	121	66.28	163.78	14.86	-426.93
121	122	69.91	163.78	14.86	-480.96
122	122	69.91	181.24	15.54	-482.67
122	123	73.55	181.24	15.54	-539.20
123	10123	73.55	171.44	-22.77	-539.23
123	124	76.66	171.44	-22.77	-468.41
124	124	76.66	143.24	-22.31	-467.25
124	125	79.77	143.24	-22.31	-397.87
125	125	79.77	76.64	-19.59	-395.36
125	126	82.88	76.64	-19.59	-334.43
126	126	82.88	0.00	-13.33	-331.54
126	127	85.99	0.00	-13.33	-290.10
127	127	85.99	0.00	-13.33	-290.10
127	128	89.10	0.00	-13.33	-248.66
128	128	89.10	0.00	-13.33	-248.66
128	129	92.21	0.00	-13.33	-207.21
129	129	92.21	0.00	-13.33	-207.21
129	130	95.32	0.00	-13.33	-165.77
130	130	95.32	0.00	-13.33	-165.77
130	131	98.43	0.00	-13.33	-124.33
131	131	98.43	0.00	-13.33	-124.33
131	132	101.54	0.00	-13.33	-82.88
132	132	101.54	0.00	-13.33	-82.88
132	133	104.65	0.00	-13.33	-41.44
133	133	104.65	0.00	-13.33	-41.44
133	134	107.76	0.00	-13.33	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	-5.93	-18.66
309	2009	24.40	0.00	-5.93	-14.18
310	110	27.45	0.00	-2.51	-7.90
310	2010	27.45	0.00	-2.51	-6.00
311	111	30.50	0.00	-0.40	-1.26

f3.pret.esf
Programa DINTEL PACADAR S.A.
PRETF3D.HIP.Tinf
20/11/02

CÁLCULO TENSIONAL
Hipótesis de cálculo:
PRETF3D.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-0.40	-0.95
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	-0.76	-2.38
313	2013	37.19	0.00	-0.76	-1.81
314	114	40.82	0.00	-4.51	-14.21
314	2014	40.82	0.00	-4.51	-10.80
315	115	44.46	0.00	-10.53	-33.16
315	2015	44.46	0.00	-10.53	-25.20
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	-10.35	-32.60
320	2020	62.64	0.00	-10.35	-24.78
321	121	66.28	0.00	-4.33	-13.65
321	2021	66.28	0.00	-4.33	-10.37
322	122	69.91	0.00	-0.68	-2.15
322	2022	69.91	0.00	-0.68	-1.64
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	-0.46	-1.46
324	2024	76.66	0.00	-0.46	-1.11
325	125	79.77	0.00	-2.72	-8.56
325	2025	79.77	0.00	-2.72	-6.51
326	126	82.88	0.00	-6.26	-19.73
326	2026	82.88	0.00	-6.26	-14.99
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	-5.93	-14.18
209	1009	24.40	0.00	-5.93	14.18
210	2010	27.45	0.00	-2.51	-6.00
210	1010	27.45	0.00	-2.51	6.00
211	2011	30.50	0.00	-0.40	-0.95
211	1011	30.50	0.00	-0.40	0.95
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	-0.76	-1.81
213	1013	37.19	0.00	-0.76	1.81
214	2014	40.82	0.00	-4.51	-10.80
214	1014	40.82	0.00	-4.51	10.80
215	2015	44.46	0.00	-10.53	-25.20
215	1015	44.46	0.00	-10.53	25.20
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	-10.35	-24.78
220	1020	62.64	0.00	-10.35	24.78
221	2021	66.28	0.00	-4.33	-10.37
221	1021	66.28	0.00	-4.33	10.37
222	2022	69.91	0.00	-0.68	-1.64
222	1022	69.91	0.00	-0.68	1.64
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	-0.46	-1.11
224	1024	76.66	0.00	-0.46	1.11
225	2025	79.77	0.00	-2.72	-6.51
225	1025	79.77	0.00	-2.72	6.51
226	2026	82.88	0.00	-6.26	-14.99
226	1026	82.88	0.00	-6.26	14.99
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	-5.93	14.18
409	9	24.40	0.00	-5.93	18.66
410	1010	27.45	0.00	-2.51	6.00
410	10	27.45	0.00	-2.51	7.90
411	1011	30.50	0.00	-0.40	0.95
411	11	30.50	0.00	-0.40	1.26
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	-0.76	1.81
413	13	37.19	0.00	-0.76	2.38
414	1014	40.82	0.00	-4.51	10.80
414	14	40.82	0.00	-4.51	14.21
415	1015	44.46	0.00	-10.53	25.20
415	15	44.46	0.00	-10.53	33.16
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	-10.35	24.78
420	20	62.64	0.00	-10.35	32.60
421	1021	66.28	0.00	-4.33	10.37
421	21	66.28	0.00	-4.33	13.65
422	1022	69.91	0.00	-0.68	1.64
422	22	69.91	0.00	-0.68	2.15
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	-0.46	1.11
424	24	76.66	0.00	-0.46	1.46
425	1025	79.77	0.00	-2.72	6.51
425	25	79.77	0.00	-2.72	8.56
426	1026	82.88	0.00	-6.26	14.99
426	26	82.88	0.00	-6.26	19.73
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.00	0.00
119	120	62.64	0.00	0.00	0.00
120	120	62.64	-1012.34	0.00	789.63
120	121	66.28	-1017.36	0.00	793.54
121	121	66.28	-1957.87	0.00	1527.14
121	122	69.91	-1967.19	0.00	1534.41
122	122	69.91	-1967.19	0.00	1534.41
122	123	73.55	-1915.77	0.00	1494.30
123	10123	73.55	-1915.77	0.00	1494.30
123	124	76.66	-1963.10	0.00	1531.22
124	124	76.66	-1963.10	0.00	1531.22
124	125	79.77	-1955.14	0.00	1525.01
125	125	79.77	-880.98	0.00	687.16
125	126	82.88	-877.22	0.00	684.23
126	126	82.88	0.00	0.00	0.00
126	127	85.99	0.00	0.00	0.00
127	127	85.99	0.00	0.00	0.00
127	128	89.10	0.00	0.00	0.00
128	128	89.10	0.00	0.00	0.00
128	129	92.21	0.00	0.00	0.00
129	129	92.21	0.00	0.00	0.00
129	130	95.32	0.00	0.00	0.00
130	130	95.32	0.00	0.00	0.00
130	131	98.43	0.00	0.00	0.00
131	131	98.43	0.00	0.00	0.00
131	132	101.54	0.00	0.00	0.00
132	132	101.54	0.00	0.00	0.00
132	133	104.65	0.00	0.00	0.00
133	133	104.65	0.00	0.00	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	0.00	0.00	0.00	0.00
302	2002	0.00	0.00	0.00	0.00
303	103	0.00	0.00	0.00	0.00
303	2003	0.00	0.00	0.00	0.00
304	104	0.00	0.00	0.00	0.00
304	2004	0.00	0.00	0.00	0.00
305	105	0.00	0.00	0.00	0.00
305	2005	0.00	0.00	0.00	0.00
306	106	0.00	0.00	0.00	0.00
306	2006	0.00	0.00	0.00	0.00
307	107	0.00	0.00	0.00	0.00
307	2007	0.00	0.00	0.00	0.00
308	108	0.00	0.00	0.00	0.00
308	2008	0.00	0.00	0.00	0.00
309	109	0.00	0.00	0.00	0.00
309	2009	0.00	0.00	0.00	0.00
310	110	0.00	0.00	0.00	0.00
310	2010	0.00	0.00	0.00	0.00
311	111	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.HIP.To

Pretensado Hiperestático (t=0)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	10.35	-24.78
420	20	62.64	0.00	10.35	-32.60
421	1021	66.28	0.00	4.33	-10.37
421	21	66.28	0.00	4.33	-13.65
422	1022	69.91	0.00	0.68	-1.64
422	22	69.91	0.00	0.68	-2.15
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.46	-1.11
424	24	76.66	0.00	0.46	-1.46
425	1025	79.77	0.00	2.72	-6.51
425	25	79.77	0.00	2.72	-8.56
426	1026	82.88	0.00	6.26	-14.99
426	26	82.88	0.00	6.26	-19.73
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	13.67	0.00
1	2	3.05	0.00	13.67	-41.69
2	2	3.05	0.00	13.67	-41.69
2	3	6.10	0.00	13.67	-83.39
3	3	6.10	0.00	13.67	-83.39
3	4	9.15	0.00	13.67	-125.08
4	4	9.15	0.00	13.67	-125.08
4	5	12.20	0.00	13.67	-166.77
5	5	12.20	0.00	13.67	-166.77
5	6	15.25	0.00	13.67	-208.46
6	6	15.25	0.00	13.67	-208.46
6	7	18.30	0.00	13.67	-250.16
7	7	18.30	0.00	13.67	-250.16
7	8	21.35	0.00	13.67	-291.85
8	8	21.35	0.00	13.67	-291.85
8	9	24.40	0.00	13.67	-333.54
9	9	24.40	79.66	19.59	-336.43
9	10	27.45	79.66	19.59	-396.19
10	10	27.45	143.72	22.10	-398.60
10	11	30.50	143.72	22.10	-466.02
11	11	30.50	171.09	22.50	-467.11
11	12	33.55	171.09	22.50	-535.74
12	10012	33.55	180.69	-15.62	-535.66
12	13	37.19	180.69	-15.62	-478.87
13	13	37.19	162.16	-14.86	-477.09
13	14	40.82	162.16	-14.86	-423.05
14	14	40.82	88.03	-10.35	-419.34
14	15	44.46	88.03	-10.35	-381.70
15	15	44.46	6.06	0.18	-377.41
15	16	48.10	6.06	0.18	-378.05
16	16	48.10	6.06	0.18	-378.05
16	17	51.73	6.06	0.18	-378.70
17	17	51.73	6.06	0.18	-378.70
17	18	55.37	6.06	0.18	-379.35
18	18	55.37	6.06	0.18	-379.35
18	19	59.01	6.06	0.18	-379.99
19	19	59.01	6.06	0.18	-379.99
19	20	62.64	6.06	0.18	-380.64
20	20	62.64	93.50	10.53	-385.01
20	21	66.28	93.50	10.53	-423.30
21	21	66.28	163.78	14.86	-426.92
21	22	69.91	163.78	14.86	-480.96
22	22	69.91	181.24	15.54	-482.67
22	23	73.55	181.24	15.54	-539.19
23	10023	73.55	171.44	-22.77	-539.22
23	24	76.66	171.44	-22.77	-468.41
24	24	76.66	143.24	-22.31	-467.24
24	25	79.77	143.24	-22.31	-397.87
25	25	79.77	76.64	-19.59	-395.35
25	26	82.88	76.64	-19.59	-334.43
26	26	82.88	0.00	-13.33	-331.54

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3I.HIP.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-13.33	-290.10
27	27	85.99	0.00	-13.33	-290.10
27	28	89.10	0.00	-13.33	-248.66
28	28	89.10	0.00	-13.33	-248.66
28	29	92.21	0.00	-13.33	-207.21
29	29	92.21	0.00	-13.33	-207.21
29	30	95.32	0.00	-13.33	-165.77
30	30	95.32	0.00	-13.33	-165.77
30	31	98.43	0.00	-13.33	-124.33
31	31	98.43	0.00	-13.33	-124.33
31	32	101.54	0.00	-13.33	-82.89
32	32	101.54	0.00	-13.33	-82.89
32	33	104.65	0.00	-13.33	-41.44
33	33	104.65	0.00	-13.33	-41.44
33	34	107.76	0.00	-13.33	0.00
101	101	0.00	0.00	-0.98	0.00
101	102	3.05	0.00	-0.98	2.99
102	102	3.05	0.00	-0.98	2.99
102	103	6.10	0.00	-0.98	5.97
103	103	6.10	0.00	-0.98	5.97
103	104	9.15	0.00	-0.98	8.96
104	104	9.15	0.00	-0.98	8.96
104	105	12.20	0.00	-0.98	11.94
105	105	12.20	0.00	-0.98	11.94
105	106	15.25	0.00	-0.98	14.93
106	106	15.25	0.00	-0.98	14.93
106	107	18.30	0.00	-0.98	17.92
107	107	18.30	0.00	-0.98	17.92
107	108	21.35	0.00	-0.98	20.90
108	108	21.35	0.00	-0.98	20.90
108	109	24.40	0.00	-0.98	23.89
109	109	24.40	-79.66	-6.90	26.78
109	110	27.45	-79.66	-6.90	47.84
110	110	27.45	-143.72	-9.41	50.25
110	111	30.50	-143.72	-9.41	78.96
111	111	30.50	-171.08	-9.81	80.05
111	112	33.55	-171.08	-9.81	109.98
112	10112	33.55	-180.69	15.65	109.90
112	113	37.19	-180.69	15.65	53.00
113	113	37.19	-162.16	14.89	51.23
113	114	40.82	-162.16	14.89	-2.92
114	114	40.82	-88.03	10.38	-6.63
114	115	44.46	-88.03	10.38	-44.37
115	115	44.46	-6.06	-0.15	-48.66
115	116	48.10	-6.06	-0.15	-48.12
116	116	48.10	-6.06	-0.15	-48.12
116	117	51.73	-6.06	-0.15	-47.57
117	117	51.73	-6.06	-0.15	-47.57
117	118	55.37	-6.06	-0.15	-47.03
118	118	55.37	-6.06	-0.15	-47.03
118	119	59.01	-6.06	-0.15	-46.48

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	-6.06	-0.15	-46.48
119	120	62.64	-6.06	-0.15	-45.94
120	120	62.64	-93.50	-10.50	-41.57
120	121	66.28	-93.50	-10.50	-3.39
121	121	66.28	-163.78	-14.83	0.24
121	122	69.91	-163.78	-14.83	54.17
122	122	69.91	-181.24	-15.52	55.88
122	123	73.55	-181.24	-15.52	112.30
123	10123	73.55	-171.44	10.29	112.33
123	124	76.66	-171.44	10.29	80.33
124	124	76.66	-143.24	9.83	79.16
124	125	79.77	-143.24	9.83	48.59
125	125	79.77	-76.64	7.11	46.08
125	126	82.88	-76.64	7.11	23.97
126	126	82.88	0.00	0.85	21.08
126	127	85.99	0.00	0.85	18.44
127	127	85.99	0.00	0.85	18.44
127	128	89.10	0.00	0.85	15.81
128	128	89.10	0.00	0.85	15.81
128	129	92.21	0.00	0.85	13.17
129	129	92.21	0.00	0.85	13.17
129	130	95.32	0.00	0.85	10.54
130	130	95.32	0.00	0.85	10.54
130	131	98.43	0.00	0.85	7.90
131	131	98.43	0.00	0.85	7.90
131	132	101.54	0.00	0.85	5.27
132	132	101.54	0.00	0.85	5.27
132	133	104.65	0.00	0.85	2.63
133	133	104.65	0.00	0.85	2.63
133	134	107.76	0.00	0.85	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	5.93	18.66
309	2009	24.40	0.00	5.93	14.18
310	110	27.45	0.00	2.51	7.90
310	2010	27.45	0.00	2.51	6.00
311	111	30.50	0.00	0.40	1.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.40	0.95
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.76	2.38
313	2013	37.19	0.00	0.76	1.81
314	114	40.82	0.00	4.51	14.21
314	2014	40.82	0.00	4.51	10.80
315	115	44.46	0.00	10.53	33.16
315	2015	44.46	0.00	10.53	25.20
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	10.35	32.60
320	2020	62.64	0.00	10.35	24.78
321	121	66.28	0.00	4.33	13.65
321	2021	66.28	0.00	4.33	10.37
322	122	69.91	0.00	0.68	2.15
322	2022	69.91	0.00	0.68	1.64
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.46	1.46
324	2024	76.66	0.00	0.46	1.11
325	125	79.77	0.00	2.72	8.56
325	2025	79.77	0.00	2.72	6.51
326	126	82.88	0.00	6.26	19.73
326	2026	82.88	0.00	6.26	14.99
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	5.93	14.18
209	1009	24.40	0.00	5.93	-14.18
210	2010	27.45	0.00	2.51	6.00
210	1010	27.45	0.00	2.51	-6.00
211	2011	30.50	0.00	0.40	0.95
211	1011	30.50	0.00	0.40	-0.95
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	0.76	1.81
213	1013	37.19	0.00	0.76	-1.81
214	2014	40.82	0.00	4.51	10.80
214	1014	40.82	0.00	4.51	-10.80
215	2015	44.46	0.00	10.53	25.20
215	1015	44.46	0.00	10.53	-25.20
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	10.35	24.78
220	1020	62.64	0.00	10.35	-24.78
221	2021	66.28	0.00	4.33	10.37
221	1021	66.28	0.00	4.33	-10.37
222	2022	69.91	0.00	0.68	1.64
222	1022	69.91	0.00	0.68	-1.64
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	0.46	1.11
224	1024	76.66	0.00	0.46	-1.11
225	2025	79.77	0.00	2.72	6.51
225	1025	79.77	0.00	2.72	-6.51
226	2026	82.88	0.00	6.26	14.99
226	1026	82.88	0.00	6.26	-14.99
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	0.00
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	5.93	-14.18
409	9	24.40	0.00	5.93	-18.66
410	1010	27.45	0.00	2.51	-6.00
410	10	27.45	0.00	2.51	-7.90
411	1011	30.50	0.00	0.40	-0.95
411	11	30.50	0.00	0.40	-1.26
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.76	-1.81
413	13	37.19	0.00	0.76	-2.38
414	1014	40.82	0.00	4.51	-10.80
414	14	40.82	0.00	4.51	-14.21
415	1015	44.46	0.00	10.53	-25.20
415	15	44.46	0.00	10.53	-33.16
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	0.00	0.00
419	19	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.HIP.Tinf
Pretensado Hiperestático (t=INF)

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	10.35	-24.78
420	20	62.64	0.00	10.35	-32.60
421	1021	66.28	0.00	4.33	-10.37
421	21	66.28	0.00	4.33	-13.65
422	1022	69.91	0.00	0.68	-1.64
422	22	69.91	0.00	0.68	-2.15
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.46	-1.11
424	24	76.66	0.00	0.46	-1.46
425	1025	79.77	0.00	2.72	-6.51
425	25	79.77	0.00	2.72	-8.56
426	1026	82.88	0.00	6.26	-14.99
426	26	82.88	0.00	6.26	-19.73
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	0.00	0.00
428	28	89.10	0.00	0.00	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.ISO.To
Pretensado Isostático (t=0)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	3.05	0.00	0.00	0.00
2	2	3.05	0.00	0.00	0.00
2	3	6.10	0.00	0.00	0.00
3	3	6.10	0.00	0.00	0.00
3	4	9.15	0.00	0.00	0.00
4	4	9.15	0.00	0.00	0.00
4	5	12.20	0.00	0.00	0.00
5	5	12.20	0.00	0.00	0.00
5	6	15.25	0.00	0.00	0.00
6	6	15.25	0.00	0.00	0.00
6	7	18.30	0.00	0.00	0.00
7	7	18.30	0.00	0.00	0.00
7	8	21.35	0.00	0.00	0.00
8	8	21.35	0.00	0.00	0.00
8	9	24.40	0.00	0.00	0.00
9	9	24.40	-999.60	0.00	779.69
9	10	27.45	-1003.81	0.00	782.97
10	10	27.45	-1943.85	0.00	1516.20
10	11	30.50	-1951.66	0.00	1522.29
11	11	30.50	-1951.66	0.00	1522.29
11	12	33.55	-1911.09	0.00	1490.65
12	10012	33.55	-1911.09	0.00	1490.65
12	13	37.19	-1974.62	0.00	1540.20
13	13	37.19	-1974.62	0.00	1540.20
13	14	40.82	-1965.31	0.00	1532.94
14	14	40.82	-890.19	0.00	694.35
14	15	44.46	-885.80	0.00	690.92
15	15	44.46	0.00	0.00	0.00
15	16	48.10	0.00	0.00	0.00
16	16	48.10	0.00	0.00	0.00
16	17	51.73	0.00	0.00	0.00
17	17	51.73	0.00	0.00	0.00
17	18	55.37	0.00	0.00	0.00
18	18	55.37	0.00	0.00	0.00
18	19	59.01	0.00	0.00	0.00
19	19	59.01	0.00	0.00	0.00
19	20	62.64	0.00	0.00	0.00
20	20	62.64	-1012.34	0.00	789.63
20	21	66.28	-1017.36	0.00	793.54
21	21	66.28	-1957.87	0.00	1527.14
21	22	69.91	-1967.19	0.00	1534.41
22	22	69.91	-1967.19	0.00	1534.41
22	23	73.55	-1915.77	0.00	1494.30
23	10023	73.55	-1915.77	0.00	1494.30
23	24	76.66	-1963.10	0.00	1531.22
24	24	76.66	-1963.10	0.00	1531.22
24	25	79.77	-1955.14	0.00	1525.01
25	25	79.77	-880.98	0.00	687.16
25	26	82.88	-877.22	0.00	684.23
26	26	82.88	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	0.00	0.00	0.00	0.00
2	2	0.00	0.00	0.00	0.00
2	3	0.00	0.00	0.00	0.00
3	3	0.00	0.00	0.00	0.00
3	4	0.00	0.00	0.00	0.00
4	4	0.00	0.00	0.00	0.00
4	5	0.00	0.00	0.00	0.00
5	5	0.00	0.00	0.00	0.00
5	6	0.00	0.00	0.00	0.00
6	6	0.00	0.00	0.00	0.00
6	7	0.00	0.00	0.00	0.00
7	7	0.00	0.00	0.00	0.00
7	8	0.00	0.00	0.00	0.00
8	8	0.00	0.00	0.00	0.00
8	9	0.00	0.00	0.00	0.00
9	9	0.00	0.00	0.00	0.00
9	10	0.00	0.00	0.00	0.00
10	10	0.00	0.00	0.00	0.00
10	11	0.00	0.00	0.00	0.00
11	11	0.00	0.00	0.00	0.00
11	12	0.00	0.00	0.00	0.00
12	10012	0.00	0.00	0.00	0.00
12	13	0.00	0.00	0.00	0.00
13	13	0.00	0.00	0.00	0.00
13	14	0.00	0.00	0.00	0.00
14	14	0.00	0.00	0.00	0.00
14	15	0.00	0.00	0.00	0.00
15	15	0.00	0.00	0.00	0.00
15	16	0.00	0.00	0.00	0.00
16	16	0.00	0.00	0.00	0.00
16	17	0.00	0.00	0.00	0.00
17	17	0.00	0.00	0.00	0.00
17	18	0.00	0.00	0.00	0.00
18	18	0.00	0.00	0.00	0.00
18	19	0.00	0.00	0.00	0.00
19	19	0.00	0.00	0.00	0.00
19	20	0.00	0.00	0.00	0.00
20	20	0.00	0.00	0.00	0.00
20	21	0.00	0.00	0.00	0.00
21	21	0.00	0.00	0.00	0.00
21	22	0.00	0.00	0.00	0.00
22	22	0.00	0.00	0.00	0.00
22	23	0.00	0.00	0.00	0.00
23	10023	0.00	0.00	0.00	0.00
23	24	0.00	0.00	0.00	0.00
24	24	0.00	0.00	0.00	0.00
24	25	0.00	0.00	0.00	0.00
25	25	0.00	0.00	0.00	0.00
25	26	0.00	0.00	0.00	0.00
26	26	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	0.00	0.00	0.00	0.00
27	27	0.00	0.00	0.00	0.00
27	28	0.00	0.00	0.00	0.00
28	28	0.00	0.00	0.00	0.00
28	29	0.00	0.00	0.00	0.00
29	29	0.00	0.00	0.00	0.00
29	30	0.00	0.00	0.00	0.00
30	30	0.00	0.00	0.00	0.00
30	31	0.00	0.00	0.00	0.00
31	31	0.00	0.00	0.00	0.00
31	32	0.00	0.00	0.00	0.00
32	32	0.00	0.00	0.00	0.00
32	33	0.00	0.00	0.00	0.00
33	33	0.00	0.00	0.00	0.00
33	34	0.00	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	3.05	0.00	0.00	0.00
102	102	3.05	0.00	0.00	0.00
102	103	6.10	0.00	0.00	0.00
103	103	6.10	0.00	0.00	0.00
103	104	9.15	0.00	0.00	0.00
104	104	9.15	0.00	0.00	0.00
104	105	12.20	0.00	0.00	0.00
105	105	12.20	0.00	0.00	0.00
105	106	15.25	0.00	0.00	0.00
106	106	15.25	0.00	0.00	0.00
106	107	18.30	0.00	0.00	0.00
107	107	18.30	0.00	0.00	0.00
107	108	21.35	0.00	0.00	0.00
108	108	21.35	0.00	0.00	0.00
108	109	24.40	0.00	0.00	0.00
109	109	24.40	-999.60	0.00	779.69
109	110	27.45	-1003.81	0.00	782.97
110	110	27.45	-1943.85	0.00	1516.20
110	111	30.50	-1951.66	0.00	1522.29
111	111	30.50	-1951.66	0.00	1522.29
111	112	33.55	-1911.09	0.00	1490.65
112	10112	33.55	-1911.09	0.00	1490.65
112	113	37.19	-1974.62	0.00	1540.20
113	113	37.19	-1974.62	0.00	1540.20
113	114	40.82	-1965.31	0.00	1532.94
114	114	40.82	-890.19	0.00	694.35
114	115	44.46	-885.80	0.00	690.92
115	115	44.46	0.00	0.00	0.00
115	116	48.10	0.00	0.00	0.00
116	116	48.10	0.00	0.00	0.00
116	117	51.73	0.00	0.00	0.00
117	117	51.73	0.00	0.00	0.00
117	118	55.37	0.00	0.00	0.00
118	118	55.37	0.00	0.00	0.00
118	119	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.00	0.00
27	27	85.99	0.00	0.00	0.00
27	28	89.10	0.00	0.00	0.00
28	28	89.10	0.00	0.00	0.00
28	29	92.21	0.00	0.00	0.00
29	29	92.21	0.00	0.00	0.00
29	30	95.32	0.00	0.00	0.00
30	30	95.32	0.00	0.00	0.00
30	31	98.43	0.00	0.00	0.00
31	31	98.43	0.00	0.00	0.00
31	32	101.54	0.00	0.00	0.00
32	32	101.54	0.00	0.00	0.00
32	33	104.65	0.00	0.00	0.00
33	33	104.65	0.00	0.00	0.00
33	34	107.76	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	0.00	0.00	0.00	0.00
102	102	0.00	0.00	0.00	0.00
102	103	0.00	0.00	0.00	0.00
103	103	0.00	0.00	0.00	0.00
103	104	0.00	0.00	0.00	0.00
104	104	0.00	0.00	0.00	0.00
104	105	0.00	0.00	0.00	0.00
105	105	0.00	0.00	0.00	0.00
105	106	0.00	0.00	0.00	0.00
106	106	0.00	0.00	0.00	0.00
106	107	0.00	0.00	0.00	0.00
107	107	0.00	0.00	0.00	0.00
107	108	0.00	0.00	0.00	0.00
108	108	0.00	0.00	0.00	0.00
108	109	0.00	0.00	0.00	0.00
109	109	0.00	0.00	0.00	0.00
109	110	0.00	0.00	0.00	0.00
110	110	0.00	0.00	0.00	0.00
110	111	0.00	0.00	0.00	0.00
111	111	0.00	0.00	0.00	0.00
111	112	0.00	0.00	0.00	0.00
112	10112	0.00	0.00	0.00	0.00
112	113	0.00	0.00	0.00	0.00
113	113	0.00	0.00	0.00	0.00
113	114	0.00	0.00	0.00	0.00
114	114	0.00	0.00	0.00	0.00
114	115	0.00	0.00	0.00	0.00
115	115	0.00	0.00	0.00	0.00
115	116	0.00	0.00	0.00	0.00
116	116	0.00	0.00	0.00	0.00
116	117	0.00	0.00	0.00	0.00
117	117	0.00	0.00	0.00	0.00
117	118	0.00	0.00	0.00	0.00
118	118	0.00	0.00	0.00	0.00
118	119	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	0.00	0.00	0.00	0.00
119	120	0.00	0.00	0.00	0.00
120	120	0.00	0.00	0.00	0.00
120	121	0.00	0.00	0.00	0.00
121	121	0.00	0.00	0.00	0.00
121	122	0.00	0.00	0.00	0.00
122	122	0.00	0.00	0.00	0.00
122	123	0.00	0.00	0.00	0.00
123	10123	0.00	0.00	0.00	0.00
123	124	0.00	0.00	0.00	0.00
124	124	0.00	0.00	0.00	0.00
124	125	0.00	0.00	0.00	0.00
125	125	0.00	0.00	0.00	0.00
125	126	0.00	0.00	0.00	0.00
126	126	0.00	0.00	0.00	0.00
126	127	0.00	0.00	0.00	0.00
127	127	0.00	0.00	0.00	0.00
127	128	0.00	0.00	0.00	0.00
128	128	0.00	0.00	0.00	0.00
128	129	0.00	0.00	0.00	0.00
129	129	0.00	0.00	0.00	0.00
129	130	0.00	0.00	0.00	0.00
130	130	0.00	0.00	0.00	0.00
130	131	0.00	0.00	0.00	0.00
131	131	0.00	0.00	0.00	0.00
131	132	0.00	0.00	0.00	0.00
132	132	0.00	0.00	0.00	0.00
132	133	0.00	0.00	0.00	0.00
133	133	0.00	0.00	0.00	0.00
133	134	0.00	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	0.00	0.00	0.00	0.00
302	2002	0.00	0.00	0.00	0.00
303	103	0.00	0.00	0.00	0.00
303	2003	0.00	0.00	0.00	0.00
304	104	0.00	0.00	0.00	0.00
304	2004	0.00	0.00	0.00	0.00
305	105	0.00	0.00	0.00	0.00
305	2005	0.00	0.00	0.00	0.00
306	106	0.00	0.00	0.00	0.00
306	2006	0.00	0.00	0.00	0.00
307	107	0.00	0.00	0.00	0.00
307	2007	0.00	0.00	0.00	0.00
308	108	0.00	0.00	0.00	0.00
308	2008	0.00	0.00	0.00	0.00
309	109	0.00	0.00	0.00	0.00
309	2009	0.00	0.00	0.00	0.00
310	110	0.00	0.00	0.00	0.00
310	2010	0.00	0.00	0.00	0.00
311	111	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

f3.pret.esf
Programa DINTEL PACADAR S.A.
PRETF3I.ISO.To
20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	0.00	0.00	0.00	0.00
402	2	0.00	0.00	0.00	0.00
403	1003	0.00	0.00	0.00	0.00
403	3	0.00	0.00	0.00	0.00
404	1004	0.00	0.00	0.00	0.00
404	4	0.00	0.00	0.00	0.00
405	1005	0.00	0.00	0.00	0.00
405	5	0.00	0.00	0.00	0.00
406	1006	0.00	0.00	0.00	0.00
406	6	0.00	0.00	0.00	0.00
407	1007	0.00	0.00	0.00	0.00
407	7	0.00	0.00	0.00	0.00
408	1008	0.00	0.00	0.00	0.00
408	8	0.00	0.00	0.00	0.00
409	1009	0.00	0.00	0.00	0.00
409	9	0.00	0.00	0.00	0.00
410	1010	0.00	0.00	0.00	0.00
410	10	0.00	0.00	0.00	0.00
411	1011	0.00	0.00	0.00	0.00
411	11	0.00	0.00	0.00	0.00
412	1012	0.00	0.00	0.00	0.00
412	12	0.00	0.00	0.00	0.00
413	1013	0.00	0.00	0.00	0.00
413	13	0.00	0.00	0.00	0.00
414	1014	0.00	0.00	0.00	0.00
414	14	0.00	0.00	0.00	0.00
415	1015	0.00	0.00	0.00	0.00
415	15	0.00	0.00	0.00	0.00
416	1016	0.00	0.00	0.00	0.00
416	16	0.00	0.00	0.00	0.00
417	1017	0.00	0.00	0.00	0.00
417	17	0.00	0.00	0.00	0.00
418	1018	0.00	0.00	0.00	0.00
418	18	0.00	0.00	0.00	0.00
419	1019	0.00	0.00	0.00	0.00
419	19	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	0.00	0.00	0.00	0.00
420	20	0.00	0.00	0.00	0.00
421	1021	0.00	0.00	0.00	0.00
421	21	0.00	0.00	0.00	0.00
422	1022	0.00	0.00	0.00	0.00
422	22	0.00	0.00	0.00	0.00
423	1023	0.00	0.00	0.00	0.00
423	23	0.00	0.00	0.00	0.00
424	1024	0.00	0.00	0.00	0.00
424	24	0.00	0.00	0.00	0.00
425	1025	0.00	0.00	0.00	0.00
425	25	0.00	0.00	0.00	0.00
426	1026	0.00	0.00	0.00	0.00
426	26	0.00	0.00	0.00	0.00
427	1027	0.00	0.00	0.00	0.00
427	27	0.00	0.00	0.00	0.00
428	1028	0.00	0.00	0.00	0.00
428	28	0.00	0.00	0.00	0.00
429	1029	0.00	0.00	0.00	0.00
429	29	0.00	0.00	0.00	0.00
430	1030	0.00	0.00	0.00	0.00
430	30	0.00	0.00	0.00	0.00
431	1031	0.00	0.00	0.00	0.00
431	31	0.00	0.00	0.00	0.00
432	1032	0.00	0.00	0.00	0.00
432	32	0.00	0.00	0.00	0.00
433	1033	0.00	0.00	0.00	0.00
433	33	0.00	0.00	0.00	0.00
434	1034	0.00	0.00	0.00	0.00
434	34	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	3.05	0.00	0.00	0.00
2	2	3.05	0.00	0.00	0.00
2	3	6.10	0.00	0.00	0.00
3	3	6.10	0.00	0.00	0.00
3	4	9.15	0.00	0.00	0.00
4	4	9.15	0.00	0.00	0.00
4	5	12.20	0.00	0.00	0.00
5	5	12.20	0.00	0.00	0.00
5	6	15.25	0.00	0.00	0.00
6	6	15.25	0.00	0.00	0.00
6	7	18.30	0.00	0.00	0.00
7	7	18.30	0.00	0.00	0.00
7	8	21.35	0.00	0.00	0.00
8	8	21.35	0.00	0.00	0.00
8	9	24.40	0.00	0.00	0.00
9	9	24.40	-999.60	0.00	779.69
9	10	27.45	-1003.81	0.00	782.97
10	10	27.45	-1943.85	0.00	1516.20
10	11	30.50	-1951.66	0.00	1522.29
11	11	30.50	-1951.66	0.00	1522.29
11	12	33.55	-1911.09	0.00	1490.65
12	10012	33.55	-1911.09	0.00	1490.65
12	13	37.19	-1974.62	0.00	1540.20
13	13	37.19	-1974.62	0.00	1540.20
13	14	40.82	-1965.31	0.00	1532.94
14	14	40.82	-890.19	0.00	694.35
14	15	44.46	-885.80	0.00	690.92
15	15	44.46	0.00	0.00	0.00
15	16	48.10	0.00	0.00	0.00
16	16	48.10	0.00	0.00	0.00
16	17	51.73	0.00	0.00	0.00
17	17	51.73	0.00	0.00	0.00
17	18	55.37	0.00	0.00	0.00
18	18	55.37	0.00	0.00	0.00
18	19	59.01	0.00	0.00	0.00
19	19	59.01	0.00	0.00	0.00
19	20	62.64	0.00	0.00	0.00
20	20	62.64	-1012.34	0.00	789.63
20	21	66.28	-1017.36	0.00	793.54
21	21	66.28	-1957.87	0.00	1527.14
21	22	69.91	-1967.19	0.00	1534.41
22	22	69.91	-1967.19	0.00	1534.41
22	23	73.55	-1915.77	0.00	1494.30
23	10023	73.55	-1915.77	0.00	1494.30
23	24	76.66	-1963.10	0.00	1531.22
24	24	76.66	-1963.10	0.00	1531.22
24	25	79.77	-1955.14	0.00	1525.01
25	25	79.77	-880.98	0.00	687.16
25	26	82.88	-877.22	0.00	684.23
26	26	82.88	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.00	0.00
27	27	85.99	0.00	0.00	0.00
27	28	89.10	0.00	0.00	0.00
28	28	89.10	0.00	0.00	0.00
28	29	92.21	0.00	0.00	0.00
29	29	92.21	0.00	0.00	0.00
29	30	95.32	0.00	0.00	0.00
30	30	95.32	0.00	0.00	0.00
30	31	98.43	0.00	0.00	0.00
31	31	98.43	0.00	0.00	0.00
31	32	101.54	0.00	0.00	0.00
32	32	101.54	0.00	0.00	0.00
32	33	104.65	0.00	0.00	0.00
33	33	104.65	0.00	0.00	0.00
33	34	107.76	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	0.00	0.00	0.00	0.00
102	102	0.00	0.00	0.00	0.00
102	103	0.00	0.00	0.00	0.00
103	103	0.00	0.00	0.00	0.00
103	104	0.00	0.00	0.00	0.00
104	104	0.00	0.00	0.00	0.00
104	105	0.00	0.00	0.00	0.00
105	105	0.00	0.00	0.00	0.00
105	106	0.00	0.00	0.00	0.00
106	106	0.00	0.00	0.00	0.00
106	107	0.00	0.00	0.00	0.00
107	107	0.00	0.00	0.00	0.00
107	108	0.00	0.00	0.00	0.00
108	108	0.00	0.00	0.00	0.00
108	109	0.00	0.00	0.00	0.00
109	109	0.00	0.00	0.00	0.00
109	110	0.00	0.00	0.00	0.00
110	110	0.00	0.00	0.00	0.00
110	111	0.00	0.00	0.00	0.00
111	111	0.00	0.00	0.00	0.00
111	112	0.00	0.00	0.00	0.00
112	10112	0.00	0.00	0.00	0.00
112	113	0.00	0.00	0.00	0.00
113	113	0.00	0.00	0.00	0.00
113	114	0.00	0.00	0.00	0.00
114	114	0.00	0.00	0.00	0.00
114	115	0.00	0.00	0.00	0.00
115	115	0.00	0.00	0.00	0.00
115	116	0.00	0.00	0.00	0.00
116	116	0.00	0.00	0.00	0.00
116	117	0.00	0.00	0.00	0.00
117	117	0.00	0.00	0.00	0.00
117	118	0.00	0.00	0.00	0.00
118	118	0.00	0.00	0.00	0.00
118	119	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	0.00	0.00	0.00	0.00
119	120	0.00	0.00	0.00	0.00
120	120	0.00	0.00	0.00	0.00
120	121	0.00	0.00	0.00	0.00
121	121	0.00	0.00	0.00	0.00
121	122	0.00	0.00	0.00	0.00
122	122	0.00	0.00	0.00	0.00
122	123	0.00	0.00	0.00	0.00
123	10123	0.00	0.00	0.00	0.00
123	124	0.00	0.00	0.00	0.00
124	124	0.00	0.00	0.00	0.00
124	125	0.00	0.00	0.00	0.00
125	125	0.00	0.00	0.00	0.00
125	126	0.00	0.00	0.00	0.00
126	126	0.00	0.00	0.00	0.00
126	127	0.00	0.00	0.00	0.00
127	127	0.00	0.00	0.00	0.00
127	128	0.00	0.00	0.00	0.00
128	128	0.00	0.00	0.00	0.00
128	129	0.00	0.00	0.00	0.00
129	129	0.00	0.00	0.00	0.00
129	130	0.00	0.00	0.00	0.00
130	130	0.00	0.00	0.00	0.00
130	131	0.00	0.00	0.00	0.00
131	131	0.00	0.00	0.00	0.00
131	132	0.00	0.00	0.00	0.00
132	132	0.00	0.00	0.00	0.00
132	133	0.00	0.00	0.00	0.00
133	133	0.00	0.00	0.00	0.00
133	134	0.00	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	0.00	0.00	0.00	0.00
302	2002	0.00	0.00	0.00	0.00
303	103	0.00	0.00	0.00	0.00
303	2003	0.00	0.00	0.00	0.00
304	104	0.00	0.00	0.00	0.00
304	2004	0.00	0.00	0.00	0.00
305	105	0.00	0.00	0.00	0.00
305	2005	0.00	0.00	0.00	0.00
306	106	0.00	0.00	0.00	0.00
306	2006	0.00	0.00	0.00	0.00
307	107	0.00	0.00	0.00	0.00
307	2007	0.00	0.00	0.00	0.00
308	108	0.00	0.00	0.00	0.00
308	2008	0.00	0.00	0.00	0.00
309	109	0.00	0.00	0.00	0.00
309	2009	0.00	0.00	0.00	0.00
310	110	0.00	0.00	0.00	0.00
310	2010	0.00	0.00	0.00	0.00
311	111	0.00	0.00	0.00	0.00

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3I.ISO.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

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Programa DINTEL PACADAR S.A.
PRETF3I.ISO.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	0.00	0.00	0.00	0.00
402	2	0.00	0.00	0.00	0.00
403	1003	0.00	0.00	0.00	0.00
403	3	0.00	0.00	0.00	0.00
404	1004	0.00	0.00	0.00	0.00
404	4	0.00	0.00	0.00	0.00
405	1005	0.00	0.00	0.00	0.00
405	5	0.00	0.00	0.00	0.00
406	1006	0.00	0.00	0.00	0.00
406	6	0.00	0.00	0.00	0.00
407	1007	0.00	0.00	0.00	0.00
407	7	0.00	0.00	0.00	0.00
408	1008	0.00	0.00	0.00	0.00
408	8	0.00	0.00	0.00	0.00
409	1009	0.00	0.00	0.00	0.00
409	9	0.00	0.00	0.00	0.00
410	1010	0.00	0.00	0.00	0.00
410	10	0.00	0.00	0.00	0.00
411	1011	0.00	0.00	0.00	0.00
411	11	0.00	0.00	0.00	0.00
412	1012	0.00	0.00	0.00	0.00
412	12	0.00	0.00	0.00	0.00
413	1013	0.00	0.00	0.00	0.00
413	13	0.00	0.00	0.00	0.00
414	1014	0.00	0.00	0.00	0.00
414	14	0.00	0.00	0.00	0.00
415	1015	0.00	0.00	0.00	0.00
415	15	0.00	0.00	0.00	0.00
416	1016	0.00	0.00	0.00	0.00
416	16	0.00	0.00	0.00	0.00
417	1017	0.00	0.00	0.00	0.00
417	17	0.00	0.00	0.00	0.00
418	1018	0.00	0.00	0.00	0.00
418	18	0.00	0.00	0.00	0.00
419	1019	0.00	0.00	0.00	0.00
419	19	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3I.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3I.FAM1.ISO + [1; 1]PRETF3I.FAM2.ISO + [1; 1]PRETF3I.FAM3.ISO + [1; 1]PRETF3I.F/

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	0.00	0.00	0.00	0.00
420	20	0.00	0.00	0.00	0.00
421	1021	0.00	0.00	0.00	0.00
421	21	0.00	0.00	0.00	0.00
422	1022	0.00	0.00	0.00	0.00
422	22	0.00	0.00	0.00	0.00
423	1023	0.00	0.00	0.00	0.00
423	23	0.00	0.00	0.00	0.00
424	1024	0.00	0.00	0.00	0.00
424	24	0.00	0.00	0.00	0.00
425	1025	0.00	0.00	0.00	0.00
425	25	0.00	0.00	0.00	0.00
426	1026	0.00	0.00	0.00	0.00
426	26	0.00	0.00	0.00	0.00
427	1027	0.00	0.00	0.00	0.00
427	27	0.00	0.00	0.00	0.00
428	1028	0.00	0.00	0.00	0.00
428	28	0.00	0.00	0.00	0.00
429	1029	0.00	0.00	0.00	0.00
429	29	0.00	0.00	0.00	0.00
430	1030	0.00	0.00	0.00	0.00
430	30	0.00	0.00	0.00	0.00
431	1031	0.00	0.00	0.00	0.00
431	31	0.00	0.00	0.00	0.00
432	1032	0.00	0.00	0.00	0.00
432	32	0.00	0.00	0.00	0.00
433	1033	0.00	0.00	0.00	0.00
433	33	0.00	0.00	0.00	0.00
434	1034	0.00	0.00	0.00	0.00
434	34	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-0.98	0.00
1	2	3.05	0.00	-0.98	2.99
2	2	3.05	0.00	-0.98	2.99
2	3	6.10	0.00	-0.98	5.97
3	3	6.10	0.00	-0.98	5.97
3	4	9.15	0.00	-0.98	8.96
4	4	9.15	0.00	-0.98	8.96
4	5	12.20	0.00	-0.98	11.94
5	5	12.20	0.00	-0.98	11.94
5	6	15.25	0.00	-0.98	14.93
6	6	15.25	0.00	-0.98	14.93
6	7	18.30	0.00	-0.98	17.92
7	7	18.30	0.00	-0.98	17.92
7	8	21.35	0.00	-0.98	20.90
8	8	21.35	0.00	-0.98	20.90
8	9	24.40	0.00	-0.98	23.89
9	9	24.40	-79.66	-6.90	26.78
9	10	27.45	-79.66	-6.90	47.84
10	10	27.45	-143.72	-9.41	50.25
10	11	30.50	-143.72	-9.41	78.96
11	11	30.50	-171.08	-9.81	80.05
11	12	33.55	-171.08	-9.81	109.98
12	10012	33.55	-180.69	15.65	109.90
12	13	37.19	-180.69	15.65	53.00
13	13	37.19	-162.16	14.89	51.23
13	14	40.82	-162.16	14.89	-2.92
14	14	40.82	-88.03	10.38	-6.63
14	15	44.46	-88.03	10.38	-44.37
15	15	44.46	-6.06	-0.15	-48.66
15	16	48.10	-6.06	-0.15	-48.12
16	16	48.10	-6.06	-0.15	-48.12
16	17	51.73	-6.06	-0.15	-47.57
17	17	51.73	-6.06	-0.15	-47.57
17	18	55.37	-6.06	-0.15	-47.03
18	18	55.37	-6.06	-0.15	-47.03
18	19	59.01	-6.06	-0.15	-46.48
19	19	59.01	-6.06	-0.15	-46.48
19	20	62.64	-6.06	-0.15	-45.94
20	20	62.64	-93.50	-10.50	-41.57
20	21	66.28	-93.50	-10.50	-3.39
21	21	66.28	-163.78	-14.83	0.24
21	22	69.91	-163.78	-14.83	54.17
22	22	69.91	-181.24	-15.52	55.88
22	23	73.55	-181.24	-15.52	112.30
23	10023	73.55	-171.44	10.29	112.33
23	24	76.66	-171.44	10.29	80.33
24	24	76.66	-143.24	9.83	79.16
24	25	79.77	-143.24	9.83	48.59
25	25	79.77	-76.64	7.11	46.08
25	26	82.88	-76.64	7.11	23.97
26	26	82.88	0.00	0.85	21.08

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	0.85	18.44
27	27	85.99	0.00	0.85	18.44
27	28	89.10	0.00	0.85	15.81
28	28	89.10	0.00	0.85	15.81
28	29	92.21	0.00	0.85	13.17
29	29	92.21	0.00	0.85	13.17
29	30	95.32	0.00	0.85	10.54
30	30	95.32	0.00	0.85	10.54
30	31	98.43	0.00	0.85	7.90
31	31	98.43	0.00	0.85	7.90
31	32	101.54	0.00	0.85	5.27
32	32	101.54	0.00	0.85	5.27
32	33	104.65	0.00	0.85	2.63
33	33	104.65	0.00	0.85	2.63
33	34	107.76	0.00	0.85	0.00
101	101	0.00	0.00	13.67	0.00
101	102	3.05	0.00	13.67	-41.69
102	102	3.05	0.00	13.67	-41.69
102	103	6.10	0.00	13.67	-83.38
103	103	6.10	0.00	13.67	-83.38
103	104	9.15	0.00	13.67	-125.08
104	104	9.15	0.00	13.67	-125.08
104	105	12.20	0.00	13.67	-166.77
105	105	12.20	0.00	13.67	-166.77
105	106	15.25	0.00	13.67	-208.46
106	106	15.25	0.00	13.67	-208.46
106	107	18.30	0.00	13.67	-250.16
107	107	18.30	0.00	13.67	-250.16
107	108	21.35	0.00	13.67	-291.85
108	108	21.35	0.00	13.67	-291.85
108	109	24.40	0.00	13.67	-333.54
109	109	24.40	-919.94	19.59	443.25
109	110	27.45	-924.15	19.59	386.77
110	110	27.45	-1800.13	22.10	1117.59
110	111	30.50	-1807.94	22.10	1056.27
111	111	30.50	-1780.58	22.50	1055.18
111	112	33.55	-1740.01	22.50	954.90
112	10112	33.55	-1730.40	-15.62	954.98
112	113	37.19	-1793.93	-15.62	1061.33
113	113	37.19	-1812.46	-14.86	1063.10
113	114	40.82	-1803.15	-14.86	1109.89
114	114	40.82	-802.16	-10.35	275.01
114	115	44.46	-797.77	-10.35	309.22
115	115	44.46	6.06	0.18	-377.41
115	116	48.10	6.06	0.18	-378.05
116	116	48.10	6.06	0.18	-378.05
116	117	51.73	6.06	0.18	-378.70
117	117	51.73	6.06	0.18	-378.70
117	118	55.37	6.06	0.18	-379.34
118	118	55.37	6.06	0.18	-379.34
118	119	59.01	6.06	0.18	-379.99

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	6.06	0.18	-379.99
119	120	62.64	6.06	0.18	-380.64
120	120	62.64	-918.84	10.53	404.61
120	121	66.28	-923.86	10.53	370.24
121	121	66.28	-1794.10	14.86	1100.22
121	122	69.91	-1803.41	14.86	1053.44
122	122	69.91	-1785.95	15.54	1051.73
122	123	73.55	-1734.53	15.54	955.10
123	10123	73.55	-1744.33	-22.77	955.07
123	124	76.66	-1791.66	-22.77	1062.81
124	124	76.66	-1819.86	-22.31	1063.97
124	125	79.77	-1811.90	-22.31	1127.14
125	125	79.77	-804.34	-19.59	291.81
125	126	82.88	-800.58	-19.59	349.80
126	126	82.88	0.00	-13.33	-331.54
126	127	85.99	0.00	-13.33	-290.10
127	127	85.99	0.00	-13.33	-290.10
127	128	89.10	0.00	-13.33	-248.66
128	128	89.10	0.00	-13.33	-248.66
128	129	92.21	0.00	-13.33	-207.21
129	129	92.21	0.00	-13.33	-207.21
129	130	95.32	0.00	-13.33	-165.77
130	130	95.32	0.00	-13.33	-165.77
130	131	98.43	0.00	-13.33	-124.33
131	131	98.43	0.00	-13.33	-124.33
131	132	101.54	0.00	-13.33	-82.88
132	132	101.54	0.00	-13.33	-82.88
132	133	104.65	0.00	-13.33	-41.44
133	133	104.65	0.00	-13.33	-41.44
133	134	107.76	0.00	-13.33	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.00
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	-5.93	-18.66
309	2009	24.40	0.00	-5.93	-14.18
310	110	27.45	0.00	-2.51	-7.90
310	2010	27.45	0.00	-2.51	-6.00
311	111	30.50	0.00	-0.40	-1.26

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-0.40	-0.95
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	-0.76	-2.38
313	2013	37.19	0.00	-0.76	-1.81
314	114	40.82	0.00	-4.51	-14.21
314	2014	40.82	0.00	-4.51	-10.80
315	115	44.46	0.00	-10.53	-33.16
315	2015	44.46	0.00	-10.53	-25.20
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	0.00	0.00
317	2017	51.73	0.00	0.00	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.00	0.00
319	2019	59.01	0.00	0.00	0.00
320	120	62.64	0.00	-10.35	-32.60
320	2020	62.64	0.00	-10.35	-24.78
321	121	66.28	0.00	-4.33	-13.65
321	2021	66.28	0.00	-4.33	-10.37
322	122	69.91	0.00	-0.68	-2.15
322	2022	69.91	0.00	-0.68	-1.64
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	-0.46	-1.46
324	2024	76.66	0.00	-0.46	-1.11
325	125	79.77	0.00	-2.72	-8.56
325	2025	79.77	0.00	-2.72	-6.51
326	126	82.88	0.00	-6.26	-19.73
326	2026	82.88	0.00	-6.26	-14.99
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3D.TOT.To

Pretensado Total (t=0)

[1; 1]PRETF3D.FAM1.TOT + [1; 1]PRETF3D.FAM2.TOT + [1; 1]PRETF3D.FAM3.TOT + [1; 1]PRETI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	24.40	0.00	-5.93	-14.18
209	1009	24.40	0.00	-5.93	14.18
210	2010	27.45	0.00	-2.51	-6.00
210	1010	27.45	0.00	-2.51	6.00
211	2011	30.50	0.00	-0.40	-0.95
211	1011	30.50	0.00	-0.40	0.95
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	-0.76	-1.81
213	1013	37.19	0.00	-0.76	1.81
214	2014	40.82	0.00	-4.51	-10.80
214	1014	40.82	0.00	-4.51	10.80
215	2015	44.46	0.00	-10.53	-25.20
215	1015	44.46	0.00	-10.53	25.20
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	62.64	0.00	-10.35	-24.78
220	1020	62.64	0.00	-10.35	24.78
221	2021	66.28	0.00	-4.33	-10.37
221	1021	66.28	0.00	-4.33	10.37
222	2022	69.91	0.00	-0.68	-1.64
222	1022	69.91	0.00	-0.68	1.64
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	-0.46	-1.11
224	1024	76.66	0.00	-0.46	1.11
225	2025	79.77	0.00	-2.72	-6.51
225	1025	79.77	0.00	-2.72	6.51
226	2026	82.88	0.00	-6.26	-14.99
226	1026	82.88	0.00	-6.26	14.99
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3D.ISO.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

PRETF3D.ISO.To

Pretensado Isostático (t=0)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.To
Pretensado Isostático (t=0)
[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	0.00	0.00	0.00	0.00
402	2	0.00	0.00	0.00	0.00
403	1003	0.00	0.00	0.00	0.00
403	3	0.00	0.00	0.00	0.00
404	1004	0.00	0.00	0.00	0.00
404	4	0.00	0.00	0.00	0.00
405	1005	0.00	0.00	0.00	0.00
405	5	0.00	0.00	0.00	0.00
406	1006	0.00	0.00	0.00	0.00
406	6	0.00	0.00	0.00	0.00
407	1007	0.00	0.00	0.00	0.00
407	7	0.00	0.00	0.00	0.00
408	1008	0.00	0.00	0.00	0.00
408	8	0.00	0.00	0.00	0.00
409	1009	0.00	0.00	0.00	0.00
409	9	0.00	0.00	0.00	0.00
410	1010	0.00	0.00	0.00	0.00
410	10	0.00	0.00	0.00	0.00
411	1011	0.00	0.00	0.00	0.00
411	11	0.00	0.00	0.00	0.00
412	1012	0.00	0.00	0.00	0.00
412	12	0.00	0.00	0.00	0.00
413	1013	0.00	0.00	0.00	0.00
413	13	0.00	0.00	0.00	0.00
414	1014	0.00	0.00	0.00	0.00
414	14	0.00	0.00	0.00	0.00
415	1015	0.00	0.00	0.00	0.00
415	15	0.00	0.00	0.00	0.00
416	1016	0.00	0.00	0.00	0.00
416	16	0.00	0.00	0.00	0.00
417	1017	0.00	0.00	0.00	0.00
417	17	0.00	0.00	0.00	0.00
418	1018	0.00	0.00	0.00	0.00
418	18	0.00	0.00	0.00	0.00
419	1019	0.00	0.00	0.00	0.00
419	19	0.00	0.00	0.00	0.00

f3.pret.esf

Programa DINTEL PACADAR S.A.
PRETF3D.ISO.To

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.To
Pretensado Isostático (t=0)
[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	0.00	0.00	0.00	0.00
420	20	0.00	0.00	0.00	0.00
421	1021	0.00	0.00	0.00	0.00
421	21	0.00	0.00	0.00	0.00
422	1022	0.00	0.00	0.00	0.00
422	22	0.00	0.00	0.00	0.00
423	1023	0.00	0.00	0.00	0.00
423	23	0.00	0.00	0.00	0.00
424	1024	0.00	0.00	0.00	0.00
424	24	0.00	0.00	0.00	0.00
425	1025	0.00	0.00	0.00	0.00
425	25	0.00	0.00	0.00	0.00
426	1026	0.00	0.00	0.00	0.00
426	26	0.00	0.00	0.00	0.00
427	1027	0.00	0.00	0.00	0.00
427	27	0.00	0.00	0.00	0.00
428	1028	0.00	0.00	0.00	0.00
428	28	0.00	0.00	0.00	0.00
429	1029	0.00	0.00	0.00	0.00
429	29	0.00	0.00	0.00	0.00
430	1030	0.00	0.00	0.00	0.00
430	30	0.00	0.00	0.00	0.00
431	1031	0.00	0.00	0.00	0.00
431	31	0.00	0.00	0.00	0.00
432	1032	0.00	0.00	0.00	0.00
432	32	0.00	0.00	0.00	0.00
433	1033	0.00	0.00	0.00	0.00
433	33	0.00	0.00	0.00	0.00
434	1034	0.00	0.00	0.00	0.00
434	34	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	0.00	0.00
1	2	0.00	0.00	0.00	0.00
2	2	0.00	0.00	0.00	0.00
2	3	0.00	0.00	0.00	0.00
3	3	0.00	0.00	0.00	0.00
3	4	0.00	0.00	0.00	0.00
4	4	0.00	0.00	0.00	0.00
4	5	0.00	0.00	0.00	0.00
5	5	0.00	0.00	0.00	0.00
5	6	0.00	0.00	0.00	0.00
6	6	0.00	0.00	0.00	0.00
6	7	0.00	0.00	0.00	0.00
7	7	0.00	0.00	0.00	0.00
7	8	0.00	0.00	0.00	0.00
8	8	0.00	0.00	0.00	0.00
8	9	0.00	0.00	0.00	0.00
9	9	0.00	0.00	0.00	0.00
9	10	0.00	0.00	0.00	0.00
10	10	0.00	0.00	0.00	0.00
10	11	0.00	0.00	0.00	0.00
11	11	0.00	0.00	0.00	0.00
11	12	0.00	0.00	0.00	0.00
12	10012	0.00	0.00	0.00	0.00
12	13	0.00	0.00	0.00	0.00
13	13	0.00	0.00	0.00	0.00
13	14	0.00	0.00	0.00	0.00
14	14	0.00	0.00	0.00	0.00
14	15	0.00	0.00	0.00	0.00
15	15	0.00	0.00	0.00	0.00
15	16	0.00	0.00	0.00	0.00
16	16	0.00	0.00	0.00	0.00
16	17	0.00	0.00	0.00	0.00
17	17	0.00	0.00	0.00	0.00
17	18	0.00	0.00	0.00	0.00
18	18	0.00	0.00	0.00	0.00
18	19	0.00	0.00	0.00	0.00
19	19	0.00	0.00	0.00	0.00
19	20	0.00	0.00	0.00	0.00
20	20	0.00	0.00	0.00	0.00
20	21	0.00	0.00	0.00	0.00
21	21	0.00	0.00	0.00	0.00
21	22	0.00	0.00	0.00	0.00
22	22	0.00	0.00	0.00	0.00
22	23	0.00	0.00	0.00	0.00
23	10023	0.00	0.00	0.00	0.00
23	24	0.00	0.00	0.00	0.00
24	24	0.00	0.00	0.00	0.00
24	25	0.00	0.00	0.00	0.00
25	25	0.00	0.00	0.00	0.00
25	26	0.00	0.00	0.00	0.00
26	26	0.00	0.00	0.00	0.00

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Programa DINTEL PACADAR S.A.
PRETF3D.ISO.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	0.00	0.00	0.00	0.00
27	27	0.00	0.00	0.00	0.00
27	28	0.00	0.00	0.00	0.00
28	28	0.00	0.00	0.00	0.00
28	29	0.00	0.00	0.00	0.00
29	29	0.00	0.00	0.00	0.00
29	30	0.00	0.00	0.00	0.00
30	30	0.00	0.00	0.00	0.00
30	31	0.00	0.00	0.00	0.00
31	31	0.00	0.00	0.00	0.00
31	32	0.00	0.00	0.00	0.00
32	32	0.00	0.00	0.00	0.00
32	33	0.00	0.00	0.00	0.00
33	33	0.00	0.00	0.00	0.00
33	34	0.00	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00
101	102	3.05	0.00	0.00	0.00
102	102	3.05	0.00	0.00	0.00
102	103	6.10	0.00	0.00	0.00
103	103	6.10	0.00	0.00	0.00
103	104	9.15	0.00	0.00	0.00
104	104	9.15	0.00	0.00	0.00
104	105	12.20	0.00	0.00	0.00
105	105	12.20	0.00	0.00	0.00
105	106	15.25	0.00	0.00	0.00
106	106	15.25	0.00	0.00	0.00
106	107	18.30	0.00	0.00	0.00
107	107	18.30	0.00	0.00	0.00
107	108	21.35	0.00	0.00	0.00
108	108	21.35	0.00	0.00	0.00
108	109	24.40	0.00	0.00	0.00
109	109	24.40	-999.60	0.00	779.69
109	110	27.45	-1003.81	0.00	782.97
110	110	27.45	-1943.85	0.00	1516.20
110	111	30.50	-1951.66	0.00	1522.29
111	111	30.50	-1951.66	0.00	1522.29
111	112	33.55	-1911.09	0.00	1490.65
112	10112	33.55	-1911.09	0.00	1490.65
112	113	37.19	-1974.62	0.00	1540.20
113	113	37.19	-1974.62	0.00	1540.20
113	114	40.82	-1965.31	0.00	1532.94
114	114	40.82	-890.19	0.00	694.35
114	115	44.46	-885.80	0.00	690.92
115	115	44.46	0.00	0.00	0.00
115	116	48.10	0.00	0.00	0.00
116	116	48.10	0.00	0.00	0.00
116	117	51.73	0.00	0.00	0.00
117	117	51.73	0.00	0.00	0.00
117	118	55.37	0.00	0.00	0.00
118	118	55.37	0.00	0.00	0.00
118	119	59.01	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.00	0.00
119	120	62.64	0.00	0.00	0.00
120	120	62.64	-1012.34	0.00	789.63
120	121	66.28	-1017.36	0.00	793.54
121	121	66.28	-1957.87	0.00	1527.14
121	122	69.91	-1967.19	0.00	1534.41
122	122	69.91	-1967.19	0.00	1534.41
122	123	73.55	-1915.77	0.00	1494.30
123	10123	73.55	-1915.77	0.00	1494.30
123	124	76.66	-1963.10	0.00	1531.22
124	124	76.66	-1963.10	0.00	1531.22
124	125	79.77	-1955.14	0.00	1525.01
125	125	79.77	-880.98	0.00	687.16
125	126	82.88	-877.22	0.00	684.23
126	126	82.88	0.00	0.00	0.00
126	127	85.99	0.00	0.00	0.00
127	127	85.99	0.00	0.00	0.00
127	128	89.10	0.00	0.00	0.00
128	128	89.10	0.00	0.00	0.00
128	129	92.21	0.00	0.00	0.00
129	129	92.21	0.00	0.00	0.00
129	130	95.32	0.00	0.00	0.00
130	130	95.32	0.00	0.00	0.00
130	131	98.43	0.00	0.00	0.00
131	131	98.43	0.00	0.00	0.00
131	132	101.54	0.00	0.00	0.00
132	132	101.54	0.00	0.00	0.00
132	133	104.65	0.00	0.00	0.00
133	133	104.65	0.00	0.00	0.00
133	134	107.76	0.00	0.00	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	0.00	0.00	0.00	0.00
302	2002	0.00	0.00	0.00	0.00
303	103	0.00	0.00	0.00	0.00
303	2003	0.00	0.00	0.00	0.00
304	104	0.00	0.00	0.00	0.00
304	2004	0.00	0.00	0.00	0.00
305	105	0.00	0.00	0.00	0.00
305	2005	0.00	0.00	0.00	0.00
306	106	0.00	0.00	0.00	0.00
306	2006	0.00	0.00	0.00	0.00
307	107	0.00	0.00	0.00	0.00
307	2007	0.00	0.00	0.00	0.00
308	108	0.00	0.00	0.00	0.00
308	2008	0.00	0.00	0.00	0.00
309	109	0.00	0.00	0.00	0.00
309	2009	0.00	0.00	0.00	0.00
310	110	0.00	0.00	0.00	0.00
310	2010	0.00	0.00	0.00	0.00
311	111	0.00	0.00	0.00	0.00

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PRETF3D.ISO.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	0.00	0.00	0.00	0.00
312	112	0.00	0.00	0.00	0.00
312	2012	0.00	0.00	0.00	0.00
313	113	0.00	0.00	0.00	0.00
313	2013	0.00	0.00	0.00	0.00
314	114	0.00	0.00	0.00	0.00
314	2014	0.00	0.00	0.00	0.00
315	115	0.00	0.00	0.00	0.00
315	2015	0.00	0.00	0.00	0.00
316	116	0.00	0.00	0.00	0.00
316	2016	0.00	0.00	0.00	0.00
317	117	0.00	0.00	0.00	0.00
317	2017	0.00	0.00	0.00	0.00
318	118	0.00	0.00	0.00	0.00
318	2018	0.00	0.00	0.00	0.00
319	119	0.00	0.00	0.00	0.00
319	2019	0.00	0.00	0.00	0.00
320	120	0.00	0.00	0.00	0.00
320	2020	0.00	0.00	0.00	0.00
321	121	0.00	0.00	0.00	0.00
321	2021	0.00	0.00	0.00	0.00
322	122	0.00	0.00	0.00	0.00
322	2022	0.00	0.00	0.00	0.00
323	123	0.00	0.00	0.00	0.00
323	2023	0.00	0.00	0.00	0.00
324	124	0.00	0.00	0.00	0.00
324	2024	0.00	0.00	0.00	0.00
325	125	0.00	0.00	0.00	0.00
325	2025	0.00	0.00	0.00	0.00
326	126	0.00	0.00	0.00	0.00
326	2026	0.00	0.00	0.00	0.00
327	127	0.00	0.00	0.00	0.00
327	2027	0.00	0.00	0.00	0.00
328	128	0.00	0.00	0.00	0.00
328	2028	0.00	0.00	0.00	0.00
329	129	0.00	0.00	0.00	0.00
329	2029	0.00	0.00	0.00	0.00
330	130	0.00	0.00	0.00	0.00
330	2030	0.00	0.00	0.00	0.00
331	131	0.00	0.00	0.00	0.00
331	2031	0.00	0.00	0.00	0.00
332	132	0.00	0.00	0.00	0.00
332	2032	0.00	0.00	0.00	0.00
333	133	0.00	0.00	0.00	0.00
333	2033	0.00	0.00	0.00	0.00
334	134	0.00	0.00	0.00	0.00
334	2034	0.00	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	0.00	0.00	0.00	0.00
202	1002	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	0.00	0.00	0.00	0.00
203	1003	0.00	0.00	0.00	0.00
204	2004	0.00	0.00	0.00	0.00
204	1004	0.00	0.00	0.00	0.00
205	2005	0.00	0.00	0.00	0.00
205	1005	0.00	0.00	0.00	0.00
206	2006	0.00	0.00	0.00	0.00
206	1006	0.00	0.00	0.00	0.00
207	2007	0.00	0.00	0.00	0.00
207	1007	0.00	0.00	0.00	0.00
208	2008	0.00	0.00	0.00	0.00
208	1008	0.00	0.00	0.00	0.00
209	2009	0.00	0.00	0.00	0.00
209	1009	0.00	0.00	0.00	0.00
210	2010	0.00	0.00	0.00	0.00
210	1010	0.00	0.00	0.00	0.00
211	2011	0.00	0.00	0.00	0.00
211	1011	0.00	0.00	0.00	0.00
212	2012	0.00	0.00	0.00	0.00
212	1012	0.00	0.00	0.00	0.00
213	2013	0.00	0.00	0.00	0.00
213	1013	0.00	0.00	0.00	0.00
214	2014	0.00	0.00	0.00	0.00
214	1014	0.00	0.00	0.00	0.00
215	2015	0.00	0.00	0.00	0.00
215	1015	0.00	0.00	0.00	0.00
216	2016	0.00	0.00	0.00	0.00
216	1016	0.00	0.00	0.00	0.00
217	2017	0.00	0.00	0.00	0.00
217	1017	0.00	0.00	0.00	0.00
218	2018	0.00	0.00	0.00	0.00
218	1018	0.00	0.00	0.00	0.00
219	2019	0.00	0.00	0.00	0.00
219	1019	0.00	0.00	0.00	0.00
220	2020	0.00	0.00	0.00	0.00
220	1020	0.00	0.00	0.00	0.00
221	2021	0.00	0.00	0.00	0.00
221	1021	0.00	0.00	0.00	0.00
222	2022	0.00	0.00	0.00	0.00
222	1022	0.00	0.00	0.00	0.00
223	2023	0.00	0.00	0.00	0.00
223	1023	0.00	0.00	0.00	0.00
224	2024	0.00	0.00	0.00	0.00
224	1024	0.00	0.00	0.00	0.00
225	2025	0.00	0.00	0.00	0.00
225	1025	0.00	0.00	0.00	0.00
226	2026	0.00	0.00	0.00	0.00
226	1026	0.00	0.00	0.00	0.00
227	2027	0.00	0.00	0.00	0.00
227	1027	0.00	0.00	0.00	0.00
228	2028	0.00	0.00	0.00	0.00

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Programa DINTEL PACADAR S.A.
PRETF3D.ISO.Tinf

20/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	0.00	0.00	0.00	0.00
229	2029	0.00	0.00	0.00	0.00
229	1029	0.00	0.00	0.00	0.00
230	2030	0.00	0.00	0.00	0.00
230	1030	0.00	0.00	0.00	0.00
231	2031	0.00	0.00	0.00	0.00
231	1031	0.00	0.00	0.00	0.00
232	2032	0.00	0.00	0.00	0.00
232	1032	0.00	0.00	0.00	0.00
233	2033	0.00	0.00	0.00	0.00
233	1033	0.00	0.00	0.00	0.00
234	2034	0.00	0.00	0.00	0.00
234	1034	0.00	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	0.00	0.00	0.00	0.00
402	2	0.00	0.00	0.00	0.00
403	1003	0.00	0.00	0.00	0.00
403	3	0.00	0.00	0.00	0.00
404	1004	0.00	0.00	0.00	0.00
404	4	0.00	0.00	0.00	0.00
405	1005	0.00	0.00	0.00	0.00
405	5	0.00	0.00	0.00	0.00
406	1006	0.00	0.00	0.00	0.00
406	6	0.00	0.00	0.00	0.00
407	1007	0.00	0.00	0.00	0.00
407	7	0.00	0.00	0.00	0.00
408	1008	0.00	0.00	0.00	0.00
408	8	0.00	0.00	0.00	0.00
409	1009	0.00	0.00	0.00	0.00
409	9	0.00	0.00	0.00	0.00
410	1010	0.00	0.00	0.00	0.00
410	10	0.00	0.00	0.00	0.00
411	1011	0.00	0.00	0.00	0.00
411	11	0.00	0.00	0.00	0.00
412	1012	0.00	0.00	0.00	0.00
412	12	0.00	0.00	0.00	0.00
413	1013	0.00	0.00	0.00	0.00
413	13	0.00	0.00	0.00	0.00
414	1014	0.00	0.00	0.00	0.00
414	14	0.00	0.00	0.00	0.00
415	1015	0.00	0.00	0.00	0.00
415	15	0.00	0.00	0.00	0.00
416	1016	0.00	0.00	0.00	0.00
416	16	0.00	0.00	0.00	0.00
417	1017	0.00	0.00	0.00	0.00
417	17	0.00	0.00	0.00	0.00
418	1018	0.00	0.00	0.00	0.00
418	18	0.00	0.00	0.00	0.00
419	1019	0.00	0.00	0.00	0.00
419	19	0.00	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
PRETF3D.ISO.Tinf

Pretensado Isostático (t=INF)

[1; 1]PRETF3D.FAM1.ISO + [1; 1]PRETF3D.FAM2.ISO + [1; 1]PRETF3D.FAM3.ISO + [1; 1]PRETF3

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	0.00	0.00	0.00	0.00
420	20	0.00	0.00	0.00	0.00
421	1021	0.00	0.00	0.00	0.00
421	21	0.00	0.00	0.00	0.00
422	1022	0.00	0.00	0.00	0.00
422	22	0.00	0.00	0.00	0.00
423	1023	0.00	0.00	0.00	0.00
423	23	0.00	0.00	0.00	0.00
424	1024	0.00	0.00	0.00	0.00
424	24	0.00	0.00	0.00	0.00
425	1025	0.00	0.00	0.00	0.00
425	25	0.00	0.00	0.00	0.00
426	1026	0.00	0.00	0.00	0.00
426	26	0.00	0.00	0.00	0.00
427	1027	0.00	0.00	0.00	0.00
427	27	0.00	0.00	0.00	0.00
428	1028	0.00	0.00	0.00	0.00
428	28	0.00	0.00	0.00	0.00
429	1029	0.00	0.00	0.00	0.00
429	29	0.00	0.00	0.00	0.00
430	1030	0.00	0.00	0.00	0.00
430	30	0.00	0.00	0.00	0.00
431	1031	0.00	0.00	0.00	0.00
431	31	0.00	0.00	0.00	0.00
432	1032	0.00	0.00	0.00	0.00
432	32	0.00	0.00	0.00	0.00
433	1033	0.00	0.00	0.00	0.00
433	33	0.00	0.00	0.00	0.00
434	1034	0.00	0.00	0.00	0.00
434	34	0.00	0.00	0.00	0.00

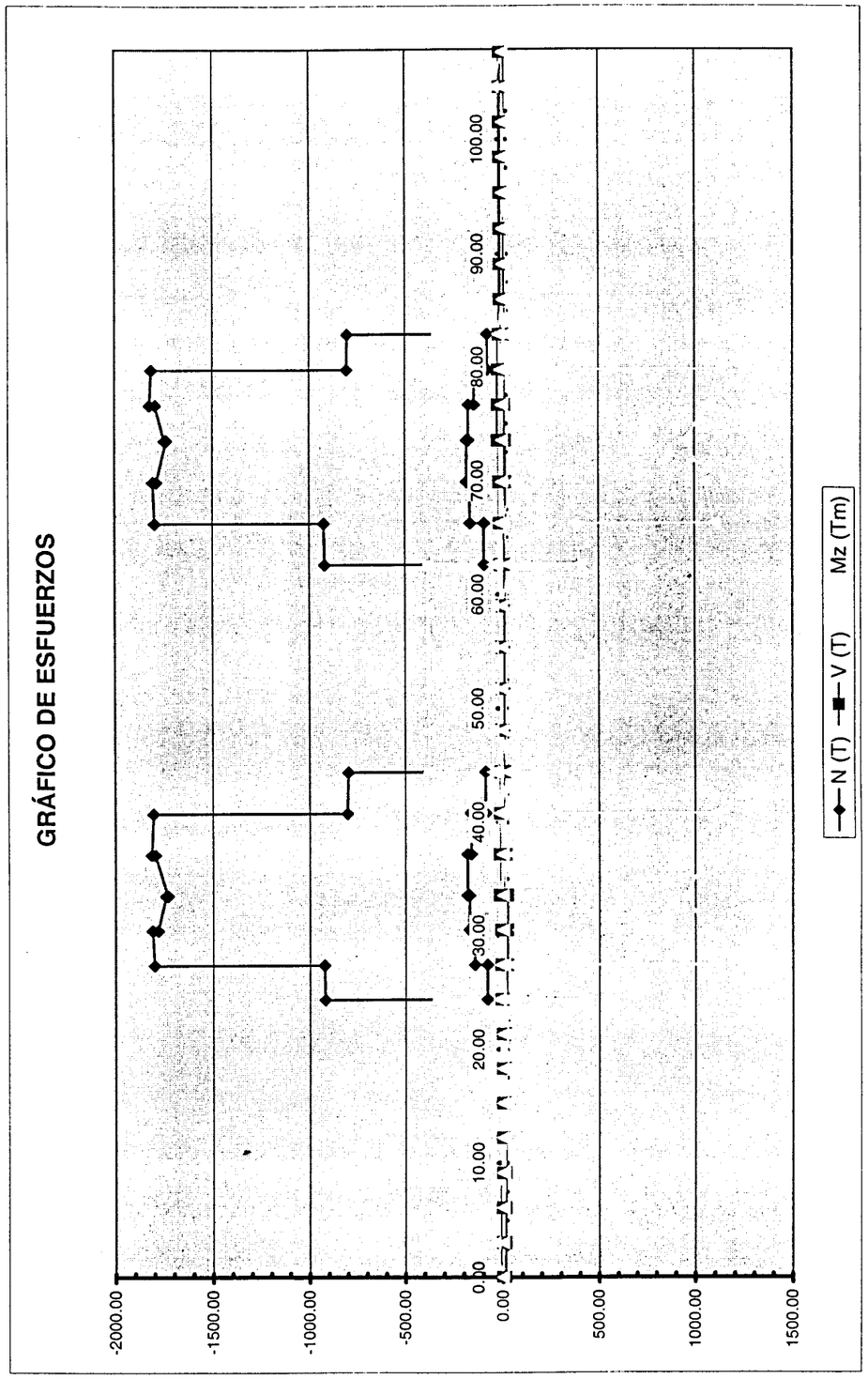


GRÁFICO DE ESFUERZOS

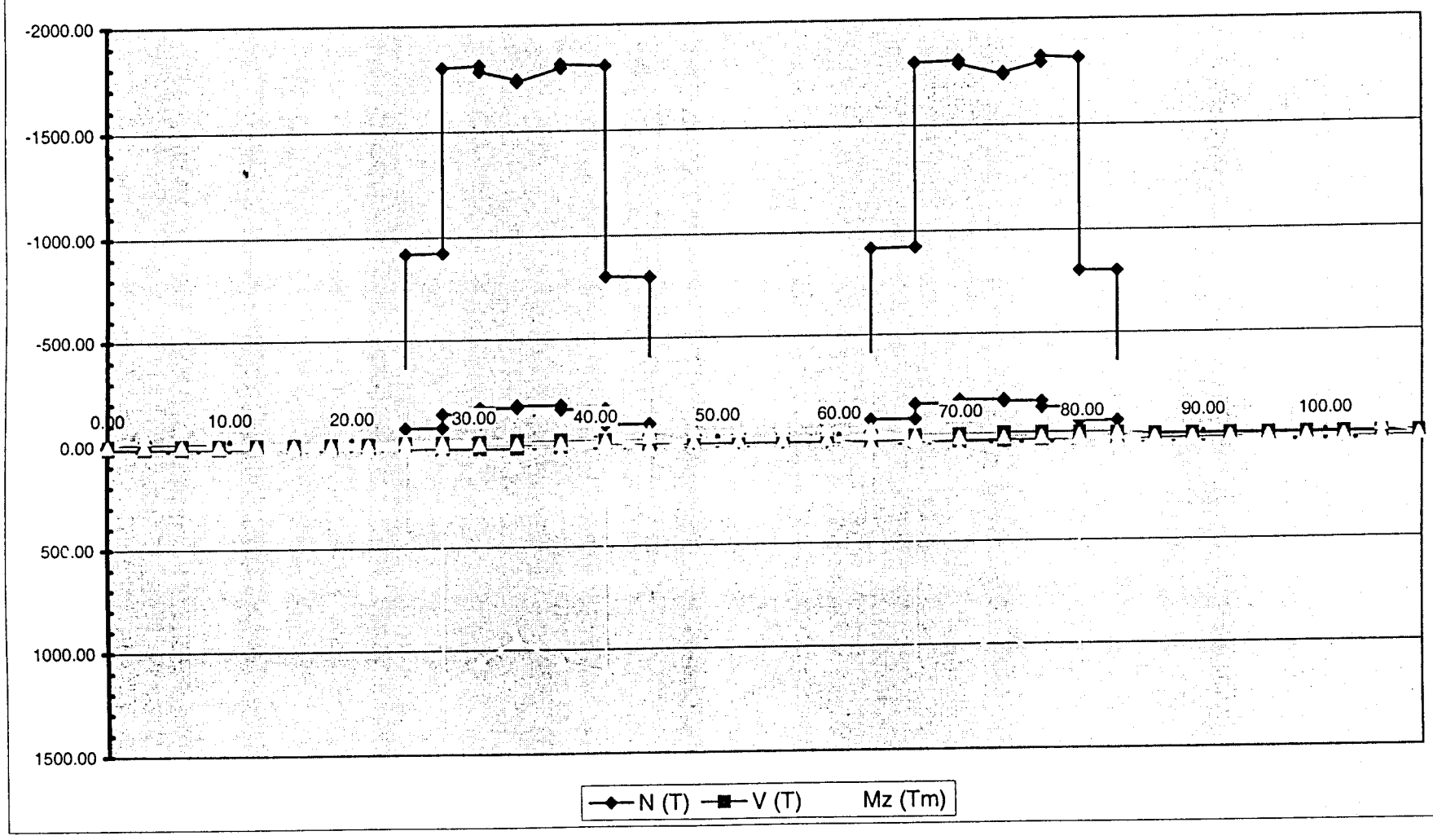


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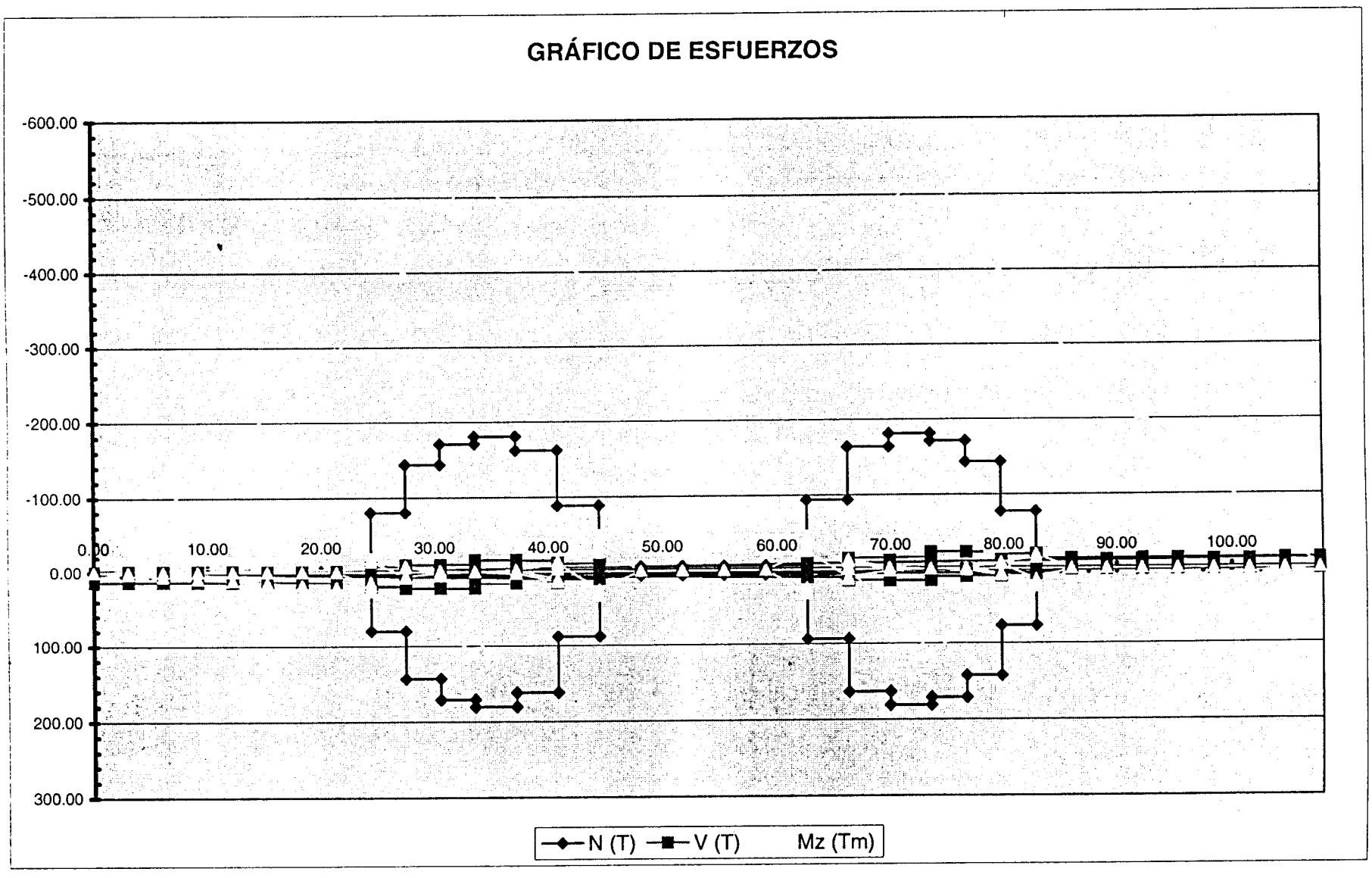


GRÁFICO DE ESFUERZOS

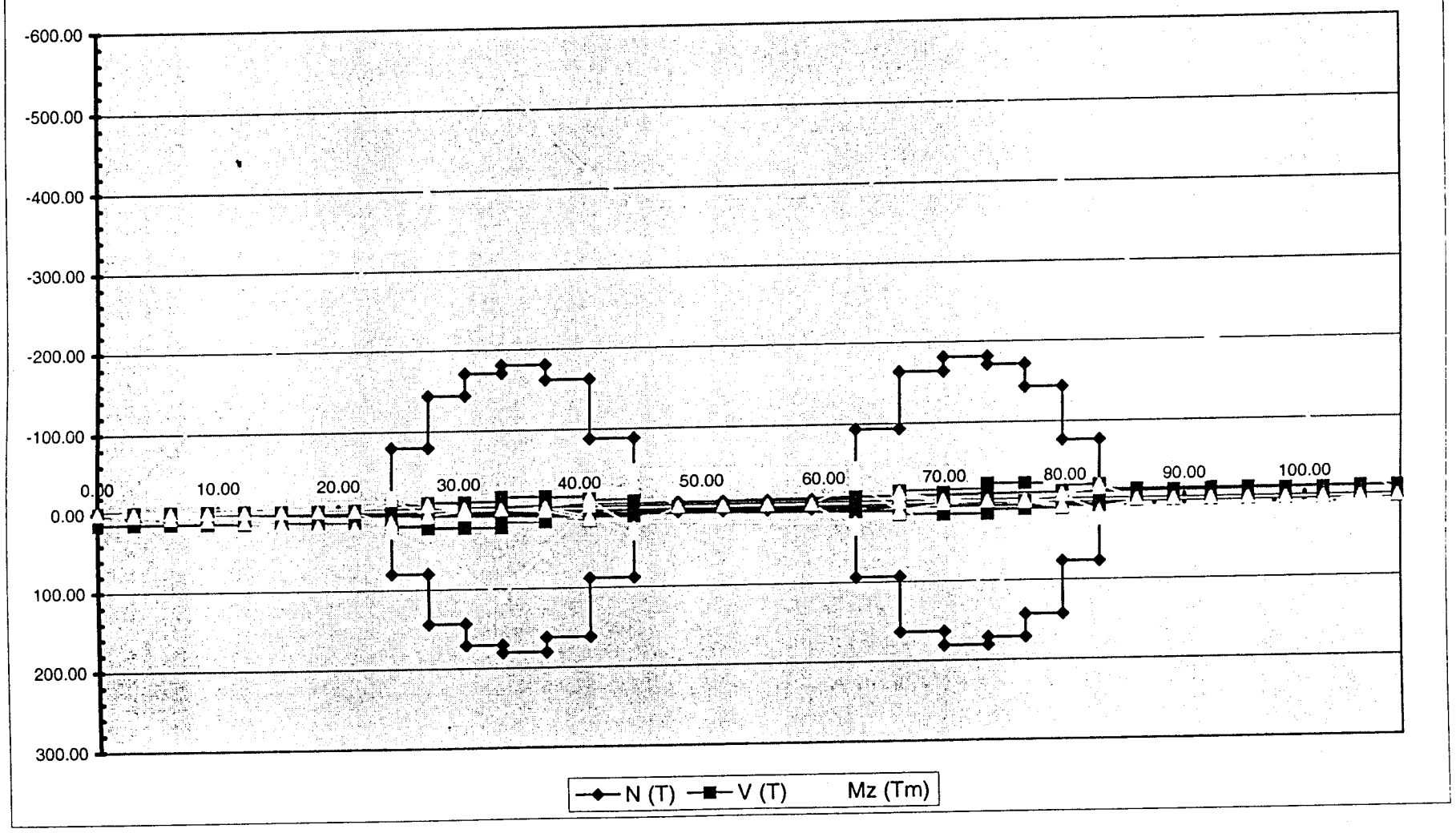
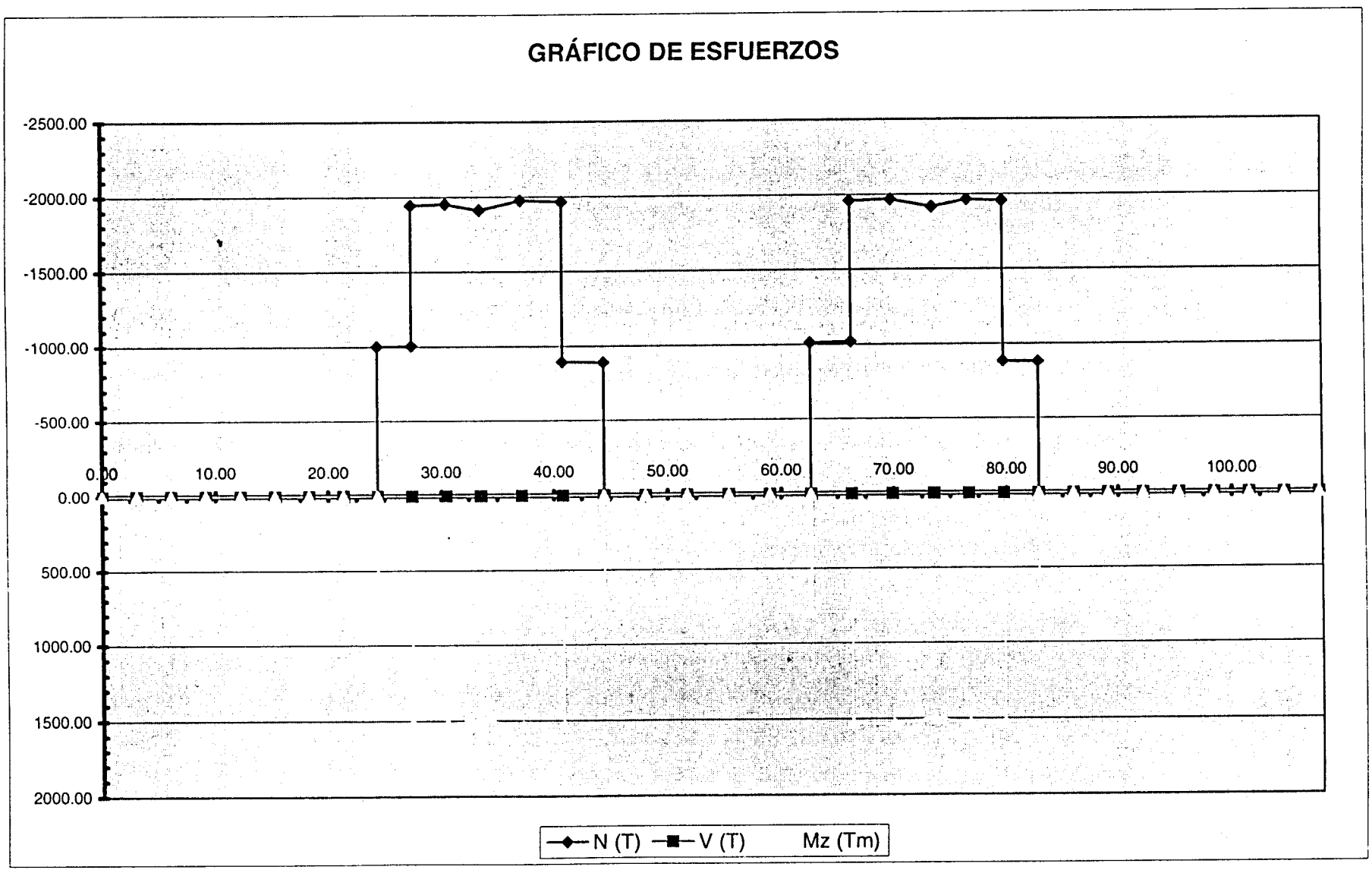
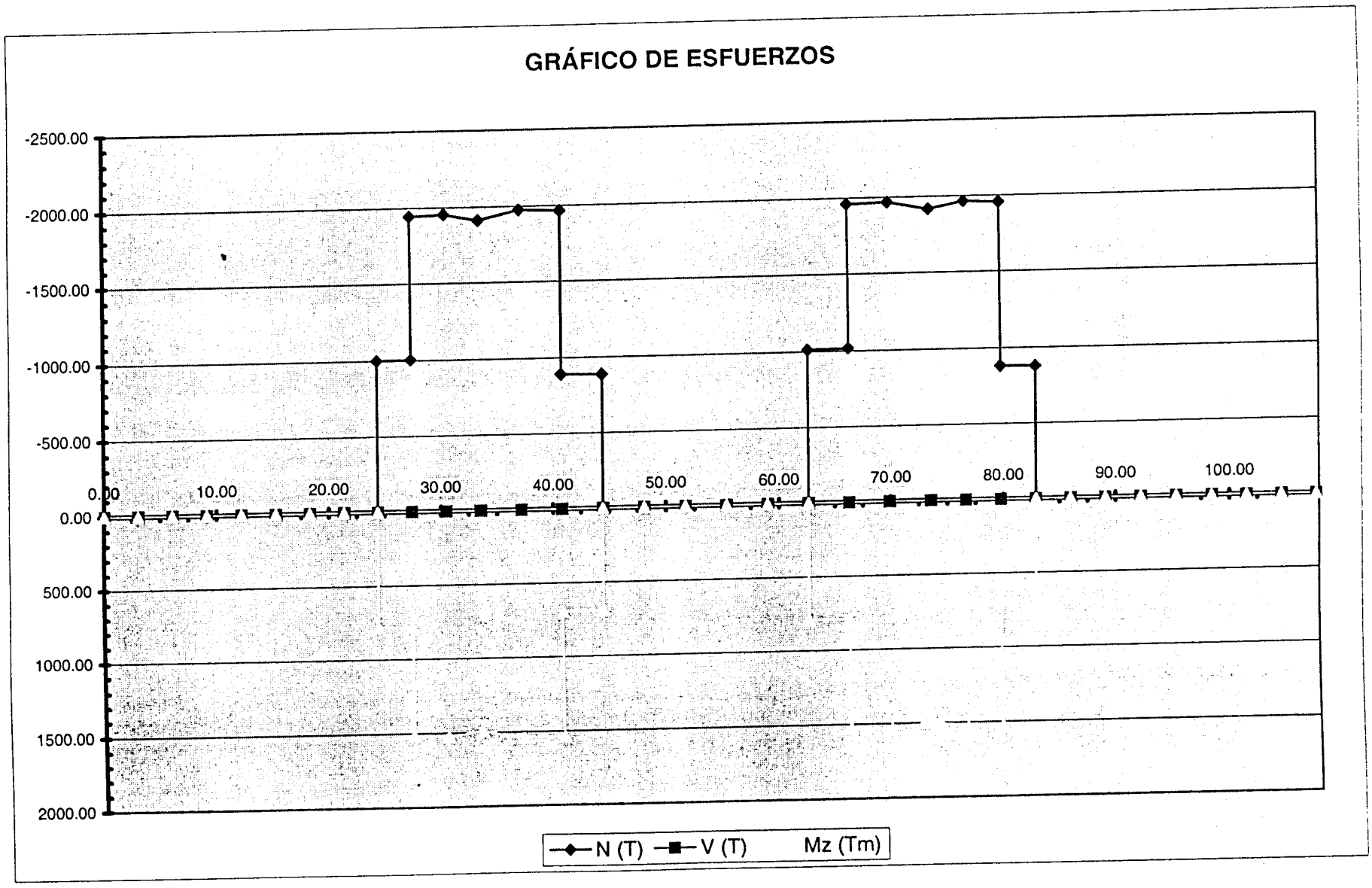


GRÁFICO DE ESFUERZOS




GRÁFICO DE ESFUERZOS
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100.00
N (T)
V (T)
Mz (Tm)

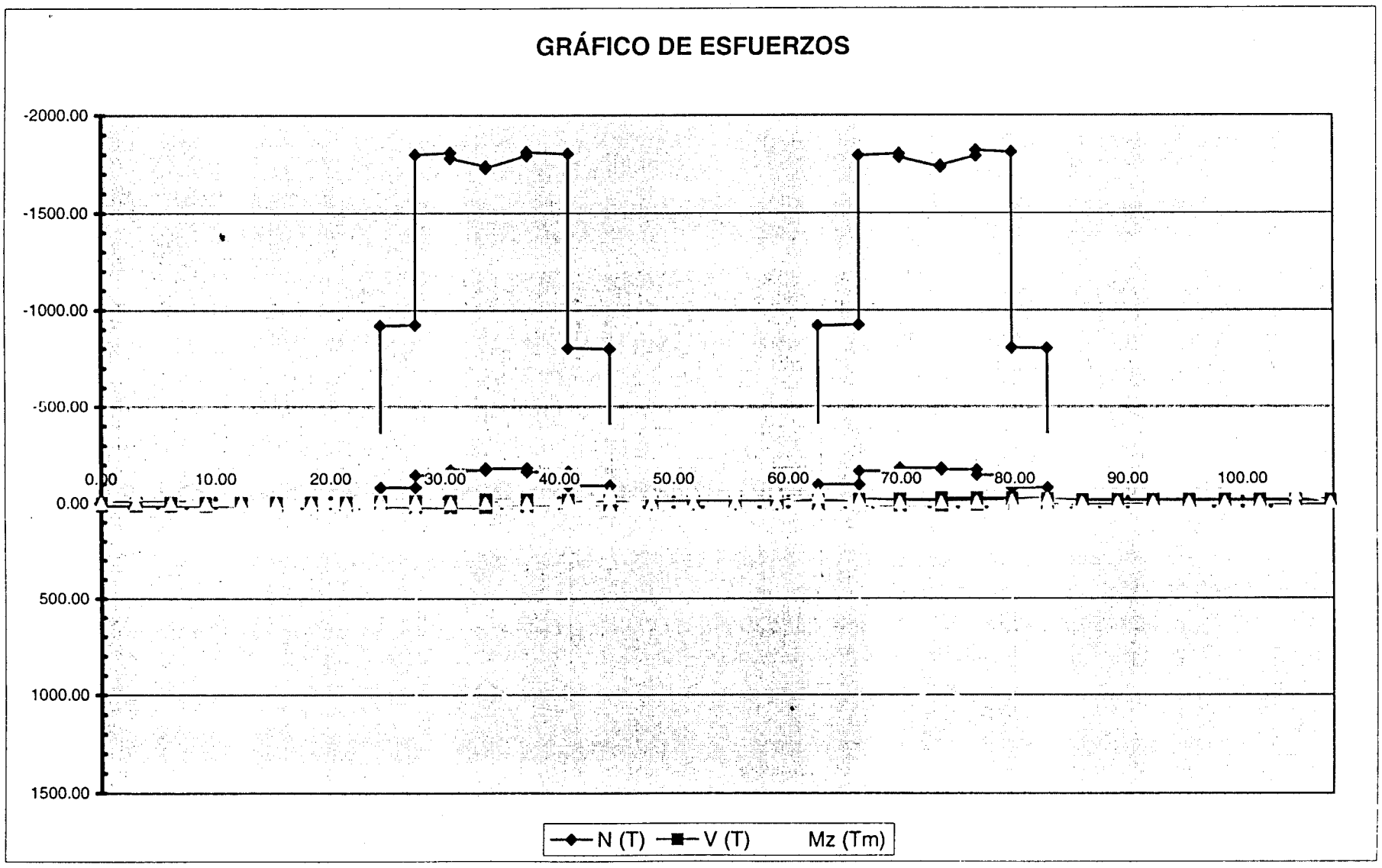

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N (T)
V (T)
Mz (Tm)

GRÁFICO DE ESFUERZOS

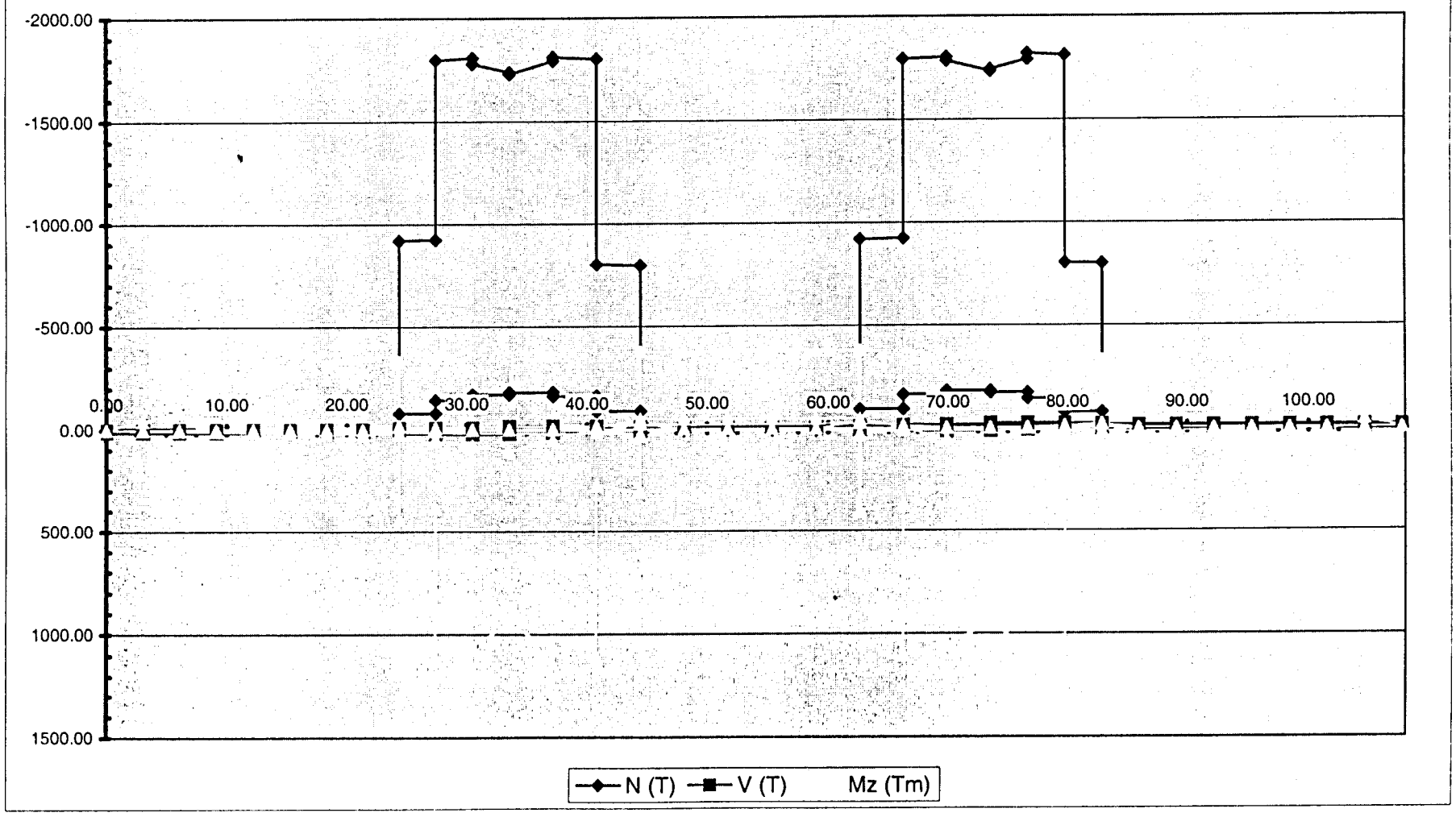


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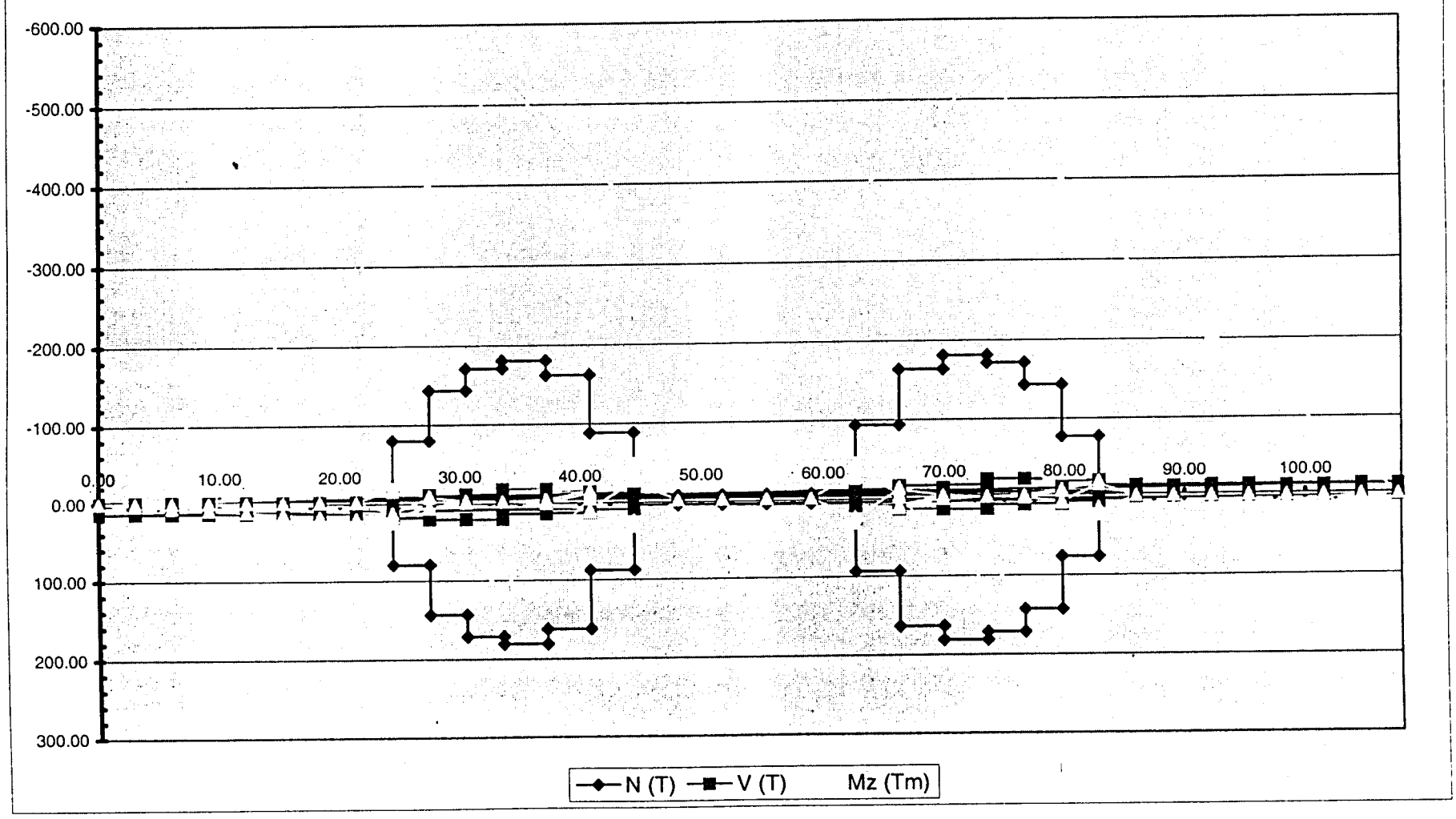


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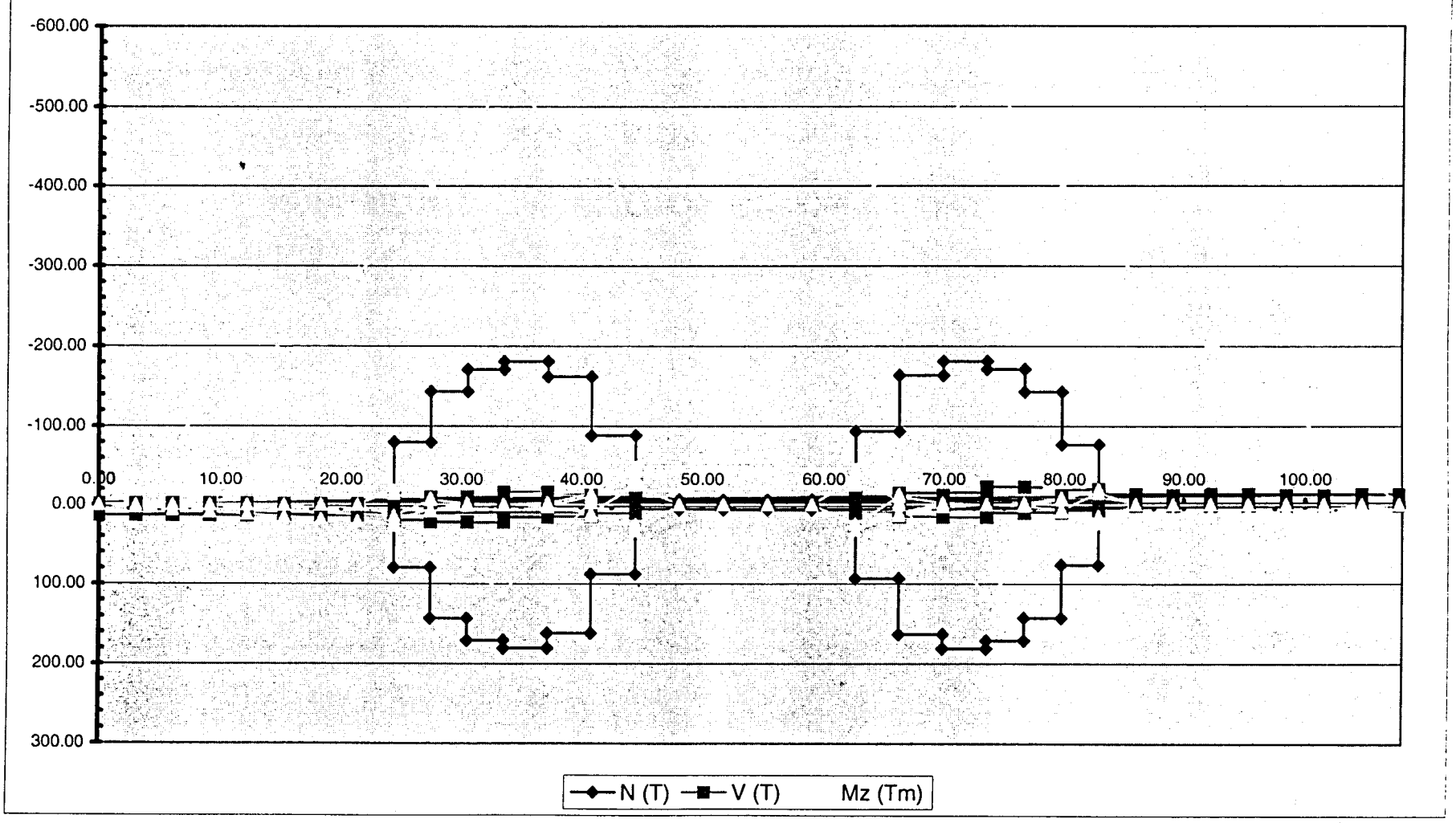


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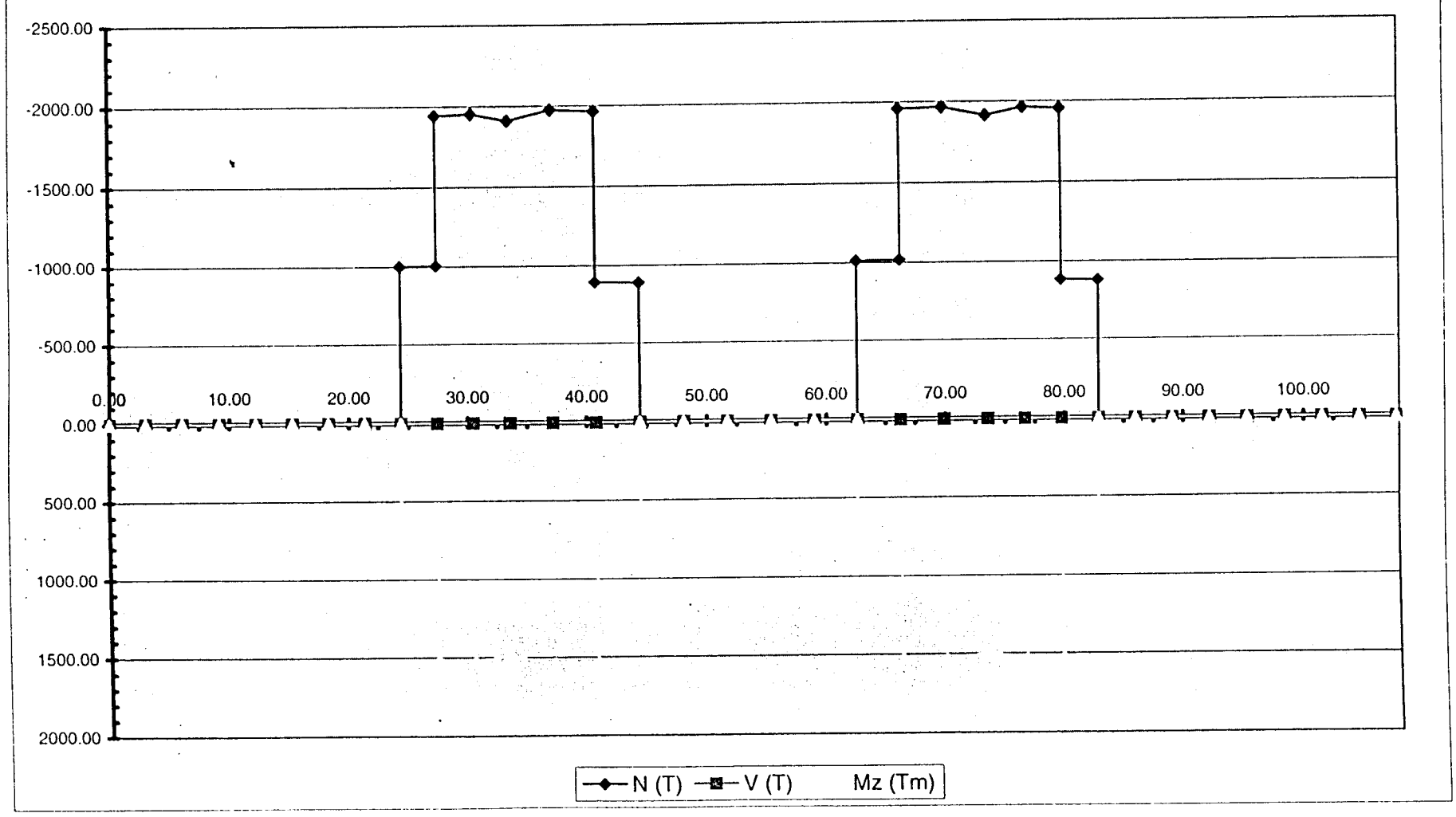
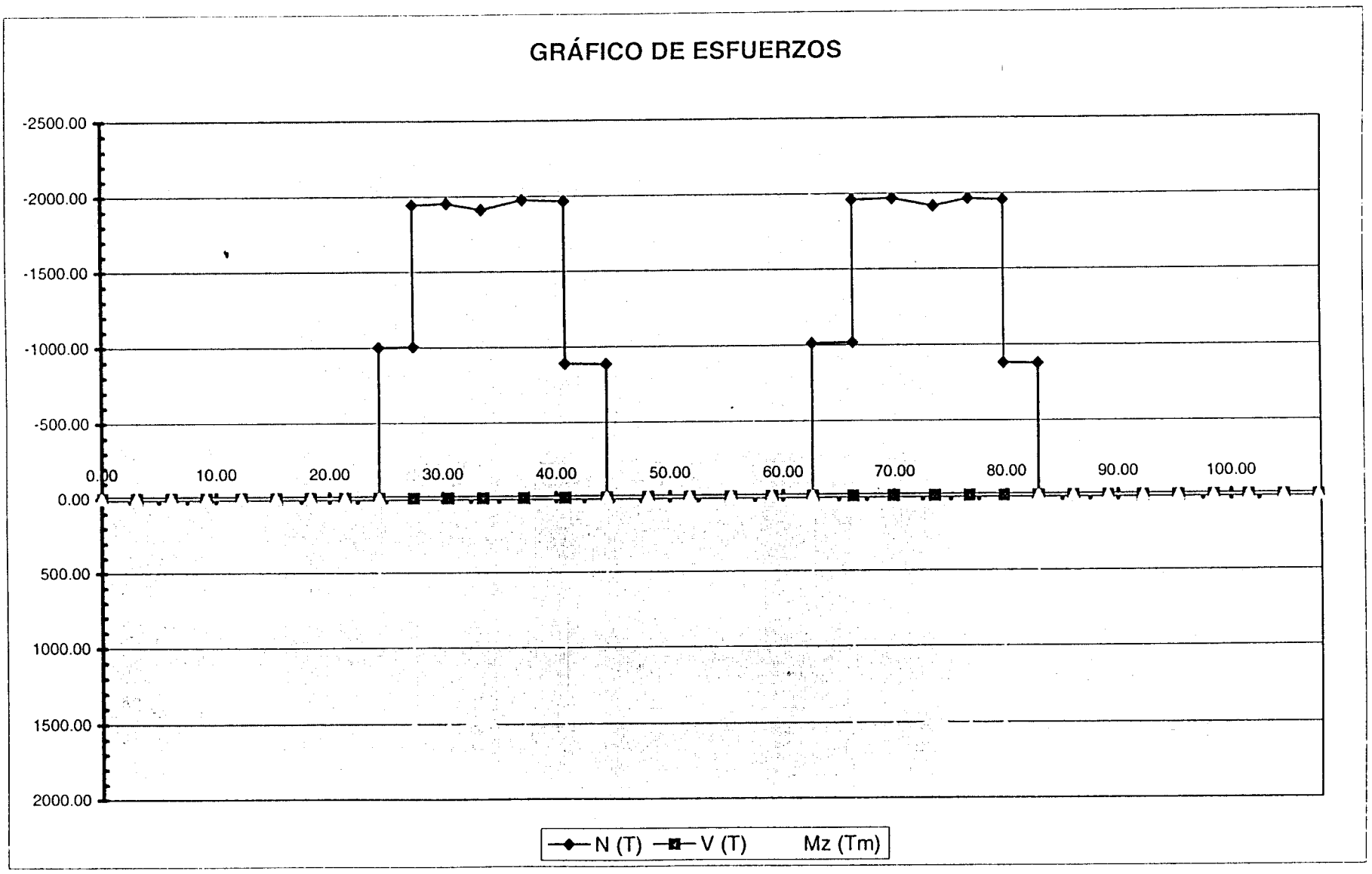


GRÁFICO DE ESFUERZOS



PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

Del estudio de pérdidas realizado se obtienen las siguientes pérdidas.

Pretensado en vigas prefabricadas.

Pérdidas por acortamiento elástico 12'70%

Pérdidas a tiempo infinito 20%

Postesado sobre pilas

Pérdidas por acortamiento elástico 1'90%

Pérdidas por rozamiento y penetración de cuña (5%)
(se incluyen en el cálculo realizado por el programa)

Pérdidas a tinf = 15%

se considera: Coef. de rozamiento a variar entre: 0'01
Desviación parásita: 0'05

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

PERDIDAS INSTANTANEAS:

Vanos pretensados, Tan solo se consideran las pérdidas por acortamiento elástico

$$\Delta P = \sigma_{cp} \cdot A_p \frac{E_p}{E_{cj}}$$

E_{cj} 3 días $= 330\,000 \text{ kg/cm}^2 \cdot \frac{10}{8'5} \cdot 0'73 = 294430 \text{ kg/cm}^2$

$E_p = 1900000 \text{ kg/cm}^2$

$\Delta p = 1'41 \times \left(\frac{1900000}{294430} \right) = 13'4 \text{ cm}^2$

$\sigma_{cp} = \sigma_{pretensado} + \sigma_{peso\ propio} = 292 \text{ kp/cm}^2$

$\Delta P = 292 \cdot 13'4 \cdot \frac{19}{24445} = 290'17 \text{ ton}$

Fuerza total de tesado $= (3128 + 25) 22'22 = 22225 \text{ kg}$

$$\text{pérdidas} = \frac{290'17}{22225} = 12'71\ \%$$

la tensión de tesado que se obtiene considerando la pérdida es de:

$$141 \text{ kg/mm}^2 \times 0'873 = 129 \text{ kg/mm}^2$$

PERDIDAS Δ t∞

Pretensado de vigas en cambio de vano

$$\Delta P_{dif} = \left(\frac{n\varphi(t,t_0)\sigma_{cp} + E_{cp}\varepsilon_{cs}(t,t_0) + \sigma_E \Delta\sigma_p}{1 + n\frac{A_p}{A_c}\left(1 + \frac{A_c y_p}{I_c}\right)(1+\chi\varphi(t,t_0))} \right) A_p$$

CASIÓN: $\varepsilon_{cs} = -29'16 \cdot 10^{-5}$ $n = 5'75 = E_p/E_c$

$\varphi = 1'77$ $E_p = 1900.000$ kg/cm²

$\sigma_{cp} = 20'0$ kg/cm² $A_c = 145 cm^2$

$n\varphi\ \sigma_{cp} = 5'75 \cdot 20'0 \times 1'77 = 20'45$ kg/cm²

$E_{cp}\ \varepsilon_{cs}(t,t_0) = 29'16\ 10^{-5} \cdot 1950000 = 56'32$ kg/cm²

$\Delta\sigma_{cp} = f_p \cdot P_{kl} = f_p \cdot 12900 kg/cm^2 = 0'02 \cdot 12900 = 0'45$ kg/cm²

$$1 + 66 \cdot \frac{145}{38930} \cdot \left(1 + \frac{3'69 \cdot 22'5^2}{4}\right)(1 + 0'8 \cdot 1'75)$$

$= 1'24$

$$\text{pérdidas diferidas} = \frac{\frac{20'45 + 56'32 + 0'45}{1'24}}{12900\ kg/cm^2} = 0'200$$

pérdidas diferidas = 20%

Postesado de losa sobre pilas:

$n\varphi(t,t_0)\sigma_{cp} = 6'60 \cdot 2'28 \cdot 37'5 = 564'30$ kg/cm²

$E_p\ \varepsilon_{cs}(t,t_0) = 41'10^{-5} \cdot 1950000 = 799'5$ kg/cm²

$\Delta\sigma_E\ f_{pk} = 0'052 \cdot 13200 = 755'6$ kg/cm²

$$1 + \frac{145}{38930} \cdot \left(1 + \frac{3'69 \cdot 0'7^2}{4}\right)(1 + 0'8 \cdot 2'25)$$

$= 1'07$

$$\text{pérdidas diferidas} = \frac{\frac{564'3 + 799 + 755}{1'07}}{13200} = 0'15$$

pérdidas diferidas = 15%

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

ESFUERZOS DE REDISTRIBUCIÓN

- RED CARGAS EXTERIORES

- PRETENSADOS

CÁLCULO TENSIONAL

Hipótesis de cálculo:

REDPP

Redistribución de peso propio

[.85; .85]PPVIGAS + [.85; .85]PPLOSA + [-.85;-.85]PPCF1 + [-.85;-.85]PPLF3 + [-.85;-.85]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	9.68	0.00
1	2	3.05	0.00	9.67	-29.51
2	2	3.05	0.00	9.63	-29.51
2	3	6.10	0.00	9.63	-58.91
3	3	6.10	0.00	9.59	-58.90
3	4	9.15	0.00	9.61	-88.19
4	4	9.15	0.00	9.57	-88.19
4	5	12.20	0.00	9.57	-117.36
5	5	12.20	0.00	9.55	-117.36
5	6	15.25	0.00	9.54	-146.49
6	6	15.25	0.00	9.52	-146.49
6	7	18.30	0.00	9.53	-175.56
7	7	18.30	0.00	9.52	-175.56
7	8	21.35	0.00	9.51	-204.58
8	8	21.35	0.00	9.50	-204.58
8	9	24.40	0.00	9.50	-233.58
9	9	24.40	0.00	9.49	-233.58
9	10	27.45	0.00	9.50	-262.54
10	10	27.45	0.00	9.49	-262.55
10	11	30.50	0.00	9.49	-291.46
11	11	30.50	0.00	9.47	-291.47
11	12	33.55	0.00	9.47	-320.34
12	10012	33.55	0.00	0.15	-320.34
12	13	37.19	0.00	0.15	-320.87
13	13	37.19	0.00	0.14	-320.87
13	14	40.82	0.00	0.14	-321.34
14	14	40.82	0.00	0.12	-321.34
14	15	44.46	0.00	0.11	-321.77
15	15	44.46	0.00	0.10	-321.77
15	16	48.10	0.00	0.10	-322.15
16	16	48.10	0.00	0.09	-322.15
16	17	51.73	0.00	0.08	-322.50
17	17	51.73	0.00	0.08	-322.50
17	18	55.37	0.00	0.08	-322.81
18	18	55.37	0.00	0.08	-322.81
18	19	59.01	0.00	0.08	-323.13
19	19	59.01	0.00	0.08	-323.13
19	20	62.64	0.00	0.08	-323.42
20	20	62.64	0.00	0.08	-323.42
20	21	66.28	0.00	0.08	-323.71
21	21	66.28	0.00	0.08	-323.71
21	22	69.91	0.00	0.07	-323.99
22	22	69.91	0.00	0.07	-323.99
22	23	73.55	0.00	0.07	-324.26
23	10023	73.55	0.00	-9.48	-324.26
23	24	76.66	0.00	-9.48	-294.80
24	24	76.66	0.00	-9.48	-294.80
24	25	79.77	0.00	-9.47	-265.32
25	25	79.77	0.00	-9.47	-265.32
25	26	82.88	0.00	-9.48	-235.85
26	26	82.88	0.00	-9.48	-235.85

SPRET.esv

Programa DINTEL PACADAR S.A.
REDPP

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:

REDPP

Redistribución de peso propio

[.85; .85]PPVIGAS + [.85; .85]PPLOSA + [-.85;-.85]PPCF1 + [-.85;-.85]PPLF3 + [-.85;-.85]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-9.48	-206.37
27	27	85.99	0.00	-9.48	-206.37
27	28	89.10	0.00	-9.48	-176.89
28	28	89.10	0.00	-9.48	-176.89
28	29	92.21	0.00	-9.48	-147.42
29	29	92.21	0.00	-9.48	-147.42
29	30	95.32	0.00	-9.48	-117.95
30	30	95.32	0.00	-9.48	-117.95
30	31	98.43	0.00	-9.48	-88.47
31	31	98.43	0.00	-9.48	-88.47
31	32	101.54	0.00	-9.48	-58.98
32	32	101.54	0.00	-9.48	-58.98
32	33	104.65	0.00	-9.49	-29.50
33	33	104.65	0.00	-9.49	-29.50
33	34	107.76	0.00	-9.48	0.00
101	101	0.00	0.00	9.46	0.00
101	102	3.05	0.00	9.45	-28.83
102	102	3.05	0.00	9.49	-28.83
102	103	6.10	0.00	9.49	-57.81
103	103	6.10	0.00	9.52	-57.81
103	104	9.15	0.00	9.54	-86.89
104	104	9.15	0.00	9.56	-86.89
104	105	12.20	0.00	9.56	-116.04
105	105	12.20	0.00	9.59	-116.04
105	106	15.25	0.00	9.57	-145.28
106	106	15.25	0.00	9.59	-145.28
106	107	18.30	0.00	9.61	-174.57
107	107	18.30	0.00	9.61	-174.57
107	108	21.35	0.00	9.60	-203.88
108	108	21.35	0.00	9.62	-203.88
108	109	24.40	0.00	9.62	-233.24
109	109	24.40	0.00	9.63	-233.23
109	110	27.45	0.00	9.64	-262.62
110	110	27.45	0.00	9.66	-262.62
110	111	30.50	0.00	9.65	-292.04
111	111	30.50	0.00	9.66	-292.03
111	112	33.55	0.00	9.66	-321.51
112	10112	33.55	0.00	0.03	-321.50
112	113	37.19	0.00	0.03	-321.57
113	113	37.19	0.00	0.04	-321.57
113	114	40.82	0.00	0.04	-321.72
114	114	40.82	0.00	0.06	-321.72
114	115	44.46	0.00	0.05	-321.91
115	115	44.46	0.00	0.06	-321.91
115	116	48.10	0.00	0.06	-322.15
116	116	48.10	0.00	0.07	-322.15
116	117	51.73	0.00	0.06	-322.41
117	117	51.73	0.00	0.07	-322.41
117	118	55.37	0.00	0.07	-322.70
118	118	55.37	0.00	0.08	-322.70
118	119	59.01	0.00	0.08	-323.02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
REDPP

Redistribución de peso propio

[.85; .85]PPVIGAS + [.85; .85]PPLOSA + [-.85;-.85]PPCF1 + [-.85;-.85]PPLF3 + [-.85;-.85]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	0.08	-323.02
119	120	62.64	0.00	0.08	-323.32
120	120	62.64	0.00	0.09	-323.32
120	121	66.28	0.00	0.09	-323.65
121	121	66.28	0.00	0.09	-323.65
121	122	69.91	0.00	0.08	-323.99
122	122	69.91	0.00	0.08	-323.99
122	123	73.55	0.00	0.08	-324.33
123	10123	73.55	0.00	-9.49	-324.33
123	124	76.66	0.00	-9.49	-294.85
124	124	76.66	0.00	-9.49	-294.85
124	125	79.77	0.00	-9.48	-265.34
125	125	79.77	0.00	-9.48	-265.34
125	126	82.88	0.00	-9.48	-235.85
126	126	82.88	0.00	-9.48	-235.85
126	127	85.99	0.00	-9.48	-206.36
127	127	85.99	0.00	-9.48	-206.36
127	128	89.10	0.00	-9.49	-176.88
128	128	89.10	0.00	-9.49	-176.88
128	129	92.21	0.00	-9.49	-147.39
129	129	92.21	0.00	-9.49	-147.39
129	130	95.32	0.00	-9.48	-117.92
130	130	95.32	0.00	-9.48	-117.92
130	131	98.43	0.00	-9.48	-88.44
131	131	98.43	0.00	-9.48	-88.44
131	132	101.54	0.00	-9.47	-58.96
132	132	101.54	0.00	-9.47	-58.96
132	133	104.65	0.00	-9.48	-29.48
133	133	104.65	0.00	-9.49	-29.48
133	134	107.76	0.00	-9.48	0.00
301	101	0.00	0.00	-0.03	-3.72
301	2001	0.00	0.00	-0.03	-3.71
302	102	3.05	0.00	-0.04	-7.42
302	2002	3.05	0.00	-0.04	-7.39
303	103	6.10	0.00	-0.03	-7.40
303	2003	6.10	0.00	-0.03	-7.38
304	104	9.15	0.00	-0.03	-7.40
304	2004	9.15	0.00	-0.03	-7.37
305	105	12.20	0.00	-0.03	-7.38
305	2005	12.20	0.00	-0.03	-7.36
306	106	15.25	0.00	-0.02	-7.36
306	2006	15.25	0.00	-0.02	-7.35
307	107	18.30	0.00	-0.02	-7.36
307	2007	18.30	0.00	-0.02	-7.35
308	108	21.35	0.00	-0.01	-7.36
308	2008	21.35	0.00	-0.01	-7.35
309	109	24.40	0.00	-0.01	-6.89
309	2009	24.40	0.00	-0.01	-6.89
310	110	27.45	0.00	-0.01	-7.06
310	2010	27.45	0.00	-0.01	-7.06
311	111	30.50	0.00	-0.02	-7.23

SPRET.esv

Programa DINTEL PACADAR S.A.
REDPP

17/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
REDPP

Redistribución de peso propio

[.85; .85]PPVIGAS + [.85; .85]PPLOSA + [-.85;-.85]PPCF1 + [-.85;-.85]PPLF3 + [-.85;-.85]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	-0.02	-7.22
312	112	33.55	0.00	-0.02	-8.11
312	2012	33.55	0.00	-0.02	-8.10
313	113	37.19	0.00	-0.02	-8.67
313	2013	37.19	0.00	-0.02	-8.65
314	114	40.82	0.00	-0.02	-8.50
314	2014	40.82	0.00	-0.02	-8.48
315	115	44.46	0.00	-0.01	-8.32
315	2015	44.46	0.00	-0.01	-8.31
316	116	48.10	0.00	-0.01	-8.82
316	2016	48.10	0.00	-0.01	-8.82
317	117	51.73	0.00	-0.01	-8.82
317	2017	51.73	0.00	-0.01	-8.82
318	118	55.37	0.00	-0.01	-8.83
318	2018	55.37	0.00	-0.01	-8.82
319	119	59.01	0.00	0.00	-8.83
319	2019	59.01	0.00	0.00	-8.83
320	120	62.64	0.00	0.00	-8.34
320	2020	62.64	0.00	0.00	-8.33
321	121	66.28	0.00	0.00	-8.51
321	2021	66.28	0.00	0.00	-8.51
322	122	69.91	0.00	0.00	-8.69
322	2022	69.91	0.00	0.00	-8.69
323	123	73.55	0.00	0.00	-8.14
323	2023	73.55	0.00	0.00	-8.14
324	124	76.66	0.00	0.00	-7.28
324	2024	76.66	0.00	0.00	-7.28
325	125	79.77	0.00	0.00	-7.11
325	2025	79.77	0.00	0.00	-7.11
326	126	82.88	0.00	0.00	-6.94
326	2026	82.88	0.00	0.00	-6.94
327	127	85.99	0.00	0.00	-7.45
327	2027	85.99	0.00	0.00	-7.45
328	128	89.10	0.00	0.00	-7.45
328	2028	89.10	0.00	0.00	-7.45
329	129	92.21	0.00	0.00	-7.45
329	2029	92.21	0.00	0.00	-7.45
330	130	95.32	0.00	0.00	-7.45
330	2030	95.32	0.00	0.00	-7.45
331	131	98.43	0.00	0.00	-7.45
331	2031	98.43	0.00	0.00	-7.45
332	132	101.54	0.00	0.00	-7.45
332	2032	101.54	0.00	0.00	-7.45
333	133	104.65	0.00	0.00	-7.45
333	2033	104.65	0.00	0.00	-7.45
334	134	107.76	0.00	0.00	-3.73
334	2034	107.76	0.00	0.00	-3.73
201	2001	0.00	0.00	-0.03	-3.71
201	1001	0.00	0.00	-0.03	-3.58
202	2002	3.05	0.00	-0.04	-7.39
202	1002	3.05	0.00	-0.04	-7.18

CÁLCULO TENSIONAL

Hipótesis de cálculo:

REDPP

Redistribución de peso propio

[.85; .85]PPVIGAS + [.85; .85]PPLOSA + [-.85;-.85]PPCF1 + [-.85;-.85]PPLF3 + [-.85;-.85]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	-0.03	-7.38
203	1003	6.10	0.00	-0.03	-7.20
204	2004	9.15	0.00	-0.03	-7.37
204	1004	9.15	0.00	-0.03	-7.23
205	2005	12.20	0.00	-0.03	-7.36
205	1005	12.20	0.00	-0.03	-7.25
206	2006	15.25	0.00	-0.02	-7.35
206	1006	15.25	0.00	-0.02	-7.28
207	2007	18.30	0.00	-0.02	-7.35
207	1007	18.30	0.00	-0.02	-7.29
208	2008	21.35	0.00	-0.01	-7.35
208	1008	21.35	0.00	-0.01	-7.30
209	2009	24.40	0.00	-0.01	-6.89
209	1009	24.40	0.00	-0.01	-6.83
210	2010	27.45	0.00	-0.01	-7.06
210	1010	27.45	0.00	-0.01	-7.00
211	2011	30.50	0.00	-0.02	-7.22
211	1011	30.50	0.00	-0.02	-7.16
212	2012	33.55	0.00	-0.02	-8.10
212	1012	33.55	0.00	-0.02	-8.02
213	2013	37.19	0.00	-0.02	-8.65
213	1013	37.19	0.00	-0.02	-8.58
214	2014	40.82	0.00	-0.02	-8.48
214	1014	40.82	0.00	-0.02	-8.42
215	2015	44.46	0.00	-0.01	-8.31
215	1015	44.46	0.00	-0.01	-8.26
216	2016	48.10	0.00	-0.01	-8.82
216	1016	48.10	0.00	-0.01	-8.78
217	2017	51.73	0.00	-0.01	-8.82
217	1017	51.73	0.00	-0.01	-8.79
218	2018	55.37	0.00	-0.01	-8.82
218	1018	55.37	0.00	-0.01	-8.81
219	2019	59.01	0.00	0.00	-8.83
219	1019	59.01	0.00	0.00	-8.81
220	2020	62.64	0.00	0.00	-8.33
220	1020	62.64	0.00	0.00	-8.32
221	2021	66.28	0.00	0.00	-8.51
221	1021	66.28	0.00	0.00	-8.50
222	2022	69.91	0.00	0.00	-8.69
222	1022	69.91	0.00	0.00	-8.68
223	2023	73.55	0.00	0.00	-8.14
223	1023	73.55	0.00	0.00	-8.13
224	2024	76.66	0.00	0.00	-7.28
224	1024	76.66	0.00	0.00	-7.27
225	2025	79.77	0.00	0.00	-7.11
225	1025	79.77	0.00	0.00	-7.11
226	2026	82.88	0.00	0.00	-6.94
226	1026	82.88	0.00	0.00	-6.94
227	2027	85.99	0.00	0.00	-7.45
227	1027	85.99	0.00	0.00	-7.45
228	2028	89.10	0.00	0.00	-7.45

CÁLCULO TENSIONAL

Hipótesis de cálculo:

REDPP

Redistribución de peso propio

[.85; .85]PPVIGAS + [.85; .85]PPLOSA + [-.85;-.85]PPCF1 + [-.85;-.85]PPLF3 + [-.85;-.85]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	0.00	-7.45
229	2029	92.21	0.00	0.00	-7.45
229	1029	92.21	0.00	0.00	-7.45
230	2030	95.32	0.00	0.00	-7.45
230	1030	95.32	0.00	0.00	-7.45
231	2031	98.43	0.00	0.00	-7.45
231	1031	98.43	0.00	0.00	-7.45
232	2032	101.54	0.00	0.00	-7.45
232	1032	101.54	0.00	0.00	-7.45
233	2033	104.65	0.00	0.00	-7.45
233	1033	104.65	0.00	0.00	-7.45
234	2034	107.76	0.00	0.00	-3.73
234	1034	107.76	0.00	0.00	-3.73
401	1001	0.00	0.00	-0.03	-3.58
401	1	0.00	0.00	-0.03	-3.56
402	1002	3.05	0.00	-0.04	-7.18
402	2	3.05	0.00	-0.04	-7.15
403	1003	6.10	0.00	-0.03	-7.20
403	3	6.10	0.00	-0.03	-7.17
404	1004	9.15	0.00	-0.03	-7.23
404	4	9.15	0.00	-0.03	-7.20
405	1005	12.20	0.00	-0.03	-7.25
405	5	12.20	0.00	-0.03	-7.23
406	1006	15.25	0.00	-0.02	-7.28
406	6	15.25	0.00	-0.02	-7.26
407	1007	18.30	0.00	-0.02	-7.29
407	7	18.30	0.00	-0.02	-7.28
408	1008	21.35	0.00	-0.01	-7.30
408	8	21.35	0.00	-0.01	-7.29
409	1009	24.40	0.00	-0.01	-6.83
409	9	24.40	0.00	-0.01	-6.83
410	1010	27.45	0.00	-0.02	-7.00
410	10	27.45	0.00	-0.02	-6.99
411	1011	30.50	0.00	-0.02	-7.16
411	11	30.50	0.00	-0.02	-7.14
412	1012	33.55	0.00	-0.02	-8.02
412	12	33.55	0.00	-0.02	-8.01
413	1013	37.19	0.00	-0.02	-8.58
413	13	37.19	0.00	-0.02	-8.56
414	1014	40.82	0.00	-0.02	-8.42
414	14	40.82	0.00	-0.02	-8.41
415	1015	44.46	0.00	-0.01	-8.26
415	15	44.46	0.00	-0.01	-8.25
416	1016	48.10	0.00	-0.01	-8.78
416	16	48.10	0.00	-0.01	-8.77
417	1017	51.73	0.00	-0.01	-8.79
417	17	51.73	0.00	-0.01	-8.79
418	1018	55.37	0.00	-0.01	-8.81
418	18	55.37	0.00	-0.01	-8.80
419	1019	59.01	0.00	0.00	-8.81
419	19	59.01	0.00	0.00	-8.81

CÁLCULO TENSIONAL

Hipótesis de cálculo:
REDPP

Redistribución de peso propio

[.85; .85]PPVIGAS + [.85; .85]PPLOSA + [-.85;-.85]PPCF1 + [-.85;-.85]PPLF3 + [-.85;-.85]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	-8.32
420	20	62.64	0.00	0.00	-8.32
421	1021	66.28	0.00	0.00	-8.50
421	21	66.28	0.00	0.00	-8.50
422	1022	69.91	0.00	0.00	-8.68
422	22	69.91	0.00	0.00	-8.68
423	1023	73.55	0.00	0.00	-8.13
423	23	73.55	0.00	0.00	-8.13
424	1024	76.66	0.00	0.00	-7.27
424	24	76.66	0.00	0.00	-7.27
425	1025	79.77	0.00	0.00	-7.11
425	25	79.77	0.00	0.00	-7.10
426	1026	82.88	0.00	0.00	-6.94
426	26	82.88	0.00	0.00	-6.94
427	1027	85.99	0.00	0.00	-7.45
427	27	85.99	0.00	0.00	-7.45
428	1028	89.10	0.00	0.00	-7.45
428	28	89.10	0.00	0.00	-7.45
429	1029	92.21	0.00	0.00	-7.45
429	29	92.21	0.00	0.00	-7.45
430	1030	95.32	0.00	0.00	-7.45
430	30	95.32	0.00	0.00	-7.45
431	1031	98.43	0.00	0.00	-7.45
431	31	98.43	0.00	0.00	-7.45
432	1032	101.54	0.00	0.00	-7.45
432	32	101.54	0.00	0.00	-7.45
433	1033	104.65	0.00	0.00	-7.45
433	33	104.65	0.00	0.00	-7.45
434	1034	107.76	0.00	0.00	-3.73
434	34	107.76	0.00	0.00	-3.73

CÁLCULO TENSIONAL

Hipótesis de cálculo:
REDPRE

Redistribución hiperestaticos de pretensado

[-.85;-.85]PRETF1I.HIP.To + [-.85;-.85]PRETF1D.HIP.To + [.655; .655]PRETI.HIP.To + [.655; .655]PR

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-49.52	0.00
1	2	3.05	0.00	-49.52	151.03
2	2	3.05	0.00	-49.52	151.03
2	3	6.10	0.00	-49.52	302.08
3	3	6.10	0.00	-49.52	302.08
3	4	9.15	0.00	-49.52	453.10
4	4	9.15	0.00	-49.52	453.11
4	5	12.20	0.00	-49.52	604.15
5	5	12.20	0.00	-49.52	604.14
5	6	15.25	0.00	-49.52	755.18
6	6	15.25	0.00	-49.52	755.17
6	7	18.30	0.00	-49.52	906.21
7	7	18.30	0.00	-49.52	906.20
7	8	21.35	0.00	-49.52	1057.24
8	8	21.35	0.01	-49.52	1057.24
8	9	24.40	0.01	-49.52	1208.26
9	9	24.40	0.00	-49.52	1208.27
9	10	27.45	0.00	-49.52	1359.29
10	10	27.45	0.01	-49.52	1359.28
10	11	30.50	0.01	-49.52	1510.30
11	11	30.50	-0.01	-49.52	1510.30
11	12	33.55	-0.01	-49.52	1661.32
12	10012	33.55	0.00	-1.18	1661.32
12	13	37.19	0.00	-1.18	1665.60
13	13	37.19	0.01	-1.17	1665.59
13	14	40.82	0.01	-1.17	1669.87
14	14	40.82	0.00	-1.18	1669.88
14	15	44.46	0.00	-1.18	1674.16
15	15	44.46	0.01	-1.18	1674.17
15	16	48.10	0.01	-1.18	1678.44
16	16	48.10	0.00	-1.17	1678.44
16	17	51.73	0.00	-1.17	1682.72
17	17	51.73	0.00	-1.18	1682.72
17	18	55.37	0.00	-1.18	1687.01
18	18	55.37	0.00	-1.18	1687.01
18	19	59.01	0.00	-1.18	1691.29
19	19	59.01	0.00	-1.18	1691.28
19	20	62.64	0.00	-1.18	1695.58
20	20	62.64	0.01	-1.18	1695.57
20	21	66.28	0.01	-1.18	1699.88
21	21	66.28	0.00	-1.18	1699.88
21	22	69.91	0.00	-1.18	1704.17
22	22	69.91	0.00	-1.17	1704.17
22	23	73.55	0.00	-1.17	1708.47
23	10023	73.55	0.00	49.94	1708.46
23	24	76.66	0.00	49.94	1553.14
24	24	76.66	0.00	49.94	1553.15
24	25	79.77	0.00	49.94	1397.83
25	25	79.77	0.00	49.94	1397.83
25	26	82.88	0.00	49.94	1242.51
26	26	82.88	0.00	49.94	1242.50

CÁLCULO TENSIONAL

Hipótesis de cálculo:

REDPRE

Redistribución hiperestaticos de pretensado

[-.85;-.85]PRETF1I.HIP.To + [-.85;-.85]PRETF1D.HIP.To + [.655; .655]PRETI.HIP.To + [.655; .655]PR

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	49.94	1087.19
27	27	85.99	0.00	49.94	1087.20
27	28	89.10	0.00	49.94	931.88
28	28	89.10	0.00	49.94	931.88
28	29	92.21	0.00	49.94	776.57
29	29	92.21	0.00	49.94	776.57
29	30	95.32	0.00	49.94	621.26
30	30	95.32	0.00	49.95	621.26
30	31	98.43	0.00	49.95	465.94
31	31	98.43	0.00	49.95	465.94
31	32	101.54	0.00	49.95	310.63
32	32	101.54	0.00	49.94	310.63
32	33	104.65	0.00	49.94	155.32
33	33	104.65	0.00	49.95	155.32
33	34	107.76	0.00	49.95	0.00
101	101	0.00	0.00	-49.52	0.00
101	102	3.05	0.00	-49.52	151.03
102	102	3.05	0.00	-49.52	151.03
102	103	6.10	0.00	-49.52	302.07
103	103	6.10	0.00	-49.52	302.07
103	104	9.15	0.00	-49.52	453.11
104	104	9.15	0.00	-49.52	453.12
104	105	12.20	0.00	-49.52	604.16
105	105	12.20	0.00	-49.52	604.15
105	106	15.25	0.00	-49.52	755.18
106	106	15.25	0.00	-49.52	755.17
106	107	18.30	0.00	-49.52	906.21
107	107	18.30	0.00	-49.52	906.20
107	108	21.35	0.00	-49.52	1057.24
108	108	21.35	0.01	-49.52	1057.24
108	109	24.40	0.01	-49.52	1208.26
109	109	24.40	0.00	-49.52	1208.26
109	110	27.45	0.00	-49.52	1359.29
110	110	27.45	0.01	-49.52	1359.29
110	111	30.50	0.01	-49.52	1510.30
111	111	30.50	0.00	-49.52	1510.30
111	112	33.55	-0.01	-49.52	1661.32
112	10112	33.55	0.00	-1.18	1661.33
112	113	37.19	0.00	-1.18	1665.60
113	113	37.19	0.01	-1.17	1665.60
113	114	40.82	0.01	-1.17	1669.88
114	114	40.82	0.00	-1.18	1669.88
114	115	44.46	0.00	-1.18	1674.16
115	115	44.46	0.01	-1.18	1674.17
115	116	48.10	0.01	-1.18	1678.44
116	116	48.10	0.00	-1.17	1678.44
116	117	51.73	0.00	-1.17	1682.73
117	117	51.73	0.00	-1.18	1682.73
117	118	55.37	0.00	-1.18	1687.01
118	118	55.37	0.00	-1.18	1687.01
118	119	59.01	0.00	-1.18	1691.28

CÁLCULO TENSIONAL

Hipótesis de cálculo:
REDPRE

Redistribución hiperestaticos de pretensado

[-.85;-.85]PRETF1I.HIP.To + [-.85;-.85]PRETF1D.HIP.To + [.655; .655]PRETI.HIP.To + [.655; .655]PR

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	-1.18	1691.28
119	120	62.64	0.00	-1.18	1695.58
120	120	62.64	0.01	-1.18	1695.58
120	121	66.28	0.01	-1.18	1699.88
121	121	66.28	0.00	-1.18	1699.88
121	122	69.91	0.00	-1.18	1704.17
122	122	69.91	0.00	-1.17	1704.17
122	123	73.55	0.00	-1.17	1708.48
123	10123	73.55	0.00	49.94	1708.47
123	124	76.66	0.00	49.94	1553.14
124	124	76.66	0.00	49.94	1553.15
124	125	79.77	0.00	49.94	1397.83
125	125	79.77	0.00	49.94	1397.83
125	126	82.88	0.00	49.94	1242.51
126	126	82.88	0.00	49.94	1242.51
126	127	85.99	0.00	49.94	1087.19
127	127	85.99	0.00	49.94	1087.21
127	128	89.10	0.00	49.94	931.89
128	128	89.10	0.00	49.95	931.88
128	129	92.21	0.00	49.95	776.57
129	129	92.21	0.00	49.94	776.57
129	130	95.32	0.00	49.94	621.26
130	130	95.32	0.00	49.95	621.25
130	131	98.43	0.00	49.95	465.94
131	131	98.43	0.00	49.95	465.94
131	132	101.54	0.00	49.95	310.63
132	132	101.54	0.00	49.94	310.62
132	133	104.65	0.00	49.94	155.32
133	133	104.65	0.00	49.95	155.32
133	134	107.76	0.00	49.95	0.00
301	101	0.00	0.00	0.00	0.00
301	2001	0.00	0.00	0.00	0.00
302	102	3.05	0.00	0.00	0.00
302	2002	3.05	0.00	0.00	0.00
303	103	6.10	0.00	0.00	0.00
303	2003	6.10	0.00	0.00	0.00
304	104	9.15	0.00	0.00	0.00
304	2004	9.15	0.00	0.00	0.00
305	105	12.20	0.00	0.00	0.00
305	2005	12.20	0.00	0.00	0.00
306	106	15.25	0.00	0.00	0.00
306	2006	15.25	0.00	0.00	0.00
307	107	18.30	0.00	0.00	0.01
307	2007	18.30	0.00	0.00	0.00
308	108	21.35	0.00	0.00	0.00
308	2008	21.35	0.00	0.00	0.00
309	109	24.40	0.00	0.01	0.00
309	2009	24.40	0.00	0.01	0.00
310	110	27.45	0.00	0.00	0.00
310	2010	27.45	0.00	0.00	0.00
311	111	30.50	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
REDPRE

Redistribución hiperestaticos de pretensado

[-.85;-.85]PRETF1I.HIP.To + [-.85;-.85]PRETF1D.HIP.To + [.655; .655]PRETI.HIP.To + [.655; .655]PR

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
311	2011	30.50	0.00	0.00	0.00
312	112	33.55	0.00	0.00	0.00
312	2012	33.55	0.00	0.00	0.00
313	113	37.19	0.00	0.00	0.00
313	2013	37.19	0.00	0.00	0.00
314	114	40.82	0.00	0.00	0.00
314	2014	40.82	0.00	0.00	0.00
315	115	44.46	0.00	0.00	0.00
315	2015	44.46	0.00	0.00	0.00
316	116	48.10	0.00	0.00	0.00
316	2016	48.10	0.00	0.00	0.00
317	117	51.73	0.00	-0.01	0.00
317	2017	51.73	0.00	-0.01	0.00
318	118	55.37	0.00	0.00	0.00
318	2018	55.37	0.00	0.00	0.00
319	119	59.01	0.00	0.01	-0.01
319	2019	59.01	0.00	0.01	0.00
320	120	62.64	0.00	0.00	0.00
320	2020	62.64	0.00	0.00	0.00
321	121	66.28	0.00	0.00	0.00
321	2021	66.28	0.00	0.00	0.00
322	122	69.91	0.00	0.00	0.00
322	2022	69.91	0.00	0.00	0.00
323	123	73.55	0.00	0.00	0.00
323	2023	73.55	0.00	0.00	0.00
324	124	76.66	0.00	0.00	0.00
324	2024	76.66	0.00	0.00	0.00
325	125	79.77	0.00	0.00	0.00
325	2025	79.77	0.00	0.00	0.00
326	126	82.88	0.00	0.00	-0.01
326	2026	82.88	0.00	0.00	0.00
327	127	85.99	0.00	0.00	0.00
327	2027	85.99	0.00	0.00	0.00
328	128	89.10	0.00	0.00	0.00
328	2028	89.10	0.00	0.00	0.00
329	129	92.21	0.00	0.00	0.00
329	2029	92.21	0.00	0.00	0.00
330	130	95.32	0.00	0.00	0.00
330	2030	95.32	0.00	0.00	0.00
331	131	98.43	0.00	0.00	0.00
331	2031	98.43	0.00	0.00	0.00
332	132	101.54	0.00	0.00	0.00
332	2032	101.54	0.00	0.00	0.00
333	133	104.65	0.00	0.00	0.00
333	2033	104.65	0.00	0.00	0.00
334	134	107.76	0.00	0.00	0.00
334	2034	107.76	0.00	0.00	0.00
201	2001	0.00	0.00	0.00	0.00
201	1001	0.00	0.00	0.00	0.00
202	2002	3.05	0.00	0.00	0.00
202	1002	3.05	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
REDPRE

Redistribución hiperestaticos de pretensado

[-.85;-.85]PRETF1I.HIP.To + [-.85;-.85]PRETF1D.HIP.To + [.655; .655]PRETI.HIP.To + [.655; .655]PR

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
203	2003	6.10	0.00	0.00	0.00
203	1003	6.10	0.00	0.00	0.00
204	2004	9.15	0.00	0.00	0.00
204	1004	9.15	0.00	0.00	0.00
205	2005	12.20	0.00	0.00	0.00
205	1005	12.20	0.00	0.00	0.00
206	2006	15.25	0.00	0.00	0.00
206	1006	15.25	0.00	0.00	0.00
207	2007	18.30	0.00	0.00	0.00
207	1007	18.30	0.00	0.00	0.00
208	2008	21.35	0.00	0.00	0.00
208	1008	21.35	0.00	0.00	0.00
209	2009	24.40	0.00	0.00	0.00
209	1009	24.40	0.00	0.00	0.00
210	2010	27.45	0.00	0.00	0.00
210	1010	27.45	0.00	0.00	0.00
211	2011	30.50	0.00	0.00	0.00
211	1011	30.50	0.00	0.00	0.00
212	2012	33.55	0.00	0.00	0.00
212	1012	33.55	0.00	0.00	0.00
213	2013	37.19	0.00	0.00	0.00
213	1013	37.19	0.00	0.00	0.00
214	2014	40.82	0.00	0.00	0.00
214	1014	40.82	0.00	0.00	0.00
215	2015	44.46	0.00	0.00	0.00
215	1015	44.46	0.00	0.00	0.00
216	2016	48.10	0.00	0.00	0.00
216	1016	48.10	0.00	0.00	0.00
217	2017	51.73	0.00	0.00	0.00
217	1017	51.73	0.00	0.00	0.00
218	2018	55.37	0.00	0.00	0.00
218	1018	55.37	0.00	0.00	0.00
219	2019	59.01	0.00	0.00	0.00
219	1019	59.01	0.00	0.00	0.00
220	2020	62.64	0.00	0.00	0.00
220	1020	62.64	0.00	0.00	0.00
221	2021	66.28	0.00	0.00	0.00
221	1021	66.28	0.00	0.00	0.00
222	2022	69.91	0.00	0.00	0.00
222	1022	69.91	0.00	0.00	0.00
223	2023	73.55	0.00	0.00	0.00
223	1023	73.55	0.00	0.00	0.00
224	2024	76.66	0.00	0.00	0.00
224	1024	76.66	0.00	0.00	0.00
225	2025	79.77	0.00	0.00	0.00
225	1025	79.77	0.00	0.00	0.00
226	2026	82.88	0.00	0.00	0.00
226	1026	82.88	0.00	0.00	0.00
227	2027	85.99	0.00	0.00	0.00
227	1027	85.99	0.00	0.00	0.00
228	2028	89.10	0.00	0.00	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
REDPRE

Redistribución hiperestaticos de pretensado

[-.85;-.85]PRETF1I.HIP.To + [-.85;-.85]PRETF1D.HIP.To + [.655; .655]PRETI.HIP.To + [.655; .655]PR

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
228	1028	89.10	0.00	0.00	0.00
229	2029	92.21	0.00	0.00	0.00
229	1029	92.21	0.00	0.00	0.00
230	2030	95.32	0.00	0.00	0.00
230	1030	95.32	0.00	0.00	0.00
231	2031	98.43	0.00	0.00	0.00
231	1031	98.43	0.00	0.00	0.00
232	2032	101.54	0.00	0.00	0.00
232	1032	101.54	0.00	0.00	0.00
233	2033	104.65	0.00	0.00	0.00
233	1033	104.65	0.00	0.00	0.00
234	2034	107.76	0.00	0.00	0.00
234	1034	107.76	0.00	0.00	0.00
401	1001	0.00	0.00	0.00	0.00
401	1	0.00	0.00	0.00	0.00
402	1002	3.05	0.00	0.00	0.00
402	2	3.05	0.00	0.00	0.00
403	1003	6.10	0.00	0.00	0.00
403	3	6.10	0.00	0.00	0.00
404	1004	9.15	0.00	0.00	0.00
404	4	9.15	0.00	0.00	0.00
405	1005	12.20	0.00	0.00	0.00
405	5	12.20	0.00	0.00	0.00
406	1006	15.25	0.00	0.00	0.00
406	6	15.25	0.00	0.00	0.00
407	1007	18.30	0.00	0.00	0.00
407	7	18.30	0.00	0.00	-0.01
408	1008	21.35	0.00	0.00	0.00
408	8	21.35	0.00	0.00	0.00
409	1009	24.40	0.00	-0.01	0.00
409	9	24.40	0.00	-0.01	0.00
410	1010	27.45	0.00	0.00	0.00
410	10	27.45	0.00	0.00	0.00
411	1011	30.50	0.00	0.00	0.00
411	11	30.50	0.00	0.00	0.00
412	1012	33.55	0.00	0.00	0.00
412	12	33.55	0.00	0.00	0.00
413	1013	37.19	0.00	0.00	0.00
413	13	37.19	0.00	0.00	0.00
414	1014	40.82	0.00	0.00	0.00
414	14	40.82	0.00	0.00	0.00
415	1015	44.46	0.00	0.01	0.00
415	15	44.46	0.00	0.01	0.00
416	1016	48.10	0.00	0.00	0.00
416	16	48.10	0.00	0.00	0.00
417	1017	51.73	0.00	0.00	0.00
417	17	51.73	0.00	0.00	0.00
418	1018	55.37	0.00	0.00	0.00
418	18	55.37	0.00	0.00	0.00
419	1019	59.01	0.00	-0.01	0.00
419	19	59.01	0.00	-0.01	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

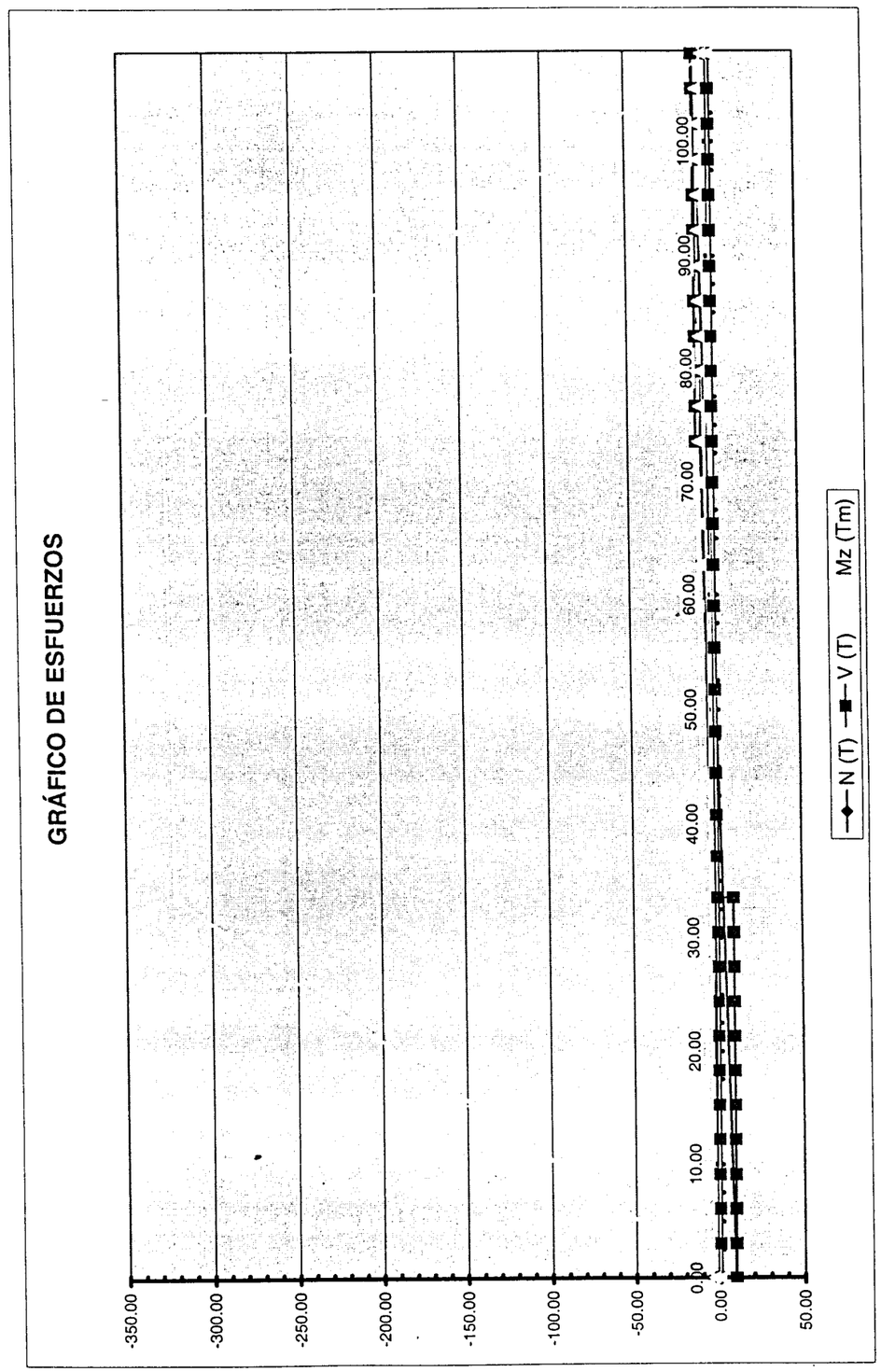
REDPRE

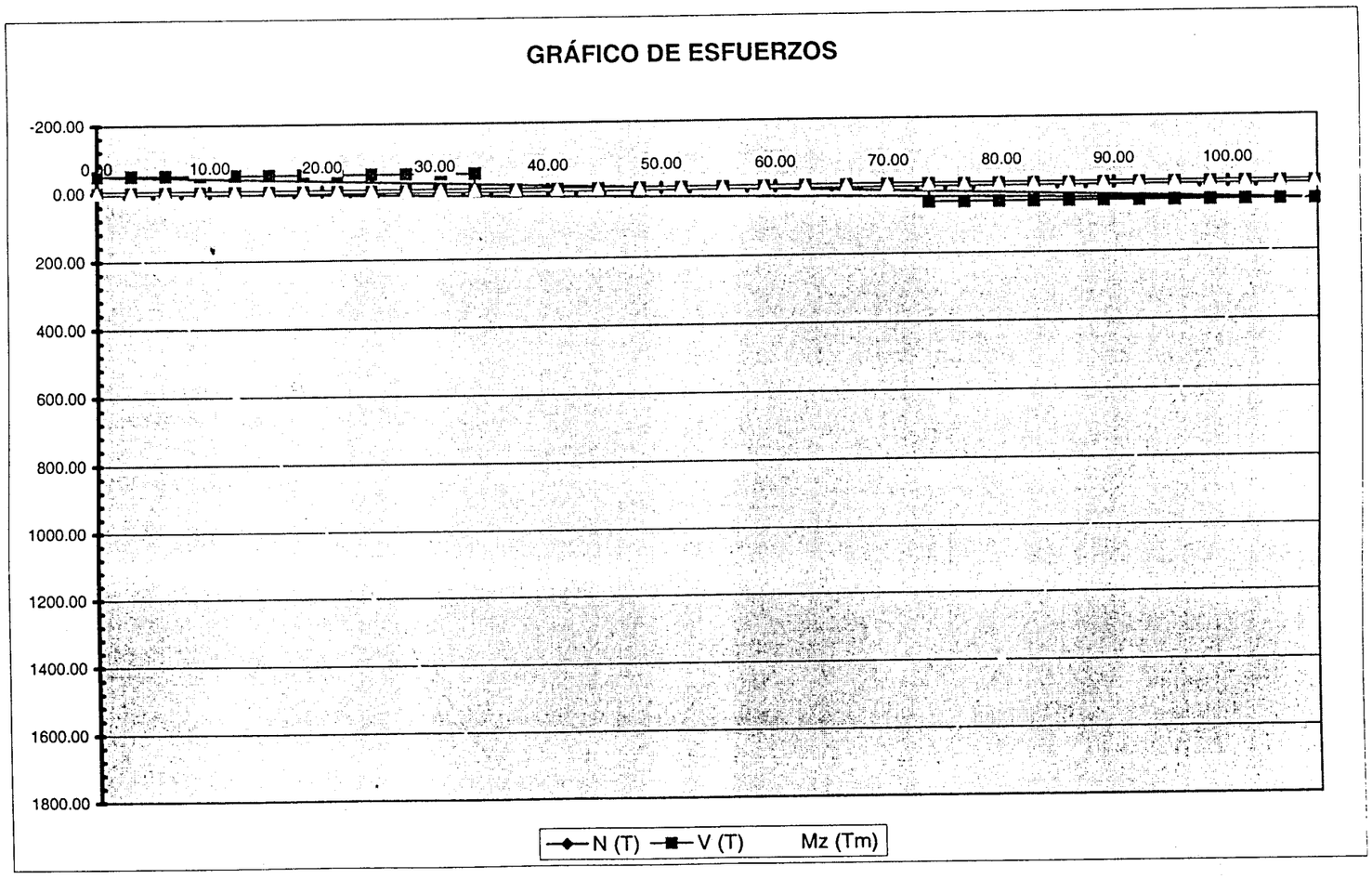
Redistribución hiperestaticos de pretensado

[-.85;-.85]PRETF1I.HIP.To + [-.85;-.85]PRETF1D.HIP.To + [.655; .655]PRETI.HIP.To + [.655; .655]PR

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
420	1020	62.64	0.00	0.00	0.00
420	20	62.64	0.00	0.00	0.00
421	1021	66.28	0.00	0.00	0.00
421	21	66.28	0.00	0.00	0.00
422	1022	69.91	0.00	0.00	0.00
422	22	69.91	0.00	0.00	0.00
423	1023	73.55	0.00	0.00	0.00
423	23	73.55	0.00	0.00	0.00
424	1024	76.66	0.00	0.00	0.00
424	24	76.66	0.00	0.00	0.00
425	1025	79.77	0.00	0.00	0.00
425	25	79.77	0.00	0.00	0.00
426	1026	82.88	0.00	0.00	0.00
426	26	82.88	0.00	0.00	-0.01
427	1027	85.99	0.00	0.00	0.00
427	27	85.99	0.00	0.00	0.00
428	1028	89.10	0.00	-0.01	0.00
428	28	89.10	0.00	-0.01	0.00
429	1029	92.21	0.00	0.00	0.00
429	29	92.21	0.00	0.00	0.00
430	1030	95.32	0.00	0.00	0.00
430	30	95.32	0.00	0.00	0.00
431	1031	98.43	0.00	0.00	0.00
431	31	98.43	0.00	0.00	0.00
432	1032	101.54	0.00	0.00	0.00
432	32	101.54	0.00	0.00	0.00
433	1033	104.65	0.00	0.00	0.00
433	33	104.65	0.00	0.00	0.00
434	1034	107.76	0.00	0.00	0.00
434	34	107.76	0.00	0.00	0.00





PACADAR	ESTUDIO:	OBRA:	FECHA:	
			HOJA:	

ESTIMACION DE PERDIDAS DE PRETENSADO

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

2.2.3.5 COMPROBACIÓN EN ESTADO LÍMITE DE SERVICIO

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

A) CONTROL TENSIONAL > DEF. DE HIPÓTESIS

El presente punto se compone de los siguientes subapartados

1) Definición de hipótesis de combinación en servicio y factores de combinación
2) Control tensional
   - En fases constructivas
   - A tiempo ∞
   - A tiempo infinito
3) Comprobación de secciones críticas mediante el programa "CSEC"
4) Estudio de redistribuciones a nivel de sección de los tensores

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

1.1) DEFINICIÓN DE HIPÓTESIS DE COMBINACIÓN EN SERVICIO Y FICHEROS DE COMBINACIÓN

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

A continuación se presentan los ficheros de combinaciones empleados en el cálculo torsional con el programa DINTEL

"TCONST": en él se recogen las hipótesis correspondientes a la etapa constructiva

"TCIERRE": en él se recogen las hipótesis de estructura terminada a tiempo ϕ

"TINF": en este fichero se localizan las hipótesis de estructura terminada a tiempo infinito

"SPRET" En este fichero se recogen los esfuerzos de redistribución que

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

"S PRE 1" ESTADOS DE REDISTRIBUCIÓN

Se tienen 2 combinaciones de esfuerzos

REDISTRIBUCIONES = 0&S ESF ESTR IDEAL +

0'15 ESF PASES

REDPP = REDISTRIBUCIÓN DE PESO PROPIO

REDPP: 0&S × (PPVIGAS + PPLOSA) -

- 0&S × (PPCF1 + PPLF2 + PPLF3)

REDPRE = REDISTRIBUCIÓN DE PRETENSADO

REDPRE = 0&S × (PRETI.HIP + PRETD.HIP +

+ POSTI.HIP + POSTD.HIP)

- f_{PRET} (PRETI.HIP + PRETD.HIP) -
- f_{POST} (POSTI.HIP + POSTD.HIP) -
- 0'15 (PRETF1I.HIP + PRETF1D.HIP +

+ PRETF3I.HIP + PRETF3D.HIP)

f_{PRET} = 0'95 = Pérdidas de pretensado de taller

f_{POST} = 0'15 = pérdidas de postesado en obra

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7
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"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp2.coe"
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"Mz"
"+"
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"PPLF2","(PESOLOSAFASE2)",-.85,-.85,"P",0,"",""
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"REDPRE","Redistribución hiperestaticos de pretensado"
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"PRETF3D.HIP.To","(PretensadoHiperestático eje Dcho fase3)",-.85,-.85,"P",0,"",""
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PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

"+CONST" HIPÓTESIS DE FASES CONSTRUCTIVAS

"CONSTA. FASE 1"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1

"CONSTB. FASE 2"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2.

"CONSTC. FASE 2"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2 +

+ [0'00; 1'00] GRAD

"CONSTD. FASE 3"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2 +

+ [0'90; 1'10] PRETF3

"CONSTE FASE 3"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2+

+ [0'90; 1'10] PRETF3 + [1'00; 1'00] PPLF3

"CONSTF. FASE 3"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2 +

+ [0'90; 1'10] PRETF3 + [1'00; 1'00] PPLF3 + [0; 1'00] GRAD

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8
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"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp1.coe"
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"Mz"
"+"
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"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"ESFUERZOS"
"CONST1A.F1.T0.MZ-","Construcción sin gradiente en fase constructiva 1 HIPOTESIS A"
"Mz"
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"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"ESFUERZOS"
"CONST1B.F2.T0.MZ+","Construcción sin gradiente en fase constructiva 2 HIPOTESIS B"
"Mz"
"+"
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6
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"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
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"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
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"ESFUERZOS"
"CONST1B.F2.T0.MZ-","Construcción sin gradiente en fase constructiva 2 HIPOTESIS B"
"Mz"
"-"
0
6
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"ESFUERZOS"
"CONST1C.F2.T0.MZ+","Construcción CON gradiente en fase constructiva 2 HIPOTESIS C"
"Mz"
"+"
0
7
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"GRADF2","(GRADIENTE FASE 2)",0,1,"P",0,"","CTESF2.C0"
"ESFUERZOS"
"CONST1D.F3.T0.MZ+","Construcción CON gradiente en fase constructiva 3 HIPOTESIS D"
"Mz"
"+"
0
11
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"GRADF3","(GRADIENTE FASE 3)",0,1,"P",0,"","CTESF3.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"ESFUERZOS"
"CONST1D.F3.T0.MZ-","Construcción CON gradiente en fase constructiva 3 HIPOTESIS D"
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"Mz"
"-"
0
11
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"GRADF3","(GRADIENTE FASE 3)",0,1,"P",0,"","CTESF3.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"ESFUERZOS"
"CONST1E.F3.T0.MZ+","Construcción SIN gradiente en fase constructiva 3 HIPOTESIS E"
"Mz"
"+"
0
11
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"ESFUERZOS"
"CONST1E.F3.T0.MZ-","Construcción SIN gradiente en fase constructiva 3 HIPOTESIS E"
"Mz"
"-"
0
11
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"ESFUERZOS"
"CONST1E.F3.T0.MZ+","Construcción CON gradiente en fase constructiva 3 HIPOTESIS E"
"Mz"
"+"
0
12
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"GRADF3","(GRADIENTE FASE 3)",0,1,"P",0,"","CTESF3.C0"
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PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

"+CIERRE" HIPÓTESIS A TIEMPO ∞

Estudia las siguientes hipótesis combinadas

"RACIO"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2 +

+ [0'90; 1'10] PRETF3 + [1'00; 1'00] PPLF3 + [0; 1'00] GRAD

"CUASIPERMANENTE"

En los combinadores siguientes se introducen los trenes; estos se multiplican por 1'08 para recoger el efecto debido a que los trenes se han obtenido con el viento hacia el inferior

Adicionalmente los trenes se deberían multiplicar por 1'20 para considerar el efecto dinámico (coeficiente de impacto)

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2 +

+ [0'90; 1'10] PRETF3 + [1'00; 1'00] PPLF3 +

+ [0'3; 1'30] CMUERTO + [0; 0'20] GRAD + [0; 0'20] SC PASEOS

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

"FRECUENTES; TREN DOMINANTE"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2 +
+ [0'90; 1'10] PRETF3 + [1'00; 1'00] PPLF3
+ [0'7; 1'30] CMUERTA + [0'0; 0'50] GRAD + [0; 0'50] SC PASEOS +
+ [0; 0'80] >108 >120 IPF-75B

"INFRECUENTES; TREN DOMINANTE"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2 +
+ [0'90; 1'10] PRETF3 + [1'00; 1'00] PPLF3 +
+ [0'7; 1'30] CMUERTA + [0'0; 0'50] GRAD + [0; 1'0] SC PASEOS +
+ [0; 1'0] (1'08 x 120) IPF-75B

"INFRECUENTES; GRADIENTE DOMINANTE"

[1'00; 1'00] PPCF1 + [0'95; 1'05] PRETF1 + [1'00; 1'00] PPLF2 +
+ [0'90; 1'10] PRETF3 + [1'00; 1'00] PPLF3 +
+ [0'70; 1'30] CMUERTA + [0'0; 1'0] GRAD * [0'; 0'50] SC PASEO +
+ [0; 0'50] (1'08 x 120) IPF-75B

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9
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret1.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp1.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp2.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret3.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp3.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp4.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret4.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_comb","spret.esf"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_comb","IPF75.esf"
13
"ESFUERZOS"
"VACIO1.T0.MZ+","PP sin gradiente"
"MZ"
"+"
0
11
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"ESFUERZOS"
"VACIO1.T0.MZ-","PP sin gradiente"
"MZ"
"-"
0
11
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"ESFUERZOS"
"VACIO2.T0.MZ+","PP CON gradiente"
"MZ"
"+"
0
12
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"GRAD","(GRADIENTE)",0,1,"P",0,"","CTESF4.C0"
"ESFUERZOS"
"CUASIPERM1.T0.MZ+"," SIN GRADIENTE"
"MZ"
"+"
0
17
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C0"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogenérico.MZ+)",0,.2,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogenérico.MZ+)",0,.2,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.26,"P",0,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,.26,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,0,"P",0,"","CTESF4.C0"
"ESFUERZOS"
"CUASIPERM1.T0.MZ-"," SIN GRADIENTE"
```

"+"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.5,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.5,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"FRECUENTES1.TO.MZ+","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.2,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"CUASIFREM2.TO.MZ+","CON GRADIENTE"
"MZ"
"-"
0
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"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.2,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"FRECUENTES1.TO.MZ+","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.5,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.5,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES2.TO.MZ+","TREN DOMINANTE CON GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES2.TO.MZ-","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"-"
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17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-","(EnvolventedetrendecargasplanogenéricO.MZ-)",".0,1.3,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(EnvolventedetrendecargasplanogenéricO.MZ-)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BI.MZ-","(EnvolventedetrendecargasplanogenricO.MZ-)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BD.MZ-","(EnvolventedetrendecargasplanogenricO.MZ-)",".0,1.3,"p",0,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES2.TO.MZ-","TREN DOMINANTE SIN GRADIENTE"
"MZ"
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"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-","(EnvolventedetrendecargasplanogenéricO.MZ-)",".0,.5,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(EnvolventedetrendecargasplanogenéricO.MZ-)",".0,.5,"p",0,"","CTESF4.CO"
"IPF75BI.MZ-","(EnvolventedetrendecargasplanogenricO.MZ-)",".0,1.03,"p",1,"","CTESF4.CO"
"IPF75BD.MZ-","(EnvolventedetrendecargasplanogenricO.MZ-)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES1.TO.MZ-","TREN DOMINANTE SIN GRADIENTE"
"MZ"
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17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES2.TO.MZ+","TREN DOMINANTE CON GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES2.TO.MZ-","TREN DOMINANTE CON GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-","(EnvolventedetrendecargasplanogenéricO.MZ-)",".0,1.3,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(EnvolventedetrendecargasplanogenéricO.MZ-)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BI.MZ-","(EnvolventedetrendecargasplanogenricO.MZ-)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BD.MZ-","(EnvolventedetrendecargasplanogenricO.MZ-)",".0,1.3,"p",0,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES1.TO.MZ-","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"FRECUENTES1.TO.MZ+","TREN DOMINANTE SIN GRADIENTE"
"MZ"
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0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.2,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"CUASIFREM2.TO.MZ+","CON GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.2,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,.26,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"FRECUENTES1.TO.MZ-","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-","(EnvolventedetrendecargasplanogenéricO.MZ-)",".0,.5,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(EnvolventedetrendecargasplanogenéricO.MZ-)",".0,.5,"p",0,"","CTESF4.CO"
"IPF75BI.MZ-","(EnvolventedetrendecargasplanogenricO.MZ-)",".0,1.03,"p",1,"","CTESF4.CO"
"IPF75BD.MZ-","(EnvolventedetrendecargasplanogenricO.MZ-)",".0,1.03,"p",1,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES1.TO.MZ-","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",".68,1,"p",0,"","CTESF4.CO"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(EnvolventedetrendecargasplanogenéricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BI.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"IPF75BD.MZ+","(EnvolventedetrendecargasplanogenricO.MZ+)",".0,1.3,"p",0,"","CTESF4.CO"
"GRAD","(GRADIENTE)",".0,0,"p",0,"","CTESF4.CO"
"ESFUERZOS"
"INFRECUENTES2.TO.MZ+","TREN DOMINANTE CON GRADIENTE"
"MZ"
"-"
0
17
"ppCF1","(pESODELCAJÓNENFASE1)","1,1,"p",0,"","CTESF1.CO"
"ppLF3","(pESOPROPIODELAFASE3)","1,1,"p",0,"","CTESF3.CO"
"ppLF2","(pESOPROPIODELAFASE2)","1,1,"p",0,"","CTESF2.CO"
"pRETFI1.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.ISO.TO","(pretensadoIsostático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFI1D.HIP.TO","(pretensadoHiperestático(t=0))",".95,1.05,"p",0,"","CTESF1.CO"
"pRETFJ1.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ1.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.ISO.TO","(pretensadoIsostático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"pRETFJ3D.HIP.TO","(pretensadoHiperestático(t=0))",".9,1.1,"p",0,"","CTESF3.CO"
"CMmax","(CARGAMUERTAMAXIMA)",

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"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C0"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogenérico.MZ+)",0,1,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogenérico.MZ+)",0,1,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,1.3,"P",0,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.3,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,.6,"P",0,"","CTESF4.C0"
"ESFUERZOS"
"INFRECUENTES3.T0.MZ+","GRADIENTE DOMINATE"
"MZ"
"+"
0
17
"PPCF1","(PESODELCAJÓNENFASE1)",1,1,"P",0,"","CTESF1.C0"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C0"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C0"
"PRETF1I.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1I.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.ISO.To","(PretensadoIsostático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF1D.HIP.To","(PretensadoHiperestático(t=0))",.95,1.05,"P",0,"","CTESF1.C0"
"PRETF3I.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3I.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.ISO.To","(PretensadoIsostático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"PRETF3D.HIP.To","(PretensadoHiperestático(t=0))",.9,1.1,"P",0,"","CTESF3.C0"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C0"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogenérico.MZ+)",0,.8,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogenérico.MZ+)",0,.8,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,1.03,"P",0,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.03,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,1,"P",0,"","CTESF4.C0"
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PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

"INF" HIPÓTESIS A TIEMPO INFINITO

Las hipótesis de cálculo a tiempo infinito son las mismas que las realizadas a tiempo ϕ si bien se deberán añadir las correspondientes redistribuciones de pos pospo; pretensado parcheadas por el coeficiente 1 También se deberán añadir los estados correspondientes a las pérdidas de pretensado

PERDIDAS PRET TALLER := 0'195 * PRETF1

PERDIDAS POST- LOSA : 0'15 * PRETF3

También se deberá tener en cuenta las constantes correspondientes a cada estado que serán de tipo (0) para las sobrecargas, de tipo (2) para las pérdidas y redistribuciones y del tipo (3). para el resto de cargas permanentes

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9
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret1.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp1.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp2.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret3.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp3.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp4.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret4.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_comb","spret.esf"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_comb","IPF75.esf"
10
"ESFUERZOS"
"CUASIPERM1.Tinf.MZ+","_SIN GRADIENTE"
"MZ"
"+"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.2,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.2,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,.26,"P",0,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,.26,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,0,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"CUASIPERM1.Tinf.MZ-","_SIN GRADIENTE"
"MZ"
"-"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-","(Envolventedetrendecargasplanogen,rico.MZ-)",0,.2,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(Envolventedetrendecargasplanogen,rico.MZ-)",0,.2,"P",0,"","CTESF4.C0"
"IPF75BI.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,.26,"P",0,"","CTESF4.C0"
"IPF75BD.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,.26,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,0,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"CUASIPERM2.Tinf.MZ+","_CON GRADIENTE"
"MZ"
"+"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.2,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.2,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,.26,"P",0,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,.26,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,0,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"FRECUENTES1.Tinf.MZ+","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"+"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.5,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.5,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.03,"P",1,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.03,"P",1,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,0,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"FRECUENTES1.Tinf.MZ-","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"-"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-","(Envolventedetrendecargasplanogen,rico.MZ-)",0,.5,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(Envolventedetrendecargasplanogen,rico.MZ-)",0,.5,"P",0,"","CTESF4.C0"
"IPF75BI.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,1.03,"P",1,"","CTESF4.C0"
"IPF75BD.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,1.03,"P",1,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,0,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"FRECUENTES2.Tinf.MZ+","TREN DOMINANTE CON GRADIENTE"
"MZ"
"+"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.5,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.5,"P",0,"","CTESF4.C0"
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"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.03,"P",1,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.03,"P",1,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,.5,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"INFRECUENTES1.Tinf.MZ+","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"+"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,1,"P",0,"","CTESF4.C0" —
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,1,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.3,"P",0,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.3,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,0,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"INFRECUENTES1.Tinf.MZ-","TREN DOMINANTE SIN GRADIENTE"
"MZ"
"-"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ-","(Envolventedetrendecargasplanogen,rico.MZ-)",0,1,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(Envolventedetrendecargasplanogen,rico.MZ-)",0,1,"P",0,"","CTESF4.C0"
"IPF75BI.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,1.3,"P",0,"","CTESF4.C0"
"IPF75BD.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,1.3,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,0,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"INFRECUENTES2.Tinf.MZ+","TREN DOMINANTE CON GRADIENTE"
"MZ"
"+"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.8,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.8,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.04,"P",0,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.04,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,1,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.3,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,.6,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"ESFUERZOS"
"INFRECUENTES3.Tinf.MZ+","DOMINANTE CON GRADIENTE"
"MZ"
"+"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",1,1,"P",0,"","CTESF1.C1"
"PPLF2","(PESOPROPIODELAFASE2)",1,1,"P",0,"","CTESF2.C1"
"PPLF3","(PESOPROPIODELAFASE3)",1,1,"P",0,"","CTESF3.C1"
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"","CTESF1.C1"
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"","CTESF3.C1"
"CMmax","(CARGAMUERTAMAXIMA)",.68,1,"P",0,"","CTESF4.C1"
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.8,"P",0,"","CTESF4.C0"
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,.8,"P",0,"","CTESF4.C0"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.04,"P",0,"","CTESF4.C0"
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.04,"P",0,"","CTESF4.C0"
"GRAD","(GRADIENTE)",0,1,"P",0,"","CTESF4.C0"
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",1,1,"P",0,"","CTESF4.C2"
"REDPRE","(REDISTRIBUCIàN HIP PRET)",1,1,"P",0,"","CTESF4.C2"
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"","CTESF4.C2"
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.135,-.165,"P",0,"","CTESF4.C2"
```

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

A.2) CALCULO TENSIONAL

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

CALCULO TENSIONAL

A continuación se recogen los resultados del calculo para los estados de carga descritos anteriormente, para el programa DINTEL

De estos resultados las partes mas significativas se señalan a continuacion:

FASES CONSTRUCTIVAS

Tensión de compresion en vigas:

$\sigma_{cmax} = -293$ kp/cm²

En el momento del corte de cables el hormigon deberia tener una resistencia superior a

$f_{cj} = 293/0.6 \geq 490$ kg/cm² = 60% f_{ck}

Tensión de tracción en vigas:

$\sigma_{tmax} = +20.71$ kg/cm² en zona de pilas

esta tensión es inferior a la tensión de tracción del hormigon de la viga por lo que no se producirá fisuración

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

TIEMPO ∞:

la compensación realizada bajo cargas cuasipermanentes tiene características singulares

- Se exige que no existan tensiones de tracción en las fibras pretensadas, junto con una anchura de fisura característica menor de cero en hormigón armado
- En la combinación cuasipermanente realizada se ha seguido un criterio semejante al de IAP / EC-I, habiendo considerado el 20% del tren de carga, conforme a las normativas actuales BIAPE no se debería considerar dicha contribución en este estado de carga.

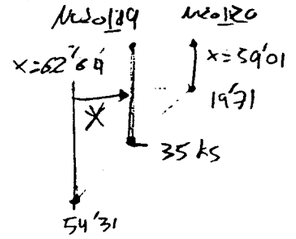
Bajo estas circunstancias se obtienen las siguientes tensiones en los diferentes estados:

-CUASIPERMANENTES:

- compresiones máximas: -294 kg/cm²
- tracciones máximas: +54'70 kg/cm²

En la fibra superior del cordón aparecen tensiones de tracción altas; por esto se decide modificar ligeramente el trazado del pretensado

de forma que se eliminen dichas zonas traccionadas el pretensado de forma que se alcancen todo los 30-35 kg/cm² de tracciones en la viga



$\Delta x = 362$ m

$\Delta \sigma = 34'6$ kg/cm²

$35 - 19'71 = 15'3$ kg/cm²

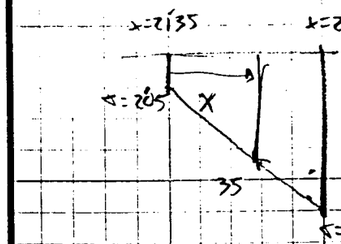
$34'6 \longrightarrow 36m$

$15'3 \longrightarrow x$

$x = \frac{15'3 \times 362}{34'6} = 16m.$

El pretensado de picos se deberá prolongar 16m hacia el interior del centro de vano central; tan solo se prolongará la familia larga de la zona de centro de vano

En las vanos laterales el movimiento de los cables de postesado necesario es menor:



$\Delta x = 30'5$ m.

$\Delta \sigma = 40'86$ kg/cm²

$35 - 20'5 = 32'95$ kg/cm²

$40'86 \longrightarrow 30'5$

$32'95 \longrightarrow x$

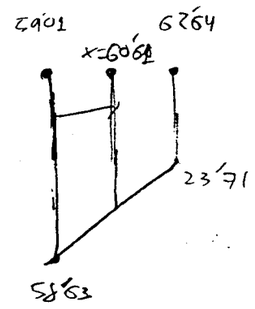
$x = \frac{30'5}{40'86} 30'5 = 2'46m$

Se deberán mover los tres pelos 0'60 m

- FRECUENTES:

compresiones máximas: $-305\ kg/cm^2$

tracciones máximas: conforme a los listados obtenidos se tienen unas tracciones máximas de: $58'63\ kg/cm^2$ esto es con la disposición inicial de pretensado, con el movimiento de los trompetas se obtienen unas tensiones diferentes:



$\Delta x = 1'60\ m$

$\Delta\sigma = 58'63 - 23'71 = 34'91\ kg/cm^2$

$\Delta\sigma' = \frac{34'91}{363} \times (160 - 363) = 19'52$

$\sigma_{x=60'61} = 23'71 + 19'52 = 43'23\ kg/cm^2$

la tensión de tracción es $f_{ctkm} = c30\sqrt[3]{60^2} = 45'97\ kg/cm^2$

luego no se produce rotura por tracción del hormigón

En la zona de final de pretensado en base de los cubos laterales se tiene una situación crítica sobre se observa que las tensiones serán algo mayores por lo que no se realiza el cálculo

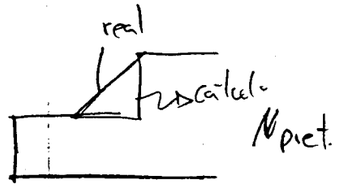
TIEMPO INFINITO:

Se observa que se produce una redistribución de esfuerzos entre la viga y la losa

Se tienen las siguientes tensiones en los distintos estados de carga

CUASI PERMANENTES

Se tienen tensiones de tracción en la fibra inferior en los puntos de corte del pretensado, en estos puntos se ha considerado una entrega brusca del pretensado

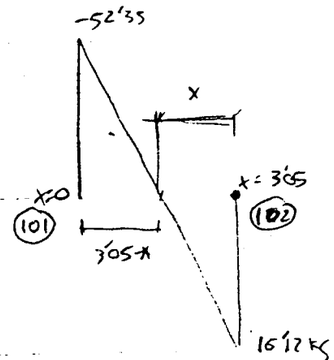


por tanto los pres obtenidos en el cálculo tensional, no serán tales sino que tendrán una cierta rebaja

Adicionalmente se recuerda lo ya comentado anteriormente relativo a la contribución de la sobrecarga considerada (contribución del 20% de la Sc IAPF-75)

No obstante se procede de forma análoga a lo realizado en el pretesado de la losa:

vano lateral: se mueven los cantos del pretensado de forma que las tensiones finales obtenidas estén en torno a los 0kg/cm²



$$\frac{x}{1612} = \frac{3'05-x}{52'35}$$

Las tensiones se han obtenido bajo la combinación casi permanente con gradiente en ambas marcadas

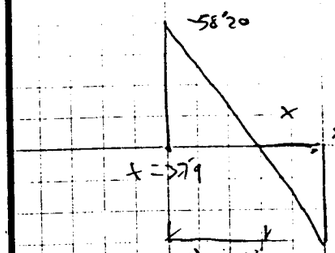
$$\frac{52'35}{1612}x = 3'05-x$$

$$x\left(\frac{52'35}{1612}-1\right) = 3'05$$

$$x = 1'36\ m$$

Luego se colocan los cables de pretensado del lado del "estribo" 1'00m.

vano central: se procede de idéntica forma que en el vano lateral



$$\frac{x}{11'14} = \frac{x-2'92}{58'20}$$

$$x\left(\frac{58'20}{11'14}-1\right) = 2'92$$

$$x = 0'70\ m$$

FRECUENTES

Tracciones máximas; lo dicho en el apartado anterior es también aplicable en este caso de carga y en los posteriores. Las tensiones obtenidas en los listados son del orden de los 40kg/cm² que en cualquier caso son menores al límite de tracción del hormigón de la viga

En cuanto a las compresiones máximas en ningún caso superan los 250kg/cm²

INFRECUENTES.

Las compresiones máximas se producen en las zonas de pilas, estas están en torno a los 300 kg/cm² de compresión inferior al valor máximo admisible

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONSTA.F1.T0.MZ+
Construcción sin gradiente en fase constructiva 1 HIPOTESIS A
[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-64.17	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
1	2	3.05	-603.55	-52.50	-64.05	0	-452.32	2.55	-315.58	2.55	0.00	2.85	0.00
2	2	3.05	-1049.64	-52.50	-494.96	0	-1128.29	2.55	-71.49	2.55	0.00	2.85	0.00
2	3	6.10	-1049.64	-40.83	-352.63	0	-1001.52	2.55	-248.61	2.55	0.00	2.85	0.00
3	3	6.10	-1358.46	-40.83	-636.13	0	-1456.30	2.55	-98.06	2.55	0.00	2.85	0.00
3	4	9.15	-1358.46	-29.17	-529.39	0	-1361.22	2.55	-230.89	2.55	0.00	2.85	0.00
4	4	9.15	-1667.29	-29.17	-798.07	0	-1802.80	2.55	-98.80	2.55	0.00	2.85	0.00
4	5	12.20	-1667.29	-17.50	-726.92	0	-1739.42	2.55	-187.34	2.55	0.00	2.85	0.00
5	5	12.20	-1667.29	-17.50	-726.92	0	-1739.42	2.55	-187.34	2.55	0.00	2.85	0.00
5	6	15.25	-1667.29	-5.83	-691.33	0	-1707.72	2.55	-231.63	2.55	0.00	2.85	0.00
6	6	15.25	-1667.29	-5.83	-691.33	0	-1707.72	2.55	-231.63	2.55	0.00	2.85	0.00
6	7	18.30	-1667.29	5.83	-691.33	0	-1707.72	2.55	-231.63	2.55	0.00	2.85	0.00
7	7	18.30	-1667.29	5.83	-691.33	0	-1707.72	2.55	-231.63	2.55	0.00	2.85	0.00
7	8	21.35	-1667.29	17.50	-726.92	0	-1739.42	2.55	-187.34	2.55	0.00	2.85	0.00
8	8	21.35	-1667.29	17.50	-726.92	0	-1739.42	2.55	-187.34	2.55	0.00	2.85	0.00
8	9	24.40	-1667.29	29.17	-798.08	0	-1802.81	2.55	-98.79	2.55	0.00	2.85	0.00
9	9	24.40	-1358.46	29.17	-529.40	0	-1361.23	2.55	-230.88	2.55	0.00	2.85	0.00
9	10	27.45	-1358.46	40.83	-636.14	0	-1456.31	2.55	-98.05	2.55	0.00	2.85	0.00
10	10	27.45	-1049.64	40.83	-352.64	0	-1001.52	2.55	-248.60	2.55	0.00	2.85	0.00
10	11	30.50	-1049.64	52.50	-494.95	0	-1128.29	2.55	-71.50	2.55	0.00	2.85	0.00
11	11	30.50	-603.55	52.50	-64.04	0	-452.31	2.55	-315.59	2.55	0.00	2.85	0.00
11	12	33.55	-603.55	64.17	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
12	10012	33.55	-637.87	-76.50	-276.74	0	-664.25	2.55	-73.38	2.55	0.00	2.85	0.00
12	13	37.19	-637.87	-62.59	-23.83	0	-438.98	2.55	-388.09	2.55	0.00	2.85	0.00
13	13	37.19	-1083.95	-62.59	-454.75	0	-1114.96	2.55	-143.99	2.55	0.00	2.85	0.00
13	14	40.82	-1083.95	-48.68	-252.44	0	-934.75	2.55	-395.75	2.55	0.00	2.85	0.00
14	14	40.82	-1564.35	-48.68	-693.44	0	-1642.19	2.55	-161.58	2.55	0.00	2.85	0.00
14	15	44.46	-1564.35	-34.77	-541.70	0	-1507.02	2.55	-350.41	2.55	0.00	2.85	0.00
15	15	44.46	-2044.74	-34.77	-959.66	0	-2193.93	2.55	-144.92	2.55	0.00	2.85	0.00
15	16	48.10	-2044.74	-20.86	-858.51	0	-2103.83	2.55	-270.79	2.55	0.00	2.85	0.00
16	16	48.10	-2044.74	-20.86	-858.51	0	-2103.83	2.55	-270.79	2.55	0.00	2.85	0.00
16	17	51.73	-2044.74	-6.95	-807.93	0	-2058.78	2.55	-333.73	2.55	0.00	2.85	0.00
17	17	51.73	-2044.74	-6.95	-807.93	0	-2058.78	2.55	-333.73	2.55	0.00	2.85	0.00
17	18	55.37	-2044.74	6.96	-807.92	0	-2058.77	2.55	-333.75	2.55	0.00	2.85	0.00
18	18	55.37	-2044.74	6.96	-807.92	0	-2058.77	2.55	-333.75	2.55	0.00	2.85	0.00
18	19	59.01	-2044.74	20.87	-858.49	0	-2103.81	2.55	-270.82	2.55	0.00	2.85	0.00
19	19	59.01	-2044.74	20.86	-858.49	0	-2103.81	2.55	-270.82	2.55	0.00	2.85	0.00
19	20	62.64	-2044.74	34.77	-959.65	0	-2193.92	2.55	-144.93	2.55	0.00	2.85	0.00
20	20	62.64	-1564.35	34.77	-541.69	0	-1507.01	2.55	-350.42	2.55	0.00	2.85	0.00
20	21	66.28	-1564.35	48.68	-693.43	0	-1642.18	2.55	-161.59	2.55	0.00	2.85	0.00
21	21	66.28	-1083.95	48.68	-252.43	0	-934.74	2.55	-395.76	2.55	0.00	2.85	0.00
21	22	69.91	-1083.95	62.59	-454.75	0	-1114.96	2.55	-143.99	2.55	0.00	2.85	0.00
22	22	69.91	-637.87	62.59	-23.83	0	-438.98	2.55	-388.09	2.55	0.00	2.85	0.00
22	23	73.55	-637.87	76.50	-276.74	0	-664.25	2.55	-73.38	2.55	0.00	2.85	0.00
23	10023	73.55	-603.55	-65.43	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
23	24	76.66	-603.55	-53.53	-56.96	0	-446.01	2.55	-324.40	2.55	0.00	2.85	0.00
24	24	76.66	-1049.64	-53.53	-487.87	0	-1121.98	2.55	-80.31	2.55	0.00	2.85	0.00
24	25	79.77	-1049.64	-41.63	-339.88	0	-990.16	2.55	-264.47	2.55	0.00	2.85	0.00
25	25	79.77	-1392.78	-41.63	-654.89	0	-1495.48	2.55	-97.20	2.55	0.00	2.85	0.00
25	26	82.88	-1392.78	-29.74	-543.91	0	-1396.62	2.55	-235.30	2.55	0.00	2.85	0.00
26	26	82.88	-1735.92	-29.74	-842.43	0	-1887.26	2.55	-88.54	2.55	0.00	2.85	0.00
26	27	85.99	-1735.92	-17.84	-768.44	0	-1821.35	2.55	-180.61	2.55	0.00	2.85	0.00
27	27	85.99	-1735.92	-17.84	-768.44	0	-1821.35	2.55	-180.61	2.55	0.00	2.85	0.00
27	28	89.10	-1735.92	-5.95	-731.44	0	-1788.40	2.55	-226.66	2.55	0.00	2.85	0.00
28	28	89.10	-1735.92	-5.95	-731.44	0	-1788.40	2.55	-226.66	2.55	0.00	2.85	0.00
28	29	92.21	-1735.92	5.95	-731.45	0	-1788.41	2.55	-226.64	2.55	0.00	2.85	0.00
29	29	92.21	-1735.92	5.95	-731.45	0	-1788.41	2.55	-226.64	2.55	0.00	2.85	0.00
29	30	95.32	-1735.92	17.84	-768.44	0	-1821.35	2.55	-180.61	2.55	0.00	2.85	0.00
30	30	95.32	-1735.92	17.84	-768.44	0	-1821.35	2.55	-180.61	2.55	0.00	2.85	0.00
30	31	98.43	-1735.92	29.74	-842.43	0	-1887.26	2.55	-88.54	2.55	0.00	2.85	0.00
31	31	98.43	-1392.78	29.74	-543.91	0	-1396.62	2.55	-235.30	2.55	0.00	2.85	0.00
31	32	101.54	-1392.78	41.63	-654.90	0	-1495.49	2.55	-97.19	2.55	0.00	2.85	0.00
32	32	101.54	-1049.64	41.63	-339.89	0	-990.17	2.55	-264.46	2.55	0.00	2.85	0.00
32	33	104.65	-1049.64	53.53	-487.88	0	-1121.99	2.55	-80.30	2.55	0.00	2.85	0.00
33	33	104.65	-603.55	53.53	-56.97	0	-446.02	2.55	-324.39	2.55	0.00	2.85	0.00
33	34	107.76	-603.55	65.43	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	101	0.00	-603.55	-64.17	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	102	3.05	-603.55	-52.50	-64.05	0	-452.32	2.55	-315.58	2.55	0.00	2.85	0.00
102	102	3.05	-1049.64	-52.50	-494.96	0	-1128.29	2.55	-71.49	2.55	0.00	2.85	0.00
102	103	6.10	-1049.64	-40.83	-352.63	0	-1001.52	2.55	-248.61	2.55	0.00	2.85	0.00
103	103	6.10	-1358.46	-40.83	-636.13	0	-1456.30	2.55	-98.06	2.55	0.00	2.85	0.00
103	104	9.15	-1358.46	-29.17	-529.39	0	-1361.22	2.55	-230.89	2.55	0.00	2.85	0.00
104	104	9.15	-1667.29	-29.17	-798.07	0	-1802.80	2.55	-98.80	2.55	0.00	2.85	0.00
104	105	12.20	-1667.29	-17.50	-726.92	0	-1739.42	2.55	-187.34	2.55	0.00	2.85	0.00
105	105	12.20	-1667.29	-17.50	-726.92	0	-1739.42	2.55	-187.34	2.55	0.00	2.85	0.00

TCONST

Programa DINTEL PACADAR S.A.
CONSTA.F1.T0.MZ+

30/11/02

CÁLCULO TENSIONAL

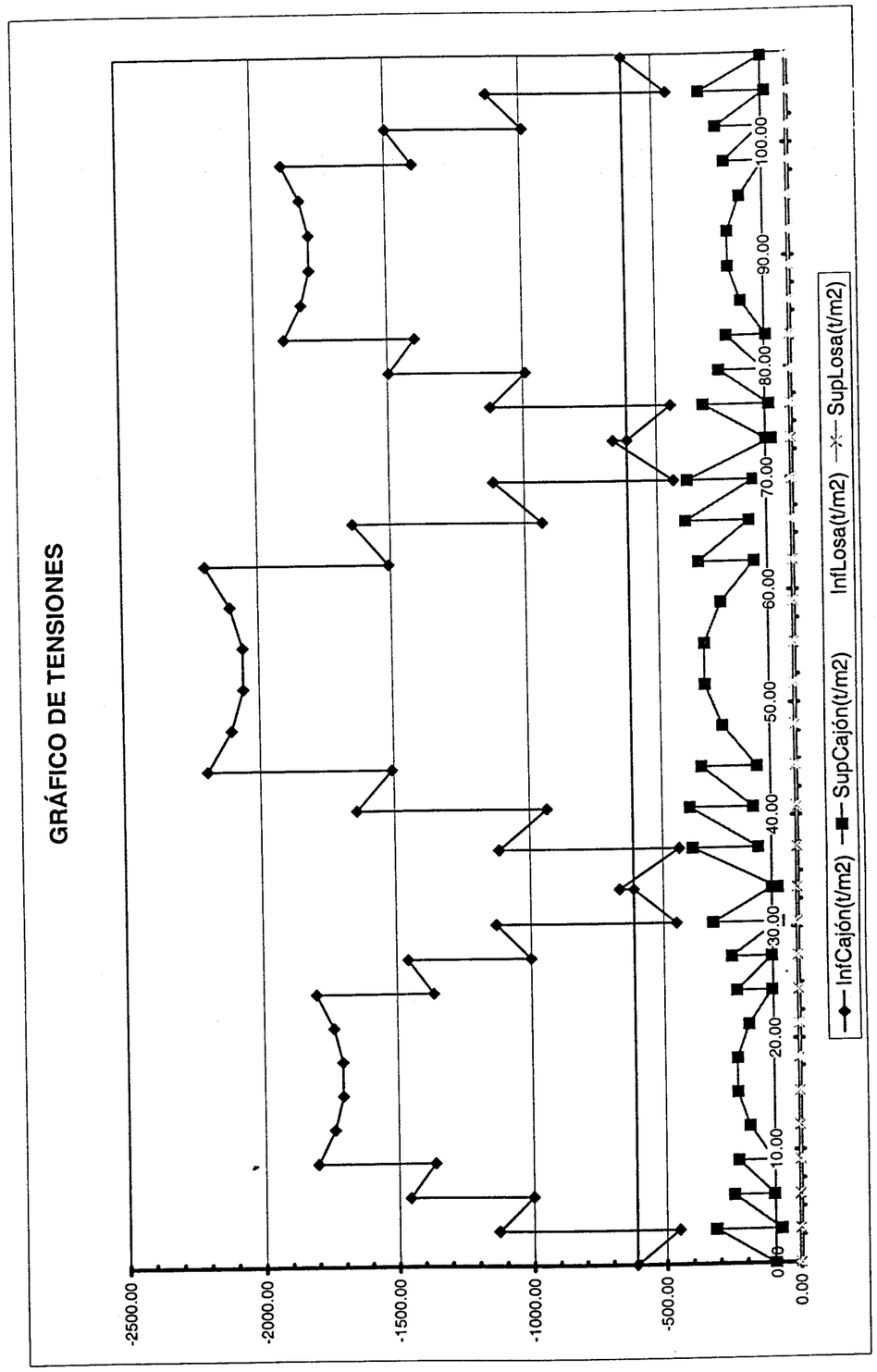
Hipótesis de cálculo:
CONSTA.F1.T0.MZ+
Construcción sin gradiente en fase constructiva 1 HIPOTESIS A
[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	-5.83	-691.33	0	-1707.72	2.55	-231.63	2.55	0.00	2.85	0.00
106	106	15.25	-1667.29	-5.83	-691.33	0	-1707.72	2.55	-231.63	2.55	0.00	2.85	0.00
106	107	18.30	-1667.29	5.83	-691.33	0	-1707.72	2.55	-231.63	2.55	0.00	2.85	0.00
107	107	18.30	-1667.29	5.83	-691.33	0	-1707.72	2.55	-231.63	2.55	0.00	2.85	0.00
107	108	21.35	-1667.29	17.50	-726.92	0	-1739.42	2.55	-187.34	2.55	0.00	2.85	0.00
108	108	21.35	-1667.29	17.50	-726.92	0	-1739.42	2.55	-187.34	2.55	0.00	2.85	0.00
108	109	24.40	-1667.29	29.17	-798.08	0	-1802.81	2.55	-98.79	2.55	0.00	2.85	0.00
109	109	24.40	-1358.46	29.17	-529.40	0	-1361.23	2.55	-230.88	2.55	0.00	2.85	0.00
109	110	27.45	-1358.46	40.83	-636.14	0	-1456.31	2.55	-98.05	2.55	0.00	2.85	0.00
110	110	27.45	-1049.64	40.83	-352.64	0	-1001.52	2.55	-248.60	2.55	0.00	2.85	0.00
110	111	30.50	-1049.64	52.50	-494.95	0	-1128.29	2.55	-71.50	2.55	0.00	2.85	0.00
111	111	30.50	-603.55	52.50	-64.04	0	-452.31	2.55	-315.59	2.55	0.00	2.85	0.00
111	112	33.55	-603.55	64.17	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
112	10112	33.55	-637.87	-76.50	-276.74	0	-664.25	2.55	-73.38	2.55	0.00	2.85	0.00
112	113	37.19	-637.87	-62.59	-23.83	0	-438.98	2.55	-388.09	2.55	0.00	2.85	0.00
113	113	37.19	-1083.95	-62.59	-454.75	0	-1114.96	2.55	-143.99	2.55	0.00	2.85	0.00
113	114	40.82	-1083.95	-48.68	-252.44	0	-934.75	2.55	-395.75	2.55	0.00	2.85	0.00
114	114	40.82	-1564.35	-48.68	-693.44	0	-1642.19	2.55	-161.58	2.55	0.00	2.85	0.00
114	115	44.46	-1564.35	-34.77	-541.70	0	-1507.02	2.55	-350.41	2.55	0.00	2.85	0.00
115	115	44.46	-2044.74	-34.77	-959.66	0	-2193.93	2.55	-144.92	2.55	0.00	2.85	0.00
115	116	48.10	-2044.74	-20.86	-858.51	0	-2103.83	2.55	-270.79	2.55	0.00	2.85	0.00
116	116	48.10	-2044.74	-20.86	-858.51	0	-2103.83	2.55	-270.79	2.55	0.00	2.85	0.00
116	117	51.73	-2044.74	-6.95	-807.93	0	-2058.78	2.55	-333.73	2.55	0.00	2.85	0.00
117	117	51.73	-2044.74	-6.95	-807.93	0	-2058.78	2.55	-333.73	2.55	0.00	2.85	0.00
117	118	55.37	-2044.74	6.96	-807.92	0	-2058.77	2.55	-333.75	2.55	0.00	2.85	0.00
118	118	55.37	-2044.74	6.96	-807.92	0	-2058.77	2.55	-333.75	2.55	0.00	2.85	0.00
118	119	59.01	-2044.74	20.87	-858.49	0	-2103.81	2.55	-270.82	2.55	0.00	2.85	0.00
119	119	59.01	-2044.74	20.86	-858.49	0	-2103.81	2.55	-270.82	2.55	0.00	2.85	0.00
119	120	62.64	-2044.74	34.77	-959.65	0	-2193.92	2.55	-144.93	2.55	0.00	2.85	0.00
120	120	62.64	-1564.35	34.77	-541.69	0	-1507.01	2.55	-350.42	2.55	0.00	2.85	0.00
120	121	66.28	-1564.35	48.68	-693.43	0	-1642.18	2.55	-161.59	2.55	0.00	2.85	0.00
121	121	66.28	-1083.95	48.68	-252.43	0	-934.74	2.55	-395.76	2.55	0.00	2.85	0.00
121	122	69.91	-1083.95	62.59	-454.75	0	-1114.96	2.55	-143.99	2.55	0.00	2.85	0.00
122	122	69.91	-637.87	62.59	-23.83	0	-438.98	2.55	-388.09	2.55	0.00	2.85	0.00
122	123	73.55	-637.87	76.50	-276.74	0	-664.25	2.55	-73.38	2.55	0.00	2.85	0.00
123	10123	73.55	-603.55	-65.43	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
123	124	76.66	-603.55	-53.53	-56.96	0	-446.01	2.55	-324.40	2.55	0.00	2.85	0.00
124	124	76.66	-1049.64	-53.53	-487.87	0	-1121.98	2.55	-80.31	2.55	0.00	2.85	0.00
124	125	79.77	-1049.64	-41.63	-339.88	0	-990.16	2.55	-264.47	2.55	0.00	2.85	0.00
125	125	79.77	-1392.78	-41.63	-654.89	0	-1495.48	2.55	-97.20	2.55	0.00	2.85	0.00
125	126	82.88	-1392.78	-29.74	-543.91	0	-1396.62	2.55	-235.30	2.55	0.00	2.85	0.00
126	126	82.88	-1735.92	-29.74	-842.43	0	-1887.26	2.55	-88.54	2.55	0.00	2.85	0.00
126	127	85.99	-1735.92	-17.84	-768.44	0	-1821.35	2.55	-180.61	2.55	0.00	2.85	0.00
127	127	85.99	-1735.92	-17.84	-768.44	0	-1821.35	2.55	-180.61	2.55	0.00	2.85	0.00
127	128	89.10	-1735.92	-5.95	-731.44	0	-1788.40	2.55	-226.66	2.55	0.00	2.85	0.00
128	128	89.10	-1735.92	-5.95	-731.44	0	-1788.40	2.55	-226.66	2.55	0.00	2.85	0.00
128	129	92.21	-1735.92	5.95	-731.45	0	-1788.41	2.55	-226.64	2.55	0.00	2.85	0.00
129	129	92.21	-1735.92	5.95	-731.45	0	-1788.41	2.55	-226.64	2.55	0.00	2.85	0.00
129	130	95.32	-1735.92	17.84	-768.44	0	-1821.35	2.55	-180.61	2.55	0.00	2.85	0.00
130	130	95.32	-1735.92	17.84	-768.44	0	-1821.35	2.55	-180.61	2.55	0.00	2.85	0.00
130	131	98.43	-1735.92	29.74	-842.43	0	-1887.26	2.55	-88.54	2.55	0.00	2.85	0.00
131	131	98.43	-1392.78	29.74	-543.91	0	-1396.62	2.55	-235.30	2.55	0.00	2.85	0.00
131	132	101.54	-1392.78	41.63	-654.90	0	-1495.49	2.55	-97.19	2.55	0.00	2.85	0.00
132	132	101.54	-1049.64	41.63	-339.89	0	-990.17	2.55	-264.46	2.55	0.00	2.85	0.00
132	133	104.65	-1049.64	53.53	-487.88	0	-1121.99	2.55	-80.30	2.55	0.00	2.85	0.00
133	133	104.65	-603.55	53.53	-56.97	0	-446.02	2.55	-324.39	2.55	0.00	2.85	0.00
133	134	107.76	-603.55	65.43	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00

30/11/0

Programa DINTEL PACADAR S.A.
CONSTA.F1.T0.MZ+

GRÁFICO DE TENSIONES



TCONST.xls

TCONST

Programa DINTEL PACADAR S.A.
CONST1A.F1.T0.MZ-

30/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1A.F1.T0.MZ-

Construcción sin gradiente en fase constructiva 1 HIPOTESIS A

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-667.09	-64.17	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
1	2	3.05	-667.09	-52.50	-89.51	0	-516.62	2.55	-325.49	2.55	0.00	2.85	0.00
2	2	3.05	-1160.12	-52.50	-565.78	0	-1263.74	2.55	-55.71	2.55	0.00	2.85	0.00
2	3	6.10	-1160.12	-40.83	-423.45	0	-1136.97	2.55	-232.83	2.55	0.00	2.85	0.00
3	3	6.10	-1501.46	-40.83	-736.81	0	-1639.62	2.55	-66.43	2.55	0.00	2.85	0.00
3	4	9.15	-1501.46	-29.17	-630.07	0	-1544.55	2.55	-199.26	2.55	0.00	2.85	0.00
4	4	9.15	-1842.79	-29.17	-927.03	0	-2032.60	2.55	-53.26	2.55	0.00	2.85	0.00
4	5	12.20	-1842.79	-17.50	-855.88	0	-1969.23	2.55	-141.80	2.55	0.00	2.85	0.00
5	5	12.20	-1842.79	-17.50	-855.88	0	-1969.23	2.55	-141.80	2.55	0.00	2.85	0.00
5	6	15.25	-1842.79	-5.83	-820.29	0	-1937.53	2.55	-186.09	2.55	0.00	2.85	0.00
6	6	15.25	-1842.79	-5.83	-820.29	0	-1937.53	2.55	-186.09	2.55	0.00	2.85	0.00
6	7	18.30	-1842.79	5.83	-820.29	0	-1937.53	2.55	-186.09	2.55	0.00	2.85	0.00
7	7	18.30	-1842.79	5.83	-820.29	0	-1937.53	2.55	-186.09	2.55	0.00	2.85	0.00
7	8	21.35	-1842.79	17.50	-855.88	0	-1969.23	2.55	-141.80	2.55	0.00	2.85	0.00
8	8	21.35	-1842.79	17.50	-855.88	0	-1969.23	2.55	-141.80	2.55	0.00	2.85	0.00
8	9	24.40	-1842.79	29.17	-927.04	0	-2032.61	2.55	-53.25	2.55	0.00	2.85	0.00
9	9	24.40	-1501.46	29.17	-630.08	0	-1544.56	2.55	-199.25	2.55	0.00	2.85	0.00
9	10	27.45	-1501.46	40.83	-736.82	0	-1639.63	2.55	-66.42	2.55	0.00	2.85	0.00
10	10	27.45	-1160.12	40.83	-423.47	0	-1136.98	2.55	-232.82	2.55	0.00	2.85	0.00
10	11	30.50	-1160.12	52.50	-565.77	0	-1263.74	2.55	-55.72	2.55	0.00	2.85	0.00
11	11	30.50	-667.09	52.50	-89.50	0	-516.61	2.55	-325.50	2.55	0.00	2.85	0.00
11	12	33.55	-667.09	64.17	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
12	10012	33.55	-705.01	-76.50	-305.87	0	-734.17	2.55	-81.10	2.55	0.00	2.85	0.00
12	13	37.19	-705.01	-62.59	-52.97	0	-508.90	2.55	-395.81	2.55	0.00	2.85	0.00
13	13	37.19	-1198.05	-62.59	-529.25	0	-1256.04	2.55	-126.02	2.55	0.00	2.85	0.00
13	14	40.82	-1198.05	-48.68	-326.94	0	-1075.83	2.55	-377.78	2.55	0.00	2.85	0.00
14	14	40.82	-1729.01	-48.68	-814.36	0	-1857.73	2.55	-118.96	2.55	0.00	2.85	0.00
14	15	44.46	-1729.01	-34.77	-662.62	0	-1722.57	2.55	-307.79	2.55	0.00	2.85	0.00
15	15	44.46	-2259.98	-34.77	-1124.56	0	-2481.78	2.55	-80.67	2.55	0.00	2.85	0.00
15	16	48.10	-2259.98	-20.86	-1023.41	0	-2391.68	2.55	-206.54	2.55	0.00	2.85	0.00
16	16	48.10	-2259.98	-20.86	-1023.41	0	-2391.68	2.55	-206.54	2.55	0.00	2.85	0.00
16	17	51.73	-2259.98	-6.95	-972.83	0	-2346.63	2.55	-269.48	2.55	0.00	2.85	0.00
17	17	51.73	-2259.98	-6.95	-972.83	0	-2346.63	2.55	-269.48	2.55	0.00	2.85	0.00
17	18	55.37	-2259.98	6.96	-972.82	0	-2346.62	2.55	-269.50	2.55	0.00	2.85	0.00
18	18	55.37	-2259.98	6.96	-972.82	0	-2346.62	2.55	-269.50	2.55	0.00	2.85	0.00
18	19	59.01	-2259.98	20.87	-1023.39	0	-2391.66	2.55	-206.57	2.55	0.00	2.85	0.00
19	19	59.01	-2259.98	20.86	-1023.39	0	-2391.66	2.55	-206.57	2.55	0.00	2.85	0.00
19	20	62.64	-2259.98	34.77	-1124.55	0	-2481.77	2.55	-80.68	2.55	0.00	2.85	0.00
20	20	62.64	-1729.01	34.77	-662.61	0	-1722.56	2.55	-307.80	2.55	0.00	2.85	0.00
20	21	66.28	-1729.01	48.68	-814.35	0	-1857.72	2.55	-118.97	2.55	0.00	2.85	0.00
21	21	66.28	-1198.05	48.68	-326.93	0	-1075.82	2.55	-377.79	2.55	0.00	2.85	0.00
21	22	69.91	-1198.05	62.59	-529.25	0	-1256.04	2.55	-126.02	2.55	0.00	2.85	0.00
22	22	69.91	-705.01	62.59	-52.97	0	-508.90	2.55	-395.81	2.55	0.00	2.85	0.00
22	23	73.55	-705.01	76.50	-305.87	0	-734.17	2.55	-81.10	2.55	0.00	2.85	0.00
23	10023	73.55	-667.09	-65.43	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
23	24	76.66	-667.09	-53.53	-82.42	0	-510.30	2.55	-334.31	2.55	0.00	2.85	0.00
24	24	76.66	-1160.12	-53.53	-558.69	0	-1257.43	2.55	-64.54	2.55	0.00	2.85	0.00
24	25	79.77	-1160.12	-41.63	-410.70	0	-1125.61	2.55	-248.69	2.55	0.00	2.85	0.00
25	25	79.77	-1539.38	-41.63	-758.87	0	-1684.12	2.55	-63.81	2.55	0.00	2.85	0.00
25	26	82.88	-1539.38	-29.74	-647.89	0	-1585.26	2.55	-201.92	2.55	0.00	2.85	0.00
26	26	82.88	-1918.64	-29.74	-977.85	0	-2127.55	2.55	-39.70	2.55	0.00	2.85	0.00
26	27	85.99	-1918.64	-17.84	-903.86	0	-2061.64	2.55	-131.78	2.55	0.00	2.85	0.00
27	27	85.99	-1918.64	-17.84	-903.86	0	-2061.64	2.55	-131.78	2.55	0.00	2.85	0.00
27	28	89.10	-1918.64	-5.95	-866.86	0	-2028.68	2.55	-177.82	2.55	0.00	2.85	0.00
28	28	89.10	-1918.64	-5.95	-866.86	0	-2028.68	2.55	-177.82	2.55	0.00	2.85	0.00
28	29	92.21	-1918.64	5.95	-866.87	0	-2028.69	2.55	-177.81	2.55	0.00	2.85	0.00
29	29	92.21	-1918.64	5.95	-866.87	0	-2028.69	2.55	-177.81	2.55	0.00	2.85	0.00
29	30	95.32	-1918.64	17.84	-903.86	0	-2061.64	2.55	-131.78	2.55	0.00	2.85	0.00
30	30	95.32	-1918.64	17.84	-903.86	0	-2061.64	2.55	-131.78	2.55	0.00	2.85	0.00
30	31	98.43	-1918.64	29.74	-977.85	0	-2127.55	2.55	-39.70	2.55	0.00	2.85	0.00
31	31	98.43	-1539.38	29.74	-647.89	0	-1585.26	2.55	-201.92	2.55	0.00	2.85	0.00
31	32	101.54	-1539.38	41.63	-758.88	0	-1684.13	2.55	-63.80	2.55	0.00	2.85	0.00
32	32	101.54	-1160.12	41.63	-410.71	0	-1125.62	2.55	-248.68	2.55	0.00	2.85	0.00
32	33	104.65	-1160.12	53.53	-558.70	0	-1257.44	2.55	-64.52	2.55	0.00	2.85	0.00
33	33	104.65	-667.09	53.53	-82.43	0	-510.31	2.55	-334.30	2.55	0.00	2.85	0.00
33	34	107.76	-667.09	65.43	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	101	0.00	-667.09	-64.17	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	102	3.05	-667.09	-52.50	-89.51	0	-516.62	2.55	-325.49	2.55	0.00	2.85	0.00
102	102	3.05	-1160.12	-52.50	-565.78	0	-1263.74	2.55	-55.71	2.55	0.00	2.85	0.00
102	103	6.10	-1160.12	-40.83	-423.45	0	-1136.97	2.55	-232.83	2.55	0.00	2.85	0.00
103	103	6.10	-1501.46	-40.83	-736.81	0	-1639.62	2.55	-66.43	2.55	0.00	2.85	0.00
103	104	9.15	-1501.46	-29.17	-630.07	0	-1544.55	2.55	-199.26	2.55	0.00	2.85	0.00
104	104	9.15	-1842.79	-29.17	-927.03	0	-2032.60	2.55	-53.26	2.55	0.00	2.85	0.00
104	105	12.20	-1842.79	-17.50	-855.88	0	-1969.23	2.55	-141.80	2.55	0.00	2.85	0.00
105	105	12.20	-1842.79	-17.50	-855.88	0	-1969.23	2.55	-141.80	2.55	0.00	2.85	0.00

CÁLCULO TENSIONAL

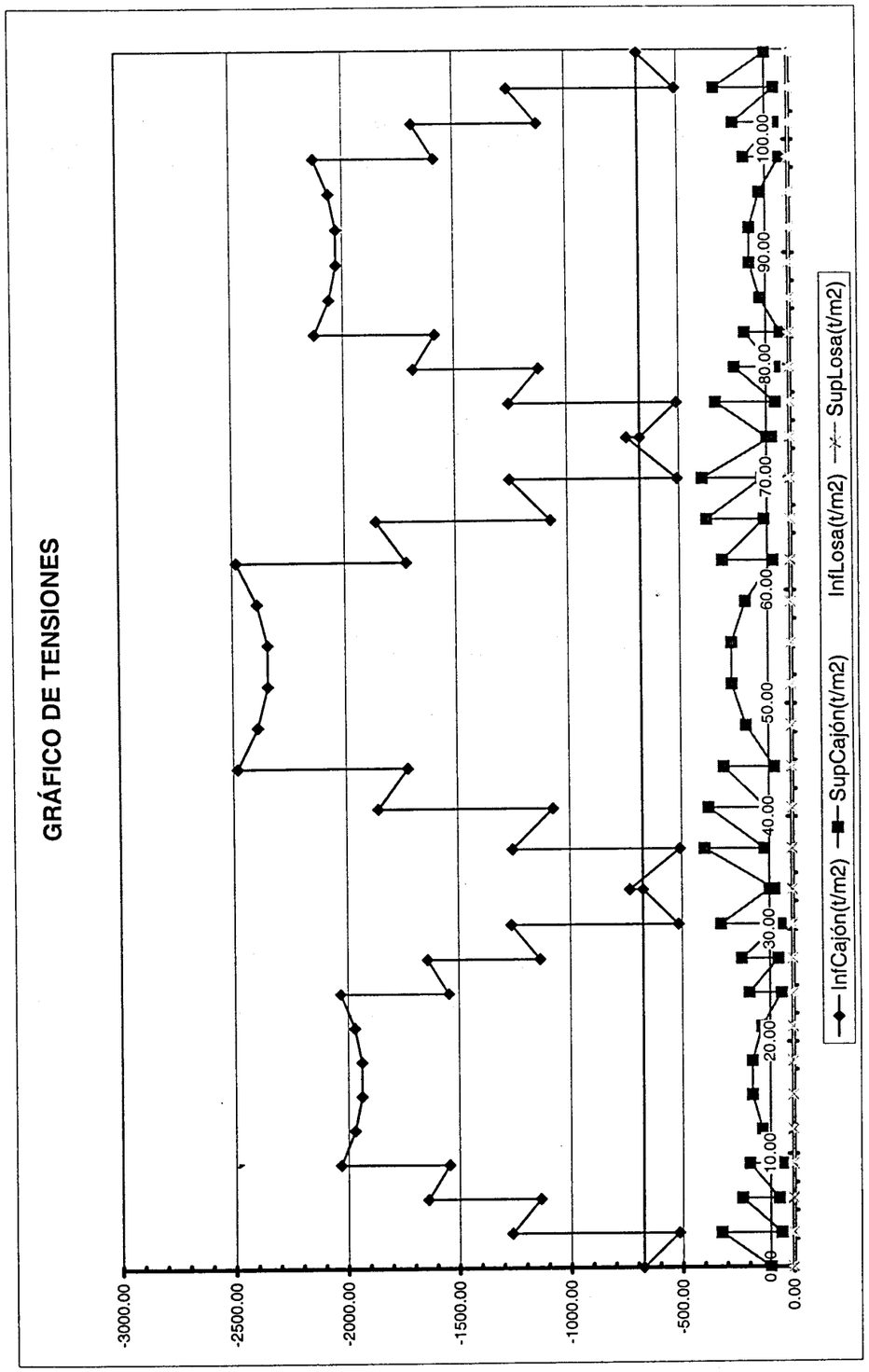
Hipótesis de cálculo:
CONST1A.F1.T0.MZ-
Construcción sin gradiente en fase constructiva 1 HIPOTESIS A
[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1842.79	-5.83	-820.29	0	-1937.53	2.55	-186.09	2.55	0.00	2.85	0.00
106	106	15.25	-1842.79	-5.83	-820.29	0	-1937.53	2.55	-186.09	2.55	0.00	2.85	0.00
106	107	18.30	-1842.79	5.83	-820.29	0	-1937.53	2.55	-186.09	2.55	0.00	2.85	0.00
107	107	18.30	-1842.79	5.83	-820.29	0	-1937.53	2.55	-186.09	2.55	0.00	2.85	0.00
107	108	21.35	-1842.79	17.50	-855.88	0	-1969.23	2.55	-141.80	2.55	0.00	2.85	0.00
108	108	21.35	-1842.79	17.50	-855.88	0	-1969.23	2.55	-141.80	2.55	0.00	2.85	0.00
108	109	24.40	-1842.79	29.17	-927.04	0	-2032.61	2.55	-53.25	2.55	0.00	2.85	0.00
109	109	24.40	-1501.46	29.17	-630.08	0	-1544.56	2.55	-199.25	2.55	0.00	2.85	0.00
109	110	27.45	-1501.46	40.83	-736.82	0	-1639.63	2.55	-66.42	2.55	0.00	2.85	0.00
110	110	27.45	-1160.12	40.83	-423.47	0	-1136.98	2.55	-232.82	2.55	0.00	2.85	0.00
110	111	30.50	-1160.12	52.50	-565.77	0	-1263.74	2.55	-55.72	2.55	0.00	2.85	0.00
111	111	30.50	-667.09	52.50	-89.50	0	-516.61	2.55	-325.50	2.55	0.00	2.85	0.00
111	112	33.55	-667.09	64.17	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
112	10112	33.55	-705.01	-76.50	-305.87	0	-734.17	2.55	-81.10	2.55	0.00	2.85	0.00
112	113	37.19	-705.01	-62.59	-52.97	0	-508.90	2.55	-395.81	2.55	0.00	2.85	0.00
113	113	37.19	-1198.05	-62.59	-529.25	0	-1256.04	2.55	-126.02	2.55	0.00	2.85	0.00
113	114	40.82	-1198.05	-48.68	-326.94	0	-1075.83	2.55	-377.78	2.55	0.00	2.85	0.00
114	114	40.82	-1729.01	-48.68	-814.36	0	-1857.73	2.55	-118.96	2.55	0.00	2.85	0.00
114	115	44.46	-1729.01	-34.77	-662.62	0	-1722.57	2.55	-307.79	2.55	0.00	2.85	0.00
115	115	44.46	-2259.98	-34.77	-1124.56	0	-2481.78	2.55	-80.67	2.55	0.00	2.85	0.00
115	116	48.10	-2259.98	-20.86	-1023.41	0	-2391.68	2.55	-206.54	2.55	0.00	2.85	0.00
116	116	48.10	-2259.98	-20.86	-1023.41	0	-2391.68	2.55	-206.54	2.55	0.00	2.85	0.00
116	117	51.73	-2259.98	-6.95	-972.83	0	-2346.63	2.55	-269.48	2.55	0.00	2.85	0.00
117	117	51.73	-2259.98	-6.95	-972.83	0	-2346.63	2.55	-269.48	2.55	0.00	2.85	0.00
117	118	55.37	-2259.98	6.96	-972.82	0	-2346.62	2.55	-269.50	2.55	0.00	2.85	0.00
118	118	55.37	-2259.98	6.96	-972.82	0	-2346.62	2.55	-269.50	2.55	0.00	2.85	0.00
118	119	59.01	-2259.98	20.87	-1023.39	0	-2391.66	2.55	-206.57	2.55	0.00	2.85	0.00
119	119	59.01	-2259.98	20.86	-1023.39	0	-2391.66	2.55	-206.57	2.55	0.00	2.85	0.00
119	120	62.64	-2259.98	34.77	-1124.55	0	-2481.77	2.55	-80.68	2.55	0.00	2.85	0.00
120	120	62.64	-1729.01	34.77	-662.61	0	-1722.56	2.55	-307.80	2.55	0.00	2.85	0.00
120	121	66.28	-1729.01	48.68	-814.35	0	-1857.72	2.55	-118.97	2.55	0.00	2.85	0.00
121	121	66.28	-1198.05	48.68	-326.93	0	-1075.82	2.55	-377.79	2.55	0.00	2.85	0.00
121	122	69.91	-1198.05	62.59	-529.25	0	-1256.04	2.55	-126.02	2.55	0.00	2.85	0.00
122	122	69.91	-705.01	62.59	-52.97	0	-508.90	2.55	-395.81	2.55	0.00	2.85	0.00
122	123	73.55	-705.01	76.50	-305.87	0	-734.17	2.55	-81.10	2.55	0.00	2.85	0.00
123	10123	73.55	-667.09	-65.43	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
123	124	76.66	-667.09	-53.53	-82.42	0	-510.30	2.55	-334.31	2.55	0.00	2.85	0.00
124	124	76.66	-1160.12	-53.53	-558.69	0	-1257.43	2.55	-64.54	2.55	0.00	2.85	0.00
124	125	79.77	-1160.12	-41.63	-410.70	0	-1125.61	2.55	-248.69	2.55	0.00	2.85	0.00
125	125	79.77	-1539.38	-41.63	-758.87	0	-1684.12	2.55	-63.81	2.55	0.00	2.85	0.00
125	126	82.88	-1539.38	-29.74	-647.89	0	-1585.26	2.55	-201.92	2.55	0.00	2.85	0.00
126	126	82.88	-1918.64	-29.74	-977.85	0	-2127.55	2.55	-39.70	2.55	0.00	2.85	0.00
126	127	85.99	-1918.64	-17.84	-903.86	0	-2061.64	2.55	-131.78	2.55	0.00	2.85	0.00
127	127	85.99	-1918.64	-17.84	-903.86	0	-2061.64	2.55	-131.78	2.55	0.00	2.85	0.00
127	128	89.10	-1918.64	-5.95	-866.86	0	-2028.68	2.55	-177.82	2.55	0.00	2.85	0.00
128	128	89.10	-1918.64	-5.95	-866.86	0	-2028.68	2.55	-177.82	2.55	0.00	2.85	0.00
128	129	92.21	-1918.64	5.95	-866.87	0	-2028.69	2.55	-177.81	2.55	0.00	2.85	0.00
129	129	92.21	-1918.64	5.95	-866.87	0	-2028.69	2.55	-177.81	2.55	0.00	2.85	0.00
129	130	95.32	-1918.64	17.84	-903.86	0	-2061.64	2.55	-131.78	2.55	0.00	2.85	0.00
130	130	95.32	-1918.64	17.84	-903.86	0	-2061.64	2.55	-131.78	2.55	0.00	2.85	0.00
130	131	98.43	-1918.64	29.74	-977.85	0	-2127.55	2.55	-39.70	2.55	0.00	2.85	0.00
131	131	98.43	-1539.38	29.74	-647.89	0	-1585.26	2.55	-201.92	2.55	0.00	2.85	0.00
131	132	101.54	-1539.38	41.63	-758.88	0	-1684.13	2.55	-63.80	2.55	0.00	2.85	0.00
132	132	101.54	-1160.12	41.63	-410.71	0	-1125.62	2.55	-248.68	2.55	0.00	2.85	0.00
132	133	104.65	-1160.12	53.53	-558.70	0	-1257.44	2.55	-64.52	2.55	0.00	2.85	0.00
133	133	104.65	-667.09	53.53	-82.43	0	-510.31	2.55	-334.30	2.55	0.00	2.85	0.00
133	134	107.76	-667.09	65.43	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00

30/11/02

Programa DINTEL PACADAR S.A.
CONST1A.F1.T0.MZ-

GRÁFICO DE TENSIONES



TCONST.xls

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1B.F2.T0.MZ+
Construcción sin gradiente en fase constructiva 2 HIPOTESIS B
[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-64.10	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
1	2	3.05	-603.55	-52.43	-64.25	0	-452.50	2.55	-315.33	2.55	0.00	2.85	0.00
2	2	3.05	-1049.64	-52.43	-495.16	0	-1128.47	2.55	-71.24	2.55	0.00	2.85	0.00
2	3	6.10	-1049.64	-40.76	-353.03	0	-1001.87	2.55	-248.11	2.55	0.00	2.85	0.00
3	3	6.10	-1358.46	-40.76	-636.53	0	-1456.66	2.55	-97.56	2.55	0.00	2.85	0.00
3	4	9.15	-1358.46	-29.10	-530.00	0	-1361.77	2.55	-230.13	2.55	0.00	2.85	0.00
4	4	9.15	-1667.29	-29.10	-798.68	0	-1803.34	2.55	-98.04	2.55	0.00	2.85	0.00
4	5	12.20	-1667.29	-17.43	-727.73	0	-1740.14	2.55	-186.33	2.55	0.00	2.85	0.00
5	5	12.20	-1667.29	-17.43	-727.73	0	-1740.14	2.55	-186.33	2.55	0.00	2.85	0.00
5	6	15.25	-1667.29	-5.76	-692.34	0	-1708.62	2.55	-230.37	2.55	0.00	2.85	0.00
6	6	15.25	-1667.29	-5.76	-692.34	0	-1708.62	2.55	-230.37	2.55	0.00	2.85	0.00
6	7	18.30	-1667.29	5.90	-692.54	0	-1708.80	2.55	-230.12	2.55	0.00	2.85	0.00
7	7	18.30	-1667.29	5.90	-692.54	0	-1708.80	2.55	-230.12	2.55	0.00	2.85	0.00
7	8	21.35	-1667.29	17.57	-728.34	0	-1740.69	2.55	-185.57	2.55	0.00	2.85	0.00
8	8	21.35	-1667.29	17.57	-728.34	0	-1740.69	2.55	-185.57	2.55	0.00	2.85	0.00
8	9	24.40	-1667.29	29.24	-799.70	0	-1804.25	2.55	-96.77	2.55	0.00	2.85	0.00
9	9	24.40	-1358.46	29.24	-531.02	0	-1362.67	2.55	-228.86	2.55	0.00	2.85	0.00
9	10	27.45	-1358.46	56.91	-662.38	0	-1479.68	2.55	-65.40	2.55	0.00	2.85	0.00
10	10	27.45	-1049.64	56.91	-378.88	0	-1024.90	2.55	-215.94	2.55	0.00	2.85	0.00
10	11	30.50	-1049.64	84.59	-594.65	0	-1217.09	2.55	52.56	2.55	0.00	2.85	0.00
11	11	30.50	-603.55	84.59	-163.74	0	-541.12	2.55	-191.52	2.55	0.00	2.85	0.00
11	12	33.55	-603.55	112.27	-463.94	0	-808.52	2.55	182.05	2.55	0.00	2.85	0.00
12	10012	33.55	-637.87	-133.69	-498.73	0	-861.98	2.55	202.87	2.55	0.00	2.85	0.00
12	13	37.19	-637.87	-100.69	-72.58	0	-482.40	2.55	-327.42	2.55	0.00	2.85	0.00
13	13	37.19	-1083.95	-100.69	-503.50	0	-1158.38	2.55	-83.33	2.55	0.00	2.85	0.00
13	14	40.82	-1083.95	-67.69	-197.36	0	-885.69	2.55	-464.29	2.55	0.00	2.85	0.00
14	14	40.82	-1564.35	-67.69	-638.36	0	-1593.12	2.55	-230.12	2.55	0.00	2.85	0.00
14	15	44.46	-1564.35	-34.68	-452.22	0	-1427.32	2.55	-461.76	2.55	0.00	2.85	0.00
15	15	44.46	-2044.74	-34.68	-870.18	0	-2114.22	2.55	-256.27	2.55	0.00	2.85	0.00
15	16	48.10	-2044.74	-20.77	-769.34	0	-2024.40	2.55	-381.76	2.55	0.00	2.85	0.00
16	16	48.10	-2044.74	-20.77	-769.34	0	-2024.40	2.55	-381.76	2.55	0.00	2.85	0.00
16	17	51.73	-2044.74	-6.86	-719.07	0	-1979.63	2.55	-444.31	2.55	0.00	2.85	0.00
17	17	51.73	-2044.74	-6.86	-719.07	0	-1979.63	2.55	-444.31	2.55	0.00	2.85	0.00
17	18	55.37	-2044.74	7.05	-719.37	0	-1979.89	2.55	-443.94	2.55	0.00	2.85	0.00
18	18	55.37	-2044.74	7.05	-719.37	0	-1979.89	2.55	-443.94	2.55	0.00	2.85	0.00
18	19	59.01	-2044.74	20.96	-770.25	0	-2025.21	2.55	-380.63	2.55	0.00	2.85	0.00
19	19	59.01	-2044.74	20.95	-770.25	0	-2025.21	2.55	-380.63	2.55	0.00	2.85	0.00
19	20	62.64	-2044.74	34.86	-871.72	0	-2115.60	2.55	-254.35	2.55	0.00	2.85	0.00
20	20	62.64	-1564.35	34.86	-453.76	0	-1428.69	2.55	-459.84	2.55	0.00	2.85	0.00
20	21	66.28	-1564.35	67.86	-640.52	0	-1595.05	2.55	-227.44	2.55	0.00	2.85	0.00
21	21	66.28	-1083.95	67.86	-199.52	0	-887.61	2.55	-461.60	2.55	0.00	2.85	0.00
21	22	69.91	-1083.95	100.86	-506.28	0	-1160.86	2.55	-79.87	2.55	0.00	2.85	0.00
22	22	69.91	-637.87	100.86	-75.36	0	-484.88	2.55	-323.96	2.55	0.00	2.85	0.00
22	23	73.55	-637.87	133.86	-502.14	0	-865.02	2.55	207.11	2.55	0.00	2.85	0.00
23	10023	73.55	-603.55	-114.32	-467.35	0	-811.56	2.55	186.29	2.55	0.00	2.85	0.00
23	24	76.66	-603.55	-86.09	-155.69	0	-533.95	2.55	-201.54	2.55	0.00	2.85	0.00
24	24	76.66	-1049.64	-86.09	-586.60	0	-1209.92	2.55	42.55	2.55	0.00	2.85	0.00
24	25	79.77	-1049.64	-57.87	-362.73	0	-1010.51	2.55	-236.04	2.55	0.00	2.85	0.00
25	25	79.77	-1392.78	-57.87	-677.74	0	-1515.83	2.55	-68.76	2.55	0.00	2.85	0.00
25	26	82.88	-1392.78	-29.65	-541.65	0	-1394.61	2.55	-238.12	2.55	0.00	2.85	0.00
26	26	82.88	-1735.92	-29.65	-840.17	0	-1885.25	2.55	-91.35	2.55	0.00	2.85	0.00
26	27	85.99	-1735.92	-17.75	-766.46	0	-1819.59	2.55	-183.08	2.55	0.00	2.85	0.00
27	27	85.99	-1735.92	-17.75	-766.46	0	-1819.59	2.55	-183.08	2.55	0.00	2.85	0.00
27	28	89.10	-1735.92	-5.86	-729.74	0	-1786.88	2.55	-228.77	2.55	0.00	2.85	0.00
28	28	89.10	-1735.92	-5.86	-729.74	0	-1786.88	2.55	-228.77	2.55	0.00	2.85	0.00
28	29	92.21	-1735.92	6.04	-730.04	0	-1787.15	2.55	-228.40	2.55	0.00	2.85	0.00
29	29	92.21	-1735.92	6.04	-730.04	0	-1787.15	2.55	-228.40	2.55	0.00	2.85	0.00
29	30	95.32	-1735.92	17.93	-767.31	0	-1820.35	2.55	-182.02	2.55	0.00	2.85	0.00
30	30	95.32	-1735.92	17.93	-767.31	0	-1820.35	2.55	-182.02	2.55	0.00	2.85	0.00
30	31	98.43	-1735.92	29.83	-841.58	0	-1886.50	2.55	-89.60	2.55	0.00	2.85	0.00
31	31	98.43	-1392.78	29.83	-543.06	0	-1395.87	2.55	-236.36	2.55	0.00	2.85	0.00
31	32	101.54	-1392.78	41.72	-654.33	0	-1494.98	2.55	-97.90	2.55	0.00	2.85	0.00
32	32	101.54	-1049.64	41.72	-339.32	0	-989.66	2.55	-265.17	2.55	0.00	2.85	0.00
32	33	104.65	-1049.64	53.62	-487.60	0	-1121.74	2.55	-80.65	2.55	0.00	2.85	0.00
33	33	104.65	-603.55	53.62	-56.69	0	-445.77	2.55	-324.73	2.55	0.00	2.85	0.00
33	34	107.76	-603.55	65.52	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	101	0.00	-603.55	-64.10	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	102	3.05	-603.55	-52.43	-64.25	0	-452.50	2.55	-315.33	2.55	0.00	2.85	0.00
102	102	3.05	-1049.64	-52.43	-495.16	0	-1128.47	2.55	-71.24	2.55	0.00	2.85	0.00
102	103	6.10	-1049.64	-40.76	-353.03	0	-1001.87	2.55	-248.11	2.55	0.00	2.85	0.00
103	103	6.10	-1358.46	-40.76	-636.53	0	-1456.66	2.55	-97.56	2.55	0.00	2.85	0.00
103	104	9.15	-1358.46	-29.10	-530.00	0	-1361.77	2.55	-230.13	2.55	0.00	2.85	0.00
104	104	9.15	-1667.29	-29.10	-798.68	0	-1803.34	2.55	-98.04	2.55	0.00	2.85	0.00
104	105	12.20	-1667.29	-17.43	-727.73	0	-1740.14	2.55	-186.33	2.55	0.00	2.85	0.00
105	105	12.20	-1667.29	-17.43	-727.73	0	-1740.14	2.55	-186.33	2.55	0.00	2.85	0.00

TCONST

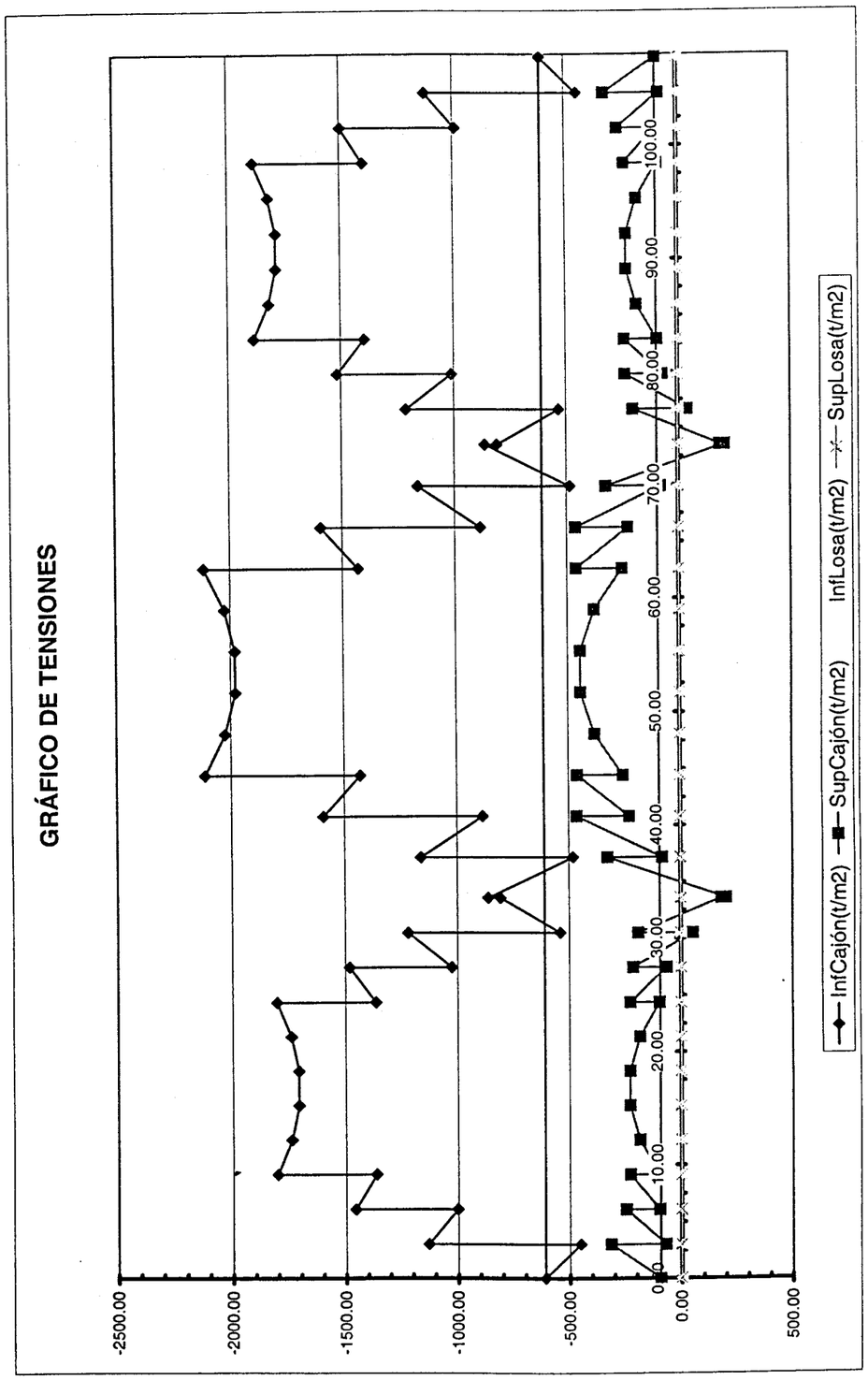
Programa DINTEL PACADAR S.A.
CONST1B.F2.T0.MZ+

30/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1B.F2.T0.MZ+
Construcción sin gradiente en fase constructiva 2 HIPOTESIS B
[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	-5.76	-692.34	0	-1708.62	2.55	-230.37	2.55	0.00	2.85	0.00
106	106	15.25	-1667.29	-5.76	-692.34	0	-1708.62	2.55	-230.37	2.55	0.00	2.85	0.00
106	107	18.30	-1667.29	5.90	-692.54	0	-1708.80	2.55	-230.12	2.55	0.00	2.85	0.00
107	107	18.30	-1667.29	5.90	-692.54	0	-1708.80	2.55	-230.12	2.55	0.00	2.85	0.00
107	108	21.35	-1667.29	17.57	-728.34	0	-1740.69	2.55	-185.57	2.55	0.00	2.85	0.00
108	108	21.35	-1667.29	17.57	-728.34	0	-1740.69	2.55	-185.57	2.55	0.00	2.85	0.00
108	109	24.40	-1667.29	29.24	-799.70	0	-1804.25	2.55	-96.77	2.55	0.00	2.85	0.00
109	109	24.40	-1358.46	29.24	-531.02	0	-1362.67	2.55	-228.86	2.55	0.00	2.85	0.00
109	110	27.45	-1358.46	56.91	-662.38	0	-1479.68	2.55	-65.40	2.55	0.00	2.85	0.00
110	110	27.45	-1049.64	56.91	-378.88	0	-1024.90	2.55	-215.94	2.55	0.00	2.85	0.00
110	111	30.50	-1049.64	84.59	-594.65	0	-1217.09	2.55	52.56	2.55	0.00	2.85	0.00
111	111	30.50	-603.55	84.59	-163.74	0	-541.12	2.55	-191.52	2.55	0.00	2.85	0.00
111	112	33.55	-603.55	112.27	-463.94	0	-808.52	2.55	182.05	2.55	0.00	2.85	0.00
112	10112	33.55	-637.87	-133.69	-498.73	0	-861.98	2.55	202.87	2.55	0.00	2.85	0.00
112	113	37.19	-637.87	-100.69	-72.58	0	-482.40	2.55	-327.42	2.55	0.00	2.85	0.00
113	113	37.19	-1083.95	-100.69	-503.50	0	-1158.38	2.55	-83.33	2.55	0.00	2.85	0.00
113	114	40.82	-1083.95	-67.69	-197.36	0	-885.69	2.55	-464.29	2.55	0.00	2.85	0.00
114	114	40.82	-1564.35	-67.69	-638.36	0	-1593.12	2.55	-230.12	2.55	0.00	2.85	0.00
114	115	44.46	-1564.35	-34.68	-452.22	0	-1427.32	2.55	-461.76	2.55	0.00	2.85	0.00
115	115	44.46	-2044.74	-34.68	-870.18	0	-2114.22	2.55	-256.27	2.55	0.00	2.85	0.00
115	116	48.10	-2044.74	-20.77	-769.34	0	-2024.40	2.55	-381.76	2.55	0.00	2.85	0.00
116	116	48.10	-2044.74	-20.77	-769.34	0	-2024.40	2.55	-381.76	2.55	0.00	2.85	0.00
116	117	51.73	-2044.74	-6.86	-719.07	0	-1979.63	2.55	-444.31	2.55	0.00	2.85	0.00
117	117	51.73	-2044.74	-6.86	-719.07	0	-1979.63	2.55	-444.31	2.55	0.00	2.85	0.00
117	118	55.37	-2044.74	7.05	-719.37	0	-1979.89	2.55	-443.94	2.55	0.00	2.85	0.00
118	118	55.37	-2044.74	7.05	-719.37	0	-1979.89	2.55	-443.94	2.55	0.00	2.85	0.00
118	119	59.01	-2044.74	20.96	-770.25	0	-2025.21	2.55	-380.63	2.55	0.00	2.85	0.00
119	119	59.01	-2044.74	20.95	-770.25	0	-2025.21	2.55	-380.63	2.55	0.00	2.85	0.00
119	120	62.64	-2044.74	34.86	-871.72	0	-2115.60	2.55	-254.35	2.55	0.00	2.85	0.00
120	120	62.64	-1564.35	34.86	-453.76	0	-1428.69	2.55	-459.84	2.55	0.00	2.85	0.00
120	121	66.28	-1564.35	67.86	-640.52	0	-1595.05	2.55	-227.44	2.55	0.00	2.85	0.00
121	121	66.28	-1083.95	67.86	-199.52	0	-887.61	2.55	-461.60	2.55	0.00	2.85	0.00
121	122	69.91	-1083.95	100.86	-506.28	0	-1160.86	2.55	-79.87	2.55	0.00	2.85	0.00
122	122	69.91	-637.87	100.86	-75.36	0	-484.88	2.55	-323.96	2.55	0.00	2.85	0.00
122	123	73.55	-637.87	133.86	-502.14	0	-865.02	2.55	207.11	2.55	0.00	2.85	0.00
123	10123	73.55	-603.55	-114.32	-467.35	0	-811.56	2.55	186.29	2.55	0.00	2.85	0.00
123	124	76.66	-603.55	-86.09	-155.69	0	-533.95	2.55	-201.54	2.55	0.00	2.85	0.00
124	124	76.66	-1049.64	-86.09	-586.60	0	-1209.92	2.55	42.55	2.55	0.00	2.85	0.00
124	125	79.77	-1049.64	-57.87	-362.73	0	-1010.51	2.55	-236.04	2.55	0.00	2.85	0.00
125	125	79.77	-1392.78	-57.87	-677.74	0	-1515.83	2.55	-68.76	2.55	0.00	2.85	0.00
125	126	82.88	-1392.78	-29.65	-541.65	0	-1394.61	2.55	-238.12	2.55	0.00	2.85	0.00
126	126	82.88	-1735.92	-29.65	-840.17	0	-1885.25	2.55	-91.35	2.55	0.00	2.85	0.00
126	127	85.99	-1735.92	-17.75	-766.46	0	-1819.59	2.55	-183.08	2.55	0.00	2.85	0.00
127	127	85.99	-1735.92	-17.75	-766.46	0	-1819.59	2.55	-183.08	2.55	0.00	2.85	0.00
127	128	89.10	-1735.92	-5.86	-729.74	0	-1786.88	2.55	-228.77	2.55	0.00	2.85	0.00
128	128	89.10	-1735.92	-5.86	-729.74	0	-1786.88	2.55	-228.77	2.55	0.00	2.85	0.00
128	129	92.21	-1735.92	6.04	-730.04	0	-1787.15	2.55	-228.40	2.55	0.00	2.85	0.00
129	129	92.21	-1735.92	6.04	-730.04	0	-1787.15	2.55	-228.40	2.55	0.00	2.85	0.00
129	130	95.32	-1735.92	17.93	-767.31	0	-1820.35	2.55	-182.02	2.55	0.00	2.85	0.00
130	130	95.32	-1735.92	17.93	-767.31	0	-1820.35	2.55	-182.02	2.55	0.00	2.85	0.00
130	131	98.43	-1735.92	29.83	-841.58	0	-1886.50	2.55	-89.60	2.55	0.00	2.85	0.00
131	131	98.43	-1392.78	29.83	-543.06	0	-1395.87	2.55	-236.36	2.55	0.00	2.85	0.00
131	132	101.54	-1392.78	41.72	-654.33	0	-1494.98	2.55	-97.90	2.55	0.00	2.85	0.00
132	132	101.54	-1049.64	41.72	-339.32	0	-989.66	2.55	-265.17	2.55	0.00	2.85	0.00
132	133	104.65	-1049.64	53.62	-487.60	0	-1121.74	2.55	-80.65	2.55	0.00	2.85	0.00
133	133	104.65	-603.55	53.62	-56.69	0	-445.77	2.55	-324.73	2.55	0.00	2.85	0.00
133	134	107.76	-603.55	65.52	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00



Programa DINTEL PACADAR S.A.
CONST1B.F2.T0.MZ+

TCONST

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1B.F2.T0.MZ-
Construcción sin gradiente en fase constructiva 2 HIPOTESIS B

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2

Coef. exc.

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-667.09	-64.10	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
1	2	3.05	-667.09	-52.43	-89.71	0	-516.79	2.55	-325.24	2.55	0.00	2.85	0.00
2	2	3.05	-1160.12	-52.43	-565.98	0	-1263.92	2.55	-55.46	2.55	0.00	2.85	0.00
2	3	6.10	-1160.12	-40.76	-423.85	0	-1137.32	2.55	-232.33	2.55	0.00	2.85	0.00
3	3	6.10	-1501.46	-40.76	-737.21	0	-1639.98	2.55	-65.94	2.55	0.00	2.85	0.00
3	4	9.15	-1501.46	-29.10	-630.68	0	-1545.09	2.55	-198.50	2.55	0.00	2.85	0.00
4	4	9.15	-1842.79	-29.10	-927.64	0	-2033.15	2.55	-52.51	2.55	0.00	2.85	0.00
4	5	12.20	-1842.79	-17.43	-856.69	0	-1969.95	2.55	-140.80	2.55	0.00	2.85	0.00
5	5	12.20	-1842.79	-17.43	-856.69	0	-1969.95	2.55	-140.80	2.55	0.00	2.85	0.00
5	6	15.25	-1842.79	-5.76	-821.30	0	-1938.43	2.55	-184.84	2.55	0.00	2.85	0.00
6	6	15.25	-1842.79	-5.76	-821.30	0	-1938.43	2.55	-184.84	2.55	0.00	2.85	0.00
6	7	18.30	-1842.79	5.90	-821.50	0	-1938.61	2.55	-184.59	2.55	0.00	2.85	0.00
7	7	18.30	-1842.79	5.90	-821.50	0	-1938.61	2.55	-184.59	2.55	0.00	2.85	0.00
7	8	21.35	-1842.79	17.57	-857.30	0	-1970.49	2.55	-140.04	2.55	0.00	2.85	0.00
8	8	21.35	-1842.79	17.57	-857.30	0	-1970.49	2.55	-140.04	2.55	0.00	2.85	0.00
8	9	24.40	-1842.79	29.24	-928.66	0	-2034.06	2.55	-51.24	2.55	0.00	2.85	0.00
9	9	24.40	-1501.46	29.24	-631.70	0	-1546.00	2.55	-197.23	2.55	0.00	2.85	0.00
9	10	27.45	-1501.46	56.91	-763.06	0	-1663.01	2.55	-33.77	2.55	0.00	2.85	0.00
10	10	27.45	-1160.12	56.91	-449.71	0	-1160.35	2.55	-200.16	2.55	0.00	2.85	0.00
10	11	30.50	-1160.12	84.59	-665.47	0	-1352.54	2.55	68.34	2.55	0.00	2.85	0.00
11	11	30.50	-667.09	84.59	-189.20	0	-605.41	2.55	-201.43	2.55	0.00	2.85	0.00
11	12	33.55	-667.09	112.27	-489.40	0	-872.81	2.55	172.14	2.55	0.00	2.85	0.00
12	10012	33.55	-705.01	-133.69	-527.86	0	-931.90	2.55	195.15	2.55	0.00	2.85	0.00
12	13	37.19	-705.01	-100.69	-101.72	0	-552.32	2.55	-335.14	2.55	0.00	2.85	0.00
13	13	37.19	-1198.05	-100.69	-578.00	0	-1299.46	2.55	-65.35	2.55	0.00	2.85	0.00
13	14	40.82	-1198.05	-67.69	-271.86	0	-1026.77	2.55	-446.32	2.55	0.00	2.85	0.00
14	14	40.82	-1729.01	-67.69	-759.28	0	-1808.67	2.55	-187.50	2.55	0.00	2.85	0.00
14	15	44.46	-1729.01	-34.68	-573.14	0	-1642.87	2.55	-419.14	2.55	0.00	2.85	0.00
15	15	44.46	-2259.98	-34.68	-1035.08	0	-2402.07	2.55	-192.02	2.55	0.00	2.85	0.00
15	16	48.10	-2259.98	-20.77	-934.24	0	-2312.25	2.55	-317.51	2.55	0.00	2.85	0.00
16	16	48.10	-2259.98	-20.77	-934.24	0	-2312.25	2.55	-317.51	2.55	0.00	2.85	0.00
16	17	51.73	-2259.98	-6.86	-883.97	0	-2267.47	2.55	-380.06	2.55	0.00	2.85	0.00
17	17	51.73	-2259.98	-6.86	-883.97	0	-2267.47	2.55	-380.06	2.55	0.00	2.85	0.00
17	18	55.37	-2259.98	7.05	-884.27	0	-2267.74	2.55	-379.69	2.55	0.00	2.85	0.00
18	18	55.37	-2259.98	7.05	-884.27	0	-2267.74	2.55	-379.69	2.55	0.00	2.85	0.00
18	19	59.01	-2259.98	20.96	-935.15	0	-2313.06	2.55	-316.37	2.55	0.00	2.85	0.00
19	19	59.01	-2259.98	20.95	-935.15	0	-2313.06	2.55	-316.37	2.55	0.00	2.85	0.00
19	20	62.64	-2259.98	34.86	-1036.62	0	-2403.45	2.55	-190.10	2.55	0.00	2.85	0.00
20	20	62.64	-1729.01	34.86	-574.68	0	-1644.24	2.55	-417.22	2.55	0.00	2.85	0.00
20	21	66.28	-1729.01	67.86	-761.44	0	-1810.59	2.55	-184.81	2.55	0.00	2.85	0.00
21	21	66.28	-1198.05	67.86	-274.02	0	-1028.69	2.55	-443.63	2.55	0.00	2.85	0.00
21	22	69.91	-1198.05	100.86	-580.78	0	-1301.94	2.55	-61.89	2.55	0.00	2.85	0.00
22	22	69.91	-705.01	100.86	-104.50	0	-554.80	2.55	-331.69	2.55	0.00	2.85	0.00
22	23	73.55	-705.01	133.86	-531.27	0	-934.94	2.55	199.39	2.55	0.00	2.85	0.00
23	10023	73.55	-667.09	-114.32	-492.81	0	-875.85	2.55	176.38	2.55	0.00	2.85	0.00
23	24	76.66	-667.09	-86.09	-181.15	0	-598.24	2.55	-211.45	2.55	0.00	2.85	0.00
24	24	76.66	-1160.12	-86.09	-657.42	0	-1345.37	2.55	58.33	2.55	0.00	2.85	0.00
24	25	79.77	-1160.12	-57.87	-433.55	0	-1145.96	2.55	-220.26	2.55	0.00	2.85	0.00
25	25	79.77	-1539.38	-57.87	-781.72	0	-1704.47	2.55	-35.38	2.55	0.00	2.85	0.00
25	26	82.88	-1539.38	-29.65	-645.63	0	-1583.25	2.55	-204.73	2.55	0.00	2.85	0.00
26	26	82.88	-1918.64	-29.65	-975.59	0	-2125.53	2.55	-42.51	2.55	0.00	2.85	0.00
26	27	85.99	-1918.64	-17.75	-901.88	0	-2059.88	2.55	-134.24	2.55	0.00	2.85	0.00
27	27	85.99	-1918.64	-17.75	-901.88	0	-2059.88	2.55	-134.24	2.55	0.00	2.85	0.00
27	28	89.10	-1918.64	-5.86	-865.16	0	-2027.17	2.55	-179.93	2.55	0.00	2.85	0.00
28	28	89.10	-1918.64	-5.86	-865.16	0	-2027.17	2.55	-179.93	2.55	0.00	2.85	0.00
28	29	92.21	-1918.64	6.04	-865.46	0	-2027.44	2.55	-179.56	2.55	0.00	2.85	0.00
29	29	92.21	-1918.64	6.04	-865.46	0	-2027.44	2.55	-179.56	2.55	0.00	2.85	0.00
29	30	95.32	-1918.64	17.93	-902.73	0	-2060.63	2.55	-133.18	2.55	0.00	2.85	0.00
30	30	95.32	-1918.64	17.93	-902.73	0	-2060.63	2.55	-133.18	2.55	0.00	2.85	0.00
30	31	98.43	-1918.64	29.83	-977.00	0	-2126.79	2.55	-40.76	2.55	0.00	2.85	0.00
31	31	98.43	-1539.38	29.83	-647.04	0	-1584.51	2.55	-202.97	2.55	0.00	2.85	0.00
31	32	101.54	-1539.38	41.72	-758.31	0	-1683.62	2.55	-64.51	2.55	0.00	2.85	0.00
32	32	101.54	-1160.12	41.72	-410.14	0	-1125.11	2.55	-249.39	2.55	0.00	2.85	0.00
32	33	104.65	-1160.12	53.62	-558.42	0	-1257.19	2.55	-64.87	2.55	0.00	2.85	0.00
33	33	104.65	-667.09	53.62	-82.15	0	-510.06	2.55	-334.65	2.55	0.00	2.85	0.00
33	34	107.76	-667.09	65.52	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	101	0.00	-667.09	-64.10	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	102	3.05	-667.09	-52.43	-89.71	0	-516.79	2.55	-325.24	2.55	0.00	2.85	0.00
102	102	3.05	-1160.12	-52.43	-565.98	0	-1263.92	2.55	-55.46	2.55	0.00	2.85	0.00
102	103	6.10	-1160.12	-40.76	-423.85	0	-1137.32	2.55	-232.33	2.55	0.00	2.85	0.00
103	103	6.10	-1501.46	-40.76	-737.21	0	-1639.98	2.55	-65.94	2.55	0.00	2.85	0.00
103	104	9.15	-1501.46	-29.10	-630.68	0	-1545.09	2.55	-198.50	2.55	0.00	2.85	0.00
104	104	9.15	-1842.79	-29.10	-927.64	0	-2033.15	2.55	-52.51	2.55	0.00	2.85	0.00
104	105	12.20	-1842.79	-17.43	-856.69	0	-1969.95	2.55	-140.80	2.55	0.00	2.85	0.00
105	105	12.20	-1842.79	-17.43	-856.69	0	-1969.95	2.55	-140.80	2.55	0.00	2.85	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1B.F2.T0.MZ-

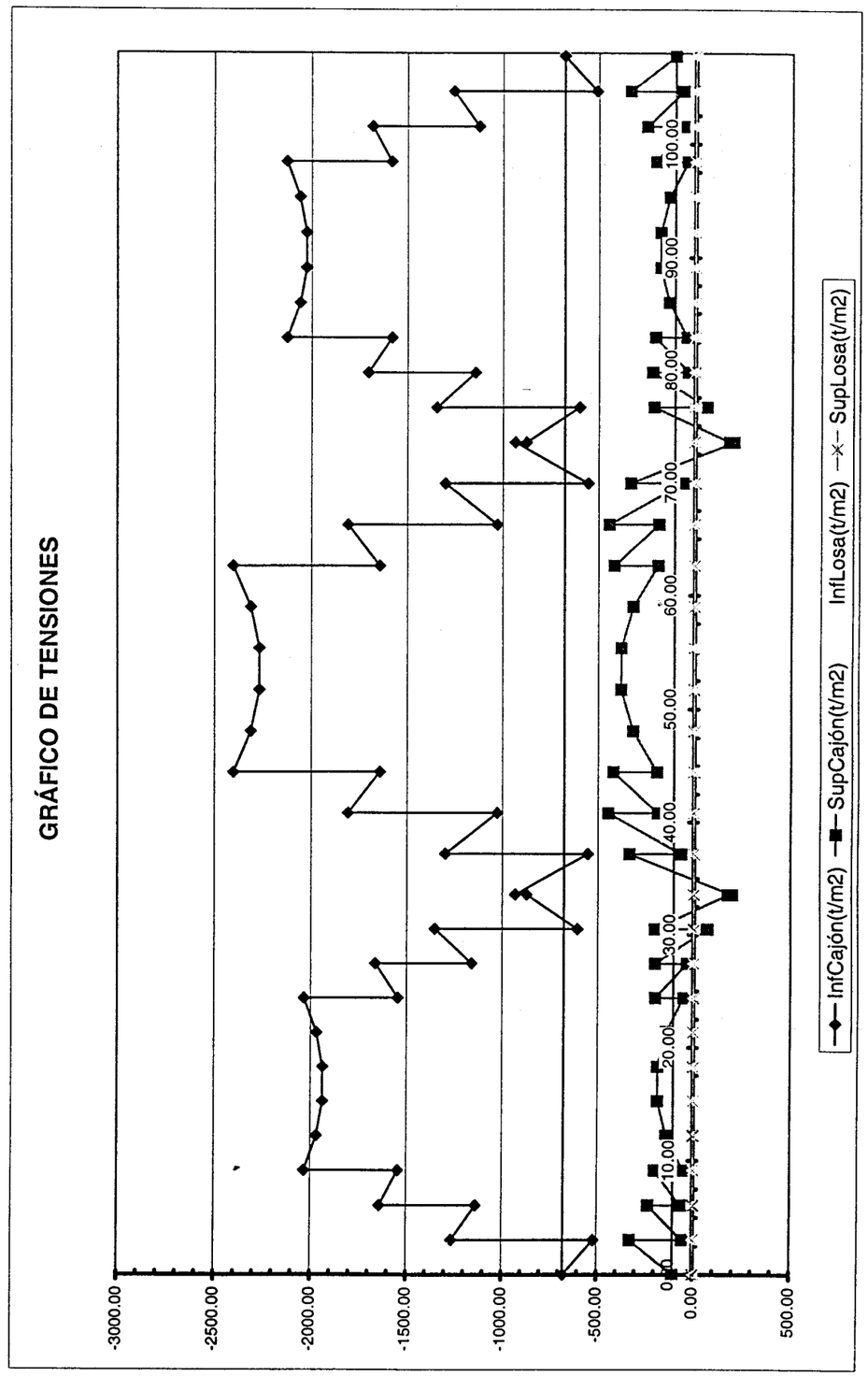
Construcción sin gradiente en fase constructiva 2 HIPOTESIS B

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1842.79	-5.76	-821.30	0	-1938.43	2.55	-184.84	2.55	0.00	2.85	0.00
106	106	15.25	-1842.79	-5.76	-821.30	0	-1938.43	2.55	-184.84	2.55	0.00	2.85	0.00
106	107	18.30	-1842.79	5.90	-821.50	0	-1938.61	2.55	-184.59	2.55	0.00	2.85	0.00
107	107	18.30	-1842.79	5.90	-821.50	0	-1938.61	2.55	-184.59	2.55	0.00	2.85	0.00
107	108	21.35	-1842.79	17.57	-857.30	0	-1970.49	2.55	-140.04	2.55	0.00	2.85	0.00
108	108	21.35	-1842.79	17.57	-857.30	0	-1970.49	2.55	-140.04	2.55	0.00	2.85	0.00
108	109	24.40	-1842.79	29.24	-928.66	0	-2034.06	2.55	-51.24	2.55	0.00	2.85	0.00
109	109	24.40	-1501.46	29.24	-631.70	0	-1546.00	2.55	-197.23	2.55	0.00	2.85	0.00
109	110	27.45	-1501.46	56.91	-763.06	0	-1663.01	2.55	-33.77	2.55	0.00	2.85	0.00
110	110	27.45	-1160.12	56.91	-449.71	0	-1160.35	2.55	-200.16	2.55	0.00	2.85	0.00
110	111	30.50	-1160.12	84.59	-665.47	0	-1352.54	2.55	68.34	2.55	0.00	2.85	0.00
111	111	30.50	-667.09	84.59	-189.20	0	-605.41	2.55	-201.43	2.55	0.00	2.85	0.00
111	112	33.55	-667.09	112.27	-489.40	0	-872.81	2.55	172.14	2.55	0.00	2.85	0.00
112	10112	33.55	-705.01	-133.69	-527.86	0	-931.90	2.55	195.15	2.55	0.00	2.85	0.00
112	113	37.19	-705.01	-100.69	-101.72	0	-552.32	2.55	-335.14	2.55	0.00	2.85	0.00
[illegible]	113	37.19	-1198.05	-100.69	-578.00	0	-1299.46	2.55	-65.35	2.55	0.00	2.85	0.00
[illegible]	114	40.82	-1198.05	-67.69	-271.86	0	-1026.77	2.55	-446.32	2.55	0.00	2.85	0.00
114	114	40.82	-1729.01	-67.69	-759.28	0	-1808.67	2.55	-187.50	2.55	0.00	2.85	0.00
114	115	44.46	-1729.01	-34.68	-573.14	0	-1642.87	2.55	-419.14	2.55	0.00	2.85	0.00
115	115	44.46	-2259.98	-34.68	-1035.08	0	-2402.07	2.55	-192.02	2.55	0.00	2.85	0.00
115	116	48.10	-2259.98	-20.77	-934.24	0	-2312.25	2.55	-317.51	2.55	0.00	2.85	0.00
116	116	48.10	-2259.98	-20.77	-934.24	0	-2312.25	2.55	-317.51	2.55	0.00	2.85	0.00
116	117	51.73	-2259.98	-6.86	-883.97	0	-2267.47	2.55	-380.06	2.55	0.00	2.85	0.00
117	117	51.73	-2259.98	-6.86	-883.97	0	-2267.47	2.55	-380.06	2.55	0.00	2.85	0.00
117	118	55.37	-2259.98	7.05	-884.27	0	-2267.74	2.55	-379.69	2.55	0.00	2.85	0.00
118	118	55.37	-2259.98	7.05	-884.27	0	-2267.74	2.55	-379.69	2.55	0.00	2.85	0.00
118	119	59.01	-2259.98	20.96	-935.15	0	-2313.06	2.55	-316.37	2.55	0.00	2.85	0.00
119	119	59.01	-2259.98	20.95	-935.15	0	-2313.06	2.55	-316.37	2.55	0.00	2.85	0.00
119	120	62.64	-2259.98	34.86	-1036.62	0	-2403.45	2.55	-190.10	2.55	0.00	2.85	0.00
120	120	62.64	-1729.01	34.86	-574.68	0	-1644.24	2.55	-417.22	2.55	0.00	2.85	0.00
120	121	66.28	-1729.01	67.86	-761.44	0	-1810.59	2.55	-184.81	2.55	0.00	2.85	0.00
121	121	66.28	-1198.05	67.86	-274.02	0	-1028.69	2.55	-443.63	2.55	0.00	2.85	0.00
121	122	69.91	-1198.05	100.86	-580.78	0	-1301.94	2.55	-61.89	2.55	0.00	2.85	0.00
122	122	69.91	-705.01	100.86	-104.50	0	-554.80	2.55	-331.69	2.55	0.00	2.85	0.00
122	123	73.55	-705.01	133.86	-531.27	0	-934.94	2.55	199.39	2.55	0.00	2.85	0.00
123	10123	73.55	-667.09	-114.32	-492.81	0	-875.85	2.55	176.38	2.55	0.00	2.85	0.00
123	124	76.66	-667.09	-86.09	-181.15	0	-598.24	2.55	-211.45	2.55	0.00	2.85	0.00
124	124	76.66	-1160.12	-86.09	-657.42	0	-1345.37	2.55	58.33	2.55	0.00	2.85	0.00
124	125	79.77	-1160.12	-57.87	-433.55	0	-1145.96	2.55	-220.26	2.55	0.00	2.85	0.00
125	125	79.77	-1539.38	-57.87	-781.72	0	-1704.47	2.55	-35.38	2.55	0.00	2.85	0.00
[illegible]	126	82.88	-1539.38	-29.65	-645.63	0	-1583.25	2.55	-204.73	2.55	0.00	2.85	0.00
[illegible]	126	82.88	-1918.64	-29.65	-975.59	0	-2125.53	2.55	-42.51	2.55	0.00	2.85	0.00
126	127	85.99	-1918.64	-17.75	-901.88	0	-2059.88	2.55	-134.24	2.55	0.00	2.85	0.00
127	127	85.99	-1918.64	-17.75	-901.88	0	-2059.88	2.55	-134.24	2.55	0.00	2.85	0.00
127	128	89.10	-1918.64	-5.86	-865.16	0	-2027.17	2.55	-179.93	2.55	0.00	2.85	0.00
128	128	89.10	-1918.64	-5.86	-865.16	0	-2027.17	2.55	-179.93	2.55	0.00	2.85	0.00
128	129	92.21	-1918.64	6.04	-865.46	0	-2027.44	2.55	-179.56	2.55	0.00	2.85	0.00
129	129	92.21	-1918.64	6.04	-865.46	0	-2027.44	2.55	-179.56	2.55	0.00	2.85	0.00
129	130	95.32	-1918.64	17.93	-902.73	0	-2060.63	2.55	-133.18	2.55	0.00	2.85	0.00
130	130	95.32	-1918.64	17.93	-902.73	0	-2060.63	2.55	-133.18	2.55	0.00	2.85	0.00
130	131	98.43	-1918.64	29.83	-977.00	0	-2126.79	2.55	-40.76	2.55	0.00	2.85	0.00
131	131	98.43	-1539.38	29.83	-647.04	0	-1584.51	2.55	-202.97	2.55	0.00	2.85	0.00
131	132	101.54	-1539.38	41.72	-758.31	0	-1683.62	2.55	-64.51	2.55	0.00	2.85	0.00
132	132	101.54	-1160.12	41.72	-410.14	0	-1125.11	2.55	-249.39	2.55	0.00	2.85	0.00
132	133	104.65	-1160.12	53.62	-558.42	0	-1257.19	2.55	-64.87	2.55	0.00	2.85	0.00
133	133	104.65	-667.09	53.62	-82.15	0	-510.06	2.55	-334.65	2.55	0.00	2.85	0.00
133	134	107.76	-667.09	65.52	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00

GRÁFICO DE TENSIONES



CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1C.F2.T0.MZ+

Construcción CON gradiente en fase constructiva 2 HIPOTESIS C

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [0; 1]GRADF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-64.10	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
1	2	3.05	-603.55	-56.71	-51.19	0	-440.87	2.55	-331.58	2.55	0.00	2.85	0.00
2	2	3.05	-1049.64	-56.71	-482.10	0	-1116.84	2.55	-87.49	2.55	0.00	2.85	0.00
2	3	6.10	-1049.64	-45.04	-326.92	0	-978.61	2.55	-280.60	2.55	0.00	2.85	0.00
3	3	6.10	-1358.46	-45.04	-610.42	0	-1433.40	2.55	-130.06	2.55	0.00	2.85	0.00
3	4	9.15	-1358.46	-33.38	-490.83	0	-1326.88	2.55	-278.88	2.55	0.00	2.85	0.00
4	4	9.15	-1667.29	-33.38	-759.51	0	-1768.45	2.55	-146.78	2.55	0.00	2.85	0.00
4	5	12.20	-1667.29	-21.71	-675.51	0	-1693.63	2.55	-251.31	2.55	0.00	2.85	0.00
5	5	12.20	-1667.29	-21.71	-675.51	0	-1693.63	2.55	-251.31	2.55	0.00	2.85	0.00
5	6	15.25	-1667.29	-10.04	-627.06	0	-1650.47	2.55	-311.60	2.55	0.00	2.85	0.00
6	6	15.25	-1667.29	-10.04	-627.06	0	-1650.47	2.55	-311.60	2.55	0.00	2.85	0.00
6	7	18.30	-1667.29	1.62	-614.20	0	-1639.02	2.55	-327.61	2.55	0.00	2.85	0.00
7	7	18.30	-1667.29	1.62	-614.20	0	-1639.02	2.55	-327.61	2.55	0.00	2.85	0.00
7	8	21.35	-1667.29	13.29	-636.95	0	-1659.28	2.55	-299.30	2.55	0.00	2.85	0.00
8	8	21.35	-1667.29	13.29	-636.95	0	-1659.28	2.55	-299.30	2.55	0.00	2.85	0.00
8	9	24.40	-1667.29	24.96	-695.25	0	-1711.21	2.55	-226.75	2.55	0.00	2.85	0.00
9	9	24.40	-1358.46	24.96	-426.57	0	-1269.64	2.55	-358.84	2.55	0.00	2.85	0.00
9	10	27.45	-1358.46	52.63	-544.87	0	-1375.01	2.55	-211.63	2.55	0.00	2.85	0.00
10	10	27.45	-1049.64	52.63	-261.37	0	-920.23	2.55	-362.17	2.55	0.00	2.85	0.00
10	11	30.50	-1049.64	80.31	-464.09	0	-1100.80	2.55	-109.91	2.55	0.00	2.85	0.00
11	11	30.50	-603.55	80.31	-33.18	0	-424.83	2.55	-353.99	2.55	0.00	2.85	0.00
11	12	33.55	-603.55	107.99	-320.32	0	-680.59	2.55	3.33	2.55	0.00	2.85	0.00
12	10012	33.55	-637.87	-133.70	-355.11	0	-734.05	2.55	24.15	2.55	0.00	2.85	0.00
12	13	37.19	-637.87	-100.70	71.08	0	-354.44	2.55	-506.19	2.55	0.00	2.85	0.00
13	13	37.19	-1083.95	-100.70	-359.84	0	-1030.42	2.55	-262.10	2.55	0.00	2.85	0.00
13	14	40.82	-1083.95	-67.70	-53.65	0	-757.68	2.55	-643.12	2.55	0.00	2.85	0.00
14	14	40.82	-1564.35	-67.70	-494.65	0	-1465.12	2.55	-408.96	2.55	0.00	2.85	0.00
14	15	44.46	-1564.35	-34.69	-308.47	0	-1299.28	2.55	-640.64	2.55	0.00	2.85	0.00
15	15	44.46	-2044.74	-34.69	-726.43	0	-1986.18	2.55	-435.15	2.55	0.00	2.85	0.00
15	16	48.10	-2044.74	-20.78	-625.55	0	-1896.32	2.55	-560.69	2.55	0.00	2.85	0.00
16	16	48.10	-2044.74	-20.78	-625.55	0	-1896.32	2.55	-560.69	2.55	0.00	2.85	0.00
16	17	51.73	-2044.74	-6.87	-575.23	0	-1851.50	2.55	-623.31	2.55	0.00	2.85	0.00
17	17	51.73	-2044.74	-6.87	-575.23	0	-1851.50	2.55	-623.31	2.55	0.00	2.85	0.00
17	18	55.37	-2044.74	7.04	-575.49	0	-1851.73	2.55	-622.99	2.55	0.00	2.85	0.00
18	18	55.37	-2044.74	7.04	-575.49	0	-1851.73	2.55	-622.99	2.55	0.00	2.85	0.00
18	19	59.01	-2044.74	20.95	-626.33	0	-1897.02	2.55	-559.72	2.55	0.00	2.85	0.00
19	19	59.01	-2044.74	20.94	-626.33	0	-1897.02	2.55	-559.72	2.55	0.00	2.85	0.00
19	20	62.64	-2044.74	34.85	-727.76	0	-1987.36	2.55	-433.50	2.55	0.00	2.85	0.00
20	20	62.64	-1564.35	34.85	-309.80	0	-1300.46	2.55	-638.99	2.55	0.00	2.85	0.00
20	21	66.28	-1564.35	67.85	-496.51	0	-1466.77	2.55	-406.64	2.55	0.00	2.85	0.00
21	21	66.28	-1083.95	67.85	-55.51	0	-759.34	2.55	-640.81	2.55	0.00	2.85	0.00
21	22	69.91	-1083.95	100.85	-362.23	0	-1032.55	2.55	-259.12	2.55	0.00	2.85	0.00
22	22	69.91	-637.87	100.85	68.69	0	-356.57	2.55	-503.22	2.55	0.00	2.85	0.00
22	23	73.55	-637.87	133.85	-358.04	0	-736.66	2.55	27.79	2.55	0.00	2.85	0.00
23	10023	73.55	-603.55	-110.11	-323.25	0	-683.20	2.55	6.98	2.55	0.00	2.85	0.00
23	24	76.66	-603.55	-81.88	-24.69	0	-417.26	2.55	-364.56	2.55	0.00	2.85	0.00
24	24	76.66	-1049.64	-81.88	-455.60	0	-1093.24	2.55	-120.47	2.55	0.00	2.85	0.00
24	25	79.77	-1049.64	-53.66	-244.83	0	-905.49	2.55	-382.76	2.55	0.00	2.85	0.00
25	25	79.77	-1392.78	-53.66	-559.84	0	-1410.81	2.55	-215.48	2.55	0.00	2.85	0.00
25	26	82.88	-1392.78	-25.44	-436.85	0	-1301.26	2.55	-368.53	2.55	0.00	2.85	0.00
26	26	82.88	-1735.92	-25.44	-735.37	0	-1791.90	2.55	-221.77	2.55	0.00	2.85	0.00
26	27	85.99	-1735.92	-13.54	-674.76	0	-1737.91	2.55	-297.19	2.55	0.00	2.85	0.00
27	27	85.99	-1735.92	-13.54	-674.76	0	-1737.91	2.55	-297.19	2.55	0.00	2.85	0.00
27	28	89.10	-1735.92	-1.65	-651.14	0	-1716.87	2.55	-326.58	2.55	0.00	2.85	0.00
28	28	89.10	-1735.92	-1.65	-651.14	0	-1716.87	2.55	-326.58	2.55	0.00	2.85	0.00
28	29	92.21	-1735.92	10.25	-664.54	0	-1728.81	2.55	-309.91	2.55	0.00	2.85	0.00
29	29	92.21	-1735.92	10.25	-664.54	0	-1728.81	2.55	-309.91	2.55	0.00	2.85	0.00
29	30	95.32	-1735.92	22.14	-714.91	0	-1773.67	2.55	-247.23	2.55	0.00	2.85	0.00
30	30	95.32	-1735.92	22.14	-714.91	0	-1773.67	2.55	-247.23	2.55	0.00	2.85	0.00
30	31	98.43	-1735.92	34.04	-802.28	0	-1851.50	2.55	-138.50	2.55	0.00	2.85	0.00
31	31	98.43	-1392.78	34.04	-503.76	0	-1360.86	2.55	-285.27	2.55	0.00	2.85	0.00
31	32	101.54	-1392.78	45.93	-628.13	0	-1471.64	2.55	-130.50	2.55	0.00	2.85	0.00
32	32	101.54	-1049.64	45.93	-313.12	0	-966.32	2.55	-297.77	2.55	0.00	2.85	0.00
32	33	104.65	-1049.64	57.83	-474.50	0	-1110.07	2.55	-96.95	2.55	0.00	2.85	0.00
33	33	104.65	-603.55	57.83	-43.59	0	-434.10	2.55	-341.04	2.55	0.00	2.85	0.00
33	34	107.76	-603.55	65.52	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	101	0.00	-603.55	-64.10	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	102	3.05	-603.55	-56.71	-51.19	0	-440.87	2.55	-331.58	2.55	0.00	2.85	0.00
102	102	3.05	-1049.64	-56.71	-482.10	0	-1116.84	2.55	-87.49	2.55	0.00	2.85	0.00
102	103	6.10	-1049.64	-45.04	-326.92	0	-978.61	2.55	-280.60	2.55	0.00	2.85	0.00
103	103	6.10	-1358.46	-45.04	-610.42	0	-1433.40	2.55	-130.06	2.55	0.00	2.85	0.00
103	104	9.15	-1358.46	-33.38	-490.83	0	-1326.88	2.55	-278.88	2.55	0.00	2.85	0.00
104	104	9.15	-1667.29	-33.38	-759.51	0	-1768.45	2.55	-146.78	2.55	0.00	2.85	0.00
104	105	12.20	-1667.29	-21.71	-675.51	0	-1693.63	2.55	-251.31	2.55	0.00	2.85	0.00
105	105	12.20	-1667.29	-21.71	-675.51	0	-1693.63	2.55	-251.31	2.55	0.00	2.85	0.00

TCONST

Programa DINTEL PACADAR S.A.
CONST1C.F2.T0.MZ+

30/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1C.F2.T0.MZ+

Construcción CON gradiente en fase constructiva 2 HIPOTESIS C

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [0; 1]GRADF2

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	-10.04	-627.06	0	-1650.47	2.55	-311.60	2.55	0.00	2.85	0.00
106	106	15.25	-1667.29	-10.04	-627.06	0	-1650.47	2.55	-311.60	2.55	0.00	2.85	0.00
106	107	18.30	-1667.29	1.62	-614.20	0	-1639.02	2.55	-327.61	2.55	0.00	2.85	0.00
107	107	18.30	-1667.29	1.62	-614.20	0	-1639.02	2.55	-327.61	2.55	0.00	2.85	0.00
107	108	21.35	-1667.29	13.29	-636.95	0	-1659.28	2.55	-299.30	2.55	0.00	2.85	0.00
108	108	21.35	-1667.29	13.29	-636.95	0	-1659.28	2.55	-299.30	2.55	0.00	2.85	0.00
108	109	24.40	-1667.29	24.96	-695.25	0	-1711.21	2.55	-226.75	2.55	0.00	2.85	0.00
109	109	24.40	-1358.46	24.96	-426.57	0	-1269.64	2.55	-358.84	2.55	0.00	2.85	0.00
109	110	27.45	-1358.46	52.63	-544.87	0	-1375.01	2.55	-211.63	2.55	0.00	2.85	0.00
110	110	27.45	-1049.64	52.63	-261.37	0	-920.23	2.55	-362.17	2.55	0.00	2.85	0.00
110	111	30.50	-1049.64	80.31	-464.09	0	-1100.80	2.55	-109.91	2.55	0.00	2.85	0.00
111	111	30.50	-603.55	80.31	-33.18	0	-424.83	2.55	-353.99	2.55	0.00	2.85	0.00
111	112	33.55	-603.55	107.99	-320.32	0	-680.59	2.55	3.33	2.55	0.00	2.85	0.00
112	10112	33.55	-637.87	-133.70	-355.11	0	-734.05	2.55	24.15	2.55	0.00	2.85	0.00
112	113	37.19	-637.87	-100.70	71.08	0	-354.44	2.55	-506.19	2.55	0.00	2.85	0.00
113	113	37.19	-1083.95	-100.70	-359.84	0	-1030.42	2.55	-262.10	2.55	0.00	2.85	0.00
113	114	40.82	-1083.95	-67.70	-53.65	0	-757.68	2.55	-643.12	2.55	0.00	2.85	0.00
114	114	40.82	-1564.35	-67.70	-494.65	0	-1465.12	2.55	-408.96	2.55	0.00	2.85	0.00
114	115	44.46	-1564.35	-34.69	-308.47	0	-1299.28	2.55	-640.64	2.55	0.00	2.85	0.00
115	115	44.46	-2044.74	-34.69	-726.43	0	-1986.18	2.55	-435.15	2.55	0.00	2.85	0.00
115	116	48.10	-2044.74	-20.78	-625.55	0	-1896.32	2.55	-560.69	2.55	0.00	2.85	0.00
116	116	48.10	-2044.74	-20.78	-625.55	0	-1896.32	2.55	-560.69	2.55	0.00	2.85	0.00
116	117	51.73	-2044.74	-6.87	-575.23	0	-1851.50	2.55	-623.31	2.55	0.00	2.85	0.00
117	117	51.73	-2044.74	-6.87	-575.23	0	-1851.50	2.55	-623.31	2.55	0.00	2.85	0.00
117	118	55.37	-2044.74	7.04	-575.49	0	-1851.73	2.55	-622.99	2.55	0.00	2.85	0.00
118	118	55.37	-2044.74	7.04	-575.49	0	-1851.73	2.55	-622.99	2.55	0.00	2.85	0.00
118	119	59.01	-2044.74	20.95	-626.33	0	-1897.02	2.55	-559.72	2.55	0.00	2.85	0.00
119	119	59.01	-2044.74	20.94	-626.33	0	-1897.02	2.55	-559.72	2.55	0.00	2.85	0.00
119	120	62.64	-2044.74	34.85	-727.76	0	-1987.36	2.55	-433.50	2.55	0.00	2.85	0.00
120	120	62.64	-1564.35	34.85	-309.80	0	-1300.46	2.55	-638.99	2.55	0.00	2.85	0.00
120	121	66.28	-1564.35	67.85	-496.51	0	-1466.77	2.55	-406.64	2.55	0.00	2.85	0.00
121	121	66.28	-1083.95	67.85	-55.51	0	-759.34	2.55	-640.81	2.55	0.00	2.85	0.00
121	122	69.91	-1083.95	100.85	-362.23	0	-1032.55	2.55	-259.12	2.55	0.00	2.85	0.00
122	122	69.91	-637.87	100.85	68.69	0	-356.57	2.55	-503.22	2.55	0.00	2.85	0.00
122	123	73.55	-637.87	133.85	-358.04	0	-736.66	2.55	27.79	2.55	0.00	2.85	0.00
123	10123	73.55	-603.55	-110.11	-323.25	0	-683.20	2.55	6.98	2.55	0.00	2.85	0.00
123	124	76.66	-603.55	-81.88	-24.69	0	-417.26	2.55	-364.56	2.55	0.00	2.85	0.00
124	124	76.66	-1049.64	-81.88	-455.60	0	-1093.24	2.55	-120.47	2.55	0.00	2.85	0.00
124	125	79.77	-1049.64	-53.66	-244.83	0	-905.49	2.55	-382.76	2.55	0.00	2.85	0.00
125	125	79.77	-1392.78	-53.66	-559.84	0	-1410.81	2.55	-215.48	2.55	0.00	2.85	0.00
125	126	82.88	-1392.78	-25.44	-436.85	0	-1301.26	2.55	-368.53	2.55	0.00	2.85	0.00
126	126	82.88	-1735.92	-25.44	-735.37	0	-1791.90	2.55	-221.77	2.55	0.00	2.85	0.00
126	127	85.99	-1735.92	-13.54	-674.76	0	-1737.91	2.55	-297.19	2.55	0.00	2.85	0.00
127	127	85.99	-1735.92	-13.54	-674.76	0	-1737.91	2.55	-297.19	2.55	0.00	2.85	0.00
127	128	89.10	-1735.92	-1.65	-651.14	0	-1716.87	2.55	-326.58	2.55	0.00	2.85	0.00
128	128	89.10	-1735.92	-1.65	-651.14	0	-1716.87	2.55	-326.58	2.55	0.00	2.85	0.00
128	129	92.21	-1735.92	10.25	-664.54	0	-1728.81	2.55	-309.91	2.55	0.00	2.85	0.00
129	129	92.21	-1735.92	10.25	-664.54	0	-1728.81	2.55	-309.91	2.55	0.00	2.85	0.00
129	130	95.32	-1735.92	22.14	-714.91	0	-1773.67	2.55	-247.23	2.55	0.00	2.85	0.00
130	130	95.32	-1735.92	22.14	-714.91	0	-1773.67	2.55	-247.23	2.55	0.00	2.85	0.00
130	131	98.43	-1735.92	34.04	-802.28	0	-1851.50	2.55	-138.50	2.55	0.00	2.85	0.00
131	131	98.43	-1392.78	34.04	-503.76	0	-1360.86	2.55	-285.27	2.55	0.00	2.85	0.00
131	132	101.54	-1392.78	45.93	-628.13	0	-1471.64	2.55	-130.50	2.55	0.00	2.85	0.00
132	132	101.54	-1049.64	45.93	-313.12	0	-966.32	2.55	-297.77	2.55	0.00	2.85	0.00
132	133	104.65	-1049.64	57.83	-474.50	0	-1110.07	2.55	-96.95	2.55	0.00	2.85	0.00
133	133	104.65	-603.55	57.83	-43.59	0	-434.10	2.55	-341.04	2.55	0.00	2.85	0.00
133	134	107.76	-603.55	65.52	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00

CÁLCULO TENSIONAL

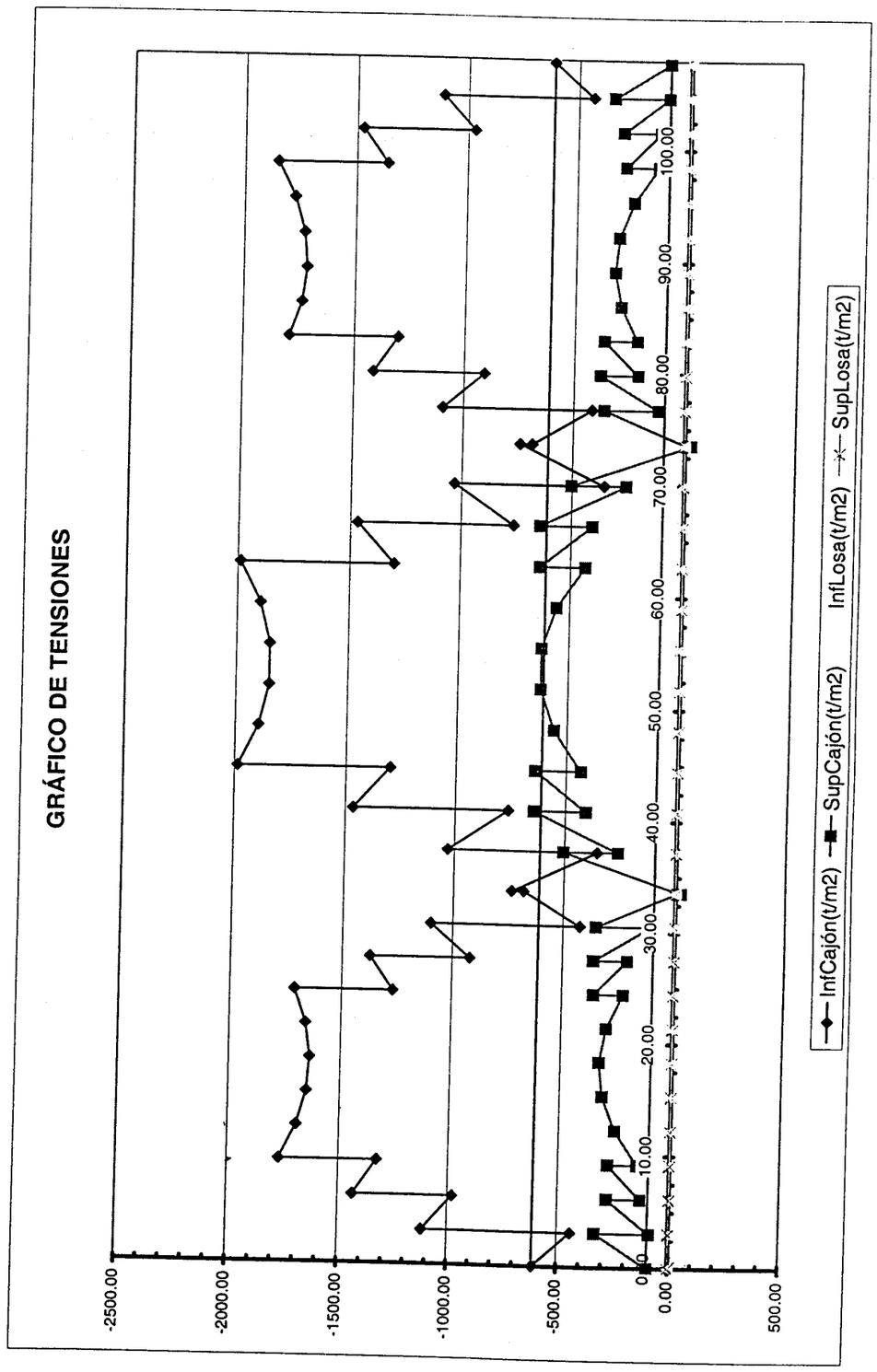
Hipótesis de cálculo:
CONST1D.F3.T0.MZ+

Construcción CON gradiente en fase constructiva 3 HIPOTESIS D

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [0; 1]GRADF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [9; 1.1]PI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-52.68	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
1	2	3.05	-603.55	-47.65	-78.84	0	-465.50	2.55	-297.17	2.55	0.00	2.85	0.00
2	2	3.05	-1049.64	-47.65	-509.75	0	-1141.47	2.55	-53.08	2.55	0.00	2.85	0.00
2	3	6.10	-1049.64	-35.98	-382.23	0	-1027.89	2.55	-211.77	2.55	0.00	2.85	0.00
3	3	6.10	-1358.46	-35.98	-665.74	0	-1482.67	2.55	-61.22	2.55	0.00	2.85	0.00
3	4	9.15	-1358.46	-24.32	-573.80	0	-1400.78	2.55	-175.63	2.55	0.00	2.85	0.00
4	4	9.15	-1667.29	-24.32	-842.48	0	-1842.35	2.55	-43.54	2.55	0.00	2.85	0.00
4	5	12.20	-1667.29	-12.65	-786.13	0	-1792.16	2.55	-113.66	2.55	0.00	2.85	0.00
5	5	12.20	-1667.29	-12.65	-786.13	0	-1792.16	2.55	-113.66	2.55	0.00	2.85	0.00
5	6	15.25	-1667.29	-0.98	-765.33	0	-1773.64	2.55	-139.54	2.55	0.00	2.85	0.00
6	6	15.25	-1667.29	-0.98	-765.33	0	-1773.64	2.55	-139.54	2.55	0.00	2.85	0.00
6	7	18.30	-1667.29	10.69	-780.13	0	-1786.82	2.55	-121.12	2.55	0.00	2.85	0.00
7	7	18.30	-1667.29	10.69	-780.13	0	-1786.82	2.55	-121.12	2.55	0.00	2.85	0.00
7	8	21.35	-1667.29	22.36	-830.54	0	-1831.72	2.55	-58.40	2.55	0.00	2.85	0.00
8	8	21.35	-1667.29	22.36	-830.54	0	-1831.72	2.55	-58.40	2.55	0.00	2.85	0.00
8	9	24.40	-1667.29	34.03	-916.49	0	-1908.28	2.55	48.56	2.55	0.00	2.85	0.00
9	9	24.40	-2473.95	32.84	210.43	0	-1275.15	2.55	-694.03	2.55	-399.27	2.85	-455.08
9	10	27.45	-2478.59	60.51	71.70	0	-1397.75	2.55	-530.66	2.55	-399.35	2.85	-454.61
10	10	27.45	-3216.62	60.01	1162.24	0	-797.45	2.55	-1137.28	2.55	-790.81	2.85	-906.81
10	11	30.50	-3225.21	87.69	943.71	0	-993.79	2.55	-870.87	2.55	-792.61	2.85	-908.40
11	11	30.50	-2784.59	87.61	1374.84	0	-319.34	2.55	-1116.63	2.55	-794.05	2.85	-909.86
11	12	33.55	-2739.96	115.29	1030.63	0	-598.42	2.55	-721.93	2.55	-775.92	2.85	-888.42
12	10012	33.55	-2776.21	-130.56	995.83	0	-652.47	2.55	-701.69	2.55	-776.41	2.85	-888.91
12	13	37.19	-2846.09	-97.56	1465.08	0	-269.30	2.55	-1260.54	2.55	-800.92	2.85	-916.67
13	13	37.19	-3288.46	-97.72	1033.82	0	-944.37	2.55	-1015.27	2.55	-799.91	2.85	-915.63
13	14	40.82	-3245.79	-67.69	1321.72	0	-669.26	2.55	-1380.21	2.55	-786.17	2.85	-900.51
14	14	40.82	-2543.56	-67.69	-41.73	0	-1547.20	2.55	-628.94	2.55	-342.32	2.85	-387.23
14	15	44.46	-2538.73	-34.68	140.65	0	-1382.09	2.55	-858.47	2.55	-340.51	2.85	-385.14
15	15	44.46	-2044.74	-34.68	-1037.32	0	-2263.11	2.55	-48.28	2.55	0.00	2.85	0.00
15	16	48.10	-2044.74	-20.77	-936.48	0	-2173.28	2.55	-173.76	2.55	0.00	2.85	0.00
16	16	48.10	-2044.74	-20.77	-936.48	0	-2173.28	2.55	-173.76	2.55	0.00	2.85	0.00
16	17	51.73	-2044.74	-6.86	-886.21	0	-2128.51	2.55	-236.32	2.55	0.00	2.85	0.00
17	17	51.73	-2044.74	-6.86	-886.21	0	-2128.51	2.55	-236.32	2.55	0.00	2.85	0.00
17	18	55.37	-2044.74	7.05	-886.52	0	-2128.78	2.55	-235.93	2.55	0.00	2.85	0.00
18	18	55.37	-2044.74	7.05	-886.52	0	-2128.78	2.55	-235.93	2.55	0.00	2.85	0.00
18	19	59.01	-2044.74	20.96	-937.38	0	-2174.08	2.55	-172.64	2.55	0.00	2.85	0.00
19	19	59.01	-2044.74	20.95	-937.38	0	-2174.08	2.55	-172.64	2.55	0.00	2.85	0.00
19	20	62.64	-2044.74	34.86	-1038.86	0	-2264.48	2.55	-46.36	2.55	0.00	2.85	0.00
20	20	62.64	-2677.92	34.86	247.69	0	-1363.39	2.55	-917.42	2.55	-392.75	2.85	-445.55
20	21	66.28	-2683.44	67.86	65.22	0	-1528.96	2.55	-687.42	2.55	-394.82	2.85	-447.94
21	21	66.28	-3270.36	64.89	1313.24	0	-682.16	2.55	-1383.80	2.55	-791.55	2.85	-905.42
21	22	69.91	-3280.62	97.89	1025.25	0	-947.78	2.55	-1008.44	2.55	-797.02	2.85	-912.30
22	22	69.91	-2838.03	97.74	1456.51	0	-272.66	2.55	-1253.64	2.55	-797.97	2.85	-913.28
22	23	73.55	-2781.46	130.74	996.91	0	-654.52	2.55	-699.81	2.55	-778.44	2.85	-891.28
23	10023	73.55	-2745.19	-117.15	1031.71	0	-600.47	2.55	-720.04	2.55	-777.94	2.85	-890.78
23	24	76.66	-2797.25	-88.92	1392.77	0	-310.34	2.55	-1132.19	2.55	-798.80	2.85	-915.36
24	24	76.66	-3237.69	-89.02	961.63	0	-984.75	2.55	-886.37	2.55	-797.31	2.85	-913.85
24	25	79.77	-3228.94	-60.80	1187.74	0	-781.43	2.55	-1162.72	2.55	-795.39	2.85	-912.10
25	25	79.77	-2377.18	-61.34	-49.40	0	-1453.40	2.55	-474.71	2.55	-348.44	2.85	-395.73
25	26	82.88	-2373.05	-33.12	94.25	0	-1326.63	2.55	-644.15	2.55	-348.51	2.85	-396.37
26	26	82.88	-1735.92	-34.37	-957.51	0	-1989.76	2.55	54.66	2.55	0.00	2.85	0.00
26	27	85.99	-1735.92	-22.47	-869.14	0	-1911.05	2.55	-55.31	2.55	0.00	2.85	0.00
27	27	85.99	-1735.92	-22.47	-869.14	0	-1911.05	2.55	-55.31	2.55	0.00	2.85	0.00
27	28	89.10	-1735.92	-10.58	-817.76	0	-1865.28	2.55	-119.25	2.55	0.00	2.85	0.00
28	28	89.10	-1735.92	-10.58	-817.76	0	-1865.28	2.55	-119.25	2.55	0.00	2.85	0.00
28	29	92.21	-1735.92	1.32	-803.39	0	-1852.48	2.55	-137.13	2.55	0.00	2.85	0.00
29	29	92.21	-1735.92	1.32	-803.39	0	-1852.48	2.55	-137.13	2.55	0.00	2.85	0.00
29	30	95.32	-1735.92	13.21	-825.98	0	-1872.61	2.55	-109.01	2.55	0.00	2.85	0.00
30	30	95.32	-1735.92	13.21	-825.98	0	-1872.61	2.55	-109.01	2.55	0.00	2.85	0.00
30	31	98.43	-1735.92	25.11	-885.59	0	-1925.70	2.55	-34.83	2.55	0.00	2.85	0.00
31	31	98.43	-1392.78	25.11	-587.06	0	-1435.06	2.55	-181.60	2.55	0.00	2.85	0.00
31	32	101.54	-1392.78	37.00	-683.67	0	-1521.12	2.55	-61.38	2.55	0.00	2.85	0.00
32	32	101.54	-1049.64	37.00	-368.66	0	-1015.80	2.55	-228.66	2.55	0.00	2.85	0.00
32	33	104.65	-1049.64	48.90	-502.27	0	-1134.81	2.55	-62.39	2.55	0.00	2.85	0.00
33	33	104.65	-603.55	48.90	-71.36	0	-458.84	2.55	-306.47	2.55	0.00	2.85	0.00
33	34	107.76	-603.55	54.29	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	101	0.00	-603.55	-52.68	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	102	3.05	-603.55	-47.65	-78.84	0	-465.50	2.55	-297.17	2.55	0.00	2.85	0.00
102	102	3.05	-1049.64	-47.65	-509.75	0	-1141.47	2.55	-53.08	2.55	0.00	2.85	0.00
102	103	6.10	-1049.64	-35.98	-382.22	0	-1027.88	2.55	-211.78	2.55	0.00	2.85	0.00
103	103	6.10	-1358.46	-35.98	-665.73	0	-1482.66	2.55	-61.23	2.55	0.00	2.85	0.00
103	104	9.15	-1358.46	-24.32	-573.80	0	-1400.78	2.55	-175.63	2.55	0.00	2.85	0.00
104	104	9.15	-1667.29	-24.32	-842.48	0	-1842.35	2.55	-43.54	2.55	0.00	2.85	0.00
104	105	12.20	-1667.29	-12.65	-786.13	0	-1792.16	2.55	-113.66	2.55	0.00	2.85	0.00
105	105	12.20	-1667.29	-12.65	-786.13	0	-1792.16	2.55	-113.66	2.55	0.00	2.85	0.00



Programa DINTEL PACADAR S.A.
CONST1C.F2.T0.MZ+

30/11/02

TCONST

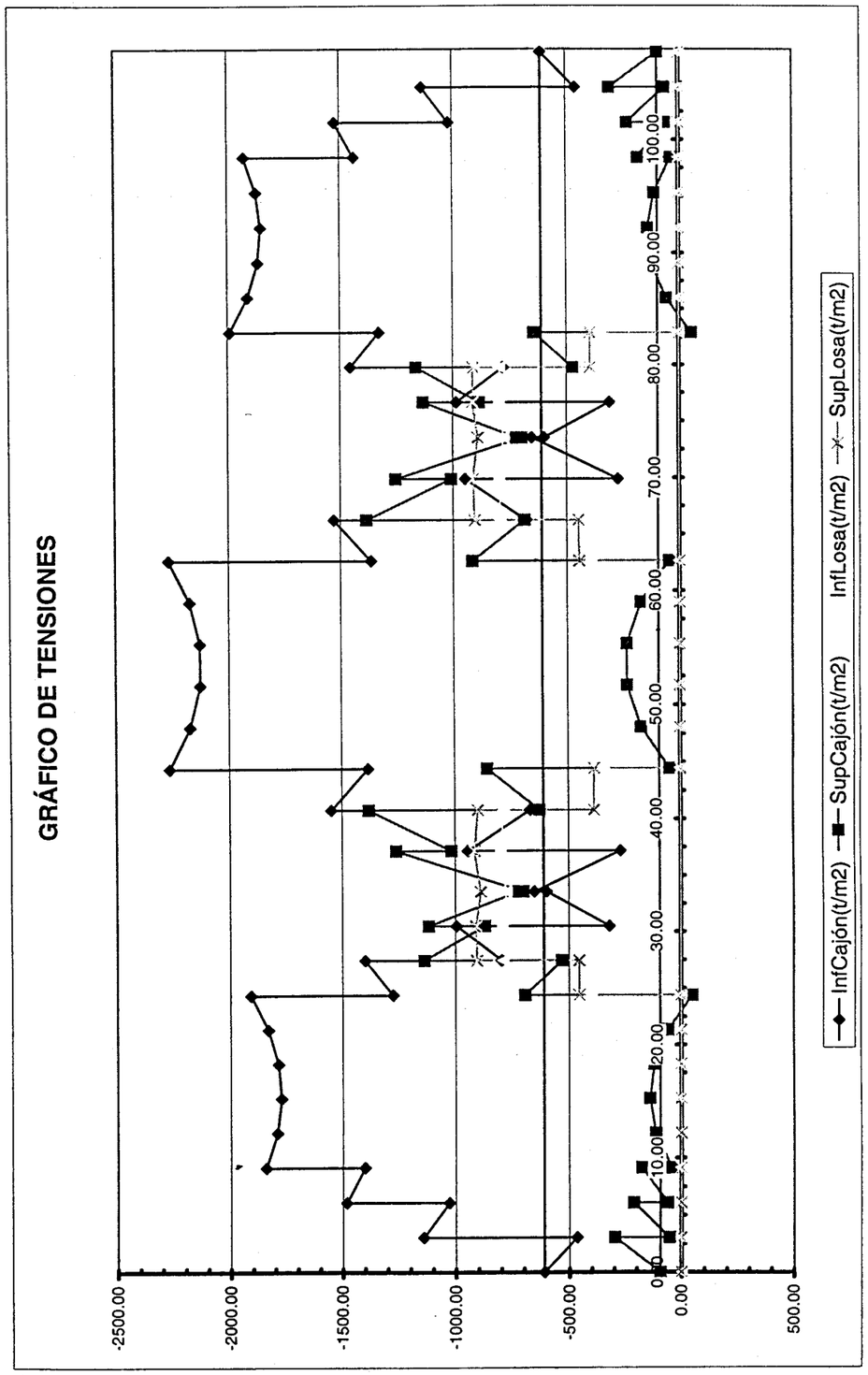
CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1D.F3.T0.MZ+
Construcción CON gradiente en fase constructiva 3 HIPOTESIS D

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [0, 1]GRADF3 + [.9; 1.1]PRETF3I.ISO.To + [9, 1.1]PRETF3I.HIP.To + [9, 1.1]PI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	-0.98	-765.33	0	-1773.64	2.55	-139.54	2.55	0.00	2.85	0.00
106	106	15.25	-1667.29	-0.98	-765.33	0	-1773.64	2.55	-139.54	2.55	0.00	2.85	0.00
106	107	18.30	-1667.29	10.69	-780.13	0	-1786.82	2.55	-121.12	2.55	0.00	2.85	0.00
107	107	18.30	-1667.29	10.69	-780.13	0	-1786.82	2.55	-121.12	2.55	0.00	2.85	0.00
107	108	21.35	-1667.29	22.36	-830.54	0	-1831.72	2.55	-58.40	2.55	0.00	2.85	0.00
108	108	21.35	-1667.29	22.36	-830.54	0	-1831.72	2.55	-58.40	2.55	0.00	2.85	0.00
108	109	24.40	-1667.29	34.03	-916.49	0	-1908.28	2.55	48.56	2.55	0.00	2.85	0.00
109	109	24.40	-2473.95	32.84	210.43	0	-1275.15	2.55	-694.03	2.55	-399.27	2.85	-455.08
109	110	27.45	-2478.59	60.51	71.69	0	-1397.76	2.55	-530.66	2.55	-399.35	2.85	-454.61
110	110	27.45	-3216.62	60.01	1162.23	0	-797.45	2.55	-1137.28	2.55	-790.81	2.85	-906.81
110	111	30.50	-3225.21	87.69	943.71	0	-993.79	2.55	-870.87	2.55	-792.61	2.85	-908.40
111	111	30.50	-2784.60	87.61	1374.83	0	-319.35	2.55	-1116.63	2.55	-794.05	2.85	-909.86
111	112	33.55	-2739.96	115.29	1030.62	0	-598.42	2.55	-721.93	2.55	-775.91	2.85	-888.41
112	10112	33.55	-2776.21	-130.56	995.82	0	-652.47	2.55	-701.69	2.55	-776.41	2.85	-888.91
112	113	37.19	-2846.09	-97.56	1465.08	0	-269.30	2.55	-1260.54	2.55	-800.92	2.85	-916.67
113	113	37.19	-3288.46	-97.72	1033.81	0	-944.37	2.55	-1015.27	2.55	-799.91	2.85	-915.63
113	114	40.82	-3245.79	-67.69	1321.72	0	-669.26	2.55	-1380.21	2.55	-786.17	2.85	-900.51
114	114	40.82	-2543.56	-67.69	-41.73	0	-1547.20	2.55	-628.94	2.55	-342.32	2.85	-387.23
114	115	44.46	-2538.73	-34.68	140.65	0	-1382.09	2.55	-858.47	2.55	-340.51	2.85	-385.14
115	115	44.46	-2044.74	-34.68	-1037.32	0	-2263.11	2.55	-48.28	2.55	0.00	2.85	0.00
115	116	48.10	-2044.74	-20.77	-936.48	0	-2173.28	2.55	-173.76	2.55	0.00	2.85	0.00
116	116	48.10	-2044.74	-20.77	-936.48	0	-2173.28	2.55	-173.76	2.55	0.00	2.85	0.00
116	117	51.73	-2044.74	-6.86	-886.21	0	-2128.51	2.55	-236.32	2.55	0.00	2.85	0.00
117	117	51.73	-2044.74	-6.86	-886.21	0	-2128.51	2.55	-236.32	2.55	0.00	2.85	0.00
117	118	55.37	-2044.74	7.05	-886.51	0	-2128.77	2.55	-235.95	2.55	0.00	2.85	0.00
118	118	55.37	-2044.74	7.05	-886.51	0	-2128.77	2.55	-235.95	2.55	0.00	2.85	0.00
118	119	59.01	-2044.74	20.96	-937.38	0	-2174.08	2.55	-172.64	2.55	0.00	2.85	0.00
119	119	59.01	-2044.74	20.95	-937.38	0	-2174.08	2.55	-172.64	2.55	0.00	2.85	0.00
119	120	62.64	-2044.74	34.86	-1038.86	0	-2264.48	2.55	-46.36	2.55	0.00	2.85	0.00
120	120	62.64	-2677.92	34.86	247.68	0	-1363.39	2.55	-917.41	2.55	-392.75	2.85	-445.55
120	121	66.28	-2683.44	67.86	65.22	0	-1528.96	2.55	-687.42	2.55	-394.82	2.85	-447.94
121	121	66.28	-3270.36	64.89	1313.23	0	-682.17	2.55	-1383.79	2.55	-791.55	2.85	-905.42
121	122	69.91	-3280.62	97.89	1025.25	0	-947.78	2.55	-1008.44	2.55	-797.02	2.85	-912.30
122	122	69.91	-2838.03	97.74	1456.51	0	-272.66	2.55	-1253.64	2.55	-797.97	2.85	-913.28
122	123	73.55	-2781.46	130.74	996.91	0	-654.52	2.55	-699.81	2.55	-778.44	2.85	-891.28
123	10123	73.55	-2745.19	-117.15	1031.70	0	-600.47	2.55	-720.04	2.55	-777.94	2.85	-890.78
123	124	76.66	-2797.25	-88.92	1392.77	0	-310.34	2.55	-1132.19	2.55	-798.80	2.85	-915.36
124	124	76.66	-3237.69	-89.02	961.62	0	-984.76	2.55	-886.36	2.55	-797.31	2.85	-913.85
124	125	79.77	-3228.94	-60.80	1187.74	0	-781.43	2.55	-1162.72	2.55	-795.39	2.85	-912.10
125	125	79.77	-2377.18	-61.34	-49.41	0	-1453.40	2.55	-474.71	2.55	-348.44	2.85	-395.73
125	126	82.88	-2373.05	-33.12	94.25	0	-1326.63	2.55	-644.15	2.55	-348.51	2.85	-396.37
126	126	82.88	-1735.92	-34.37	-957.51	0	-1989.76	2.55	54.66	2.55	0.00	2.85	0.00
126	127	85.99	-1735.92	-22.47	-869.14	0	-1911.05	2.55	-55.31	2.55	0.00	2.85	0.00
127	127	85.99	-1735.92	-22.47	-869.14	0	-1911.05	2.55	-55.31	2.55	0.00	2.85	0.00
127	128	89.10	-1735.92	-10.58	-817.75	0	-1865.27	2.55	-119.26	2.55	0.00	2.85	0.00
128	128	89.10	-1735.92	-10.58	-817.75	0	-1865.27	2.55	-119.26	2.55	0.00	2.85	0.00
128	129	92.21	-1735.92	1.32	-803.39	0	-1852.48	2.55	-137.13	2.55	0.00	2.85	0.00
129	129	92.21	-1735.92	1.32	-803.39	0	-1852.48	2.55	-137.13	2.55	0.00	2.85	0.00
129	130	95.32	-1735.92	13.21	-825.98	0	-1872.61	2.55	-109.01	2.55	0.00	2.85	0.00
130	130	95.32	-1735.92	13.21	-825.98	0	-1872.61	2.55	-109.01	2.55	0.00	2.85	0.00
130	131	98.43	-1735.92	25.11	-885.59	0	-1925.70	2.55	-34.83	2.55	0.00	2.85	0.00
131	131	98.43	-1392.78	25.11	-587.06	0	-1435.06	2.55	-181.60	2.55	0.00	2.85	0.00
131	132	101.54	-1392.78	37.00	-683.65	0	-1521.10	2.55	-61.40	2.55	0.00	2.85	0.00
132	132	101.54	-1049.64	37.00	-368.64	0	-1015.78	2.55	-228.68	2.55	0.00	2.85	0.00
132	133	104.65	-1049.64	48.90	-502.27	0	-1134.81	2.55	-62.39	2.55	0.00	2.85	0.00
133	133	104.65	-603.55	48.90	-71.36	0	-458.84	2.55	-306.47	2.55	0.00	2.85	0.00
133	134	107.76	-603.55	54.29	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1D.F3.T0.MZ-

Construcción CON gradiente en fase constructiva 3 HIPOTESIS D

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [0; 1]GRADF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PI

Coef. exc

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-667.09	-52.68	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
1	2	3.05	-667.09	-38.28	-132.88	0	-555.25	2.55	-271.52	2.55	0.00	2.85	0.00
2	2	3.05	-1160.12	-38.28	-609.15	0	-1302.37	2.55	-1.74	2.55	0.00	2.85	0.00
2	3	6.10	-1160.12	-26.61	-510.21	0	-1214.24	2.55	-124.87	2.55	0.00	2.85	0.00
3	3	6.10	-1501.46	-26.61	-823.56	0	-1716.90	2.55	41.53	2.55	0.00	2.85	0.00
3	4	9.15	-1501.46	-14.95	-760.20	0	-1660.46	2.55	-37.32	2.55	0.00	2.85	0.00
4	4	9.15	-1842.79	-14.95	-1057.16	0	-2148.52	2.55	108.67	2.55	0.00	2.85	0.00
4	5	12.20	-1842.79	-3.28	-1029.39	0	-2123.78	2.55	74.11	2.55	0.00	2.85	0.00
5	5	12.20	-1842.79	-3.28	-1029.39	0	-2123.78	2.55	74.11	2.55	0.00	2.85	0.00
5	6	15.25	-1842.79	8.40	-1037.17	0	-2130.71	2.55	83.79	2.55	0.00	2.85	0.00
6	6	15.25	-1842.79	8.40	-1037.17	0	-2130.71	2.55	83.79	2.55	0.00	2.85	0.00
6	7	18.30	-1842.79	20.06	-1080.55	0	-2169.35	2.55	137.77	2.55	0.00	2.85	0.00
7	7	18.30	-1842.79	20.06	-1080.55	0	-2169.35	2.55	137.77	2.55	0.00	2.85	0.00
7	8	21.35	-1842.79	31.73	-1159.52	0	-2239.70	2.55	236.05	2.55	0.00	2.85	0.00
8	8	21.35	-1842.79	31.73	-1159.52	0	-2239.70	2.55	236.05	2.55	0.00	2.85	0.00
8	9	24.40	-1842.79	43.40	-1274.05	0	-2341.71	2.55	378.57	2.55	0.00	2.85	0.00
9	9	24.40	-2385.17	44.58	-275.95	0	-1608.67	2.55	-525.09	2.55	-281.41	2.85	-308.19
9	10	27.45	-2388.96	72.25	-451.14	0	-1751.80	2.55	-355.07	2.55	-275.79	2.85	-299.27
10	10	27.45	-2880.85	72.75	521.64	0	-1123.59	2.55	-887.46	2.55	-589.93	2.85	-663.05
10	11	30.50	-2887.87	100.43	263.03	0	-1342.31	2.55	-613.55	2.55	-585.29	2.85	-655.18
11	11	30.50	-2389.35	100.51	739.08	0	-593.66	2.55	-881.64	2.55	-583.84	2.85	-653.72
11	12	33.55	-2352.84	128.19	361.85	0	-893.99	2.55	-483.59	2.55	-562.83	2.85	-626.90
12	10012	33.55	-2388.86	-136.79	323.41	0	-952.49	2.55	-460.00	2.55	-562.34	2.85	-626.41
12	13	37.19	-2446.03	-103.79	805.41	0	-558.26	2.55	-1017.27	2.55	-585.49	2.85	-653.77
13	13	37.19	-2942.78	-103.64	329.49	0	-1306.30	2.55	-748.66	2.55	-586.50	2.85	-654.81
13	14	40.82	-2966.83	-67.66	639.22	0	-1038.79	2.55	-1137.48	2.55	-593.24	2.85	-661.82
14	14	40.82	-2530.19	-67.66	-602.93	0	-1960.20	2.55	-455.58	2.55	-230.10	2.85	-241.86
14	15	44.46	-2526.23	-34.65	-419.99	0	-1795.03	2.55	-685.46	2.55	-228.60	2.85	-240.12
15	15	44.46	-2259.98	-34.65	-1503.76	0	-2819.54	2.55	391.21	2.55	0.00	2.85	0.00
15	16	48.10	-2259.98	-20.74	-1403.03	0	-2729.82	2.55	265.86	2.55	0.00	2.85	0.00
16	16	48.10	-2259.98	-20.74	-1403.03	0	-2729.82	2.55	265.86	2.55	0.00	2.85	0.00
16	17	51.73	-2259.98	-6.83	-1352.87	0	-2685.14	2.55	203.44	2.55	0.00	2.85	0.00
17	17	51.73	-2259.98	-6.83	-1352.87	0	-2685.14	2.55	203.44	2.55	0.00	2.85	0.00
17	18	55.37	-2259.98	7.08	-1353.29	0	-2685.51	2.55	203.96	2.55	0.00	2.85	0.00
18	18	55.37	-2259.98	7.08	-1353.29	0	-2685.51	2.55	203.96	2.55	0.00	2.85	0.00
18	19	59.01	-2259.98	20.99	-1404.27	0	-2730.92	2.55	267.40	2.55	0.00	2.85	0.00
19	19	59.01	-2259.98	20.98	-1404.27	0	-2730.92	2.55	267.40	2.55	0.00	2.85	0.00
19	20	62.64	-2259.98	34.89	-1505.86	0	-2821.41	2.55	393.82	2.55	-271.25	2.85	-289.43
20	20	62.64	-2640.12	34.89	-333.25	0	-1780.30	2.55	-733.24	2.55	-272.93	2.85	-291.36
20	21	66.28	-2644.64	67.89	-516.61	0	-1946.07	2.55	-502.79	2.55	-582.16	2.85	-650.28
21	21	66.28	-2927.38	70.86	631.01	0	-1032.31	2.55	-1121.88	2.55	-583.66	2.85	-651.46
21	22	69.91	-2935.77	103.86	319.89	0	-1310.56	2.55	-741.89	2.55	-582.71	2.85	-650.48
22	22	69.91	-2439.24	103.99	795.83	0	-562.57	2.55	-1010.58	2.55	-563.63	2.85	-627.82
22	23	73.55	-2392.96	136.99	321.57	0	-955.87	2.55	-457.27	2.55	-564.13	2.85	-628.33
23	10023	73.55	-2356.99	-130.11	360.01	0	-897.38	2.55	-480.86	2.55	-587.51	2.85	-657.91
23	24	76.66	-2399.59	-101.88	753.99	0	-585.65	2.55	-895.94	2.55	-589.00	2.85	-659.41
24	24	76.66	-2898.27	-101.78	277.95	0	-1334.34	2.55	-627.90	2.55	-593.67	2.85	-667.33
24	25	79.77	-2891.10	-73.56	545.03	0	-1108.15	2.55	-911.91	2.55	-234.35	2.85	-251.29
25	25	79.77	-2316.94	-73.02	-556.69	0	-1809.76	2.55	-308.41	2.55	-240.18	2.85	-260.47
25	26	82.88	-2313.55	-44.80	-376.13	0	-1662.18	2.55	-484.55	2.55	0.00	2.85	0.00
26	26	82.88	-1918.64	-43.55	-1321.31	0	-2433.48	2.55	387.70	2.55	0.00	2.85	0.00
26	27	85.99	-1918.64	-31.65	-1204.39	0	-2329.34	2.55	242.21	2.55	0.00	2.85	0.00
27	27	85.99	-1918.64	-31.65	-1204.39	0	-2329.34	2.55	242.21	2.55	0.00	2.85	0.00
27	28	89.10	-1918.64	-19.76	-1124.45	0	-2258.14	2.55	142.74	2.55	0.00	2.85	0.00
28	28	89.10	-1918.64	-19.76	-1124.45	0	-2258.14	2.55	142.74	2.55	0.00	2.85	0.00
28	29	92.21	-1918.64	-7.86	-1081.53	0	-2219.90	2.55	89.33	2.55	0.00	2.85	0.00
29	29	92.21	-1918.64	-7.86	-1081.53	0	-2219.90	2.55	89.33	2.55	0.00	2.85	0.00
29	30	95.32	-1918.64	4.03	-1075.59	0	-2214.61	2.55	81.93	2.55	0.00	2.85	0.00
30	30	95.32	-1918.64	4.03	-1075.59	0	-2214.61	2.55	81.93	2.55	0.00	2.85	0.00
30	31	98.43	-1918.64	15.93	-1106.65	0	-2242.28	2.55	120.58	2.55	0.00	2.85	0.00
31	31	98.43	-1539.38	15.93	-776.70	0	-1699.99	2.55	-41.63	2.55	0.00	2.85	0.00
31	32	101.54	-1539.38	27.82	-844.75	0	-1760.61	2.55	43.05	2.55	0.00	2.85	0.00
32	32	101.54	-1160.12	27.82	-496.58	0	-1202.10	2.55	-141.83	2.55	0.00	2.85	0.00
32	33	104.65	-1160.12	39.72	-601.64	0	-1295.68	2.55	-11.09	2.55	0.00	2.85	0.00
33	33	104.65	-667.09	39.72	-125.37	0	-548.55	2.55	-280.87	2.55	0.00	2.85	0.00
33	34	107.76	-667.09	54.29	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	101	0.00	-667.09	-52.68	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	102	3.05	-667.09	-38.28	-132.88	0	-555.25	2.55	-271.52	2.55	0.00	2.85	0.00
102	102	3.05	-1160.12	-38.28	-609.15	0	-1302.37	2.55	-1.74	2.55	0.00	2.85	0.00
102	103	6.10	-1160.12	-26.61	-510.20	0	-1214.23	2.55	-124.88	2.55	0.00	2.85	0.00
103	103	6.10	-1501.46	-26.61	-823.55	0	-1716.89	2.55	41.51	2.55	0.00	2.85	0.00
103	104	9.15	-1501.46	-14.95	-760.20	0	-1660.46	2.55	-37.32	2.55	0.00	2.85	0.00
104	104	9.15	-1842.79	-14.95	-1057.16	0	-2148.52	2.55	108.67	2.55	0.00	2.85	0.00
104	105	12.20	-1842.79	-3.28	-1029.39	0	-2123.78	2.55	74.11	2.55	0.00	2.85	0.00
105	105	12.20	-1842.79	-3.28	-1029.39	0	-2123.78	2.55	74.11	2.55	0.00	2.85	0.00

CÁLCULO TENSIONAL

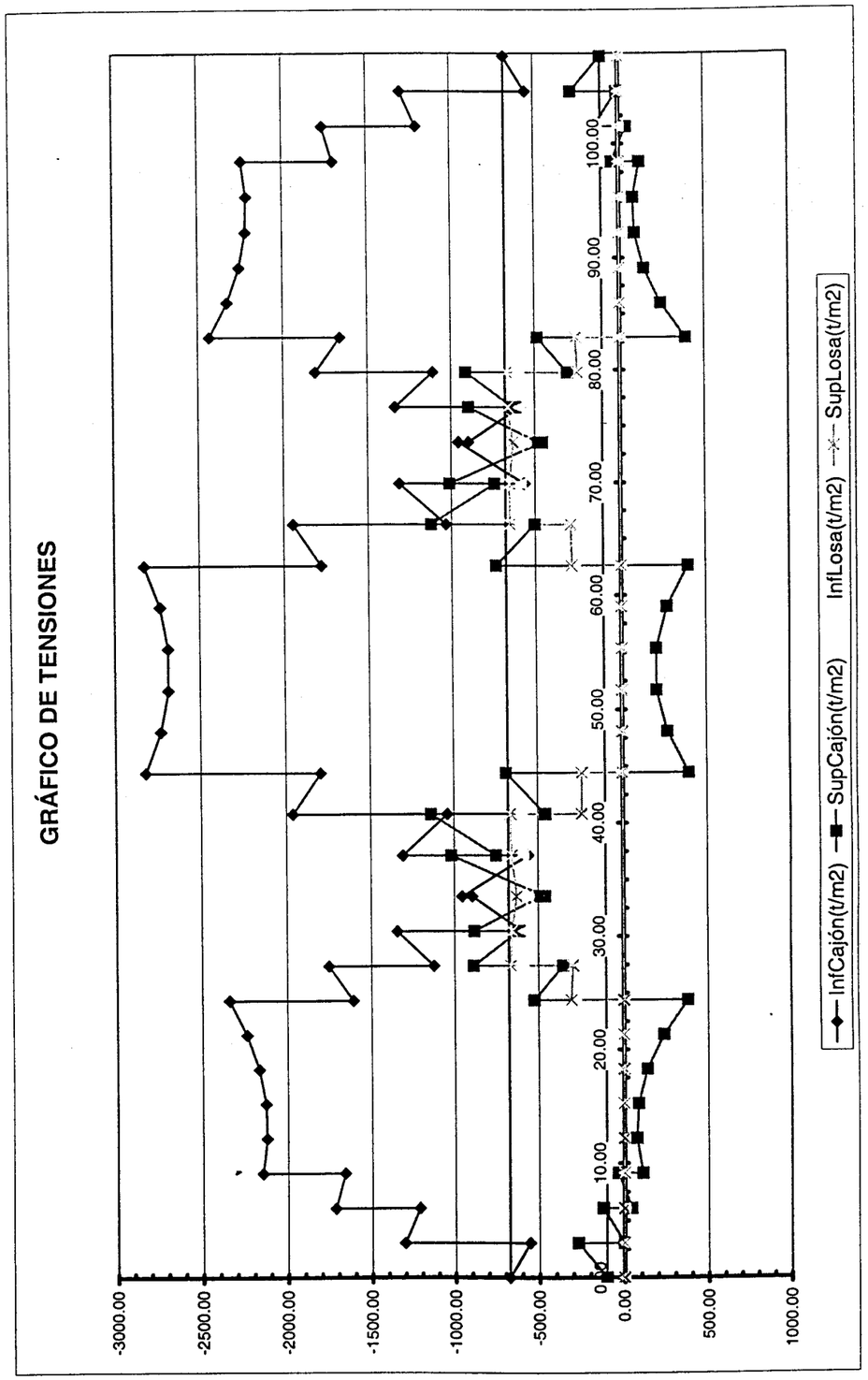
Hipótesis de cálculo:
CONST1D.F3.T0.MZ-

Construcción CON gradiente en fase constructiva 3 HIPOTESIS D

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [0; 1]GRADF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PI

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1842.79	8.40	-1037.17	0	-2130.71	2.55	83.79	2.55	0.00	2.85	0.00
106	106	15.25	-1842.79	8.40	-1037.17	0	-2130.71	2.55	83.79	2.55	0.00	2.85	0.00
106	107	18.30	-1842.79	20.06	-1080.55	0	-2169.35	2.55	137.77	2.55	0.00	2.85	0.00
107	107	18.30	-1842.79	20.06	-1080.55	0	-2169.35	2.55	137.77	2.55	0.00	2.85	0.00
107	108	21.35	-1842.79	31.73	-1159.52	0	-2239.70	2.55	236.05	2.55	0.00	2.85	0.00
108	108	21.35	-1842.79	31.73	-1159.52	0	-2239.70	2.55	236.05	2.55	0.00	2.85	0.00
108	109	24.40	-1842.79	43.40	-1274.05	0	-2341.71	2.55	378.57	2.55	0.00	2.85	0.00
109	109	24.40	-2385.17	44.58	-275.95	0	-1608.67	2.55	-525.09	2.55	-281.41	2.85	-308.19
109	110	27.45	-2388.96	72.25	-451.15	0	-1751.81	2.55	-355.07	2.55	-275.79	2.85	-299.26
110	110	27.45	-2880.85	72.75	521.63	0	-1123.59	2.55	-887.46	2.55	-589.93	2.85	-663.04
110	111	30.50	-2887.87	100.43	263.03	0	-1342.31	2.55	-613.55	2.55	-585.29	2.85	-655.18
111	111	30.50	-2389.36	100.51	739.07	0	-593.67	2.55	-881.64	2.55	-583.84	2.85	-653.72
111	112	33.55	-2352.84	128.19	361.84	0	-894.00	2.55	-483.58	2.55	-562.82	2.85	-626.90
112	10112	33.55	-2388.86	-136.79	323.40	0	-952.50	2.55	-460.00	2.55	-562.33	2.85	-626.41
112	113	37.19	-2446.03	-103.79	805.41	0	-558.26	2.55	-1017.27	2.55	-585.49	2.85	-653.77
113	113	37.19	-2942.78	-103.64	329.48	0	-1306.31	2.55	-748.66	2.55	-586.50	2.85	-654.81
113	114	40.82	-2966.83	-67.66	639.22	0	-1038.79	2.55	-1137.48	2.55	-593.24	2.85	-661.82
114	114	40.82	-2530.19	-67.66	-602.93	0	-1960.20	2.55	-455.58	2.55	-230.10	2.85	-241.86
114	115	44.46	-2526.23	-34.65	-419.99	0	-1795.03	2.55	-685.46	2.55	-228.60	2.85	-240.12
115	115	44.46	-2259.98	-34.65	-1503.76	0	-2819.54	2.55	391.21	2.55	0.00	2.85	0.00
115	116	48.10	-2259.98	-20.74	-1403.03	0	-2729.82	2.55	265.86	2.55	0.00	2.85	0.00
116	116	48.10	-2259.98	-20.74	-1403.03	0	-2729.82	2.55	265.86	2.55	0.00	2.85	0.00
116	117	51.73	-2259.98	-6.83	-1352.87	0	-2685.14	2.55	203.44	2.55	0.00	2.85	0.00
117	117	51.73	-2259.98	-6.83	-1352.87	0	-2685.14	2.55	203.44	2.55	0.00	2.85	0.00
117	118	55.37	-2259.98	7.08	-1353.28	0	-2685.50	2.55	203.95	2.55	0.00	2.85	0.00
118	118	55.37	-2259.98	7.08	-1353.28	0	-2685.50	2.55	203.95	2.55	0.00	2.85	0.00
118	119	59.01	-2259.98	20.99	-1404.27	0	-2730.92	2.55	267.40	2.55	0.00	2.85	0.00
119	119	59.01	-2259.98	20.98	-1404.27	0	-2730.92	2.55	267.40	2.55	0.00	2.85	0.00
119	120	62.64	-2259.98	34.89	-1505.86	0	-2821.41	2.55	393.82	2.55	0.00	2.85	0.00
120	120	62.64	-2640.12	34.89	-333.26	0	-1780.30	2.55	-733.24	2.55	-271.25	2.85	-289.43
120	121	66.28	-2644.64	67.89	-516.61	0	-1946.07	2.55	-502.79	2.55	-272.93	2.85	-291.36
121	121	66.28	-2927.38	70.86	631.00	0	-1032.32	2.55	-1121.87	2.55	-582.16	2.85	-650.28
121	122	69.91	-2935.77	103.86	319.89	0	-1310.56	2.55	-741.89	2.55	-583.66	2.85	-651.46
122	122	69.91	-2439.24	103.99	795.83	0	-562.57	2.55	-1010.58	2.55	-582.71	2.85	-650.48
122	123	73.55	-2392.96	136.99	321.56	0	-955.88	2.55	-457.26	2.55	-563.63	2.85	-627.82
123	10123	73.55	-2356.99	-130.11	360.00	0	-897.38	2.55	-480.86	2.55	-564.13	2.85	-628.32
123	124	76.66	-2399.59	-101.88	753.99	0	-585.65	2.55	-895.94	2.55	-587.51	2.85	-657.91
124	124	76.66	-2898.27	-101.78	277.94	0	-1334.35	2.55	-627.89	2.55	-589.00	2.85	-659.41
124	125	79.77	-2891.10	-73.56	545.03	0	-1108.15	2.55	-911.91	2.55	-593.67	2.85	-667.33
125	125	79.77	-2316.94	-73.02	-556.70	0	-1809.77	2.55	-308.41	2.55	-234.35	2.85	-251.29
125	126	82.88	-2313.55	-44.80	-376.13	0	-1662.18	2.55	-484.55	2.55	-240.18	2.85	-260.47
126	126	82.88	-1918.64	-43.55	-1321.31	0	-2433.48	2.55	387.70	2.55	0.00	2.85	0.00
126	127	85.99	-1918.64	-31.65	-1204.39	0	-2329.34	2.55	242.21	2.55	0.00	2.85	0.00
127	127	85.99	-1918.64	-31.65	-1204.39	0	-2329.34	2.55	242.21	2.55	0.00	2.85	0.00
127	128	89.10	-1918.64	-19.76	-1124.45	0	-2258.14	2.55	142.74	2.55	0.00	2.85	0.00
128	128	89.10	-1918.64	-19.76	-1124.45	0	-2258.14	2.55	142.74	2.55	0.00	2.85	0.00
128	129	92.21	-1918.64	-7.86	-1081.53	0	-2219.90	2.55	89.33	2.55	0.00	2.85	0.00
129	129	92.21	-1918.64	-7.86	-1081.53	0	-2219.90	2.55	89.33	2.55	0.00	2.85	0.00
129	130	95.32	-1918.64	4.03	-1075.59	0	-2214.61	2.55	81.93	2.55	0.00	2.85	0.00
130	130	95.32	-1918.64	4.03	-1075.59	0	-2214.61	2.55	81.93	2.55	0.00	2.85	0.00
130	131	98.43	-1918.64	15.93	-1106.65	0	-2242.28	2.55	120.58	2.55	0.00	2.85	0.00
131	131	98.43	-1539.38	15.93	-776.70	0	-1699.99	2.55	-41.63	2.55	0.00	2.85	0.00
131	132	101.54	-1539.38	27.82	-844.74	0	-1760.60	2.55	43.04	2.55	0.00	2.85	0.00
132	132	101.54	-1160.12	27.82	-496.57	0	-1202.09	2.55	-141.84	2.55	0.00	2.85	0.00
132	133	104.65	-1160.12	39.72	-601.64	0	-1295.68	2.55	-11.09	2.55	0.00	2.85	0.00
133	133	104.65	-667.09	39.72	-125.37	0	-548.55	2.55	-280.87	2.55	0.00	2.85	0.00
133	134	107.76	-667.09	54.29	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1E.F3.T0.MZ+
Construcción SIN gradiente en fase constructiva 3 HIPOTESIS E

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [1; 1]PPLF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-115.50	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
1	2	3.05	-603.55	-88.01	68.69	0	-334.09	2.55	-480.76	2.55	0.00	2.85	0.00
2	2	3.05	-1049.64	-88.01	-362.22	0	-1010.06	2.55	-236.67	2.55	0.00	2.85	0.00
2	3	6.10	-1049.64	-60.33	-136.01	0	-808.57	2.55	-518.17	2.55	0.00	2.85	0.00
3	3	6.10	-1358.46	-60.33	-419.52	0	-1263.35	2.55	-367.62	2.55	0.00	2.85	0.00
3	4	9.15	-1358.46	-32.66	-277.72	0	-1137.05	2.55	-544.08	2.55	0.00	2.85	0.00
4	4	9.15	-1667.29	-32.66	-546.40	0	-1578.62	2.55	-411.98	2.55	0.00	2.85	0.00
4	5	12.20	-1667.29	-4.98	-489.04	0	-1527.53	2.55	-483.36	2.55	0.00	2.85	0.00
5	5	12.20	-1667.29	-4.98	-489.04	0	-1527.53	2.55	-483.36	2.55	0.00	2.85	0.00
5	6	15.25	-1667.29	22.72	-516.06	0	-1551.60	2.55	-449.73	2.55	0.00	2.85	0.00
6	6	15.25	-1667.29	22.72	-516.06	0	-1551.60	2.55	-449.73	2.55	0.00	2.85	0.00
6	7	18.30	-1667.29	50.39	-627.52	0	-1650.89	2.55	-311.03	2.55	0.00	2.85	0.00
7	7	18.30	-1667.29	50.39	-627.52	0	-1650.89	2.55	-311.03	2.55	0.00	2.85	0.00
7	8	21.35	-1667.29	78.07	-823.43	0	-1825.38	2.55	-67.25	2.55	0.00	2.85	0.00
8	8	21.35	-1667.29	78.07	-823.43	0	-1825.38	2.55	-67.25	2.55	0.00	2.85	0.00
8	9	24.40	-1667.29	105.75	-1103.72	0	-2075.05	2.55	281.55	2.55	0.00	2.85	0.00
9	9	24.40	-2473.95	104.56	23.20	0	-1381.86	2.55	-661.17	2.55	-371.07	2.85	-412.78
9	10	27.45	-2478.59	132.23	-334.28	0	-1629.12	2.55	-459.41	2.55	-338.20	2.85	-362.89
10	10	27.45	-3216.62	131.73	756.26	0	-1028.82	2.55	-1066.03	2.55	-729.65	2.85	-815.10
10	11	30.50	-3225.21	159.41	318.97	0	-1349.84	2.55	-761.22	2.55	-698.50	2.85	-767.27
11	11	30.50	-2784.59	159.33	750.10	0	-675.39	2.55	-1006.98	2.55	-699.94	2.85	-768.72
11	12	33.55	-2739.96	187.01	187.13	0	-1079.14	2.55	-573.89	2.55	-648.85	2.85	-697.86
12	10012	33.55	-2776.21	-177.63	152.33	0	-1133.19	2.55	-553.65	2.55	-649.34	2.85	-698.35
12	13	37.19	-2846.09	-144.63	792.75	0	-652.48	2.55	-1142.54	2.55	-699.64	2.85	-764.78
13	13	37.19	-3288.46	-144.79	361.49	0	-1327.54	2.55	-897.27	2.55	-698.63	2.85	-763.74
13	14	40.82	-3245.79	-114.76	820.56	0	-954.88	2.55	-1292.26	2.55	-710.67	2.85	-787.29
14	14	40.82	-2543.56	-114.76	-542.89	0	-1832.82	2.55	-540.99	2.55	-266.82	2.85	-274.01
14	15	44.46	-2538.73	-81.75	-189.35	0	-1570.17	2.55	-800.55	2.55	-290.80	2.85	-310.58
15	15	44.46	-2044.74	-81.75	-1367.32	0	-2557.05	2.55	362.38	2.55	0.00	2.85	0.00
15	16	48.10	-2044.74	-48.75	-1130.02	0	-2345.68	2.55	67.08	2.55	0.00	2.85	0.00
16	16	48.10	-2044.74	-48.75	-1130.02	0	-2345.68	2.55	67.08	2.55	0.00	2.85	0.00
16	17	51.73	-2044.74	-15.74	-1012.71	0	-2241.18	2.55	-78.90	2.55	0.00	2.85	0.00
17	17	51.73	-2044.74	-15.74	-1012.71	0	-2241.18	2.55	-78.90	2.55	0.00	2.85	0.00
17	18	55.37	-2044.74	17.26	-1015.41	0	-2243.59	2.55	-75.54	2.55	0.00	2.85	0.00
18	18	55.37	-2044.74	17.26	-1015.41	0	-2243.59	2.55	-75.54	2.55	0.00	2.85	0.00
18	19	59.01	-2044.74	50.26	-1138.08	0	-2352.85	2.55	77.11	2.55	0.00	2.85	0.00
19	19	59.01	-2044.74	50.25	-1138.08	0	-2352.85	2.55	77.11	2.55	0.00	2.85	0.00
19	20	62.64	-2044.74	83.25	-1380.79	0	-2569.04	2.55	379.14	2.55	0.00	2.85	0.00
20	20	62.64	-2677.92	83.25	-94.24	0	-1558.26	2.55	-857.41	2.55	-341.24	2.85	-368.30
20	21	66.28	-2683.44	116.25	-452.65	0	-1824.10	2.55	-596.53	2.55	-316.81	2.85	-330.95
21	21	66.28	-3270.36	113.28	795.37	0	-977.30	2.55	-1292.91	2.55	-713.53	2.85	-788.42
21	22	69.91	-3280.62	146.28	331.44	0	-1343.20	2.55	-886.67	2.55	-692.50	2.85	-755.56
22	22	69.91	-2838.03	146.13	762.70	0	-668.07	2.55	-1131.87	2.55	-693.45	2.85	-756.54
22	23	73.55	-2781.46	179.13	127.15	0	-1150.21	2.55	-547.17	2.55	-647.42	2.85	-694.79
23	10023	73.55	-2745.19	-190.07	161.95	0	-1096.16	2.55	-567.40	2.55	-646.92	2.85	-694.29
23	24	76.66	-2797.25	-161.84	749.81	0	-676.77	2.55	-1019.34	2.55	-701.95	2.85	-770.11
24	24	76.66	-3237.69	-161.94	318.67	0	-1351.19	2.55	-773.52	2.55	-700.46	2.85	-768.60
24	25	79.77	-3228.94	-133.72	771.56	0	-1018.62	2.55	-1089.67	2.55	-732.70	2.85	-818.08
25	25	79.77	-2377.18	-134.26	-465.58	0	-1690.59	2.55	-401.67	2.55	-285.74	2.85	-301.71
25	26	82.88	-2373.05	-106.04	-95.14	0	-1434.57	2.55	-610.91	2.55	-319.98	2.85	-353.59
26	26	82.88	-1735.92	-107.29	-1146.90	0	-2158.46	2.55	290.34	2.55	0.00	2.85	0.00
26	27	85.99	-1735.92	-79.06	-857.14	0	-1900.36	2.55	-70.24	2.55	0.00	2.85	0.00
27	27	85.99	-1735.92	-79.06	-857.14	0	-1900.36	2.55	-70.24	2.55	0.00	2.85	0.00
27	28	89.10	-1735.92	-50.84	-655.13	0	-1720.42	2.55	-321.63	2.55	0.00	2.85	0.00
28	28	89.10	-1735.92	-50.84	-655.13	0	-1720.42	2.55	-321.63	2.55	0.00	2.85	0.00
28	29	92.21	-1735.92	-22.62	-540.92	0	-1618.69	2.55	-463.75	2.55	0.00	2.85	0.00
29	29	92.21	-1735.92	-22.62	-540.92	0	-1618.69	2.55	-463.75	2.55	0.00	2.85	0.00
29	30	95.32	-1735.92	5.60	-514.44	0	-1595.11	2.55	-496.69	2.55	0.00	2.85	0.00
30	30	95.32	-1735.92	5.60	-514.44	0	-1595.11	2.55	-496.69	2.55	0.00	2.85	0.00
30	31	98.43	-1735.92	33.83	-575.77	0	-1649.73	2.55	-420.38	2.55	0.00	2.85	0.00
31	31	98.43	-1392.78	33.83	-277.24	0	-1159.10	2.55	-567.14	2.55	0.00	2.85	0.00
31	32	101.54	-1392.78	62.05	-426.34	0	-1291.90	2.55	-381.60	2.55	0.00	2.85	0.00
32	32	101.54	-1049.64	62.05	-111.33	0	-786.58	2.55	-548.88	2.55	0.00	2.85	0.00
32	33	104.65	-1049.64	90.28	-348.21	0	-997.58	2.55	-254.10	2.55	0.00	2.85	0.00
33	33	104.65	-603.55	90.28	82.70	0	-321.61	2.55	-498.19	2.55	0.00	2.85	0.00
33	34	107.76	-603.55	118.33	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	101	0.00	-603.55	-115.50	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	102	3.05	-603.55	-88.01	68.69	0	-334.09	2.55	-480.76	2.55	0.00	2.85	0.00
102	102	3.05	-1049.64	-88.01	-362.22	0	-1010.06	2.55	-236.67	2.55	0.00	2.85	0.00
102	103	6.10	-1049.64	-60.33	-136.00	0	-808.56	2.55	-518.18	2.55	0.00	2.85	0.00
103	103	6.10	-1358.46	-60.33	-419.51	0	-1263.35	2.55	-367.63	2.55	0.00	2.85	0.00
103	104	9.15	-1358.46	-32.66	-277.72	0	-1137.05	2.55	-544.08	2.55	0.00	2.85	0.00
104	104	9.15	-1667.29	-32.66	-546.40	0	-1578.62	2.55	-411.98	2.55	0.00	2.85	0.00
104	105	12.20	-1667.29	-4.98	-489.04	0	-1527.53	2.55	-483.36	2.55	0.00	2.85	0.00
105	105	12.20	-1667.29	-4.98	-489.04	0	-1527.53	2.55	-483.36	2.55	0.00	2.85	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

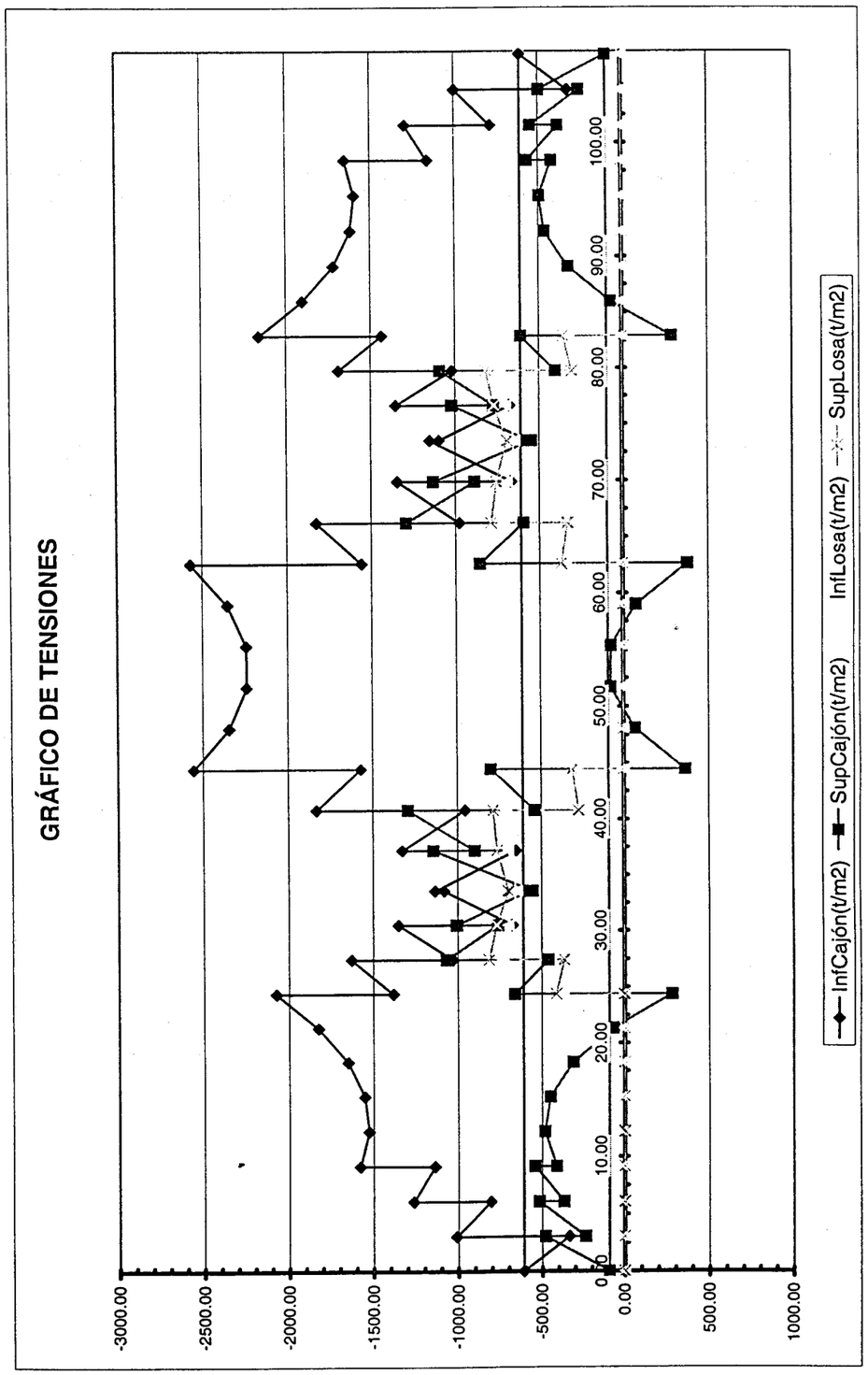
CONST1E.F3.T0.MZ+

Construcción SIN gradiente en fase constructiva 3 HIPOTESIS E

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [1; 1]PPLF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	22.72	-516.06	0	-1551.60	2.55	-449.73	2.55	0.00	2.85	0.00
106	106	15.25	-1667.29	22.72	-516.06	0	-1551.60	2.55	-449.73	2.55	0.00	2.85	0.00
106	107	18.30	-1667.29	50.39	-627.52	0	-1650.89	2.55	-311.03	2.55	0.00	2.85	0.00
107	107	18.30	-1667.29	50.39	-627.52	0	-1650.89	2.55	-311.03	2.55	0.00	2.85	0.00
107	108	21.35	-1667.29	78.07	-823.43	0	-1825.38	2.55	-67.25	2.55	0.00	2.85	0.00
108	108	21.35	-1667.29	78.07	-823.43	0	-1825.38	2.55	-67.25	2.55	0.00	2.85	0.00
108	109	24.40	-1667.29	105.75	-1103.72	0	-2075.05	2.55	281.55	2.55	0.00	2.85	0.00
109	109	24.40	-2473.95	104.56	23.20	0	-1381.86	2.55	-661.17	2.55	-371.07	2.85	-412.78
109	110	27.45	-2478.59	132.23	-334.29	0	-1629.13	2.55	-459.41	2.55	-338.19	2.85	-362.89
110	110	27.45	-3216.62	131.73	756.25	0	-1028.83	2.55	-1066.02	2.55	-729.65	2.85	-815.09
110	111	30.50	-3225.21	159.41	318.97	0	-1349.84	2.55	-761.22	2.55	-698.50	2.85	-767.27
111	111	30.50	-2784.60	159.33	750.09	0	-675.40	2.55	-1006.99	2.55	-699.94	2.85	-768.72
111	112	33.55	-2739.96	187.01	187.12	0	-1079.15	2.55	-573.89	2.55	-648.85	2.85	-697.85
112	10112	33.55	-2776.21	-177.63	152.32	0	-1133.20	2.55	-553.65	2.55	-649.34	2.85	-698.35
112	113	37.19	-2846.09	-144.63	792.75	0	-652.48	2.55	-1142.54	2.55	-699.64	2.85	-764.78
113	113	37.19	-3288.46	-144.79	361.48	0	-1327.55	2.55	-897.27	2.55	-698.63	2.85	-763.74
[illegible]	114	40.82	-3245.79	-114.76	820.56	0	-954.88	2.55	-1292.26	2.55	-710.67	2.85	-787.29
[illegible]	114	40.82	-2543.56	-114.76	-542.89	0	-1832.82	2.55	-540.99	2.55	-266.82	2.85	-274.01
114	115	44.46	-2538.73	-81.75	-189.35	0	-1570.17	2.55	-800.55	2.55	-290.80	2.85	-310.58
115	115	44.46	-2044.74	-81.75	-1367.32	0	-2557.05	2.55	362.38	2.55	0.00	2.85	0.00
115	116	48.10	-2044.74	-48.75	-1130.02	0	-2345.68	2.55	67.08	2.55	0.00	2.85	0.00
116	116	48.10	-2044.74	-48.75	-1130.02	0	-2345.68	2.55	67.08	2.55	0.00	2.85	0.00
116	117	51.73	-2044.74	-15.74	-1012.71	0	-2241.18	2.55	-78.90	2.55	0.00	2.85	0.00
117	117	51.73	-2044.74	-15.74	-1012.71	0	-2241.18	2.55	-78.90	2.55	0.00	2.85	0.00
117	118	55.37	-2044.74	17.26	-1015.40	0	-2243.58	2.55	-75.55	2.55	0.00	2.85	0.00
118	118	55.37	-2044.74	17.26	-1015.40	0	-2243.58	2.55	-75.55	2.55	0.00	2.85	0.00
118	119	59.01	-2044.74	50.26	-1138.08	0	-2352.85	2.55	77.11	2.55	0.00	2.85	0.00
119	119	59.01	-2044.74	50.25	-1138.08	0	-2352.85	2.55	77.11	2.55	0.00	2.85	0.00
119	120	62.64	-2044.74	83.25	-1380.79	0	-2569.04	2.55	379.14	2.55	0.00	2.85	0.00
120	120	62.64	-2677.92	83.25	-94.25	0	-1558.27	2.55	-857.40	2.55	-341.24	2.85	-368.30
120	121	66.28	-2683.44	116.25	-452.65	0	-1824.10	2.55	-596.53	2.55	-316.81	2.85	-330.95
121	121	66.28	-3270.36	113.28	795.36	0	-977.31	2.55	-1292.91	2.55	-713.53	2.85	-788.42
121	122	69.91	-3280.62	146.28	331.44	0	-1343.20	2.55	-886.67	2.55	-692.50	2.85	-755.56
122	122	69.91	-2838.03	146.13	762.70	0	-668.07	2.55	-1131.87	2.55	-693.45	2.85	-756.54
122	123	73.55	-2781.46	179.13	127.15	0	-1150.22	2.55	-547.16	2.55	-647.42	2.85	-694.79
123	10123	73.55	-2745.19	-190.07	161.94	0	-1096.16	2.55	-567.39	2.55	-646.92	2.85	-694.28
123	124	76.66	-2797.25	-161.84	749.81	0	-676.77	2.55	-1019.34	2.55	-701.95	2.85	-770.11
124	124	76.66	-3237.69	-161.94	318.66	0	-1351.19	2.55	-773.52	2.55	-700.46	2.85	-768.60
124	125	79.77	-3228.94	-133.72	771.56	0	-1018.62	2.55	-1089.67	2.55	-732.70	2.85	-818.08
125	125	79.77	-2377.18	-134.26	-465.59	0	-1690.59	2.55	-401.67	2.55	-285.74	2.85	-301.71
125	126	82.88	-2373.05	-106.04	-95.14	0	-1434.57	2.55	-610.91	2.55	-319.98	2.85	-353.59
[illegible]	126	82.88	-1735.92	-107.29	-1146.90	0	-2158.46	2.55	290.34	2.55	0.00	2.85	0.00
126	127	85.99	-1735.92	-79.06	-857.14	0	-1900.36	2.55	-70.24	2.55	0.00	2.85	0.00
127	127	85.99	-1735.92	-79.06	-857.14	0	-1900.36	2.55	-70.24	2.55	0.00	2.85	0.00
127	128	89.10	-1735.92	-50.84	-655.13	0	-1720.42	2.55	-321.63	2.55	0.00	2.85	0.00
128	128	89.10	-1735.92	-50.84	-655.13	0	-1720.42	2.55	-321.63	2.55	0.00	2.85	0.00
128	129	92.21	-1735.92	-22.61	-540.92	0	-1618.69	2.55	-463.75	2.55	0.00	2.85	0.00
129	129	92.21	-1735.92	-22.61	-540.92	0	-1618.69	2.55	-463.75	2.55	0.00	2.85	0.00
129	130	95.32	-1735.92	5.60	-514.45	0	-1595.11	2.55	-496.68	2.55	0.00	2.85	0.00
130	130	95.32	-1735.92	5.60	-514.45	0	-1595.11	2.55	-496.68	2.55	0.00	2.85	0.00
130	131	98.43	-1735.92	33.83	-575.78	0	-1649.74	2.55	-420.36	2.55	0.00	2.85	0.00
131	131	98.43	-1392.78	33.83	-277.25	0	-1159.11	2.55	-567.13	2.55	0.00	2.85	0.00
131	132	101.54	-1392.78	62.05	-426.33	0	-1291.89	2.55	-381.61	2.55	0.00	2.85	0.00
132	132	101.54	-1049.64	62.05	-111.32	0	-786.58	2.55	-548.89	2.55	0.00	2.85	0.00
132	133	104.65	-1049.64	90.27	-348.22	0	-997.59	2.55	-254.09	2.55	0.00	2.85	0.00
133	133	104.65	-603.55	90.28	82.69	0	-321.62	2.55	-498.18	2.55	0.00	2.85	0.00
133	134	107.76	-603.55	118.33	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:
CONST1E.F3.T0.MZ-

Construcción SIN gradiente en fase constructiva 3 HIPOTESIS E

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [1; 1]PPLF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-667.09	-115.50	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
1	2	3.05	-667.09	-85.08	34.29	0	-406.34	2.55	-479.55	2.55	0.00	2.85	0.00
2	2	3.05	-1160.12	-85.08	-441.98	0	-1153.47	2.55	-209.77	2.55	0.00	2.85	0.00
2	3	6.10	-1160.12	-57.40	-224.71	0	-959.94	2.55	-480.15	2.55	0.00	2.85	0.00
3	3	6.10	-1501.46	-57.40	-538.06	0	-1462.59	2.55	-313.75	2.55	0.00	2.85	0.00
3	4	9.15	-1501.46	-29.73	-405.20	0	-1344.25	2.55	-479.09	2.55	0.00	2.85	0.00
4	4	9.15	-1842.79	-29.73	-702.16	0	-1832.31	2.55	-333.09	2.55	0.00	2.85	0.00
4	5	12.20	-1842.79	-2.05	-653.74	0	-1789.18	2.55	-393.35	2.55	0.00	2.85	0.00
5	5	12.20	-1842.79	-2.05	-653.74	0	-1789.18	2.55	-393.35	2.55	0.00	2.85	0.00
5	6	15.25	-1842.79	25.65	-689.70	0	-1821.21	2.55	-348.60	2.55	0.00	2.85	0.00
6	6	15.25	-1842.79	25.65	-689.70	0	-1821.21	2.55	-348.60	2.55	0.00	2.85	0.00
6	7	18.30	-1842.79	53.32	-810.10	0	-1928.45	2.55	-198.78	2.55	0.00	2.85	0.00
7	7	18.30	-1842.79	53.32	-810.10	0	-1928.45	2.55	-198.78	2.55	0.00	2.85	0.00
7	8	21.35	-1842.79	81.00	-1014.93	0	-2110.91	2.55	56.13	2.55	0.00	2.85	0.00
8	8	21.35	-1842.79	81.00	-1014.93	0	-2110.91	2.55	56.13	2.55	0.00	2.85	0.00
8	9	24.40	-1842.79	108.68	-1304.16	0	-2368.53	2.55	416.04	2.55	0.00	2.85	0.00
9	9	24.40	-2385.17	109.86	-306.06	0	-1625.83	2.55	-519.81	2.55	-276.88	2.85	-301.39
9	10	27.45	-2388.96	137.53	-680.36	0	-1882.44	2.55	-314.84	2.55	-241.26	2.85	-247.48
10	10	27.45	-2880.85	138.03	292.42	0	-1254.22	2.55	-847.23	2.55	-555.40	2.85	-611.26
10	11	30.50	-2887.87	165.71	-165.31	0	-1586.42	2.55	-538.37	2.55	-520.76	2.85	-558.41
11	11	30.50	-2389.35	165.79	310.74	0	-837.77	2.55	-806.47	2.55	-519.32	2.85	-556.95
11	12	33.55	-2352.84	193.47	-265.61	0	-1251.59	2.55	-373.46	2.55	-468.30	2.85	-485.15
12	10012	33.55	-2388.86	-183.89	-304.05	0	-1310.10	2.55	-349.88	2.55	-467.81	2.85	-484.66
12	13	37.19	-2446.03	-150.89	349.21	0	-818.25	2.55	-937.20	2.55	-516.77	2.85	-550.71
13	13	37.19	-2942.78	-150.74	-126.71	0	-1566.30	2.55	-668.59	2.55	-517.78	2.85	-551.74
13	14	40.82	-2966.83	-114.76	354.28	0	-1201.18	2.55	-1087.47	2.55	-550.32	2.85	-597.45
14	14	40.82	-2530.19	-114.76	-687.87	0	-2122.59	2.55	-405.57	2.55	-187.17	2.85	-177.49
14	15	44.46	-2526.23	-81.75	-533.67	0	-1859.82	2.55	-665.51	2.55	-211.47	2.85	-214.44
15	15	44.46	-2259.98	-81.75	-1617.44	0	-2920.80	2.55	532.67	2.55	0.00	2.85	0.00
15	16	48.10	-2259.98	-48.75	-1380.16	0	-2709.45	2.55	237.40	2.55	0.00	2.85	0.00
16	16	48.10	-2259.98	-48.75	-1380.16	0	-2709.45	2.55	237.40	2.55	0.00	2.85	0.00
16	17	51.73	-2259.98	-15.74	-1262.87	0	-2604.97	2.55	91.44	2.55	0.00	2.85	0.00
17	17	51.73	-2259.98	-15.74	-1262.87	0	-2604.97	2.55	91.44	2.55	0.00	2.85	0.00
17	18	55.37	-2259.98	17.26	-1265.59	0	-2607.40	2.55	94.83	2.55	0.00	2.85	0.00
18	18	55.37	-2259.98	17.26	-1265.59	0	-2607.40	2.55	94.83	2.55	0.00	2.85	0.00
18	19	59.01	-2259.98	50.26	-1388.28	0	-2716.68	2.55	247.50	2.55	0.00	2.85	0.00
19	19	59.01	-2259.98	50.25	-1388.28	0	-2716.68	2.55	247.50	2.55	0.00	2.85	0.00
19	20	62.64	-2259.98	83.25	-1631.01	0	-2932.89	2.55	549.56	2.55	0.00	2.85	0.00
20	20	62.64	-2640.12	83.25	-458.40	0	-1851.62	2.55	-711.28	2.55	-252.40	2.85	-261.15
20	21	66.28	-2644.64	116.25	-817.61	0	-2117.62	2.55	-449.96	2.55	-227.59	2.85	-223.36
21	21	66.28	-2927.38	119.22	330.01	0	-1203.85	2.55	-1069.05	2.55	-536.82	2.85	-582.28
21	22	69.91	-2935.77	152.22	-156.96	0	-1582.32	2.55	-658.20	2.55	-511.83	2.85	-543.73
22	22	69.91	-2439.24	152.35	318.98	0	-834.33	2.55	-926.89	2.55	-510.88	2.85	-542.76
22	23	73.55	-2392.96	185.35	-331.13	0	-1327.86	2.55	-342.71	2.55	-465.30	2.85	-480.37
23	10023	73.55	-2356.99	-196.69	-292.69	0	-1269.36	2.55	-366.31	2.55	-465.81	2.85	-480.87
23	24	76.66	-2399.59	-168.46	308.35	0	-839.63	2.55	-817.72	2.55	-520.38	2.85	-557.23
24	24	76.66	-2898.27	-168.36	-167.69	0	-1588.32	2.55	-549.68	2.55	-521.87	2.85	-558.74
24	25	79.77	-2891.10	-140.14	306.44	0	-1244.13	2.55	-870.04	2.55	-557.72	2.85	-613.43
25	25	79.77	-2316.94	-139.60	-795.28	0	-1945.74	2.55	-266.54	2.55	-198.41	2.85	-197.39
25	26	82.88	-2313.55	-111.38	-407.66	0	-1680.15	2.55	-479.02	2.55	-235.43	2.85	-253.35
26	26	82.88	-1918.64	-110.13	-1352.84	0	-2461.57	2.55	426.94	2.55	0.00	2.85	0.00
26	27	85.99	-1918.64	-81.90	-1054.26	0	-2195.61	2.55	55.39	2.55	0.00	2.85	0.00
27	27	85.99	-1918.64	-81.90	-1054.26	0	-2195.61	2.55	55.39	2.55	0.00	2.85	0.00
27	28	89.10	-1918.64	-53.68	-843.43	0	-2007.82	2.55	-206.97	2.55	0.00	2.85	0.00
28	28	89.10	-1918.64	-53.68	-843.43	0	-2007.82	2.55	-206.97	2.55	0.00	2.85	0.00
28	29	92.21	-1918.64	-25.46	-720.40	0	-1898.23	2.55	-360.07	2.55	0.00	2.85	0.00
29	29	92.21	-1918.64	-25.46	-720.40	0	-1898.23	2.55	-360.07	2.55	0.00	2.85	0.00
29	30	95.32	-1918.64	2.76	-685.12	0	-1866.80	2.55	-403.98	2.55	0.00	2.85	0.00
30	30	95.32	-1918.64	2.76	-685.12	0	-1866.80	2.55	-403.98	2.55	0.00	2.85	0.00
30	31	98.43	-1918.64	30.99	-737.63	0	-1913.58	2.55	-338.63	2.55	0.00	2.85	0.00
31	31	98.43	-1539.38	30.99	-407.68	0	-1371.29	2.55	-500.84	2.55	0.00	2.85	0.00
31	32	101.54	-1539.38	59.21	-547.96	0	-1496.25	2.55	-326.27	2.55	0.00	2.85	0.00
32	32	101.54	-1160.12	59.21	-199.79	0	-937.74	2.55	-511.16	2.55	0.00	2.85	0.00
32	33	104.65	-1160.12	87.44	-427.85	0	-1140.88	2.55	-227.36	2.55	0.00	2.85	0.00
33	33	104.65	-667.09	87.44	48.42	0	-393.75	2.55	-497.14	2.55	0.00	2.85	0.00
33	34	107.76	-667.09	118.33	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	101	0.00	-667.09	-115.50	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	102	3.05	-667.09	-85.08	34.29	0	-406.34	2.55	-479.55	2.55	0.00	2.85	0.00
102	102	3.05	-1160.12	-85.08	-441.98	0	-1153.47	2.55	-209.77	2.55	0.00	2.85	0.00
102	103	6.10	-1160.12	-57.40	-224.70	0	-959.93	2.55	-480.16	2.55	0.00	2.85	0.00
103	103	6.10	-1501.46	-57.40	-538.05	0	-1462.58	2.55	-313.77	2.55	0.00	2.85	0.00
103	104	9.15	-1501.46	-29.73	-405.20	0	-1344.25	2.55	-479.09	2.55	0.00	2.85	0.00
104	104	9.15	-1842.79	-29.73	-702.16	0	-1832.31	2.55	-333.09	2.55	0.00	2.85	0.00
104	105	12.20	-1842.79	-2.05	-653.74	0	-1789.18	2.55	-393.35	2.55	0.00	2.85	0.00
105	105	12.20	-1842.79	-2.05	-653.74	0	-1789.18	2.55	-393.35	2.55	0.00	2.85	0.00

CÁLCULO TENSIONAL

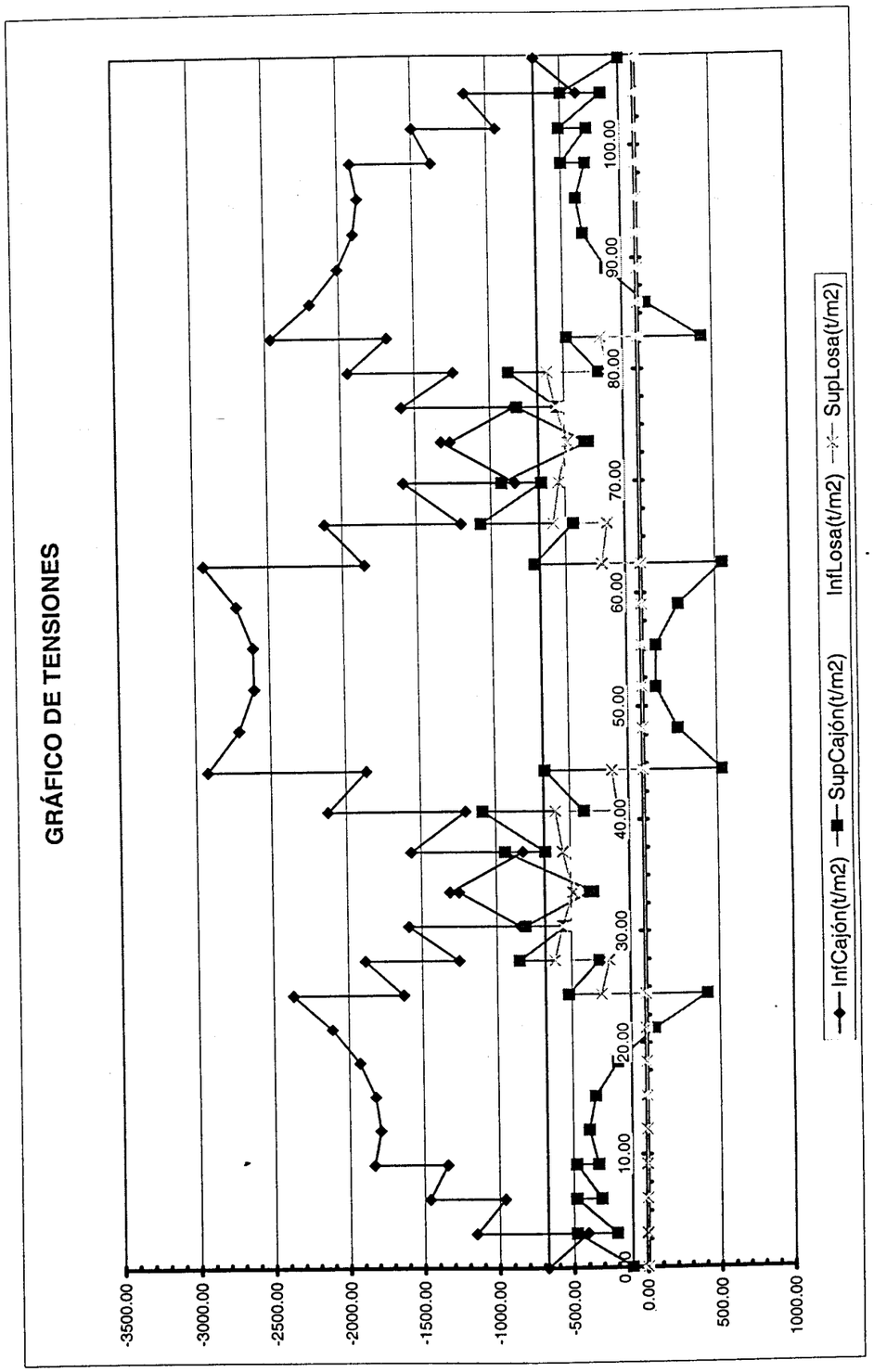
Hipótesis de cálculo:
CONST1E.F3.T0.MZ-

Construcción SIN gradiente en fase constructiva 3 HIPOTESIS E

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [1; 1]PPLF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1842.79	25.65	-689.70	0	-1821.21	2.55	-348.60	2.55	0.00	2.85	0.00
106	106	15.25	-1842.79	25.65	-689.70	0	-1821.21	2.55	-348.60	2.55	0.00	2.85	0.00
106	107	18.30	-1842.79	53.32	-810.10	0	-1928.45	2.55	-198.78	2.55	0.00	2.85	0.00
107	107	18.30	-1842.79	53.32	-810.10	0	-1928.45	2.55	-198.78	2.55	0.00	2.85	0.00
107	108	21.35	-1842.79	81.00	-1014.93	0	-2110.91	2.55	56.13	2.55	0.00	2.85	0.00
108	108	21.35	-1842.79	81.00	-1014.93	0	-2110.91	2.55	56.13	2.55	0.00	2.85	0.00
108	109	24.40	-1842.79	108.68	-1304.16	0	-2368.53	2.55	416.04	2.55	0.00	2.85	0.00
109	109	24.40	-2385.17	109.86	-306.06	0	-1625.83	2.55	-519.81	2.55	-276.88	2.85	-301.39
109	110	27.45	-2388.96	137.53	-680.37	0	-1882.44	2.55	-314.84	2.55	-241.25	2.85	-247.48
110	110	27.45	-2880.85	138.03	292.41	0	-1254.23	2.55	-847.23	2.55	-555.40	2.85	-611.26
110	111	30.50	-2887.87	165.71	-165.31	0	-1586.42	2.55	-538.37	2.55	-520.76	2.85	-558.41
111	111	30.50	-2389.36	165.79	310.73	0	-837.78	2.55	-806.47	2.55	-519.32	2.85	-556.95
111	112	33.55	-2352.84	193.47	-265.62	0	-1251.60	2.55	-373.46	2.55	-468.30	2.85	-485.15
112	10112	33.55	-2388.86	-183.89	-304.06	0	-1310.10	2.55	-349.88	2.55	-467.81	2.85	-484.66
112	113	37.19	-2446.03	-150.89	349.21	0	-818.25	2.55	-937.20	2.55	-516.77	2.85	-550.71
113	113	37.19	-2942.78	-150.74	-126.72	0	-1566.30	2.55	-668.59	2.55	-517.78	2.85	-551.74
113	114	40.82	-2966.83	-114.76	354.28	0	-1201.18	2.55	-1087.47	2.55	-550.32	2.85	-597.45
114	114	40.82	-2530.19	-114.76	-687.87	0	-2122.59	2.55	-405.57	2.55	-187.17	2.85	-177.49
114	115	44.46	-2526.23	-81.75	-533.67	0	-1859.82	2.55	-665.51	2.55	-211.47	2.85	-214.44
115	115	44.46	-2259.98	-81.75	-1617.44	0	-2920.80	2.55	532.67	2.55	0.00	2.85	0.00
115	116	48.10	-2259.98	-48.75	-1380.16	0	-2709.45	2.55	237.40	2.55	0.00	2.85	0.00
116	116	48.10	-2259.98	-48.75	-1380.16	0	-2709.45	2.55	237.40	2.55	0.00	2.85	0.00
116	117	51.73	-2259.98	-15.74	-1262.87	0	-2604.97	2.55	91.44	2.55	0.00	2.85	0.00
117	117	51.73	-2259.98	-15.74	-1262.87	0	-2604.97	2.55	91.44	2.55	0.00	2.85	0.00
117	118	55.37	-2259.98	17.26	-1265.58	0	-2607.39	2.55	94.81	2.55	0.00	2.85	0.00
118	118	55.37	-2259.98	17.26	-1265.58	0	-2607.39	2.55	94.81	2.55	0.00	2.85	0.00
118	119	59.01	-2259.98	50.26	-1388.28	0	-2716.68	2.55	247.50	2.55	0.00	2.85	0.00
119	119	59.01	-2259.98	50.25	-1388.28	0	-2716.68	2.55	247.50	2.55	0.00	2.85	0.00
119	120	62.64	-2259.98	83.25	-1631.01	0	-2932.89	2.55	549.56	2.55	0.00	2.85	0.00
120	120	62.64	-2640.12	83.25	-458.41	0	-1851.63	2.55	-711.28	2.55	-252.40	2.85	-261.15
120	121	66.28	-2644.64	116.25	-817.61	0	-2117.62	2.55	-449.96	2.55	-227.59	2.85	-223.36
121	121	66.28	-2927.38	119.22	330.00	0	-1203.86	2.55	-1069.05	2.55	-536.81	2.85	-582.28
121	122	69.91	-2935.77	152.22	-156.96	0	-1582.32	2.55	-658.20	2.55	-511.83	2.85	-543.73
122	122	69.91	-2439.24	152.35	318.98	0	-834.33	2.55	-926.89	2.55	-510.88	2.85	-542.76
122	123	73.55	-2392.96	185.35	-331.15	0	-1327.87	2.55	-342.71	2.55	-465.30	2.85	-480.37
123	10123	73.55	-2356.99	-196.69	-292.70	0	-1269.37	2.55	-366.31	2.55	-465.81	2.85	-480.87
123	124	76.66	-2399.59	-168.46	308.35	0	-839.63	2.55	-817.72	2.55	-520.38	2.85	-557.23
124	124	76.66	-2898.27	-168.36	-167.70	0	-1588.32	2.55	-549.68	2.55	-521.87	2.85	-558.73
124	125	79.77	-2891.10	-140.14	306.44	0	-1244.13	2.55	-870.04	2.55	-557.72	2.85	-613.43
125	125	79.77	-2316.94	-139.60	-795.29	0	-1945.75	2.55	-266.54	2.55	-198.41	2.85	-197.39
125	126	82.88	-2313.55	-111.38	-407.66	0	-1680.15	2.55	-479.02	2.55	-235.43	2.85	-253.35
126	126	82.88	-1918.64	-110.13	-1352.84	0	-2461.57	2.55	426.94	2.55	0.00	2.85	0.00
126	127	85.99	-1918.64	-81.90	-1054.26	0	-2195.61	2.55	55.39	2.55	0.00	2.85	0.00
127	127	85.99	-1918.64	-81.90	-1054.26	0	-2195.61	2.55	55.39	2.55	0.00	2.85	0.00
127	128	89.10	-1918.64	-53.68	-843.43	0	-2007.82	2.55	-206.97	2.55	0.00	2.85	0.00
128	128	89.10	-1918.64	-53.68	-843.43	0	-2007.82	2.55	-206.97	2.55	0.00	2.85	0.00
128	129	92.21	-1918.64	-25.45	-720.40	0	-1898.23	2.55	-360.07	2.55	0.00	2.85	0.00
129	129	92.21	-1918.64	-25.45	-720.40	0	-1898.23	2.55	-360.07	2.55	0.00	2.85	0.00
129	130	95.32	-1918.64	2.76	-685.13	0	-1866.81	2.55	-403.96	2.55	0.00	2.85	0.00
130	130	95.32	-1918.64	2.76	-685.13	0	-1866.81	2.55	-403.96	2.55	0.00	2.85	0.00
130	131	98.43	-1918.64	30.99	-737.64	0	-1913.58	2.55	-338.62	2.55	0.00	2.85	0.00
131	131	98.43	-1539.38	30.99	-407.69	0	-1371.30	2.55	-500.83	2.55	0.00	2.85	0.00
131	132	101.54	-1539.38	59.21	-547.95	0	-1496.24	2.55	-326.29	2.55	0.00	2.85	0.00
132	132	101.54	-1160.12	59.21	-199.78	0	-937.73	2.55	-511.17	2.55	0.00	2.85	0.00
132	133	104.65	-1160.12	87.43	-427.86	0	-1140.89	2.55	-227.35	2.55	0.00	2.85	0.00
133	133	104.65	-667.09	87.44	48.41	0	-393.76	2.55	-497.12	2.55	0.00	2.85	0.00
133	134	107.76	-667.09	118.33	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:

CONST1E.F3.T0.MZ+

Construcción CON gradiente en fase constructiva 3 HIPOTESIS E

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [1; 1]PPLF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-115.50	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
1	2	3.05	-603.55	-94.45	88.33	0	-316.59	2.55	-505.20	2.55	0.00	2.85	0.00
2	2	3.05	-1049.64	-94.45	-342.58	0	-992.57	2.55	-261.11	2.55	0.00	2.85	0.00
2	3	6.10	-1049.64	-66.77	-96.73	0	-773.58	2.55	-567.05	2.55	0.00	2.85	0.00
3	3	6.10	-1358.46	-66.77	-380.24	0	-1228.37	2.55	-416.50	2.55	0.00	2.85	0.00
3	4	9.15	-1358.46	-39.10	-218.80	0	-1084.57	2.55	-617.40	2.55	0.00	2.85	0.00
4	4	9.15	-1667.29	-39.10	-487.48	0	-1526.14	2.55	-485.30	2.55	0.00	2.85	0.00
4	5	12.20	-1667.29	-11.42	-410.48	0	-1457.56	2.55	-581.12	2.55	0.00	2.85	0.00
5	5	12.20	-1667.29	-11.42	-410.48	0	-1457.56	2.55	-581.12	2.55	0.00	2.85	0.00
5	6	15.25	-1667.29	16.28	-417.86	0	-1464.13	2.55	-571.93	2.55	0.00	2.85	0.00
6	6	15.25	-1667.29	16.28	-417.86	0	-1464.13	2.55	-571.93	2.55	0.00	2.85	0.00
6	7	18.30	-1667.29	43.95	-509.68	0	-1545.92	2.55	-457.67	2.55	0.00	2.85	0.00
7	7	18.30	-1667.29	43.95	-509.68	0	-1545.92	2.55	-457.67	2.55	0.00	2.85	0.00
7	8	21.35	-1667.29	71.63	-685.95	0	-1702.93	2.55	-238.33	2.55	0.00	2.85	0.00
8	8	21.35	-1667.29	71.63	-685.95	0	-1702.93	2.55	-238.33	2.55	0.00	2.85	0.00
8	9	24.40	-1667.29	99.30	-946.60	0	-1935.10	2.55	86.03	2.55	0.00	2.85	0.00
9	9	24.40	-2473.95	98.12	180.32	0	-1292.31	2.55	-688.75	2.55	-394.73	2.85	-448.28
9	10	27.45	-2478.59	125.79	-157.52	0	-1528.39	2.55	-490.43	2.55	-364.82	2.85	-402.83
10	10	27.45	-3216.62	125.29	933.02	0	-928.08	2.55	-1097.05	2.55	-756.28	2.85	-855.03
10	11	30.50	-3225.21	152.97	515.37	0	-1237.91	2.55	-795.69	2.55	-728.08	2.85	-811.64
11	11	30.50	-2784.59	152.89	946.50	0	-563.46	2.55	-1041.45	2.55	-729.52	2.85	-813.09
11	12	33.55	-2739.96	180.57	403.17	0	-956.02	2.55	-611.81	2.55	-681.39	2.85	-746.66
12	10012	33.55	-2776.21	-177.66	368.37	0	-1010.07	2.55	-591.56	2.55	-681.89	2.85	-747.16
12	13	37.19	-2846.09	-144.66	1008.88	0	-529.30	2.55	-1180.47	2.55	-732.20	2.85	-813.60
13	13	37.19	-3288.46	-144.82	577.62	0	-1204.36	2.55	-935.20	2.55	-731.19	2.85	-812.57
13	14	40.82	-3245.79	-114.79	1036.78	0	-831.65	2.55	-1330.20	2.55	-743.24	2.85	-836.14
14	14	40.82	-2543.56	-114.79	-326.67	0	-1709.59	2.55	-578.93	2.55	-299.40	2.85	-322.86
14	15	44.46	-2538.73	-81.78	26.97	0	-1446.88	2.55	-838.52	2.55	-323.38	2.85	-359.45
15	15	44.46	-2044.74	-81.78	-1151.00	0	-2364.36	2.55	93.19	2.55	0.00	2.85	0.00
15	16	48.10	-2044.74	-48.78	-913.61	0	-2152.91	2.55	-202.22	2.55	0.00	2.85	0.00
16	16	48.10	-2044.74	-48.78	-913.61	0	-2152.91	2.55	-202.22	2.55	0.00	2.85	0.00
16	17	51.73	-2044.74	-15.77	-796.21	0	-2048.34	2.55	-348.32	2.55	0.00	2.85	0.00
17	17	51.73	-2044.74	-15.77	-796.21	0	-2048.34	2.55	-348.32	2.55	0.00	2.85	0.00
17	18	55.37	-2044.74	17.23	-798.82	0	-2050.66	2.55	-345.07	2.55	0.00	2.85	0.00
18	18	55.37	-2044.74	17.23	-798.82	0	-2050.66	2.55	-345.07	2.55	0.00	2.85	0.00
18	19	59.01	-2044.74	50.23	-921.39	0	-2159.84	2.55	-192.54	2.55	0.00	2.85	0.00
19	19	59.01	-2044.74	50.22	-921.39	0	-2159.84	2.55	-192.54	2.55	0.00	2.85	0.00
19	20	62.64	-2044.74	83.22	-1164.01	0	-2375.95	2.55	109.38	2.55	0.00	2.85	0.00
20	20	62.64	-2677.92	83.22	122.54	0	-1434.71	2.55	-895.45	2.55	-373.90	2.85	-417.28
20	21	66.28	-2683.44	116.22	-235.78	0	-1700.50	2.55	-634.59	2.55	-349.48	2.85	-379.94
21	21	66.28	-3270.36	113.25	1012.24	0	-853.71	2.55	-1330.97	2.55	-746.20	2.85	-837.42
21	22	69.91	-3280.62	146.25	548.40	0	-1219.55	2.55	-924.74	2.55	-725.18	2.85	-804.57
22	22	69.91	-2838.03	146.10	979.66	0	-544.42	2.55	-1169.95	2.55	-726.14	2.85	-805.55
22	23	73.55	-2781.46	179.10	344.21	0	-1026.50	2.55	-585.26	2.55	-680.12	2.85	-743.83
23	10023	73.55	-2745.19	-183.73	379.01	0	-972.45	2.55	-605.49	2.55	-679.61	2.85	-743.32
23	24	76.66	-2797.25	-155.50	947.13	0	-564.32	2.55	-1053.97	2.55	-731.67	2.85	-814.68
24	24	76.66	-3237.69	-155.60	515.99	0	-1238.73	2.55	-808.15	2.55	-730.18	2.85	-813.18
24	25	79.77	-3228.94	-127.38	949.15	0	-917.41	2.55	-1120.84	2.55	-759.45	2.85	-858.20
25	25	79.77	-2377.18	-127.92	-287.99	0	-1589.37	2.55	-432.84	2.55	-312.49	2.85	-341.83
25	26	82.88	-2373.05	-99.70	62.72	0	-1344.60	2.55	-638.61	2.55	-343.76	2.85	-389.25
26	26	82.88	-1735.92	-100.95	-989.04	0	-2017.85	2.55	93.90	2.55	0.00	2.85	0.00
26	27	85.99	-1735.92	-72.72	-719.01	0	-1777.32	2.55	-242.13	2.55	0.00	2.85	0.00
27	27	85.99	-1735.92	-72.72	-719.01	0	-1777.32	2.55	-242.13	2.55	0.00	2.85	0.00
27	28	89.10	-1735.92	-44.50	-536.74	0	-1614.96	2.55	-468.95	2.55	0.00	2.85	0.00
28	28	89.10	-1735.92	-44.50	-536.74	0	-1614.96	2.55	-468.95	2.55	0.00	2.85	0.00
28	29	92.21	-1735.92	-16.28	-442.26	0	-1530.81	2.55	-586.52	2.55	0.00	2.85	0.00
29	29	92.21	-1735.92	-16.28	-442.26	0	-1530.81	2.55	-586.52	2.55	0.00	2.85	0.00
29	30	95.32	-1735.92	11.94	-435.51	0	-1524.80	2.55	-594.91	2.55	0.00	2.85	0.00
30	30	95.32	-1735.92	11.94	-435.51	0	-1524.80	2.55	-594.91	2.55	0.00	2.85	0.00
30	31	98.43	-1735.92	40.17	-516.57	0	-1597.00	2.55	-494.05	2.55	0.00	2.85	0.00
31	31	98.43	-1392.78	40.17	-218.04	0	-1106.37	2.55	-640.81	2.55	0.00	2.85	0.00
31	32	101.54	-1392.78	68.39	-386.88	0	-1256.75	2.55	-430.71	2.55	0.00	2.85	0.00
32	32	101.54	-1049.64	68.39	-71.87	0	-751.44	2.55	-597.98	2.55	0.00	2.85	0.00
32	33	104.65	-1049.64	96.62	-328.48	0	-980.01	2.55	-278.66	2.55	0.00	2.85	0.00
33	33	104.65	-603.55	96.62	102.43	0	-304.04	2.55	-522.74	2.55	0.00	2.85	0.00
33	34	107.76	-603.55	118.33	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	101	0.00	-603.55	-115.50	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	102	3.05	-603.55	-94.45	88.33	0	-316.59	2.55	-505.20	2.55	0.00	2.85	0.00
102	102	3.05	-1049.64	-94.45	-342.58	0	-992.57	2.55	-261.11	2.55	0.00	2.85	0.00
102	103	6.10	-1049.64	-66.77	-96.72	0	-773.57	2.55	-567.06	2.55	0.00	2.85	0.00
103	103	6.10	-1358.46	-66.77	-380.23	0	-1228.36	2.55	-416.51	2.55	0.00	2.85	0.00
103	104	9.15	-1358.46	-39.10	-218.80	0	-1084.57	2.55	-617.40	2.55	0.00	2.85	0.00
104	104	9.15	-1667.29	-39.10	-487.48	0	-1526.14	2.55	-485.30	2.55	0.00	2.85	0.00
104	105	12.20	-1667.29	-11.42	-410.48	0	-1457.56	2.55	-581.12	2.55	0.00	2.85	0.00
105	105	12.20	-1667.29	-11.42	-410.48	0	-1457.56	2.55	-581.12	2.55	0.00	2.85	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

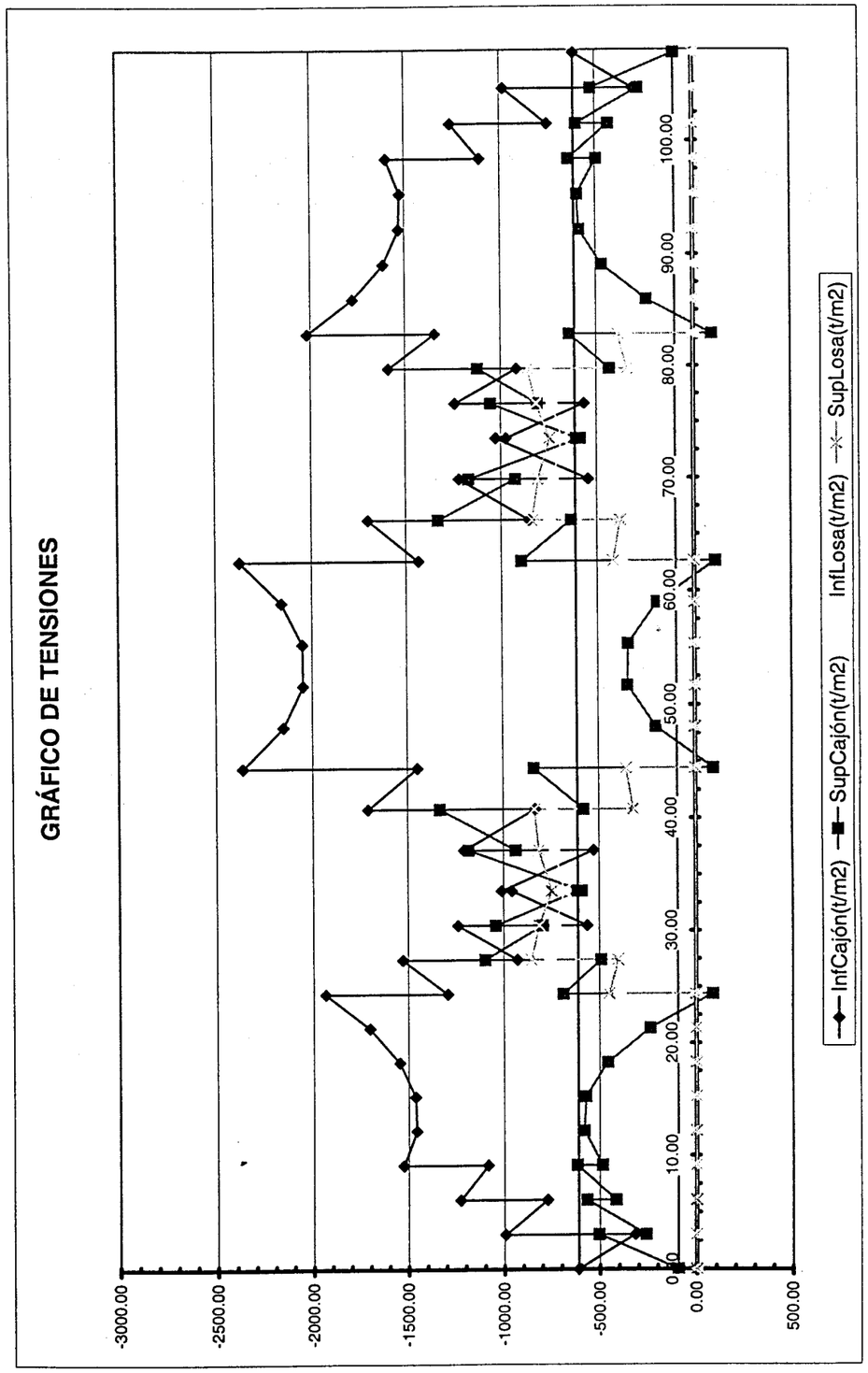
CONST1E.F3.T0.MZ+

Construcción CON gradiente en fase constructiva 3 HIPOTESIS E

[1; 1]PPCF1 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [1; 1]PPLF2 + [1; 1]PPLF3 + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	16.28	-417.86	0	-1464.13	2.55	-571.93	2.55	0.00	2.85	0.00
106	106	15.25	-1667.29	16.28	-417.86	0	-1464.13	2.55	-571.93	2.55	0.00	2.85	0.00
106	107	18.30	-1667.29	43.95	-509.68	0	-1545.92	2.55	-457.67	2.55	0.00	2.85	0.00
107	107	18.30	-1667.29	43.95	-509.68	0	-1545.92	2.55	-457.67	2.55	0.00	2.85	0.00
107	108	21.35	-1667.29	71.63	-685.95	0	-1702.93	2.55	-238.33	2.55	0.00	2.85	0.00
108	108	21.35	-1667.29	71.63	-685.95	0	-1702.93	2.55	-238.33	2.55	0.00	2.85	0.00
108	109	24.40	-1667.29	99.30	-946.60	0	-1935.10	2.55	86.03	2.55	0.00	2.85	0.00
109	109	24.40	-2473.95	98.12	180.32	0	-1292.31	2.55	-688.75	2.55	-394.73	2.85	-448.28
109	110	27.45	-2478.59	125.79	-157.53	0	-1528.39	2.55	-490.43	2.55	-364.82	2.85	-402.82
110	110	27.45	-3216.62	125.29	933.01	0	-928.09	2.55	-1097.05	2.55	-756.28	2.85	-855.03
110	111	30.50	-3225.21	152.97	515.37	0	-1237.91	2.55	-795.69	2.55	-728.08	2.85	-811.64
111	111	30.50	-2784.60	152.89	946.49	0	-563.46	2.55	-1041.45	2.55	-729.52	2.85	-813.09
111	112	33.55	-2739.96	180.57	403.16	0	-956.02	2.55	-611.81	2.55	-681.39	2.85	-746.66
112	10112	33.55	-2776.21	-177.66	368.36	0	-1010.07	2.55	-591.56	2.55	-681.89	2.85	-747.15
112	113	37.19	-2846.09	-144.66	1008.88	0	-529.30	2.55	-1180.47	2.55	-732.20	2.85	-813.60
113	113	37.19	-3288.46	-144.82	577.61	0	-1204.37	2.55	-935.20	2.55	-731.19	2.85	-812.57
113	114	40.82	-3245.79	-114.79	1036.78	0	-831.65	2.55	-1330.20	2.55	-743.24	2.85	-836.14
114	114	40.82	-2543.56	-114.79	-326.67	0	-1709.59	2.55	-578.93	2.55	-299.40	2.85	-322.86
114	115	44.46	-2538.73	-81.78	26.97	0	-1446.88	2.55	-838.52	2.55	-323.38	2.85	-359.45
115	115	44.46	-2044.74	-81.78	-1151.00	0	-2364.36	2.55	93.19	2.55	0.00	2.85	0.00
115	116	48.10	-2044.74	-48.78	-913.61	0	-2152.91	2.55	-202.22	2.55	0.00	2.85	0.00
116	116	48.10	-2044.74	-48.78	-913.61	0	-2152.91	2.55	-202.22	2.55	0.00	2.85	0.00
116	117	51.73	-2044.74	-15.77	-796.21	0	-2048.34	2.55	-348.32	2.55	0.00	2.85	0.00
117	117	51.73	-2044.74	-15.77	-796.21	0	-2048.34	2.55	-348.32	2.55	0.00	2.85	0.00
117	118	55.37	-2044.74	17.23	-798.81	0	-2050.65	2.55	-345.08	2.55	0.00	2.85	0.00
118	118	55.37	-2044.74	17.23	-798.81	0	-2050.65	2.55	-345.08	2.55	0.00	2.85	0.00
118	119	59.01	-2044.74	50.23	-921.39	0	-2159.84	2.55	-192.54	2.55	0.00	2.85	0.00
119	119	59.01	-2044.74	50.22	-921.39	0	-2159.84	2.55	-192.54	2.55	0.00	2.85	0.00
119	120	62.64	-2044.74	83.22	-1164.01	0	-2375.95	2.55	109.38	2.55	0.00	2.85	0.00
120	120	62.64	-2677.92	83.22	122.53	0	-1434.72	2.55	-895.45	2.55	-373.90	2.85	-417.27
120	121	66.28	-2683.44	116.22	-235.78	0	-1700.50	2.55	-634.59	2.55	-349.48	2.85	-379.94
121	121	66.28	-3270.36	113.25	1012.23	0	-853.71	2.55	-1330.97	2.55	-746.20	2.85	-837.41
121	122	69.91	-3280.62	146.25	548.40	0	-1219.55	2.55	-924.74	2.55	-725.18	2.85	-804.57
122	122	69.91	-2838.03	146.10	979.66	0	-544.42	2.55	-1169.95	2.55	-726.14	2.85	-805.55
122	123	73.55	-2781.46	179.10	344.21	0	-1026.51	2.55	-585.26	2.55	-680.12	2.85	-743.82
123	10123	73.55	-2745.19	-183.73	379.00	0	-972.46	2.55	-605.49	2.55	-679.61	2.85	-743.32
123	124	76.66	-2797.25	-155.50	947.13	0	-564.32	2.55	-1053.97	2.55	-731.67	2.85	-814.68
124	124	76.66	-3237.69	-155.60	515.98	0	-1238.74	2.55	-808.15	2.55	-730.18	2.85	-813.17
124	125	79.77	-3228.94	-127.38	949.15	0	-917.41	2.55	-1120.84	2.55	-759.45	2.85	-858.20
125	125	79.77	-2377.18	-127.92	-288.00	0	-1589.38	2.55	-432.84	2.55	-312.49	2.85	-341.83
125	126	82.88	-2373.05	-99.70	62.72	0	-1344.60	2.55	-638.61	2.55	-343.76	2.85	-389.25
126	126	82.88	-1735.92	-100.95	-989.04	0	-2017.85	2.55	93.90	2.55	0.00	2.85	0.00
126	127	85.99	-1735.92	-72.72	-719.01	0	-1777.32	2.55	-242.13	2.55	0.00	2.85	0.00
127	127	85.99	-1735.92	-72.72	-719.01	0	-1777.32	2.55	-242.13	2.55	0.00	2.85	0.00
127	128	89.10	-1735.92	-44.50	-536.73	0	-1614.95	2.55	-468.96	2.55	0.00	2.85	0.00
128	128	89.10	-1735.92	-44.50	-536.73	0	-1614.95	2.55	-468.96	2.55	0.00	2.85	0.00
128	129	92.21	-1735.92	-16.27	-442.26	0	-1530.81	2.55	-586.52	2.55	0.00	2.85	0.00
129	129	92.21	-1735.92	-16.27	-442.26	0	-1530.81	2.55	-586.52	2.55	0.00	2.85	0.00
129	130	95.32	-1735.92	11.94	-435.52	0	-1524.81	2.55	-594.90	2.55	0.00	2.85	0.00
130	130	95.32	-1735.92	11.94	-435.52	0	-1524.81	2.55	-594.90	2.55	0.00	2.85	0.00
130	131	98.43	-1735.92	40.17	-516.58	0	-1597.01	2.55	-494.03	2.55	0.00	2.85	0.00
131	131	98.43	-1392.78	40.17	-218.05	0	-1106.37	2.55	-640.80	2.55	0.00	2.85	0.00
131	132	101.54	-1392.78	68.39	-386.86	0	-1256.74	2.55	-430.73	2.55	0.00	2.85	0.00
132	132	101.54	-1049.64	68.39	-71.85	0	-751.42	2.55	-598.01	2.55	0.00	2.85	0.00
132	133	104.65	-1049.64	96.61	-328.49	0	-980.02	2.55	-278.64	2.55	0.00	2.85	0.00
133	133	104.65	-603.55	96.62	102.42	0	-304.04	2.55	-522.73	2.55	0.00	2.85	0.00
133	134	107.76	-603.55	118.33	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:

V[illegible].T0.MZ+

PP sin gradiente

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-115.50	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
1	2	3.05	-603.55	-88.01	68.69	0	-334.09	2.55	-480.76	2.55	0.00	2.85	0.00
2	2	3.05	-1049.64	-88.01	-362.22	0	-1010.06	2.55	-236.67	2.55	0.00	2.85	0.00
2	3	6.10	-1049.64	-60.33	-136.01	0	-808.57	2.55	-518.17	2.55	0.00	2.85	0.00
3	3	6.10	-1358.46	-60.33	-419.52	0	-1263.35	2.55	-367.62	2.55	0.00	2.85	0.00
3	4	9.15	-1358.46	-32.66	-277.72	0	-1137.05	2.55	-544.08	2.55	0.00	2.85	0.00
4	4	9.15	-1667.29	-32.66	-546.40	0	-1578.62	2.55	-411.98	2.55	0.00	2.85	0.00
4	5	12.20	-1667.29	-4.98	-489.04	0	-1527.53	2.55	-483.36	2.55	0.00	2.85	0.00
5	5	12.20	-1667.29	-4.98	-489.04	0	-1527.53	2.55	-483.36	2.55	0.00	2.85	0.00
5	6	15.25	-1667.29	22.72	-516.06	0	-1551.60	2.55	-449.73	2.55	0.00	2.85	0.00
6	6	15.25	-1667.29	22.72	-516.06	0	-1551.60	2.55	-449.73	2.55	0.00	2.85	0.00
6	7	18.30	-1667.29	50.39	-627.52	0	-1650.89	2.55	-311.03	2.55	0.00	2.85	0.00
7	7	18.30	-1667.29	50.39	-627.52	0	-1650.89	2.55	-311.03	2.55	0.00	2.85	0.00
7	8	21.35	-1667.29	78.07	-823.43	0	-1825.38	2.55	-67.25	2.55	0.00	2.85	0.00
8	8	21.35	-1667.29	78.07	-823.43	0	-1825.38	2.55	-67.25	2.55	0.00	2.85	0.00
8	9	24.40	-1667.29	105.75	-1103.72	0	-2075.05	2.55	281.55	2.55	0.00	2.85	0.00
9	9	24.40	-2473.95	104.56	23.20	0	-1381.86	2.55	-661.17	2.55	-371.07	2.85	-412.78
9	10	27.45	-2478.59	132.23	-334.28	0	-1629.12	2.55	-459.41	2.55	-338.20	2.85	-362.89
10	10	27.45	-3216.62	131.73	756.26	0	-1028.82	2.55	-1066.03	2.55	-729.65	2.85	-815.10
10	11	30.50	-3225.21	159.41	318.97	0	-1349.84	2.55	-761.22	2.55	-698.50	2.85	-767.27
11	11	30.50	-2784.59	159.33	750.10	0	-675.39	2.55	-1006.98	2.55	-699.94	2.85	-768.72
11	12	33.55	-2739.96	187.01	187.13	0	-1079.14	2.55	-573.89	2.55	-648.85	2.85	-697.86
12	10012	33.55	-2776.21	-177.63	152.33	0	-1133.19	2.55	-553.65	2.55	-649.34	2.85	-698.35
12	13	37.19	-2846.09	-144.63	792.75	0	-652.48	2.55	-1142.54	2.55	-699.64	2.85	-764.78
13	13	37.19	-3288.46	-144.79	361.49	0	-1327.54	2.55	-897.27	2.55	-698.63	2.85	-763.74
13	14	40.82	-3245.79	-114.76	820.56	0	-954.88	2.55	-1292.26	2.55	-710.67	2.85	-787.29
14	14	40.82	-2543.56	-114.76	-542.89	0	-1832.82	2.55	-540.99	2.55	-266.82	2.85	-274.01
14	15	44.46	-2538.73	-81.75	-189.35	0	-1570.17	2.55	-800.55	2.55	-290.80	2.85	-310.58
15	15	44.46	-2044.74	-81.75	-1367.32	0	-2557.05	2.55	362.38	2.55	0.00	2.85	0.00
15	16	48.10	-2044.74	-48.75	-1130.02	0	-2345.68	2.55	67.08	2.55	0.00	2.85	0.00
16	16	48.10	-2044.74	-48.75	-1130.02	0	-2345.68	2.55	67.08	2.55	0.00	2.85	0.00
16	17	51.73	-2044.74	-15.74	-1012.71	0	-2241.18	2.55	-78.90	2.55	0.00	2.85	0.00
17	17	51.73	-2044.74	-15.74	-1012.71	0	-2241.18	2.55	-78.90	2.55	0.00	2.85	0.00
17	18	55.37	-2044.74	17.26	-1015.41	0	-2243.59	2.55	-75.54	2.55	0.00	2.85	0.00
18	18	55.37	-2044.74	17.26	-1015.41	0	-2243.59	2.55	-75.54	2.55	0.00	2.85	0.00
18	19	59.01	-2044.74	50.26	-1138.08	0	-2352.85	2.55	77.11	2.55	0.00	2.85	0.00
19	19	59.01	-2044.74	50.25	-1138.08	0	-2352.85	2.55	77.11	2.55	0.00	2.85	0.00
19	20	62.64	-2044.74	83.25	-1380.79	0	-2569.04	2.55	379.14	2.55	0.00	2.85	0.00
20	20	62.64	-2677.92	83.25	-94.24	0	-1558.26	2.55	-857.41	2.55	-341.24	2.85	-368.30
20	21	66.28	-2683.44	116.25	-452.65	0	-1824.10	2.55	-596.53	2.55	-316.81	2.85	-330.95
21	21	66.28	-3270.36	113.28	795.37	0	-977.30	2.55	-1292.91	2.55	-713.53	2.85	-788.42
21	22	69.91	-3280.62	146.28	331.44	0	-1343.20	2.55	-886.67	2.55	-692.50	2.85	-755.56
22	22	69.91	-2838.03	146.13	762.70	0	-668.07	2.55	-1131.87	2.55	-693.45	2.85	-756.54
22	23	73.55	-2781.46	179.13	127.15	0	-1150.21	2.55	-547.17	2.55	-647.42	2.85	-694.79
23	10023	73.55	-2745.19	-190.07	161.95	0	-1096.16	2.55	-567.40	2.55	-646.92	2.85	-694.29
23	24	76.66	-2797.25	-161.84	749.81	0	-676.77	2.55	-1019.34	2.55	-701.95	2.85	-770.11
24	24	76.66	-3237.69	-161.94	318.67	0	-1351.19	2.55	-773.52	2.55	-700.46	2.85	-768.60
24	25	79.77	-3228.94	-133.72	771.56	0	-1018.62	2.55	-1089.67	2.55	-732.70	2.85	-818.08
25	25	79.77	-2377.18	-134.26	-465.58	0	-1690.59	2.55	-401.67	2.55	-285.74	2.85	-301.71
25	26	82.88	-2373.05	-106.04	-95.14	0	-1434.57	2.55	-610.91	2.55	-319.98	2.85	-353.59
26	26	82.88	-1735.92	-107.29	-1146.90	0	-2158.46	2.55	290.34	2.55	0.00	2.85	0.00
26	27	85.99	-1735.92	-79.06	-857.14	0	-1900.36	2.55	-70.24	2.55	0.00	2.85	0.00
27	27	85.99	-1735.92	-79.06	-857.14	0	-1900.36	2.55	-70.24	2.55	0.00	2.85	0.00
27	28	89.10	-1735.92	-50.84	-655.13	0	-1720.42	2.55	-321.63	2.55	0.00	2.85	0.00
28	28	89.10	-1735.92	-50.84	-655.13	0	-1720.42	2.55	-321.63	2.55	0.00	2.85	0.00
28	29	92.21	-1735.92	-22.62	-540.92	0	-1618.69	2.55	-463.75	2.55	0.00	2.85	0.00
29	29	92.21	-1735.92	-22.62	-540.92	0	-1618.69	2.55	-463.75	2.55	0.00	2.85	0.00
29	30	95.32	-1735.92	5.60	-514.44	0	-1595.11	2.55	-496.69	2.55	0.00	2.85	0.00
30	30	95.32	-1735.92	5.60	-514.44	0	-1595.11	2.55	-496.69	2.55	0.00	2.85	0.00
30	31	98.43	-1735.92	33.83	-575.77	0	-1649.73	2.55	-420.38	2.55	0.00	2.85	0.00
31	31	98.43	-1392.78	33.83	-277.24	0	-1159.10	2.55	-567.14	2.55	0.00	2.85	0.00
31	32	101.54	-1392.78	62.05	-426.34	0	-1291.90	2.55	-381.60	2.55	0.00	2.85	0.00
32	32	101.54	-1049.64	62.05	-111.33	0	-786.58	2.55	-548.88	2.55	0.00	2.85	0.00
32	33	104.65	-1049.64	90.28	-348.21	0	-997.58	2.55	-254.10	2.55	0.00	2.85	0.00
33	33	104.65	-603.55	90.28	82.70	0	-321.61	2.55	-498.19	2.55	0.00	2.85	0.00
33	34	107.76	-603.55	118.33	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	101	0.00	-603.55	-115.50	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	102	3.05	-603.55	-88.01	68.69	0	-334.09	2.55	-480.76	2.55	0.00	2.85	0.00
102	102	3.05	-1049.64	-88.01	-362.22	0	-1010.06	2.55	-236.67	2.55	0.00	2.85	0.00
102	103	6.10	-1049.64	-60.33	-136.00	0	-808.56	2.55	-518.18	2.55	0.00	2.85	0.00
103	103	6.10	-1358.46	-60.33	-419.51	0	-1263.35	2.55	-367.63	2.55	0.00	2.85	0.00
103	104	9.15	-1358.46	-32.66	-277.72	0	-1137.05	2.55	-544.08	2.55	0.00	2.85	0.00
104	104	9.15	-1667.29	-32.66	-546.40	0	-1578.62	2.55	-411.98	2.55	0.00	2.85	0.00
104	105	12.20	-1667.29	-4.98	-489.04	0	-1527.53	2.55	-483.36	2.55	0.00	2.85	0.00
105	105	12.20	-1667.29	-4.98	-489.04	0	-1527.53	2.55	-483.36	2.55	0.00	2.85	0.00

CÁLCULO TENSIONAL

Hipótesis de cálculo:

VACIO1.T0.MZ+

PP sin gradiente

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	22.72	-516.06	0	-1551.60	2.55	-449.73	2.55	0.00	2.85	0.00
106	106	15.25	-1667.29	22.72	-516.06	0	-1551.60	2.55	-449.73	2.55	0.00	2.85	0.00
106	107	18.30	-1667.29	50.39	-627.52	0	-1650.89	2.55	-311.03	2.55	0.00	2.85	0.00
107	107	18.30	-1667.29	50.39	-627.52	0	-1650.89	2.55	-311.03	2.55	0.00	2.85	0.00
107	108	21.35	-1667.29	78.07	-823.43	0	-1825.38	2.55	-67.25	2.55	0.00	2.85	0.00
108	108	21.35	-1667.29	78.07	-823.43	0	-1825.38	2.55	-67.25	2.55	0.00	2.85	0.00
108	109	24.40	-1667.29	105.75	-1103.72	0	-2075.05	2.55	281.55	2.55	0.00	2.85	0.00
109	109	24.40	-2473.95	104.56	23.20	0	-1381.86	2.55	-661.17	2.55	-371.07	2.85	-412.78
109	110	27.45	-2478.59	132.23	-334.29	0	-1629.13	2.55	-459.41	2.55	-338.19	2.85	-362.89
110	110	27.45	-3216.62	131.73	756.25	0	-1028.83	2.55	-1066.02	2.55	-729.65	2.85	-815.09
110	111	30.50	-3225.21	159.41	318.97	0	-1349.84	2.55	-761.22	2.55	-698.50	2.85	-767.27
111	111	30.50	-2784.60	159.33	750.09	0	-675.40	2.55	-1006.99	2.55	-699.94	2.85	-768.72
111	112	33.55	-2739.96	187.01	187.12	0	-1079.15	2.55	-573.89	2.55	-648.85	2.85	-697.85
112	10112	33.55	-2776.21	-177.63	152.32	0	-1133.20	2.55	-553.65	2.55	-649.34	2.85	-698.35
112	113	37.19	-2846.09	-144.63	792.75	0	-652.48	2.55	-1142.54	2.55	-699.64	2.85	-764.78
113	113	37.19	-3288.46	-144.79	361.48	0	-1327.55	2.55	-897.27	2.55	-698.63	2.85	-763.74
113	114	40.82	-3245.79	-114.76	820.56	0	-954.88	2.55	-1292.26	2.55	-710.67	2.85	-787.29
114	114	40.82	-2543.56	-114.76	-542.89	0	-1832.82	2.55	-540.99	2.55	-266.82	2.85	-274.01
114	115	44.46	-2538.73	-81.75	-189.35	0	-1570.17	2.55	-800.55	2.55	-290.80	2.85	-310.58
115	115	44.46	-2044.74	-81.75	-1367.32	0	-2557.05	2.55	362.38	2.55	0.00	2.85	0.00
115	116	48.10	-2044.74	-48.75	-1130.02	0	-2345.68	2.55	67.08	2.55	0.00	2.85	0.00
116	116	48.10	-2044.74	-48.75	-1130.02	0	-2345.68	2.55	67.08	2.55	0.00	2.85	0.00
116	117	51.73	-2044.74	-15.74	-1012.71	0	-2241.18	2.55	-78.90	2.55	0.00	2.85	0.00
117	117	51.73	-2044.74	-15.74	-1012.71	0	-2241.18	2.55	-78.90	2.55	0.00	2.85	0.00
117	118	55.37	-2044.74	17.26	-1015.40	0	-2243.58	2.55	-75.55	2.55	0.00	2.85	0.00
118	118	55.37	-2044.74	17.26	-1015.40	0	-2243.58	2.55	-75.55	2.55	0.00	2.85	0.00
118	119	59.01	-2044.74	50.26	-1138.08	0	-2352.85	2.55	77.11	2.55	0.00	2.85	0.00
119	119	59.01	-2044.74	50.25	-1138.08	0	-2352.85	2.55	77.11	2.55	0.00	2.85	0.00
119	120	62.64	-2044.74	83.25	-1380.79	0	-2569.04	2.55	379.14	2.55	0.00	2.85	0.00
120	120	62.64	-2677.92	83.25	-94.25	0	-1558.27	2.55	-857.40	2.55	-341.24	2.85	-368.30
120	121	66.28	-2683.44	116.25	-452.65	0	-1824.10	2.55	-596.53	2.55	-316.81	2.85	-330.95
121	121	66.28	-3270.36	113.28	795.36	0	-977.31	2.55	-1292.91	2.55	-713.53	2.85	-788.42
121	122	69.91	-3280.62	146.28	331.44	0	-1343.20	2.55	-886.67	2.55	-692.50	2.85	-755.56
122	122	69.91	-2838.03	146.13	762.70	0	-668.07	2.55	-1131.87	2.55	-693.45	2.85	-756.54
122	123	73.55	-2781.46	179.13	127.15	0	-1150.22	2.55	-547.16	2.55	-647.42	2.85	-694.79
123	10123	73.55	-2745.19	-190.07	161.94	0	-1096.16	2.55	-567.39	2.55	-646.92	2.85	-694.28
123	124	76.66	-2797.25	-161.84	749.81	0	-676.77	2.55	-1019.34	2.55	-701.95	2.85	-770.11
124	124	76.66	-3237.69	-161.94	318.66	0	-1351.19	2.55	-773.52	2.55	-700.46	2.85	-768.60
124	125	79.77	-3228.94	-133.72	771.56	0	-1018.62	2.55	-1089.67	2.55	-732.70	2.85	-818.08
125	125	79.77	-2377.18	-134.26	-465.59	0	-1690.59	2.55	-401.67	2.55	-285.74	2.85	-301.71
125	126	82.88	-2373.05	-106.04	-95.14	0	-1434.57	2.55	-610.91	2.55	-319.98	2.85	-353.59
126	126	82.88	-1735.92	-107.29	-1146.90	0	-2158.46	2.55	290.34	2.55	0.00	2.85	0.00
126	127	85.99	-1735.92	-79.06	-857.14	0	-1900.36	2.55	-70.24	2.55	0.00	2.85	0.00
127	127	85.99	-1735.92	-79.06	-857.14	0	-1900.36	2.55	-70.24	2.55	0.00	2.85	0.00
127	128	89.10	-1735.92	-50.84	-655.13	0	-1720.42	2.55	-321.63	2.55	0.00	2.85	0.00
128	128	89.10	-1735.92	-50.84	-655.13	0	-1720.42	2.55	-321.63	2.55	0.00	2.85	0.00
128	129	92.21	-1735.92	-22.61	-540.92	0	-1618.69	2.55	-463.75	2.55	0.00	2.85	0.00
129	129	92.21	-1735.92	-22.61	-540.92	0	-1618.69	2.55	-463.75	2.55	0.00	2.85	0.00
129	130	95.32	-1735.92	5.60	-514.45	0	-1595.11	2.55	-496.68	2.55	0.00	2.85	0.00
130	130	95.32	-1735.92	5.60	-514.45	0	-1595.11	2.55	-496.68	2.55	0.00	2.85	0.00
130	131	98.43	-1735.92	33.83	-575.78	0	-1649.74	2.55	-420.36	2.55	0.00	2.85	0.00
131	131	98.43	-1392.78	33.83	-277.25	0	-1159.11	2.55	-567.13	2.55	0.00	2.85	0.00
131	132	101.54	-1392.78	62.05	-426.33	0	-1291.89	2.55	-381.61	2.55	0.00	2.85	0.00
132	132	101.54	-1049.64	62.05	-111.32	0	-786.58	2.55	-548.89	2.55	0.00	2.85	0.00
132	133	104.65	-1049.64	90.27	-348.22	0	-997.59	2.55	-254.09	2.55	0.00	2.85	0.00
133	133	104.65	-603.55	90.28	82.69	0	-321.62	2.55	-498.18	2.55	0.00	2.85	0.00
133	134	107.76	-603.55	118.33	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00

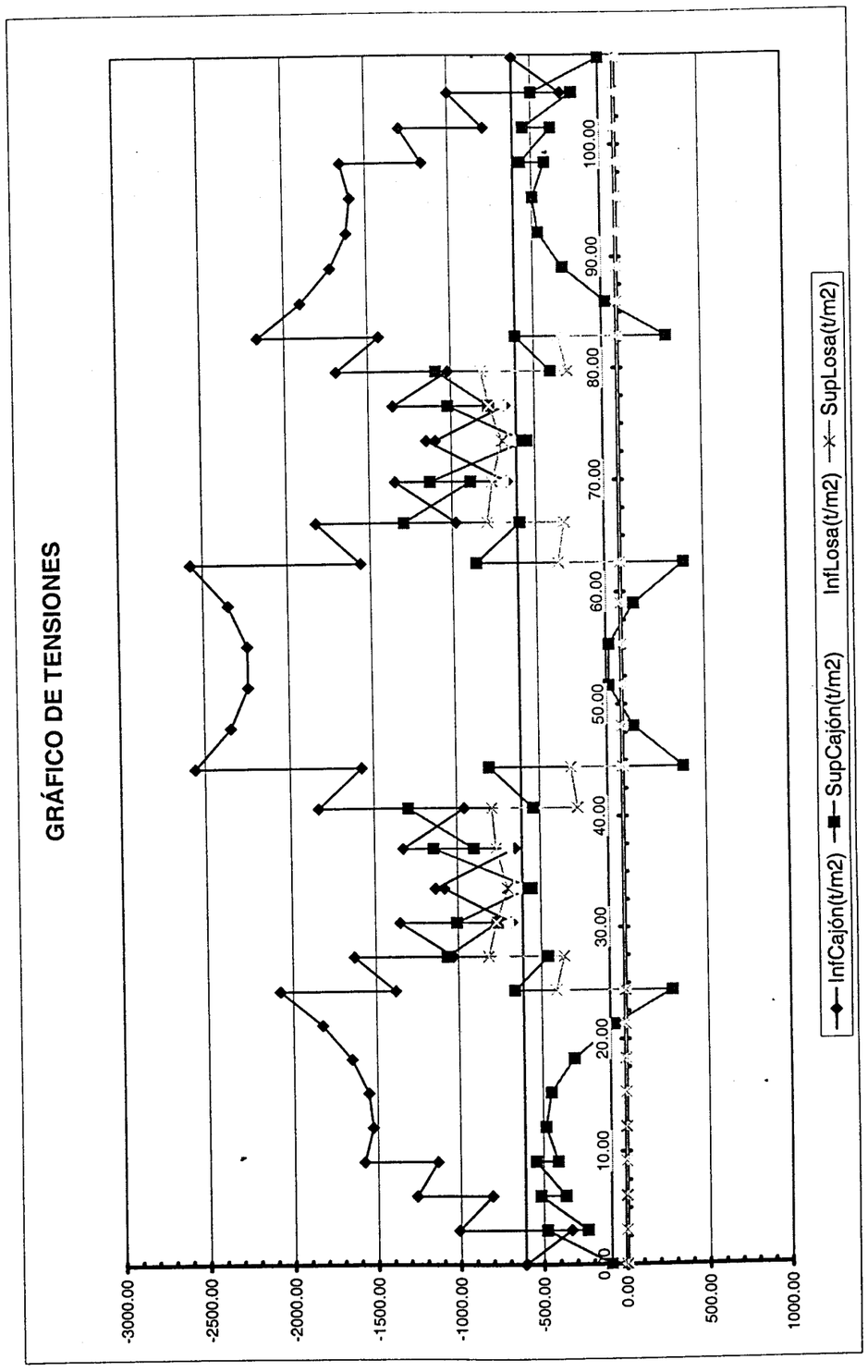
CÁLCULO TENSIONAL

Hipótesis de cálculo:
VACIO1.T0.MZ-
PP sin gradiente

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP To + [.95; 1.05]PRETF1D ISO.To + [.95; 1.05]PRETF1D HIP To + [.9; 1.1]PRETF3I ISO.To + [.9; 1.1]PRETF3I HIP To + [.9; 1.1]PRE

Coef. exc:

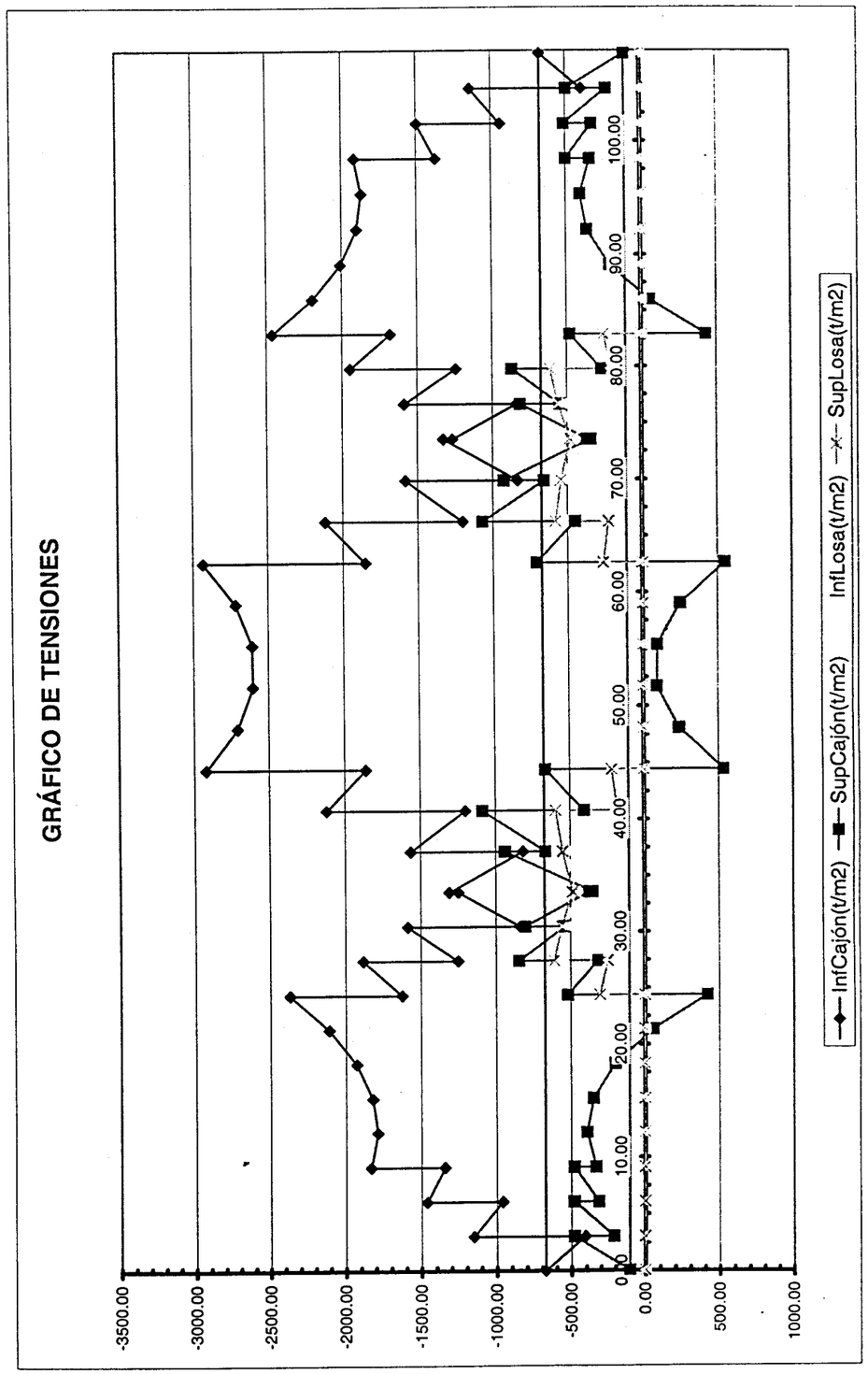
Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-667.09	-115.50	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
1	2	3.05	-667.09	-85.08	34.29	0	-406.34	2.55	-479.55	2.55	0.00	2.85	0.00
2	2	3.05	-1160.12	-85.08	-441.98	0	-1153.47	2.55	-209.77	2.55	0.00	2.85	0.00
2	3	6.10	-1160.12	-57.40	-224.71	0	-959.94	2.55	-480.15	2.55	0.00	2.85	0.00
3	3	6.10	-1501.46	-57.40	-538.06	0	-1462.59	2.55	-313.75	2.55	0.00	2.85	0.00
3	4	9.15	-1501.46	-29.73	-405.20	0	-1344.25	2.55	-479.09	2.55	0.00	2.85	0.00
4	4	9.15	-1842.79	-29.73	-702.16	0	-1832.31	2.55	-333.09	2.55	0.00	2.85	0.00
4	5	12.20	-1842.79	-2.05	-653.74	0	-1789.18	2.55	-393.35	2.55	0.00	2.85	0.00
5	5	12.20	-1842.79	-2.05	-653.74	0	-1789.18	2.55	-393.35	2.55	0.00	2.85	0.00
5	6	15.25	-1842.79	25.65	-689.70	0	-1821.21	2.55	-348.60	2.55	0.00	2.85	0.00
6	6	15.25	-1842.79	25.65	-689.70	0	-1821.21	2.55	-348.60	2.55	0.00	2.85	0.00
6	7	18.30	-1842.79	53.32	-810.10	0	-1928.45	2.55	-198.78	2.55	0.00	2.85	0.00
7	7	18.30	-1842.79	53.32	-810.10	0	-1928.45	2.55	-198.78	2.55	0.00	2.85	0.00
7	8	21.35	-1842.79	81.00	-1014.93	0	-2110.91	2.55	56.13	2.55	0.00	2.85	0.00
8	8	21.35	-1842.79	81.00	-1014.93	0	-2110.91	2.55	56.13	2.55	0.00	2.85	0.00
8	9	24.40	-1842.79	108.68	-1304.16	0	-2368.53	2.55	416.04	2.55	0.00	2.85	0.00
9	9	24.40	-2385.17	109.86	-306.06	0	-1625.83	2.55	-519.81	2.55	-276.88	2.85	-301.39
9	10	27.45	-2388.96	137.53	-680.36	0	-1882.44	2.55	-314.84	2.55	-241.26	2.85	-247.48
10	10	27.45	-2880.85	138.03	292.42	0	-1254.22	2.55	-847.23	2.55	-555.40	2.85	-611.26
10	11	30.50	-2887.87	165.71	-165.31	0	-1586.42	2.55	-538.37	2.55	-520.76	2.85	-558.41
11	11	30.50	-2389.35	165.79	310.74	0	-837.77	2.55	-806.47	2.55	-519.32	2.85	-556.95
11	12	33.55	-2352.84	193.47	-265.61	0	-1251.59	2.55	-373.46	2.55	-468.30	2.85	-485.15
12	10012	33.55	-2388.86	-183.89	-304.05	0	-1310.10	2.55	-349.88	2.55	-467.81	2.85	-484.66
12	13	37.19	-2446.03	-150.89	349.21	0	-818.25	2.55	-937.20	2.55	-516.77	2.85	-550.71
13	13	37.19	-2942.78	-150.74	-126.71	0	-1566.30	2.55	-668.59	2.55	-517.78	2.85	-551.75
13	14	40.82	-2966.83	-114.76	354.28	0	-1201.18	2.55	-1087.47	2.55	-550.32	2.85	-597.45
14	14	40.82	-2530.19	-114.76	-887.87	0	-2122.59	2.55	-405.57	2.55	-187.17	2.85	-177.49
14	15	44.46	-2526.23	-81.75	-533.67	0	-1859.82	2.55	-665.51	2.55	-211.47	2.85	-214.44
15	15	44.46	-2259.98	-81.75	-1617.44	0	-2920.80	2.55	532.67	2.55	0.00	2.85	0.00
15	16	48.10	-2259.98	-48.75	-1380.16	0	-2709.45	2.55	237.40	2.55	0.00	2.85	0.00
16	16	48.10	-2259.98	-48.75	-1380.16	0	-2709.45	2.55	237.40	2.55	0.00	2.85	0.00
16	17	51.73	-2259.98	-15.74	-1262.87	0	-2604.97	2.55	91.44	2.55	0.00	2.85	0.00
17	17	51.73	-2259.98	-15.74	-1262.87	0	-2604.97	2.55	91.44	2.55	0.00	2.85	0.00
17	18	55.37	-2259.98	17.26	-1265.59	0	-2607.40	2.55	94.83	2.55	0.00	2.85	0.00
18	18	55.37	-2259.98	17.26	-1265.59	0	-2607.40	2.55	94.83	2.55	0.00	2.85	0.00
18	19	59.01	-2259.98	50.26	-1388.28	0	-2716.68	2.55	247.50	2.55	0.00	2.85	0.00
19	19	59.01	-2259.98	50.25	-1388.28	0	-2716.68	2.55	247.50	2.55	0.00	2.85	0.00
19	20	62.64	-2259.98	83.25	-1631.01	0	-2932.89	2.55	549.56	2.55	0.00	2.85	0.00
20	20	62.64	-2640.12	83.25	-458.40	0	-1851.62	2.55	-711.28	2.55	-252.40	2.85	-261.15
20	21	66.28	-2644.64	116.25	-817.61	0	-2117.62	2.55	-449.96	2.55	-227.59	2.85	-223.36
21	21	66.28	-2927.38	119.22	330.01	0	-1203.85	2.55	-1069.05	2.55	-536.82	2.85	-582.28
21	22	69.91	-2935.77	152.22	-156.96	0	-1582.32	2.55	-658.20	2.55	-511.83	2.85	-543.73
22	22	69.91	-2439.24	152.35	318.98	0	-834.33	2.55	-926.89	2.55	-510.88	2.85	-542.76
22	23	73.55	-2392.96	185.35	-331.13	0	-1327.86	2.55	-342.71	2.55	-465.30	2.85	-480.37
23	10023	73.55	-2356.99	-196.69	-292.69	0	-1269.36	2.55	-366.31	2.55	-465.81	2.85	-480.87
23	24	76.66	-2399.59	-168.46	308.35	0	-839.63	2.55	-817.72	2.55	-520.38	2.85	-557.23
24	24	76.66	-2898.27	-168.36	-167.69	0	-1588.32	2.55	-549.68	2.55	-521.87	2.85	-558.74
24	25	79.77	-2891.10	-140.14	306.44	0	-1244.13	2.55	-870.04	2.55	-557.72	2.85	-613.43
25	25	79.77	-2316.94	-139.60	-795.28	0	-1945.74	2.55	-266.54	2.55	-198.41	2.85	-197.39
25	26	82.88	-2313.55	-111.38	-407.66	0	-1680.15	2.55	-479.02	2.55	-235.43	2.85	-253.35
26	26	82.88	-1918.64	-110.13	-1352.84	0	-2461.57	2.55	426.94	2.55	0.00	2.85	0.00
26	27	85.99	-1918.64	-81.90	-1054.26	0	-2195.61	2.55	55.39	2.55	0.00	2.85	0.00
27	27	85.99	-1918.64	-81.90	-1054.26	0	-2195.61	2.55	55.39	2.55	0.00	2.85	0.00
27	28	89.10	-1918.64	-53.68	-843.43	0	-2007.82	2.55	-206.97	2.55	0.00	2.85	0.00
28	28	89.10	-1918.64	-53.68	-843.43	0	-2007.82	2.55	-206.97	2.55	0.00	2.85	0.00
28	29	92.21	-1918.64	-25.46	-720.40	0	-1898.23	2.55	-360.07	2.55	0.00	2.85	0.00
29	29	92.21	-1918.64	-25.46	-720.40	0	-1898.23	2.55	-360.07	2.55	0.00	2.85	0.00
29	30	95.32	-1918.64	2.76	-685.12	0	-1866.80	2.55	-403.98	2.55	0.00	2.85	0.00
30	30	95.32	-1918.64	2.76	-685.12	0	-1866.80	2.55	-403.98	2.55	0.00	2.85	0.00
30	31	98.43	-1918.64	30.99	-737.63	0	-1913.58	2.55	-338.63	2.55	0.00	2.85	0.00
31	31	98.43	-1539.38	30.99	-407.68	0	-1371.29	2.55	-500.84	2.55	0.00	2.85	0.00
31	32	101.54	-1539.38	59.21	-547.96	0	-1496.25	2.55	-326.27	2.55	0.00	2.85	0.00
32	32	101.54	-1160.12	59.21	-199.79	0	-937.74	2.55	-511.16	2.55	0.00	2.85	0.00
32	33	104.65	-1160.12	87.44	-427.85	0	-1140.88	2.55	-227.36	2.55	0.00	2.85	0.00
33	33	104.65	-667.09	87.44	48.42	0	-393.75	2.55	-497.14	2.55	0.00	2.85	0.00
33	34	107.76	-667.09	118.33	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	101	0.00	-667.09	-115.50	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00
101	102	3.05	-667.09	-85.08	34.29	0	-406.34	2.55	-479.55	2.55	0.00	2.85	0.00
102	102	3.05	-1160.12	-85.08	-441.98	0	-1153.47	2.55	-209.77	2.55	0.00	2.85	0.00
102	103	6.10	-1160.12	-57.40	-224.70	0	-959.93	2.55	-480.16	2.55	0.00	2.85	0.00
103	103	6.10	-1501.46	-57.40	-538.05	0	-1462.58	2.55	-313.77	2.55	0.00	2.85	0.00
103	104	9.15	-1501.46	-29.73	-405.20	0	-1344.25	2.55	-479.09	2.55	0.00	2.85	0.00
104	104	9.15	-1842.79	-29.73	-702.16	0	-1832.31	2.55	-333.09	2.55	0.00	2.85	0.00
104	105	12.20	-1842.79	-2.05	-653.74	0	-1789.18	2.55	-393.35	2.55	0.00	2.85	0.00
105	105	12.20	-1842.79	-2.05	-653.74	0	-1789.18	2.55	-393.35	2.55	0.00	2.85	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:
V[illegible]01.T0.MZ-
PP sin gradiente
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1842.79	25.65	-689.70	0	-1821.21	2.55	-348.60	2.55	0.00	2.85	0.00
106	106	15.25	-1842.79	25.65	-689.70	0	-1821.21	2.55	-348.60	2.55	0.00	2.85	0.00
106	107	18.30	-1842.79	53.32	-810.10	0	-1928.45	2.55	-198.78	2.55	0.00	2.85	0.00
107	107	18.30	-1842.79	53.32	-810.10	0	-1928.45	2.55	-198.78	2.55	0.00	2.85	0.00
107	108	21.35	-1842.79	81.00	-1014.93	0	-2110.91	2.55	56.13	2.55	0.00	2.85	0.00
108	108	21.35	-1842.79	81.00	-1014.93	0	-2110.91	2.55	56.13	2.55	0.00	2.85	0.00
108	109	24.40	-1842.79	108.68	-1304.16	0	-2368.53	2.55	416.04	2.55	0.00	2.85	0.00
109	109	24.40	-2385.17	109.86	-306.06	0	-1625.83	2.55	-519.81	2.55	-276.88	2.85	-301.39
109	110	27.45	-2388.96	137.53	-680.37	0	-1882.44	2.55	-314.84	2.55	-241.25	2.85	-247.48
110	110	27.45	-2880.85	138.03	292.41	0	-1254.23	2.55	-847.23	2.55	-555.40	2.85	-611.26
110	111	30.50	-2887.87	165.71	-165.31	0	-1586.42	2.55	-538.37	2.55	-520.76	2.85	-558.41
111	111	30.50	-2389.36	165.79	310.73	0	-837.78	2.55	-806.47	2.55	-519.32	2.85	-556.95
111	112	33.55	-2352.84	193.47	-265.62	0	-1251.60	2.55	-373.46	2.55	-468.30	2.85	-485.15
112	10112	33.55	-2388.86	-183.89	-304.06	0	-1310.10	2.55	-349.88	2.55	-467.81	2.85	-484.66
112	113	37.19	-2446.03	-150.89	349.21	0	-818.25	2.55	-937.20	2.55	-516.77	2.85	-550.71
113	113	37.19	-2942.78	-150.74	-126.72	0	-1566.30	2.55	-668.59	2.55	-517.78	2.85	-551.74
113	114	40.82	-2966.83	-114.76	-354.28	0	-1201.18	2.55	-1087.47	2.55	-550.32	2.85	-597.45
114	114	40.82	-2530.19	-114.76	-887.87	0	-2122.59	2.55	-405.57	2.55	-187.17	2.85	-177.49
114	115	44.46	-2526.23	-81.75	-533.67	0	-1859.82	2.55	-665.51	2.55	-211.47	2.85	-214.44
115	115	44.46	-2259.98	-81.75	-1617.44	0	-2920.80	2.55	532.67	2.55	0.00	2.85	0.00
115	116	48.10	-2259.98	-48.75	-1380.16	0	-2709.45	2.55	237.40	2.55	0.00	2.85	0.00
116	116	48.10	-2259.98	-48.75	-1380.16	0	-2709.45	2.55	237.40	2.55	0.00	2.85	0.00
116	117	51.73	-2259.98	-15.74	-1262.87	0	-2604.97	2.55	91.44	2.55	0.00	2.85	0.00
117	117	51.73	-2259.98	-15.74	-1262.87	0	-2604.97	2.55	91.44	2.55	0.00	2.85	0.00
117	118	55.37	-2259.98	17.26	-1265.58	0	-2607.39	2.55	94.81	2.55	0.00	2.85	0.00
118	118	55.37	-2259.98	17.26	-1265.58	0	-2607.39	2.55	94.81	2.55	0.00	2.85	0.00
118	119	59.01	-2259.98	50.26	-1388.28	0	-2716.68	2.55	247.50	2.55	0.00	2.85	0.00
119	119	59.01	-2259.98	50.25	-1388.28	0	-2716.68	2.55	247.50	2.55	0.00	2.85	0.00
119	120	62.64	-2259.98	83.25	-1631.01	0	-2932.89	2.55	549.56	2.55	0.00	2.85	0.00
120	120	62.64	-2640.12	83.25	-458.41	0	-1851.63	2.55	-711.28	2.55	-252.40	2.85	-261.15
120	121	66.28	-2644.64	116.25	-817.61	0	-2117.62	2.55	-449.96	2.55	-227.59	2.85	-223.36
121	121	66.28	-2927.38	119.22	330.00	0	-1203.86	2.55	-1069.05	2.55	-536.81	2.85	-582.28
121	122	69.91	-2935.77	152.22	-156.96	0	-1582.32	2.55	-658.20	2.55	-511.83	2.85	-543.73
122	122	69.91	-2439.24	152.35	318.98	0	-834.33	2.55	-926.89	2.55	-510.88	2.85	-542.76
122	123	73.55	-2392.96	185.35	-331.15	0	-1327.87	2.55	-342.71	2.55	-465.30	2.85	-480.37
123	10123	73.55	-2356.99	-196.69	-292.70	0	-1269.37	2.55	-366.31	2.55	-465.81	2.85	-480.87
123	124	76.66	-2399.59	-168.46	308.35	0	-839.63	2.55	-817.72	2.55	-520.38	2.85	-557.23
124	124	76.66	-2898.27	-168.36	-167.70	0	-1588.32	2.55	-549.68	2.55	-521.87	2.85	-558.73
124	125	79.77	-2891.10	-140.14	306.44	0	-1244.13	2.55	-870.04	2.55	-557.72	2.85	-613.43
125	125	79.77	-2316.94	-139.60	-795.29	0	-1945.75	2.55	-266.54	2.55	-198.41	2.85	-197.39
125	126	82.88	-2313.55	-111.38	-407.66	0	-1680.15	2.55	-479.02	2.55	-235.43	2.85	-253.35
126	126	82.88	-1918.64	-110.13	-1352.84	0	-2461.57	2.55	426.94	2.55	0.00	2.85	0.00
126	127	85.99	-1918.64	-81.90	-1054.26	0	-2195.61	2.55	55.39	2.55	0.00	2.85	0.00
127	127	85.99	-1918.64	-81.90	-1054.26	0	-2195.61	2.55	55.39	2.55	0.00	2.85	0.00
127	128	89.10	-1918.64	-53.68	-843.43	0	-2007.82	2.55	-206.97	2.55	0.00	2.85	0.00
128	128	89.10	-1918.64	-53.68	-843.43	0	-2007.82	2.55	-206.97	2.55	0.00	2.85	0.00
128	129	92.21	-1918.64	-25.45	-720.40	0	-1898.23	2.55	-360.07	2.55	0.00	2.85	0.00
129	129	92.21	-1918.64	-25.45	-720.40	0	-1898.23	2.55	-360.07	2.55	0.00	2.85	0.00
129	130	95.32	-1918.64	2.76	-685.13	0	-1866.81	2.55	-403.96	2.55	0.00	2.85	0.00
130	130	95.32	-1918.64	2.76	-685.13	0	-1866.81	2.55	-403.96	2.55	0.00	2.85	0.00
130	131	98.43	-1918.64	30.99	-737.64	0	-1913.58	2.55	-338.62	2.55	0.00	2.85	0.00
131	131	98.43	-1539.38	30.99	-407.69	0	-1371.30	2.55	-500.83	2.55	0.00	2.85	0.00
131	132	101.54	-1539.38	59.21	-547.95	0	-1496.24	2.55	-326.29	2.55	0.00	2.85	0.00
132	132	101.54	-1160.12	59.21	-199.78	0	-937.73	2.55	-511.17	2.55	0.00	2.85	0.00
132	133	104.65	-1160.12	87.43	-427.86	0	-1140.89	2.55	-227.35	2.55	0.00	2.85	0.00
133	133	104.65	-667.09	87.44	48.41	0	-393.76	2.55	-497.12	2.55	0.00	2.85	0.00
133	134	107.76	-667.09	118.33	-267.41	0	-675.08	2.55	-104.11	2.55	0.00	2.85	0.00



CÁLCULO TENSIONAL

Hipótesis de cálculo:
VA[redacted]2.T0.MZ+
PP CON gradiente
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-115.50	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
1	2	3.05	-603.55	-98.98	102.15	0	-315.02	2.55	-486.63	2.55	-5.04	2.85	-7.56
2	2	3.05	-1049.64	-98.98	-328.76	0	-990.99	2.55	-242.54	2.55	-5.04	2.85	-7.56
2	3	6.10	-1049.64	-71.30	-69.09	0	-770.43	2.55	-529.91	2.55	-10.08	2.85	-15.12
3	3	6.10	-1358.46	-71.30	-352.60	0	-1225.21	2.55	-379.37	2.55	-10.08	2.85	-15.12
3	4	9.15	-1358.46	-43.63	-177.34	0	-1079.84	2.55	-561.69	2.55	-15.12	2.85	-22.68
4	4	9.15	-1667.29	-43.63	-446.02	0	-1521.42	2.55	-429.60	2.55	-15.12	2.85	-22.68
4	5	12.20	-1667.29	-15.95	-355.20	0	-1451.26	2.55	-506.85	2.55	-20.16	2.85	-30.24
5	5	12.20	-1667.29	-15.95	-355.20	0	-1451.26	2.55	-506.85	2.55	-20.16	2.85	-30.24
5	6	15.25	-1667.29	11.75	-348.76	0	-1456.26	2.55	-479.10	2.55	-25.20	2.85	-37.80
6	6	15.25	-1667.29	11.75	-348.76	0	-1456.26	2.55	-479.10	2.55	-25.20	2.85	-37.80
6	7	18.30	-1667.29	39.42	-426.75	0	-1536.46	2.55	-346.27	2.55	-30.24	2.85	-45.36
7	7	18.30	-1667.29	39.42	-426.75	0	-1536.46	2.55	-346.27	2.55	-30.24	2.85	-45.36
7	8	21.35	-1667.29	67.10	-589.20	0	-1691.89	2.55	-108.36	2.55	-35.28	2.85	-52.92
8	8	21.35	-1667.29	67.10	-589.20	0	-1691.89	2.55	-108.36	2.55	-35.28	2.85	-52.92
8	9	24.40	-1667.29	94.77	-836.03	0	-1922.49	2.55	234.57	2.55	-40.33	2.85	-60.48
9	9	24.40	-2473.95	93.59	290.89	0	-1229.30	2.55	-708.15	2.55	-411.39	2.85	-473.26
9	10	27.45	-2478.59	121.26	-33.13	0	-1457.49	2.55	-512.27	2.55	-383.56	2.85	-430.93
10	10	27.45	-3216.62	120.76	1057.41	0	-857.19	2.55	-1118.88	2.55	-775.02	2.85	-883.13
10	11	30.50	-3225.21	148.44	653.58	0	-1159.14	2.55	-819.95	2.55	-748.90	2.85	-842.86
11	11	30.50	-2784.59	148.36	1084.71	0	-484.69	2.55	-1065.71	2.55	-750.34	2.85	-844.32
11	12	33.55	-2739.96	176.04	555.20	0	-869.37	2.55	-638.49	2.55	-704.30	2.85	-781.01
12	10012	33.55	-2776.21	-177.66	520.40	0	-923.42	2.55	-618.25	2.55	-704.79	2.85	-781.50
12	13	37.19	-2846.09	-144.66	1160.93	0	-442.64	2.55	-1207.16	2.55	-755.10	2.85	-847.95
13	13	37.19	-3288.46	-144.82	729.67	0	-1117.71	2.55	-961.89	2.55	-754.10	2.85	-846.92
13	14	40.82	-3245.79	-114.79	1188.85	0	-744.98	2.55	-1356.89	2.55	-766.15	2.85	-870.49
14	14	40.82	-2543.56	-114.79	-174.60	0	-1622.93	2.55	-605.62	2.55	-322.30	2.85	-357.21
14	15	44.46	-2538.73	-81.78	179.05	0	-1360.21	2.55	-865.21	2.55	-346.29	2.85	-393.81
15	15	44.46	-2044.74	-81.78	-998.92	0	-2347.09	2.55	297.72	2.55	-55.50	2.85	-83.23
15	16	48.10	-2044.74	-48.78	-761.50	0	-2135.65	2.55	2.40	2.55	-55.51	2.85	-83.25
16	16	48.10	-2044.74	-48.78	-761.50	0	-2135.65	2.55	2.40	2.55	-55.51	2.85	-83.25
16	17	51.73	-2044.74	-15.77	-644.08	0	-2031.10	2.55	-143.60	2.55	-55.53	2.85	-83.28
17	17	51.73	-2044.74	-15.77	-644.08	0	-2031.10	2.55	-143.60	2.55	-55.53	2.85	-83.28
17	18	55.37	-2044.74	17.23	-646.67	0	-2033.44	2.55	-140.26	2.55	-55.55	2.85	-83.30
18	18	55.37	-2044.74	17.23	-646.67	0	-2033.44	2.55	-140.26	2.55	-55.55	2.85	-83.30
18	19	59.01	-2044.74	50.23	-769.23	0	-2142.64	2.55	12.37	2.55	-55.56	2.85	-83.33
19	19	59.01	-2044.74	50.22	-769.23	0	-2142.64	2.55	12.37	2.55	-55.56	2.85	-83.33
19	20	62.64	-2044.74	83.22	-1011.83	0	-2358.77	2.55	314.38	2.55	-55.58	2.85	-83.35
20	20	62.64	-2677.92	83.22	274.72	0	-1347.98	2.55	-922.16	2.55	-396.82	2.85	-451.66
20	21	66.28	-2683.44	116.22	-83.58	0	-1613.76	2.55	-661.31	2.55	-372.40	2.85	-414.33
21	21	66.28	-3270.36	113.25	1164.44	0	-766.97	2.55	-1357.68	2.55	-769.13	2.85	-871.80
21	22	69.91	-3280.62	146.25	700.62	0	-1132.80	2.55	-951.46	2.55	-748.12	2.85	-838.96
22	22	69.91	-2838.03	146.10	1131.88	0	-457.67	2.55	-1196.67	2.55	-749.07	2.85	-839.94
22	23	73.55	-2781.46	179.10	496.44	0	-939.74	2.55	-611.98	2.55	-703.05	2.85	-778.22
23	10023	73.55	-2745.19	-179.28	531.24	0	-885.69	2.55	-632.21	2.55	-702.55	2.85	-777.71
23	24	76.66	-2797.25	-151.05	1085.53	0	-485.44	2.55	-1078.26	2.55	-752.52	2.85	-845.95
24	24	76.66	-3237.69	-151.15	654.39	0	-1159.85	2.55	-832.44	2.55	-751.03	2.85	-844.44
24	25	79.77	-3228.94	-122.93	1073.71	0	-846.42	2.55	-1142.70	2.55	-778.22	2.85	-886.34
25	25	79.77	-2377.18	-123.47	-163.43	0	-1518.39	2.55	-454.70	2.55	-331.26	2.85	-369.97
25	26	82.88	-2373.05	-95.25	173.44	0	-1281.50	2.55	-658.04	2.55	-360.44	2.85	-414.26
26	26	82.88	-1735.92	-96.50	-878.32	0	-2005.39	2.55	243.21	2.55	-40.46	2.85	-60.68
26	27	85.99	-1735.92	-68.27	-622.13	0	-1766.42	2.55	-111.48	2.55	-35.40	2.85	-53.09
27	27	85.99	-1735.92	-68.27	-622.13	0	-1766.42	2.55	-111.48	2.55	-35.40	2.85	-53.09
27	28	89.10	-1735.92	-40.05	-453.70	0	-1605.62	2.55	-356.98	2.55	-30.34	2.85	-45.51
28	28	89.10	-1735.92	-40.05	-453.70	0	-1605.62	2.55	-356.98	2.55	-30.34	2.85	-45.51
28	29	92.21	-1735.92	-11.83	-373.06	0	-1523.02	2.55	-493.21	2.55	-25.29	2.85	-37.92
29	29	92.21	-1735.92	-11.83	-373.06	0	-1523.02	2.55	-493.21	2.55	-25.29	2.85	-37.92
29	30	95.32	-1735.92	16.39	-380.15	0	-1518.57	2.55	-520.26	2.55	-20.23	2.85	-30.34
30	30	95.32	-1735.92	16.39	-380.15	0	-1518.57	2.55	-520.26	2.55	-20.23	2.85	-30.34
30	31	98.43	-1735.92	44.62	-475.05	0	-1592.33	2.55	-438.05	2.55	-15.17	2.85	-22.75
31	31	98.43	-1392.78	44.62	-176.52	0	-1101.69	2.55	-584.82	2.55	-15.17	2.85	-22.75
31	32	101.54	-1392.78	72.84	-359.20	0	-1253.64	2.55	-393.39	2.55	-10.11	2.85	-15.17
32	32	101.54	-1049.64	72.84	-44.19	0	-748.32	2.55	-560.66	2.55	-10.11	2.85	-15.17
32	33	104.65	-1049.64	101.07	-314.64	0	-978.45	2.55	-260.00	2.55	-5.06	2.85	-7.58
33	33	104.65	-603.55	101.08	116.27	0	-302.48	2.55	-504.08	2.55	-5.06	2.85	-7.58
33	34	107.76	-603.55	118.33	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	101	0.00	-603.55	-115.50	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00
101	102	3.05	-603.55	-98.98	102.15	0	-315.02	2.55	-486.63	2.55	-5.04	2.85	-7.56
102	102	3.05	-1049.64	-98.98	-328.76	0	-990.99	2.55	-242.54	2.55	-5.04	2.85	-7.56
102	103	6.10	-1049.64	-71.30	-69.08	0	-770.42	2.55	-529.92	2.55	-10.08	2.85	-15.12
103	103	6.10	-1358.46	-71.30	-352.59	0	-1225.21	2.55	-379.38	2.55	-10.08	2.85	-15.12
103	104	9.15	-1358.46	-43.63	-177.34	0	-1079.84	2.55	-561.69	2.55	-15.12	2.85	-22.68
104	104	9.15	-1667.29	-43.63	-446.02	0	-1521.42	2.55	-429.60	2.55	-15.12	2.85	-22.68
104	105	12.20	-1667.29	-15.95	-355.20	0	-1451.26	2.55	-506.85	2.55	-20.16	2.85	-30.24
105	105	12.20	-1667.29	-15.95	-355.20	0	-1451.26	2.55	-506.85	2.55	-20.16	2.85	-30.24

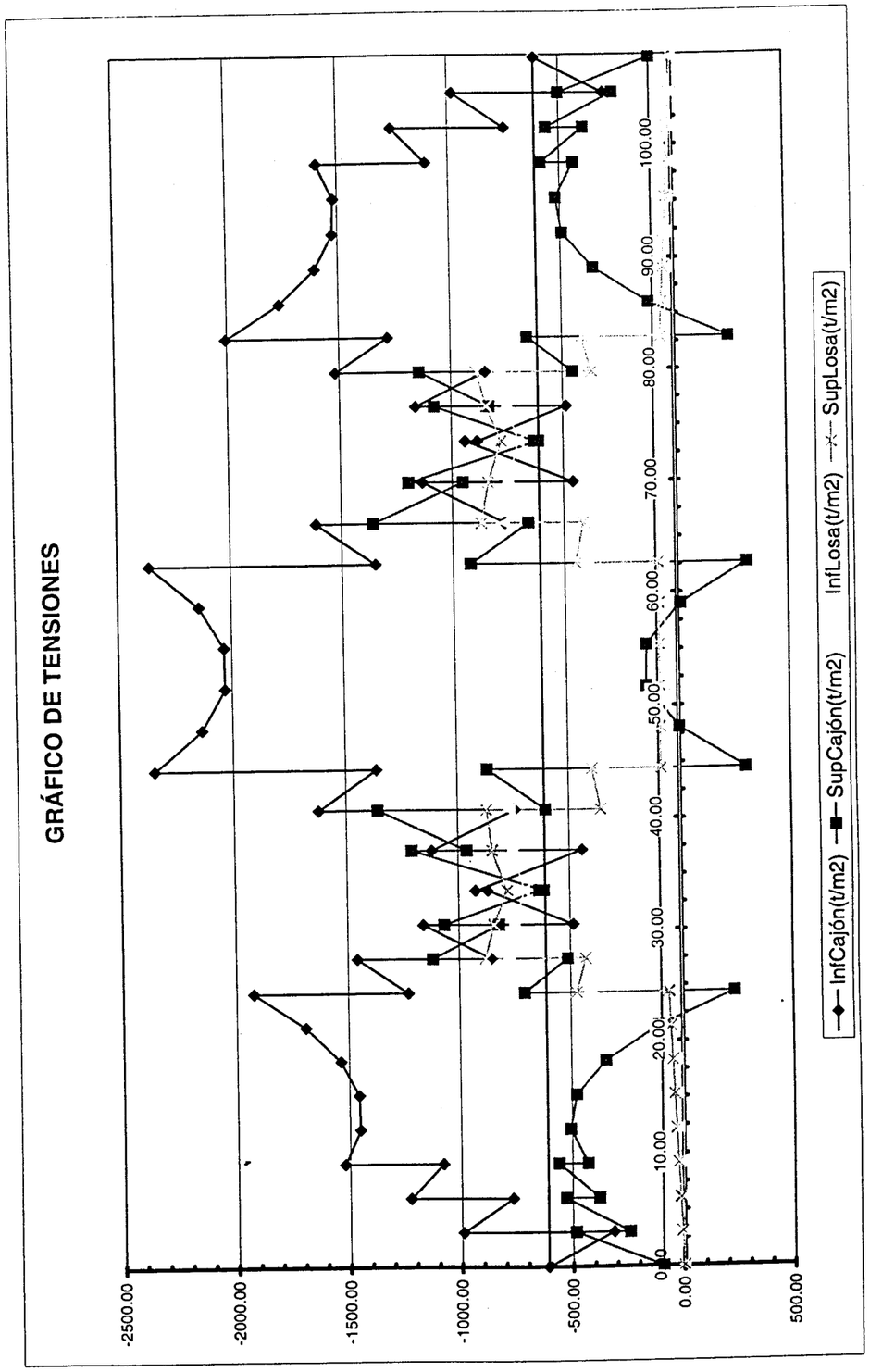
CÁLCULO TENSIONAL

Hipótesis de cálculo:
VACIO2.T0.MZ+
PP CON gradiente
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	11.75	-348.76	0	-1456.26	2.55	-479.10	2.55	-25.20	2.85	-37.80
106	106	15.25	-1667.29	11.75	-348.76	0	-1456.26	2.55	-479.10	2.55	-25.20	2.85	-37.80
106	107	18.30	-1667.29	39.42	-426.76	0	-1536.47	2.55	-346.26	2.55	-30.24	2.85	-45.35
107	107	18.30	-1667.29	39.42	-426.76	0	-1536.47	2.55	-346.26	2.55	-30.24	2.85	-45.35
107	108	21.35	-1667.29	67.10	-589.20	0	-1691.89	2.55	-108.36	2.55	-35.28	2.85	-52.92
108	108	21.35	-1667.29	67.10	-589.20	0	-1691.89	2.55	-108.36	2.55	-35.28	2.85	-52.92
108	109	24.40	-1667.29	94.77	-836.03	0	-1922.49	2.55	234.57	2.55	-40.33	2.85	-60.48
109	109	24.40	-2473.95	93.59	290.89	0	-1229.30	2.55	-708.15	2.55	-411.39	2.85	-473.26
109	110	27.45	-2478.59	121.26	-33.14	0	-1457.50	2.55	-512.26	2.55	-383.56	2.85	-430.93
110	110	27.45	-3216.62	120.76	1057.40	0	-857.20	2.55	-1118.88	2.55	-775.02	2.85	-883.13
110	111	30.50	-3225.21	148.44	653.58	0	-1159.14	2.55	-819.95	2.55	-748.90	2.85	-842.86
111	111	30.50	-2784.60	148.36	1084.70	0	-484.70	2.55	-1065.71	2.55	-750.34	2.85	-844.32
111	112	33.55	-2739.96	176.04	555.19	0	-869.38	2.55	-638.49	2.55	-704.29	2.85	-781.01
112	10112	33.55	-2776.21	-177.66	520.39	0	-923.43	2.55	-618.25	2.55	-704.79	2.85	-781.50
112	113	37.19	-2846.09	-144.66	1160.93	0	-442.64	2.55	-1207.16	2.55	-755.10	2.85	-847.95
113	113	37.19	-3288.46	-144.82	729.66	0	-1117.71	2.55	-961.89	2.55	-754.09	2.85	-846.92
113	114	40.82	-3245.79	-114.79	1188.85	0	-744.98	2.55	-1356.89	2.55	-766.15	2.85	-870.49
114	114	40.82	-2543.56	-114.79	-174.60	0	-1622.93	2.55	-605.62	2.55	-322.30	2.85	-357.21
114	115	44.46	-2538.73	-81.78	179.05	0	-1360.21	2.55	-865.21	2.55	-346.29	2.85	-393.81
115	115	44.46	-2044.74	-81.78	-998.92	0	-2347.09	2.55	297.72	2.55	-55.50	2.85	-83.23
115	116	48.10	-2044.74	-48.78	-761.50	0	-2135.65	2.55	2.40	2.55	-55.51	2.85	-83.25
116	116	48.10	-2044.74	-48.78	-761.50	0	-2135.65	2.55	2.40	2.55	-55.51	2.85	-83.25
116	117	51.73	-2044.74	-15.77	-644.08	0	-2031.10	2.55	-143.60	2.55	-55.53	2.85	-83.28
117	117	51.73	-2044.74	-15.77	-644.08	0	-2031.10	2.55	-143.60	2.55	-55.53	2.85	-83.28
117	118	55.37	-2044.74	17.23	-646.66	0	-2033.43	2.55	-140.27	2.55	-55.55	2.85	-83.30
118	118	55.37	-2044.74	17.23	-646.66	0	-2033.43	2.55	-140.27	2.55	-55.55	2.85	-83.30
118	119	59.01	-2044.74	50.23	-769.23	0	-2142.64	2.55	12.37	2.55	-55.56	2.85	-83.33
119	119	59.01	-2044.74	50.22	-769.23	0	-2142.64	2.55	12.37	2.55	-55.56	2.85	-83.33
119	120	62.64	-2044.74	83.22	-1011.83	0	-2358.77	2.55	314.38	2.55	-55.58	2.85	-83.35
120	120	62.64	-2677.92	83.22	274.71	0	-1347.99	2.55	-922.16	2.55	-396.82	2.85	-451.65
120	121	66.28	-2683.44	116.22	-83.58	0	-1613.76	2.55	-661.31	2.55	-372.40	2.85	-414.33
121	121	66.28	-3270.36	113.25	1164.43	0	-766.97	2.55	-1357.68	2.55	-769.13	2.85	-871.80
121	122	69.91	-3280.62	146.25	700.62	0	-1132.80	2.55	-951.46	2.55	-748.12	2.85	-838.96
122	122	69.91	-2838.03	146.10	1131.88	0	-457.67	2.55	-1196.67	2.55	-749.07	2.85	-839.94
122	123	73.55	-2781.46	179.10	496.44	0	-939.75	2.55	-611.98	2.55	-703.05	2.85	-778.22
123	10123	73.55	-2745.19	-179.28	531.23	0	-885.70	2.55	-632.21	2.55	-702.55	2.85	-777.71
123	124	76.66	-2797.25	-151.05	1085.53	0	-485.44	2.55	-1078.26	2.55	-752.52	2.85	-845.95
124	124	76.66	-3237.69	-151.15	654.38	0	-1159.86	2.55	-832.44	2.55	-751.03	2.85	-844.44
124	125	79.77	-3228.94	-122.93	1073.71	0	-846.42	2.55	-1142.70	2.55	-778.22	2.85	-886.34
125	125	79.77	-2377.18	-123.47	-163.44	0	-1518.39	2.55	-454.70	2.55	-331.26	2.85	-369.97
125	126	82.88	-2373.05	-95.25	173.44	0	-1281.50	2.55	-658.04	2.55	-360.44	2.85	-414.26
126	126	82.88	-1735.92	-96.50	-878.32	0	-2005.39	2.55	243.21	2.55	-40.46	2.85	-60.68
126	127	85.99	-1735.92	-68.27	-622.14	0	-1766.43	2.55	-111.48	2.55	-35.40	2.85	-53.09
127	127	85.99	-1735.92	-68.27	-622.14	0	-1766.43	2.55	-111.48	2.55	-35.40	2.85	-53.09
127	128	89.10	-1735.92	-40.05	-453.70	0	-1605.62	2.55	-356.98	2.55	-30.34	2.85	-45.51
128	128	89.10	-1735.92	-40.05	-453.70	0	-1605.62	2.55	-356.98	2.55	-30.34	2.85	-45.51
128	129	92.21	-1735.92	-11.82	-373.06	0	-1523.02	2.55	-493.21	2.55	-25.29	2.85	-37.92
129	129	92.21	-1735.92	-11.82	-373.06	0	-1523.02	2.55	-493.21	2.55	-25.29	2.85	-37.92
129	130	95.32	-1735.92	16.39	-380.16	0	-1518.58	2.55	-520.25	2.55	-20.23	2.85	-30.34
130	130	95.32	-1735.92	16.39	-380.16	0	-1518.58	2.55	-520.25	2.55	-20.23	2.85	-30.34
130	131	98.43	-1735.92	44.62	-475.06	0	-1592.34	2.55	-438.04	2.55	-15.17	2.85	-22.75
131	131	98.43	-1392.78	44.62	-176.53	0	-1101.70	2.55	-584.81	2.55	-15.17	2.85	-22.75
131	132	101.54	-1392.78	72.84	-359.19	0	-1253.63	2.55	-393.40	2.55	-10.11	2.85	-15.17
132	132	101.54	-1049.64	72.85	-44.18	0	-748.31	2.55	-560.67	2.55	-10.11	2.85	-15.17
132	133	104.65	-1049.64	101.07	-314.65	0	-978.46	2.55	-259.98	2.55	-5.06	2.85	-7.58
133	133	104.65	-603.55	101.08	116.26	0	-302.49	2.55	-504.07	2.55	-5.06	2.85	-7.58
133	134	107.76	-603.55	118.33	-241.95	0	-610.78	2.55	-94.19	2.55	0.00	2.85	0.00

Programa DINTEL PACADAR S.A.
VACIO2.T0.MZ+

GRÁFICO DE TENSIONES



CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM1.T0.MZ+
SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-271.25	-241.23	0	-610.38	2.55	-94.32	2.55	-0.11	2.85	-0.16
1	2	3.05	-603.55	-239.82	599.39	0	-31.63	2.55	-573.90	2.55	-79.95	2.85	-119.89
2	2	3.05	-1049.64	-240.66	168.88	0	-707.38	2.55	-329.88	2.55	-80.01	2.85	-119.98
2	3	6.10	-1049.64	-165.71	788.50	0	-281.68	2.55	-680.42	2.55	-139.27	2.85	-208.86
3	3	6.10	-1358.46	-166.08	505.31	0	-736.28	2.55	-529.93	2.55	-139.32	2.85	-208.93
3	4	9.15	-1358.46	-94.24	902.26	0	-464.56	2.55	-751.17	2.55	-177.75	2.85	-266.58
4	4	9.15	-1667.29	-94.30	633.79	0	-906.01	2.55	-619.11	2.55	-177.79	2.85	-266.62
4	5	12.20	-1667.29	-19.68	808.74	0	-787.91	2.55	-711.13	2.55	-195.50	2.85	-293.19
5	5	12.20	-1667.29	-19.56	808.84	0	-787.85	2.55	-711.15	2.55	-195.52	2.85	-293.21
5	6	15.25	-1667.29	52.22	759.10	0	-824.87	2.55	-673.53	2.55	-192.09	2.85	-288.08
6	6	15.25	-1667.29	52.38	759.06	0	-824.89	2.55	-673.52	2.55	-192.09	2.85	-288.07
6	7	18.30	-1667.29	125.38	485.92	0	-1016.32	2.55	-506.45	2.55	-167.73	2.85	-251.54
7	7	18.30	-1667.29	125.43	485.75	0	-1016.41	2.55	-506.42	2.55	-167.71	2.85	-251.51
7	8	21.35	-1667.29	198.45	-10.27	0	-1361.95	2.55	-209.96	2.55	-122.50	2.85	-183.70
8	8	21.35	-1667.29	198.24	-10.56	0	-1362.12	2.55	-209.91	2.55	-122.45	2.85	-183.64
8	9	24.40	-1667.29	271.51	-729.66	0	-1861.87	2.55	215.90	2.55	-56.35	2.85	-84.50
9	9	24.40	-2473.95	269.79	396.91	0	-1168.87	2.55	-726.76	2.55	-427.36	2.85	-497.21
9	10	27.45	-2478.59	281.33	-429.28	0	-1683.26	2.55	-442.74	2.55	-323.89	2.85	-341.43
10	10	27.45	-3216.62	280.30	660.82	0	-1083.21	2.55	-1049.28	2.55	-715.27	2.85	-793.54
10	11	30.50	-3225.21	316.83	-238.02	0	-1667.28	2.55	-663.46	2.55	-614.59	2.85	-641.43
11	11	30.50	-2784.59	315.65	192.78	0	-993.01	2.55	-909.17	2.55	-615.98	2.85	-642.82
11	12	33.55	-2739.96	354.01	-855.87	0	-1673.57	2.55	-390.84	2.55	-491.73	2.85	-462.22
12	10012	33.55	-2776.21	-332.18	-890.67	0	-1727.61	2.55	-370.60	2.55	-492.22	2.85	-462.72
12	13	37.19	-2846.09	-280.81	275.78	0	-947.11	2.55	-1051.81	2.55	-621.76	2.85	-647.98
13	13	37.19	-3288.46	-282.96	-155.42	0	-1622.14	2.55	-806.55	2.55	-620.76	2.85	-646.97
13	14	40.82	-3245.79	-245.88	794.21	0	-969.89	2.55	-1287.63	2.55	-706.70	2.85	-781.34
14	14	40.82	-2543.56	-246.81	-568.70	0	-1847.53	2.55	-536.46	2.55	-262.94	2.85	-268.18
14	15	44.46	-2538.73	-216.40	291.39	0	-1296.18	2.55	-884.92	2.55	-363.22	2.85	-419.19
15	15	44.46	-2044.74	-216.85	-886.20	0	-2282.85	2.55	277.94	2.55	-72.48	2.85	-108.69
15	16	48.10	-2044.74	-129.49	-258.33	0	-1848.89	2.55	-85.91	2.55	-131.31	2.85	-196.93
16	16	48.10	-2044.74	-129.57	-258.08	0	-1848.74	2.55	-85.95	2.55	-131.35	2.85	-196.98
16	17	51.73	-2044.74	-41.95	53.20	0	-1633.70	2.55	-265.97	2.55	-160.57	2.85	-240.81
17	17	51.73	-2044.74	-41.78	53.29	0	-1633.65	2.55	-265.99	2.55	-160.58	2.85	-240.83
17	18	55.37	-2044.74	45.38	46.79	0	-1638.22	2.55	-261.97	2.55	-160.01	2.85	-239.97
18	18	55.37	-2044.74	45.55	46.71	0	-1638.27	2.55	-261.95	2.55	-160.00	2.85	-239.95
18	19	59.01	-2044.74	133.15	-277.49	0	-1862.39	2.55	-73.93	2.55	-129.64	2.85	-194.42
19	19	59.01	-2044.74	133.05	-277.75	0	-1862.54	2.55	-73.88	2.55	-129.60	2.85	-194.36
19	20	62.64	-2044.74	220.42	-918.56	0	-2305.62	2.55	298.02	2.55	-69.63	2.85	-104.42
20	20	62.64	-2677.92	219.93	367.61	0	-1295.04	2.55	-938.46	2.55	-410.82	2.85	-472.64
20	21	66.28	-2683.44	250.11	-496.75	0	-1849.23	2.55	-588.79	2.55	-310.16	2.85	-320.99
21	21	66.28	-3270.36	246.27	750.72	0	-1002.75	2.55	-1285.07	2.55	-706.81	2.85	-778.34
21	22	69.91	-3280.62	286.97	-212.03	0	-1652.93	2.55	-791.29	2.55	-610.63	2.85	-632.78
22	22	69.91	-2838.03	284.07	219.16	0	-977.84	2.55	-1036.48	2.55	-611.57	2.85	-633.74
22	23	73.55	-2781.46	335.46	-949.23	0	-1763.66	2.55	-358.25	2.55	-485.27	2.85	-451.62
23	10023	73.55	-2745.19	-360.23	-914.36	0	-1709.57	2.55	-378.50	2.55	-484.78	2.85	-451.13
23	24	76.66	-2797.25	-320.12	177.61	0	-1002.88	2.55	-918.92	2.55	-615.75	2.85	-640.84
24	24	76.66	-3237.69	-321.39	-253.27	0	-1677.14	2.55	-673.14	2.55	-614.30	2.85	-639.39
24	25	79.77	-3228.94	-284.52	678.87	0	-1071.45	2.55	-1073.41	2.55	-718.74	2.85	-797.14
25	25	79.77	-2377.18	-285.62	-557.81	0	-1743.15	2.55	-385.48	2.55	-271.85	2.85	-280.88
25	26	82.88	-2373.05	-274.21	304.46	0	-1206.82	2.55	-681.04	2.55	-380.18	2.85	-443.86
26	26	82.88	-1735.92	-276.00	-746.93	0	-1930.51	2.55	220.15	2.55	-60.25	2.85	-90.36
26	27	85.99	-1735.92	-201.38	-2.03	0	-1413.01	2.55	-220.32	2.55	-128.82	2.85	-193.18
27	27	85.99	-1735.92	-201.57	-1.72	0	-1412.84	2.55	-220.37	2.55	-128.86	2.85	-193.25
27	28	89.10	-1735.92	-127.00	511.29	0	-1055.66	2.55	-526.34	2.55	-175.71	2.85	-263.51
28	28	89.10	-1735.92	-126.89	511.47	0	-1055.55	2.55	-526.37	2.55	-175.74	2.85	-263.55
28	29	92.21	-1735.92	-52.51	792.54	0	-858.72	2.55	-697.78	2.55	-200.88	2.85	-301.25
29	29	92.21	-1735.92	-52.29	792.59	0	-858.70	2.55	-697.79	2.55	-200.88	2.85	-301.26
29	30	95.32	-1735.92	20.99	841.25	0	-822.47	2.55	-734.63	2.55	-204.22	2.85	-306.27
30	30	95.32	-1735.92	21.16	840.86	0	-822.69	2.55	-734.56	2.55	-204.17	2.85	-306.18
30	31	98.43	-1735.92	95.79	656.30	0	-947.55	2.55	-636.61	2.55	-185.60	2.85	-278.34
31	31	98.43	-1392.78	95.73	954.60	0	-457.05	2.55	-783.34	2.55	-185.57	2.85	-278.29
31	32	101.54	-1392.78	170.35	538.53	0	-742.01	2.55	-550.94	2.55	-145.35	2.85	-217.98
32	32	101.54	-1049.64	169.98	853.20	0	-236.88	2.55	-718.16	2.55	-145.30	2.85	-217.90
32	33	104.65	-1049.64	244.64	205.50	0	-682.01	2.55	-351.28	2.55	-83.41	2.85	-125.09
33	33	104.65	-603.55	243.78	635.98	0	-6.29	2.55	-595.29	2.55	-83.35	2.85	-124.99
33	34	107.76	-603.55	278.11	-241.20	0	-610.36	2.55	-94.33	2.55	-0.11	2.85	-0.17
101	101	0.00	-603.55	-236.33	-241.66	0	-610.62	2.55	-94.25	2.55	-0.04	2.85	-0.07
101	102	3.05	-603.55	-257.18	658.19	0	1.88	2.55	-584.22	2.55	-88.80	2.85	-133.18
102	102	3.05	-1049.64	-255.55	226.66	0	-674.45	2.55	-340.02	2.55	-88.71	2.85	-133.04
102	103	6.10	-1049.64	-176.25	885.08	0	-226.63	2.55	-697.38	2.55	-153.82	2.85	-230.68
103	103	6.10	-1358.46	-175.38	601.08	0	-681.69	2.55	-546.75	2.55	-153.74	2.85	-230.57
103	104	9.15	-1358.46	-97.91	1019.98	0	-397.46	2.55	-771.83	2.55	-195.49	2.85	-293.17
104	104	9.15	-1667.29	-97.59	750.96	0	-839.24	2.55	-639.68	2.55	-195.44	2.85	-293.09
104	105	12.20	-1667.29	-19.95	933.55	0	-716.77	2.55	-733.03	2.55	-214.30	2.85	-321.39
105	105	12.20	-1667.29	-19.93	933.67	0	-716.70	2.55	-733.05	2.55	-214.32	2.85	-321.41

CÁLCULO TENSIONAL

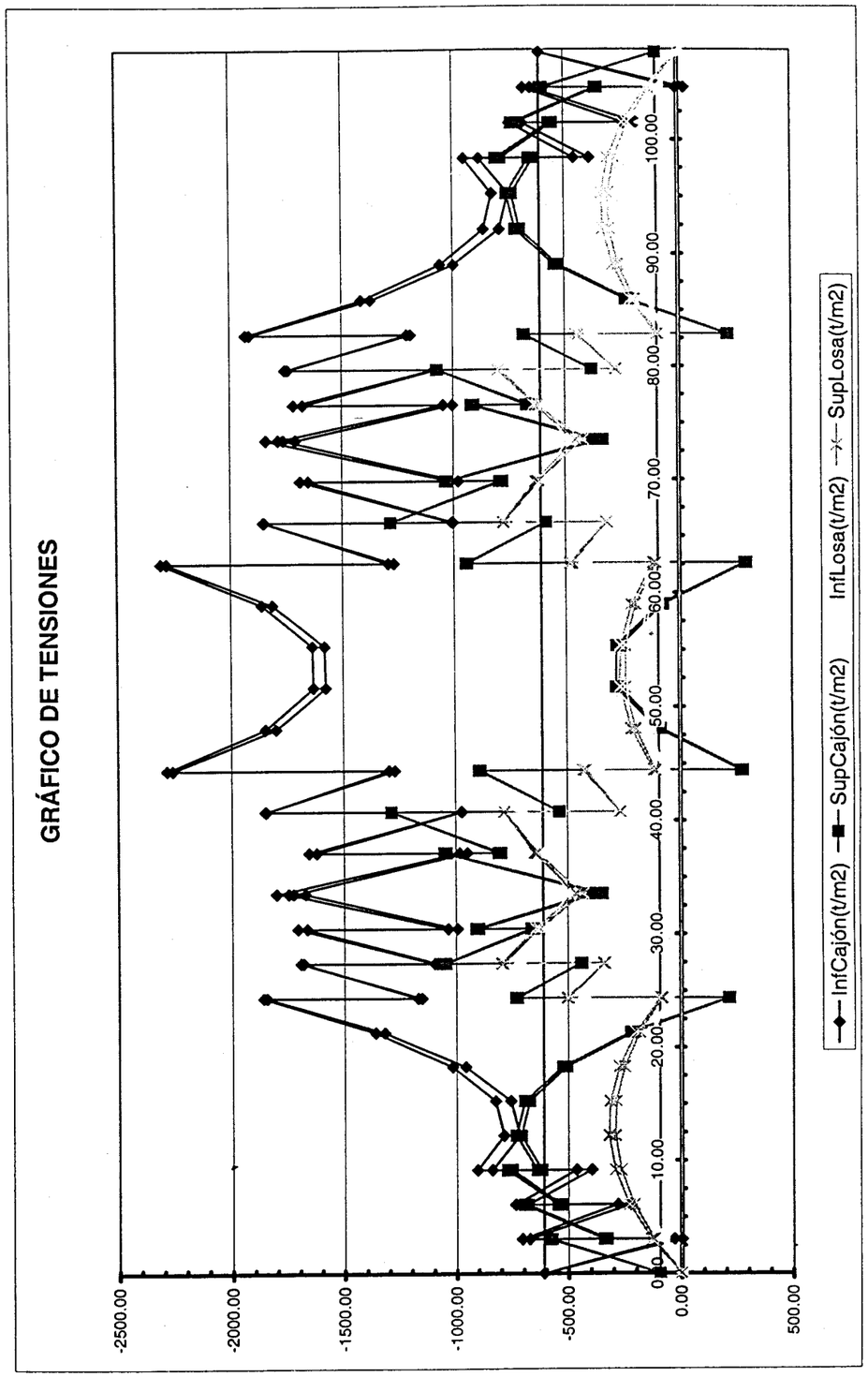
Hipótesis de cálculo:
CUASIPERM1.T0.MZ+
SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	56.04	878.44	0	-756.85	2.55	-694.48	2.55	-210.07	2.85	-315.04
106	106	15.25	-1667.29	55.96	878.04	0	-757.08	2.55	-694.41	2.55	-210.01	2.85	-314.95
106	107	18.30	-1667.29	133.15	587.90	0	-958.20	2.55	-524.34	2.55	-183.09	2.85	-274.58
107	107	18.30	-1667.29	133.17	588.10	0	-958.08	2.55	-524.38	2.55	-183.12	2.85	-274.63
107	108	21.35	-1667.29	210.46	61.89	0	-1320.83	2.55	-222.63	2.55	-133.37	2.85	-200.01
108	108	21.35	-1667.29	210.75	62.21	0	-1320.64	2.55	-222.68	2.55	-133.41	2.85	-200.08
108	109	24.40	-1667.29	288.26	-701.92	0	-1846.06	2.55	211.03	2.55	-60.53	2.85	-90.77
109	109	24.40	-2473.95	287.75	425.37	0	-1152.65	2.55	-731.76	2.55	-431.65	2.85	-503.64
109	110	27.45	-2478.59	296.86	-451.10	0	-1695.70	2.55	-438.91	2.55	-320.60	2.85	-336.50
110	110	27.45	-3216.62	297.31	639.52	0	-1095.35	2.55	-1045.54	2.55	-712.07	2.85	-788.72
110	111	30.50	-3225.21	326.98	-310.40	0	-1708.53	2.55	-650.76	2.55	-603.69	2.85	-625.08
111	111	30.50	-2784.60	331.89	120.83	0	-1034.02	2.55	-896.55	2.55	-605.15	2.85	-626.57
111	112	33.55	-2739.96	375.48	-988.93	0	-1749.40	2.55	-367.49	2.55	-471.68	2.85	-432.17
112	10112	33.55	-2776.21	-353.24	-1023.83	0	-1803.50	2.55	-347.23	2.55	-472.16	2.85	-432.64
112	113	37.19	-2846.09	-299.83	214.11	0	-982.25	2.55	-1040.98	2.55	-612.47	2.85	-634.05
113	113	37.19	-3288.46	-293.80	-217.43	0	-1657.47	2.55	-795.67	2.55	-611.42	2.85	-632.96
113	114	40.82	-3245.79	-260.27	787.95	0	-973.46	2.55	-1286.53	2.55	-705.76	2.85	-779.92
114	114	40.82	-2543.56	-259.61	-575.54	0	-1851.43	2.55	-535.26	2.55	-261.91	2.85	-266.63
114	115	44.46	-2538.73	-230.11	337.29	0	-1270.02	2.55	-892.98	2.55	-370.13	2.85	-429.56
115	115	44.46	-2044.74	-229.49	-841.06	0	-2257.12	2.55	270.02	2.55	-79.28	2.85	-118.89
115	116	48.10	-2044.74	-137.06	-176.41	0	-1802.20	2.55	-100.28	2.55	-143.65	2.85	-215.43
116	116	48.10	-2044.74	-136.92	-176.68	0	-1802.35	2.55	-100.24	2.55	-143.61	2.85	-215.37
116	117	51.73	-2044.74	-44.18	151.99	0	-1577.40	2.55	-283.31	2.55	-175.45	2.85	-263.12
117	117	51.73	-2044.74	-44.29	151.89	0	-1577.46	2.55	-283.30	2.55	-175.44	2.85	-263.10
117	118	55.37	-2044.74	47.97	145.30	0	-1582.08	2.55	-279.26	2.55	-174.85	2.85	-262.22
118	118	55.37	-2044.74	47.85	145.39	0	-1582.03	2.55	-279.28	2.55	-174.86	2.85	-262.24
118	119	59.01	-2044.74	140.57	-196.50	0	-1816.24	2.55	-88.14	2.55	-141.84	2.85	-212.72
119	119	59.01	-2044.74	140.72	-196.23	0	-1816.08	2.55	-88.19	2.55	-141.88	2.85	-212.78
119	120	62.64	-2044.74	233.16	-874.22	0	-2280.34	2.55	290.23	2.55	-76.31	2.85	-114.44
120	120	62.64	-2677.92	233.82	412.69	0	-1269.35	2.55	-946.38	2.55	-417.61	2.85	-482.83
120	121	66.28	-2683.44	263.07	-504.61	0	-1853.71	2.55	-587.41	2.55	-308.98	2.85	-319.21
121	121	66.28	-3270.36	261.11	743.42	0	-1006.91	2.55	-1283.79	2.55	-705.71	2.85	-776.69
121	122	69.91	-3280.62	303.37	-275.56	0	-1689.14	2.55	-780.14	2.55	-601.06	2.85	-618.43
122	122	69.91	-2838.03	303.28	155.97	0	-1013.86	2.55	-1025.39	2.55	-602.05	2.85	-619.47
122	123	73.55	-2781.46	356.72	-1084.34	0	-1840.66	2.55	-334.54	2.55	-464.92	2.85	-421.09
123	10123	73.55	-2745.19	-381.86	-1049.81	0	-1786.76	2.55	-354.72	2.55	-464.37	2.85	-420.53
123	124	76.66	-2797.25	-331.85	105.50	0	-1043.98	2.55	-906.26	2.55	-604.89	2.85	-624.55
124	124	76.66	-3237.69	-331.60	-326.07	0	-1718.63	2.55	-660.37	2.55	-603.33	2.85	-622.94
124	125	79.77	-3228.94	-301.53	657.96	0	-1083.37	2.55	-1069.74	2.55	-715.59	2.85	-792.42
125	125	79.77	-2377.18	-301.14	-579.27	0	-1755.38	2.55	-381.71	2.55	-268.61	2.85	-276.03
125	126	82.88	-2373.05	-292.14	334.63	0	-1189.63	2.55	-686.34	2.55	-384.72	2.85	-450.68
126	126	82.88	-1735.92	-292.73	-717.53	0	-1913.75	2.55	214.98	2.55	-64.68	2.85	-97.00
126	127	85.99	-1735.92	-213.81	73.13	0	-1370.18	2.55	-233.51	2.55	-140.14	2.85	-210.16
127	127	85.99	-1735.92	-213.58	72.81	0	-1370.36	2.55	-233.45	2.55	-140.09	2.85	-210.09
127	128	89.10	-1735.92	-134.66	616.46	0	-995.72	2.55	-544.80	2.55	-191.55	2.85	-287.27
128	128	89.10	-1735.92	-134.68	616.26	0	-995.83	2.55	-544.76	2.55	-191.52	2.85	-287.23
128	129	92.21	-1735.92	-56.01	915.05	0	-788.91	2.55	-719.28	2.55	-219.33	2.85	-328.93
129	129	92.21	-1735.92	-56.15	914.82	0	-789.04	2.55	-719.24	2.55	-219.30	2.85	-328.87
129	130	95.32	-1735.92	21.40	969.03	0	-749.65	2.55	-757.04	2.55	-223.48	2.85	-335.14
130	130	95.32	-1735.92	21.35	969.04	0	-749.65	2.55	-757.04	2.55	-223.48	2.85	-335.14
130	131	98.43	-1735.92	100.39	776.70	0	-878.94	2.55	-657.73	2.55	-203.74	2.85	-305.55
131	131	98.43	-1392.78	100.67	1075.65	0	-388.06	2.55	-804.57	2.55	-203.81	2.85	-305.64
131	132	101.54	-1392.78	179.67	637.10	0	-685.83	2.55	-568.25	2.55	-160.20	2.85	-240.25
132	132	101.54	-1049.64	180.55	952.62	0	-180.22	2.55	-735.62	2.55	-160.27	2.85	-240.36
132	133	104.65	-1049.64	259.51	265.03	0	-648.09	2.55	-361.72	2.55	-92.38	2.85	-138.54
133	133	104.65	-603.55	261.20	696.58	0	28.25	2.55	-605.92	2.55	-92.48	2.85	-138.69
133	134	107.76	-603.55	242.18	-241.65	0	-610.61	2.55	-94.25	2.55	-0.05	2.85	-0.07

GRÁFICO DE TENSIONES



CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUA RM1.T0.MZ-
SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I ISO To + [.9. 1.1]PRETF3I HIP To + [.9, 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-667.09	-252.12	-267.71	0	-675.24	2.55	-104.06	2.55	0.04	2.85	0.07
1	2	3.05	-667.09	-156.17	289.83	0	-260.70	2.55	-524.40	2.55	-38.50	2.85	-57.73
2	2	3.05	-1160.12	-157.23	-186.05	0	-1007.61	2.55	-254.69	2.55	-38.55	2.85	-57.82
2	3	6.10	-1160.12	-104.32	212.83	0	-710.58	2.55	-556.94	2.55	-65.91	2.85	-98.85
3	3	6.10	-1501.46	-104.93	-100.21	0	-1213.06	2.55	-390.60	2.55	-65.96	2.85	-98.92
3	4	9.15	-1501.46	-51.99	139.12	0	-1034.03	2.55	-574.62	2.55	-82.00	2.85	-122.97
4	4	9.15	-1842.79	-52.23	-157.63	0	-1521.97	2.55	-428.66	2.55	-82.03	2.85	-123.02
4	5	12.20	-1842.79	0.76	-79.11	0	-1461.69	2.55	-494.20	2.55	-86.56	2.85	-129.82
5	5	12.20	-1842.79	0.73	-79.04	0	-1461.65	2.55	-494.21	2.55	-86.57	2.85	-129.83
5	6	15.25	-1842.79	53.67	-161.98	0	-1520.45	2.55	-441.22	2.55	-79.50	2.85	-119.22
6	6	15.25	-1842.79	53.66	-162.02	0	-1520.47	2.55	-441.21	2.55	-79.49	2.85	-119.21
6	7	18.30	-1842.79	106.60	-406.38	0	-1698.36	2.55	-269.63	2.55	-60.82	2.85	-91.21
7	7	18.30	-1842.79	106.50	-406.50	0	-1698.43	2.55	-269.61	2.55	-60.80	2.85	-91.18
7	8	21.35	-1842.79	159.42	-812.00	0	-1995.25	2.55	20.51	2.55	-30.57	2.85	-45.85
8	8	21.35	-1842.79	159.09	-812.20	0	-1995.36	2.55	20.54	2.55	-30.54	2.85	-45.80
8	9	24.40	-1842.79	212.14	-1378.36	0	-2410.82	2.55	429.06	2.55	11.18	2.85	16.76
9	9	24.40	-2385.17	212.71	-380.47	0	-1668.25	2.55	-506.75	2.55	-265.67	2.85	-284.58
[redacted]	10	27.45	-2388.96	328.39	-1214.60	0	-2186.91	2.55	-221.08	2.55	-160.78	2.85	-126.79
10	10	27.45	-2880.85	327.59	-241.95	0	-1558.77	2.55	-753.45	2.55	-474.90	2.85	-490.54
10	11	30.50	-2887.87	409.69	-1361.15	0	-2267.96	2.55	-328.50	2.55	-340.62	2.85	-288.25
11	11	30.50	-2389.35	408.49	-885.15	0	-1519.33	2.55	-596.58	2.55	-339.16	2.85	-286.78
11	12	33.55	-2352.84	499.60	-2300.24	0	-2411.16	2.55	-16.37	2.55	-161.80	2.85	-25.50
12	10012	33.55	-2388.86	-483.08	-2338.58	0	-2469.61	2.55	7.19	2.55	-161.33	2.85	-25.03
12	13	37.19	-2446.03	-378.81	-728.20	0	-1432.29	2.55	-748.11	2.55	-354.46	2.85	-307.31
13	13	37.19	-2942.78	-379.48	-1203.75	0	-2180.12	2.55	-479.56	2.55	-355.53	2.85	-308.43
13	14	40.82	-2966.83	-275.28	-15.20	0	-1411.75	2.55	-1022.62	2.55	-494.66	2.85	-513.98
14	14	40.82	-2530.19	-276.38	-1257.26	0	-2333.11	2.55	-340.74	2.55	-131.53	2.85	-94.04
14	15	44.46	-2526.23	-156.06	-498.87	0	-1839.99	2.55	-671.62	2.55	-216.71	2.85	-222.30
15	15	44.46	-2259.98	-156.71	-1582.43	0	-2900.85	2.55	526.53	2.55	-5.27	2.85	-7.91
15	16	48.10	-2259.98	-93.37	-1127.72	0	-2565.58	2.55	193.09	2.55	-38.03	2.85	-57.03
16	16	48.10	-2259.98	-93.67	-1127.56	0	-2565.49	2.55	193.07	2.55	-38.05	2.85	-57.07
16	17	51.73	-2259.98	-30.57	-901.62	0	-2399.09	2.55	28.04	2.55	-54.42	2.85	-81.61
17	17	51.73	-2259.98	-30.72	-901.56	0	-2399.06	2.55	28.03	2.55	-54.43	2.85	-81.62
17	18	55.37	-2259.98	34.41	-908.80	0	-2404.05	2.55	32.21	2.55	-53.75	2.85	-80.61
18	18	55.37	-2259.98	34.26	-908.85	0	-2404.08	2.55	32.22	2.55	-53.74	2.85	-80.59
18	19	59.01	-2259.98	97.37	-1148.07	0	-2579.78	2.55	205.34	2.55	-36.19	2.85	-54.27
19	19	59.01	-2259.98	97.03	-1148.23	0	-2579.87	2.55	205.37	2.55	-36.16	2.85	-54.23
19	20	62.64	-2259.98	160.36	-1616.20	0	-2924.45	2.55	546.96	2.55	-2.23	2.85	-3.35
20	20	62.64	-2640.12	159.69	-443.80	0	-1843.30	2.55	-713.84	2.55	-254.60	2.85	-264.45
20	21	66.28	-2644.64	280.23	-1223.00	0	-2348.65	2.55	-378.82	2.55	-166.52	2.85	-131.78
21	21	66.28	-2927.38	281.99	-75.45	0	-1434.94	2.55	-997.89	2.55	-475.74	2.85	-490.68
21	22	69.91	-2935.77	382.62	-1277.37	0	-2220.87	2.55	-461.56	2.55	-343.05	2.85	-290.61
[redacted]	22	69.91	-2439.24	382.60	-801.80	0	-1473.08	2.55	-730.18	2.55	-342.04	2.85	-289.55
22	23	73.55	-2392.96	486.82	-2415.63	0	-2515.85	2.55	23.13	2.55	-151.29	2.85	-9.45
23	10023	73.55	-2356.99	-508.00	-2377.16	0	-2457.34	2.55	-0.47	2.55	-151.80	2.85	-9.96
23	24	76.66	-2399.59	-416.14	-905.66	0	-1531.51	2.55	-604.66	2.55	-337.50	2.85	-282.97
24	24	76.66	-2898.27	-417.31	-1381.57	0	-2280.13	2.55	-336.64	2.55	-339.01	2.85	-284.50
24	25	79.77	-2891.10	-332.57	-221.50	0	-1545.01	2.55	-777.38	2.55	-478.19	2.85	-494.16
25	25	79.77	-2316.94	-333.34	-1323.08	0	-2246.54	2.55	-173.91	2.55	-118.90	2.85	-78.15
25	26	82.88	-2313.55	-215.57	-464.60	0	-1712.60	2.55	-469.02	2.55	-226.85	2.85	-240.48
26	26	82.88	-1918.64	-214.92	-1409.54	0	-2493.88	2.55	436.89	2.55	8.54	2.85	12.81
26	27	85.99	-1918.64	-160.84	-825.23	0	-2065.09	2.55	15.19	2.55	-34.50	2.85	-51.74
27	27	85.99	-1918.64	-161.12	-825.04	0	-2064.98	2.55	15.16	2.55	-34.53	2.85	-51.78
27	28	89.10	-1918.64	-107.15	-407.88	0	-1759.59	2.55	-283.41	2.55	-65.61	2.85	-98.40
28	28	89.10	-1918.64	-107.23	-407.75	0	-1759.52	2.55	-283.43	2.55	-65.63	2.85	-98.43
28	29	92.21	-1918.64	-53.24	-158.26	0	-1577.86	2.55	-458.73	2.55	-84.68	2.85	-127.00
29	29	92.21	-1918.64	-53.21	-158.20	0	-1577.83	2.55	-458.74	2.55	-84.69	2.85	-127.01
29	30	95.32	-1918.64	-0.75	-76.61	0	-1520.00	2.55	-510.77	2.55	-91.67	2.85	-137.47
30	30	95.32	-1918.64	0.75	-76.87	0	-1520.15	2.55	-510.73	2.55	-91.63	2.85	-137.41
30	31	98.43	-1918.64	54.80	-163.12	0	-1586.15	2.55	-439.46	2.55	-86.55	2.85	-129.79
31	31	98.43	-1539.38	54.58	166.61	0	-1044.00	2.55	-601.64	2.55	-86.51	2.85	-129.74
31	32	101.54	-1539.38	108.57	-87.13	0	-1233.62	2.55	-407.15	2.55	-69.42	2.85	-104.11
32	32	101.54	-1160.12	107.97	260.71	0	-675.29	2.55	-591.98	2.55	-69.37	2.85	-104.03
32	33	104.65	-1160.12	161.93	-158.97	0	-987.64	2.55	-274.55	2.55	-40.50	2.85	-60.74
33	33	104.65	-667.09	160.83	316.88	0	-240.75	2.55	-544.25	2.55	-40.44	2.85	-60.65
33	34	107.76	-667.09	258.73	-267.71	0	-675.25	2.55	-104.06	2.55	0.05	2.85	0.07
101	101	0.00	-667.09	-321.25	-268.13	0	-675.49	2.55	-103.98	2.55	0.11	2.85	0.16
)	102	3.05	-667.09	-166.25	324.19	0	-241.12	2.55	-530.43	2.55	-43.67	2.85	-65.49
102	102	3.05	-1160.12	-165.95	-152.26	0	-988.35	2.55	-260.62	2.55	-43.64	2.85	-65.45
102	103	6.10	-1160.12	-110.43	269.20	0	-678.44	2.55	-566.84	2.55	-74.40	2.85	-111.58
103	103	6.10	-1501.46	-110.30	-44.29	0	-1181.18	2.55	-400.43	2.55	-74.38	2.85	-111.55
103	104	9.15	-1501.46	-54.82	207.52	0	-995.05	2.55	-586.62	2.55	-92.30	2.85	-138.42
104	104	9.15	-1842.79	-54.83	-89.53	0	-1483.16	2.55	-440.61	2.55	-92.29	2.85	-138.40
104	105	12.20	-1842.79	0.68	-6.96	0	-1420.57	2.55	-506.86	2.55	-97.43	2.85	-146.12
105	105	12.20	-1842.79	0.62	-6.82	0	-1420.48	2.55	-506.89	2.55	-97.45	2.85	-146.15

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM1.T0.MZ-
SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I ISO To + [.9; 1.1]PRETF3I HIP.To + [.9, 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1842.79	56.15	-93.54	0	-1481.45	2.55	-453.23	2.55	-89.81	2.85	-134.68
106	106	15.25	-1842.79	56.09	-93.81	0	-1481.60	2.55	-453.18	2.55	-89.77	2.85	-134.62
106	107	18.30	-1842.79	111.69	-349.38	0	-1665.88	2.55	-279.63	2.55	-69.40	2.85	-104.08
107	107	18.30	-1842.79	111.76	-349.26	0	-1665.81	2.55	-279.65	2.55	-69.42	2.85	-104.11
107	108	21.35	-1842.79	167.27	-774.77	0	-1974.03	2.55	13.97	2.55	-36.18	2.85	-54.26
108	108	21.35	-1842.79	167.50	-774.59	0	-1973.93	2.55	13.94	2.55	-36.21	2.85	-54.30
108	109	24.40	-1842.79	223.18	-1370.19	0	-2406.16	2.55	427.63	2.55	9.95	2.85	14.92
109	109	24.40	-2385.17	224.82	-371.88	0	-1663.35	2.55	-508.26	2.55	-266.96	2.85	-286.52
109	110	27.45	-2388.96	349.86	-1258.13	0	-2211.72	2.55	-213.44	2.55	-154.22	2.85	-116.95
110	110	27.45	-2880.85	351.25	-284.87	0	-1583.23	2.55	-745.92	2.55	-468.44	2.85	-480.84
110	111	30.50	-2887.87	446.48	-1486.04	0	-2339.13	2.55	-306.58	2.55	-321.80	2.85	-260.04
111	111	30.50	-2389.36	443.97	-1009.74	0	-1590.34	2.55	-574.72	2.55	-320.40	2.85	-258.64
111	112	33.55	-2352.84	536.97	-2531.77	0	-2543.11	2.55	24.26	2.55	-126.92	2.85	26.81
112	10112	33.55	-2388.86	-519.24	-2570.27	0	-2601.66	2.55	47.86	2.55	-126.42	2.85	27.32
112	113	37.19	-2446.03	-408.72	-838.85	0	-1495.35	2.55	-728.69	2.55	-337.79	2.85	-282.31
113	113	37.19	-2942.78	-411.93	-1314.95	0	-2243.49	2.55	-460.05	2.55	-338.78	2.85	-283.30
113	114	40.82	-2966.83	-296.51	-38.93	0	-1425.28	2.55	-1018.45	2.55	-491.08	2.85	-508.62
114	114	40.82	-2530.19	-295.17	-1281.68	0	-2347.03	2.55	-336.45	2.55	-127.85	2.85	-88.52
114	115	44.46	-2526.23	-165.74	-476.24	0	-1827.09	2.55	-675.59	2.55	-220.12	2.85	-227.42
115	115	44.46	-2259.98	-165.27	-1560.23	0	-2888.20	2.55	522.63	2.55	-8.62	2.85	-12.92
115	116	48.10	-2259.98	-98.79	-1080.29	0	-2538.55	2.55	184.77	2.55	-45.17	2.85	-67.75
116	116	48.10	-2259.98	-98.54	-1080.44	0	-2538.63	2.55	184.79	2.55	-45.15	2.85	-67.71
116	117	51.73	-2259.98	-32.35	-842.40	0	-2365.34	2.55	17.65	2.55	-63.34	2.85	-94.99
117	117	51.73	-2259.98	-32.26	-842.46	0	-2365.37	2.55	17.66	2.55	-63.33	2.85	-94.98
117	118	55.37	-2259.98	36.02	-849.79	0	-2370.42	2.55	21.84	2.55	-62.64	2.85	-93.93
118	118	55.37	-2259.98	36.12	-849.74	0	-2370.39	2.55	21.83	2.55	-62.64	2.85	-93.95
118	119	59.01	-2259.98	102.30	-1101.34	0	-2553.15	2.55	197.14	2.55	-43.23	2.85	-64.83
119	119	59.01	-2259.98	102.55	-1101.18	0	-2553.06	2.55	197.12	2.55	-43.25	2.85	-64.86
119	120	62.64	-2259.98	169.01	-1594.75	0	-2912.22	2.55	543.19	2.55	-5.46	2.85	-8.19
120	120	62.64	-2640.12	169.52	-421.94	0	-1830.84	2.55	-717.68	2.55	-257.89	2.85	-269.39
120	121	66.28	-2644.64	299.17	-1249.04	0	-2363.50	2.55	-374.25	2.55	-162.60	2.85	-125.89
121	121	66.28	-2927.38	303.19	-100.83	0	-1449.40	2.55	-993.43	2.55	-471.91	2.85	-484.95
121	122	69.91	-2935.77	409.94	-1391.20	0	-2285.74	2.55	-441.59	2.55	-325.90	2.85	-264.90
122	122	69.91	-2439.24	412.88	-915.12	0	-1537.67	2.55	-710.29	2.55	-324.97	2.85	-263.95
122	123	73.55	-2392.96	523.35	-2650.86	0	-2649.91	2.55	64.41	2.55	-115.86	2.85	43.69
123	10123	73.55	-2356.99	-545.61	-2612.87	0	-2591.67	2.55	40.90	2.55	-116.29	2.85	43.29
123	124	76.66	-2399.59	-456.39	-1031.32	0	-1603.13	2.55	-582.60	2.55	-318.57	2.85	-254.58
124	124	76.66	-2898.27	-454.22	-1508.01	0	-2352.19	2.55	-314.45	2.55	-319.96	2.85	-255.94
124	125	79.77	-2891.10	-356.26	-263.78	0	-1569.11	2.55	-769.96	2.55	-471.82	2.85	-484.60
125	125	79.77	-2316.94	-354.82	-1366.02	0	-2271.01	2.55	-166.37	2.55	-112.44	2.85	-68.45
125	126	82.88	-2313.55	-227.63	-454.80	0	-1707.02	2.55	-470.74	2.55	-228.33	2.85	-242.69
126	126	82.88	-1918.64	-225.93	-1400.19	0	-2488.55	2.55	435.25	2.55	7.13	2.85	10.70
126	127	85.99	-1918.64	-169.17	-786.04	0	-2042.75	2.55	8.31	2.55	-40.41	2.85	-60.60
127	127	85.99	-1918.64	-168.94	-786.22	0	-2042.85	2.55	8.35	2.55	-40.38	2.85	-60.55
127	128	89.10	-1918.64	-112.35	-348.84	0	-1725.94	2.55	-293.77	2.55	-74.51	2.85	-111.74
128	128	89.10	-1918.64	-112.31	-348.95	0	-1726.00	2.55	-293.75	2.55	-74.49	2.85	-111.71
128	129	92.21	-1918.64	-55.61	-87.80	0	-1537.70	2.55	-471.09	2.55	-95.30	2.85	-142.92
129	129	92.21	-1918.64	-55.69	-87.97	0	-1537.80	2.55	-471.06	2.55	-95.27	2.85	-142.88
129	130	95.32	-1918.64	0.89	-2.59	0	-1477.82	2.55	-523.75	2.55	-102.82	2.85	-154.19
130	130	95.32	-1918.64	0.79	-2.65	0	-1477.85	2.55	-523.74	2.55	-102.81	2.85	-154.18
130	131	98.43	-1918.64	57.42	-93.13	0	-1546.27	2.55	-451.73	2.55	-97.09	2.85	-145.61
131	131	98.43	-1539.38	57.40	236.97	0	-1003.90	2.55	-613.97	2.55	-97.11	2.85	-145.64
131	132	101.54	-1539.38	113.97	-29.56	0	-1200.80	2.55	-417.27	2.55	-78.09	2.85	-117.11
132	132	101.54	-1160.12	114.10	318.76	0	-642.21	2.55	-602.18	2.55	-78.11	2.85	-117.15
132	133	104.65	-1160.12	170.70	-124.11	0	-967.78	2.55	-280.65	2.55	-45.76	2.85	-68.62
133	133	104.65	-667.09	171.02	352.35	0	-220.54	2.55	-550.47	2.55	-45.79	2.85	-68.66
133	134	107.76	-667.09	328.50	-268.16	0	-675.50	2.55	-103.98	2.55	0.11	2.85	0.17

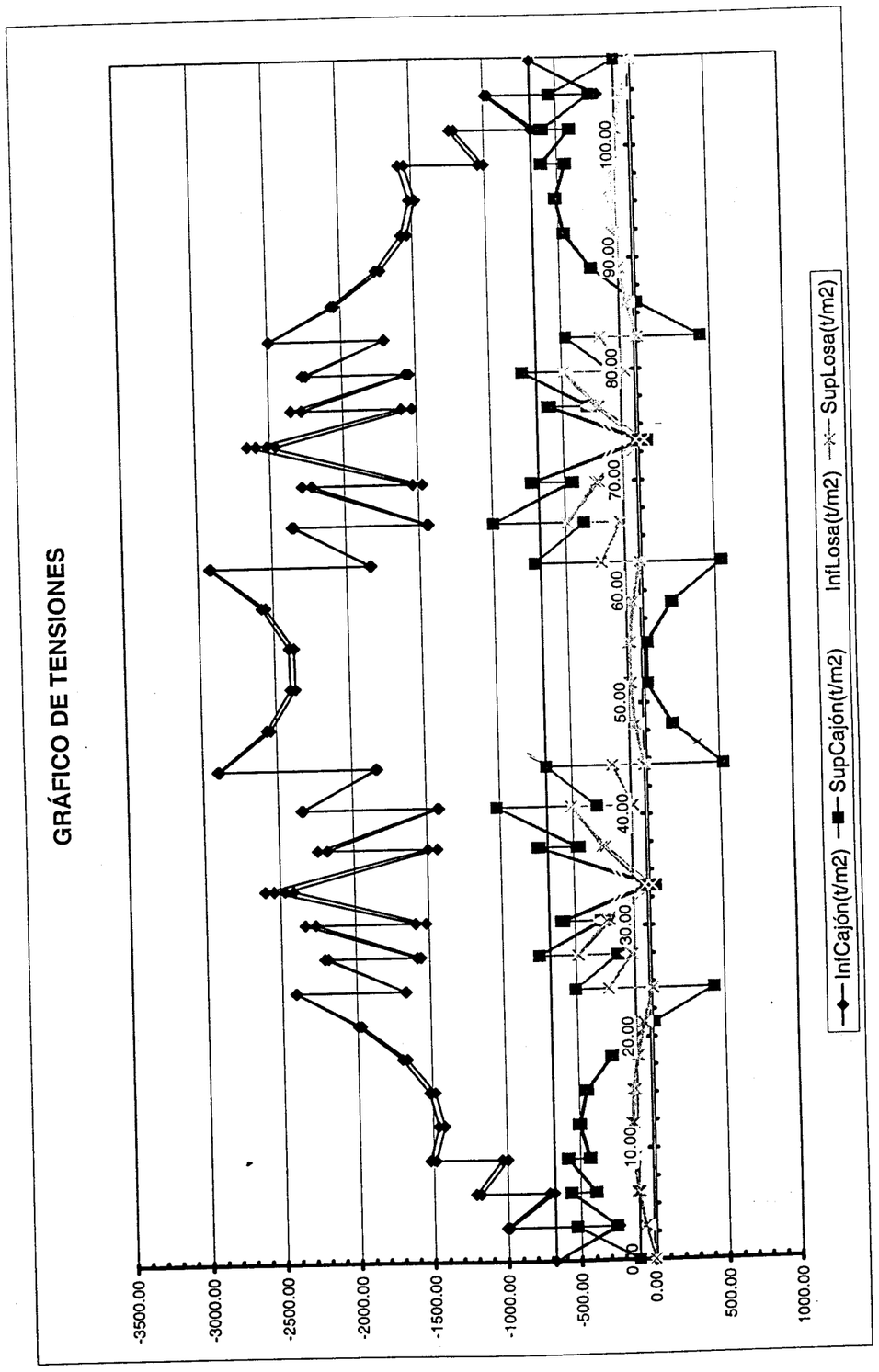
CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM2.T0.MZ+
CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-271.25	-241.23	0	-610.38	2.55	-94.32	2.55	-0.11	2.85	**-0.16**
1	2	3.05	-603.55	-245.31	616.12	0	-22.10	2.55	-576.83	2.55	-82.47	2.85	**-123.67**
2	2	3.05	-1049.64	-246.15	185.61	0	-697.84	2.55	-332.82	2.55	-82.53	2.85	**-123.76**
2	3	6.10	-1049.64	-171.20	821.96	0	-262.61	2.55	-686.30	2.55	-144.31	2.85	**-216.42**
3	3	6.10	-1358.46	-171.57	538.77	0	-717.21	2.55	-535.81	2.55	-144.36	2.85	**-216.49**
3	4	9.15	-1358.46	-99.72	952.45	0	-435.95	2.55	-759.98	2.55	-185.32	2.85	**-277.91**
4	4	9.15	-1667.29	-99.78	683.98	0	-877.41	2.55	-627.92	2.55	-185.35	2.85	**-277.96**
4	5	12.20	-1667.29	-25.17	875.66	0	-749.77	2.55	-722.87	2.55	-205.58	2.85	**-308.31**
5	5	12.20	-1667.29	-25.04	875.76	0	-749.71	2.55	-722.89	2.55	-205.60	2.85	**-308.33**
5	6	15.25	-1667.29	46.74	842.75	0	-777.19	2.55	-688.21	2.55	-204.70	2.85	**-306.98**
6	6	15.25	-1667.29	46.90	842.71	0	-777.22	2.55	-688.21	2.55	-204.69	2.85	**-306.97**
6	7	18.30	-1667.29	119.89	586.30	0	-959.11	2.55	-524.06	2.55	-182.85	2.85	**-274.22**
7	7	18.30	-1667.29	119.94	586.13	0	-959.20	2.55	-524.03	2.55	-182.83	2.85	**-274.18**
7	8	21.35	-1667.29	192.96	106.84	0	-1295.21	2.55	-230.51	2.55	-140.14	2.85	**-210.16**
8	8	21.35	-1667.29	192.75	106.56	0	-1295.37	2.55	-230.46	2.55	-140.10	2.85	**-210.10**
8	9	24.40	-1667.29	266.03	-595.82	0	-1785.59	2.55	192.41	2.55	-76.51	2.85	**-114.74**
9	9	24.40	-2473.95	264.30	530.76	0	-1092.59	2.55	-750.25	2.55	-447.52	2.85	**-527.45**
9	10	27.45	-2478.59	275.84	-278.70	0	-1597.45	2.55	-469.17	2.55	-346.57	2.85	**-375.45**
10	10	27.45	-3216.62	274.81	811.40	0	-997.40	2.55	-1075.70	2.55	-737.96	2.85	**-827.55**
10	11	30.50	-3225.21	311.35	-70.72	0	-1571.93	2.55	-692.83	2.55	-639.79	2.85	**-679.23**
11	11	30.50	-2784.59	310.16	360.09	0	-897.66	2.55	-938.53	2.55	-641.18	2.85	**-680.61**
11	12	33.55	-2739.96	348.52	-671.84	0	-1568.68	2.55	-423.14	2.55	-519.45	2.85	**-503.80**
12	10012	33.55	-2776.21	-332.19	-706.63	0	-1622.73	2.55	-402.90	2.55	-519.95	2.85	**-504.30**
12	13	37.19	-2846.09	-280.82	459.87	0	-842.19	2.55	-1084.12	2.55	-649.49	2.85	**-689.57**
13	13	37.19	-3288.46	-282.97	28.67	0	-1517.22	2.55	-838.86	2.55	-648.50	2.85	**-688.55**
13	14	40.82	-3245.79	-245.90	978.35	0	-864.94	2.55	-1319.95	2.55	-734.44	2.85	**-822.94**
14	14	40.82	-2543.56	-246.82	-384.55	0	-1742.58	2.55	-568.78	2.55	-290.68	2.85	**-309.78**
14	15	44.46	-2538.73	-216.41	475.59	0	-1191.20	2.55	-917.25	2.55	-390.96	2.85	**-460.80**
15	15	44.46	-2044.74	-216.87	-702.00	0	-2177.87	2.55	245.61	2.55	-100.22	2.85	**-150.31**
15	16	48.10	-2044.74	-129.51	-74.07	0	-1743.87	2.55	-118.24	2.55	-159.07	2.85	**-238.55**
16	16	48.10	-2044.74	-129.59	-73.82	0	-1743.73	2.55	-118.29	2.55	-159.11	2.85	**-238.61**
16	17	51.73	-2044.74	-41.96	237.51	0	-1528.66	2.55	-298.32	2.55	-188.34	2.85	**-282.44**
17	17	51.73	-2044.74	-41.80	237.60	0	-1528.61	2.55	-298.34	2.55	-188.35	2.85	**-282.46**
17	18	55.37	-2044.74	45.37	231.16	0	-1533.14	2.55	-294.32	2.55	-187.79	2.85	**-281.62**
18	18	55.37	-2044.74	45.53	231.08	0	-1533.19	2.55	-294.31	2.55	-187.77	2.85	**-281.60**
18	19	59.01	-2044.74	133.13	-93.06	0	-1757.28	2.55	-106.30	2.55	-157.42	2.85	**-236.08**
19	19	59.01	-2044.74	133.03	-93.33	0	-1757.43	2.55	-106.25	2.55	-157.38	2.85	**-236.03**
19	20	62.64	-2044.74	220.40	-734.08	0	-2200.48	2.55	265.64	2.55	-97.42	2.85	**-146.10**
20	20	62.64	-2677.92	219.92	552.09	0	-1189.90	2.55	-970.84	2.55	-438.61	2.85	**-514.32**
20	21	66.28	-2683.44	250.10	-312.21	0	-1744.06	2.55	-621.18	2.55	-337.96	2.85	**-362.68**
21	21	66.28	-3270.36	246.25	935.25	0	-897.58	2.55	-1317.46	2.55	-734.61	2.85	**-820.03**
21	22	69.91	-3280.62	286.95	-27.44	0	-1547.73	2.55	-823.68	2.55	-638.44	2.85	**-674.48**
22	22	69.91	-2838.03	284.05	403.75	0	-872.64	2.55	-1068.87	2.55	-639.38	2.85	**-675.45**
22	23	73.55	-2781.46	335.44	-764.58	0	-1658.42	2.55	-390.66	2.55	-513.09	2.85	**-493.33**
23	10023	73.55	-2745.19	-354.84	-729.72	0	-1604.33	2.55	-410.90	2.55	-512.59	2.85	**-492.84**
23	24	76.66	-2797.25	-314.72	345.47	0	-907.22	2.55	-948.38	2.55	-641.03	2.85	**-678.76**
24	24	76.66	-3237.69	-315.99	-85.41	0	-1581.48	2.55	-702.60	2.55	-639.59	2.85	**-677.31**
24	25	79.77	-3228.94	-279.13	829.94	0	-985.35	2.55	-1099.92	2.55	-741.50	2.85	**-831.27**
25	25	79.77	-2377.18	-280.22	-406.73	0	-1657.05	2.55	-412.00	2.55	-294.61	2.85	**-315.01**
25	26	82.88	-2373.05	-268.82	438.75	0	-1130.29	2.55	-704.61	2.55	-400.41	2.85	**-474.20**
26	26	82.88	-1735.92	-270.60	-612.64	0	-1853.98	2.55	196.58	2.55	-80.48	2.85	**-120.70**
26	27	85.99	-1735.92	-195.98	115.48	0	-1346.05	2.55	-240.94	2.55	-146.52	2.85	**-219.73**
27	27	85.99	-1735.92	-196.17	115.78	0	-1345.87	2.55	-240.99	2.55	-146.56	2.85	**-219.80**
27	28	89.10	-1735.92	-121.60	612.00	0	-998.26	2.55	-544.02	2.55	-190.88	2.85	**-286.26**
28	28	89.10	-1735.92	-121.50	612.19	0	-998.15	2.55	-544.05	2.55	-190.91	2.85	**-286.31**
28	29	92.21	-1735.92	-47.12	876.47	0	-810.89	2.55	-712.51	2.55	-213.52	2.85	**-320.21**
29	29	92.21	-1735.92	-46.90	876.52	0	-810.86	2.55	-712.52	2.55	-213.53	2.85	**-320.22**
29	30	95.32	-1735.92	26.39	908.39	0	-784.21	2.55	-746.41	2.55	-214.34	2.85	**-321.44**
30	30	95.32	-1735.92	26.55	908.01	0	-784.43	2.55	-746.34	2.55	-214.28	2.85	**-321.35**
30	31	98.43	-1735.92	101.19	706.66	0	-918.85	2.55	-645.45	2.55	-193.19	2.85	**-289.72**
31	31	98.43	-1392.78	101.13	1004.96	0	-428.35	2.55	-792.17	2.55	-193.15	2.85	**-289.67**
31	32	101.54	-1392.78	175.75	572.10	0	-722.88	2.55	-556.84	2.55	-150.41	2.85	**-225.56**
32	32	101.54	-1049.64	175.38	886.77	0	-217.75	2.55	-724.05	2.55	-150.36	2.85	**-225.49**
32	33	104.65	-1049.64	250.03	222.29	0	-672.45	2.55	-354.23	2.55	-85.94	2.85	**-128.88**
33	33	104.65	-603.55	249.18	652.76	0	3.28	2.55	-598.24	2.55	-85.88	2.85	**-128.79**
33	34	107.76	-603.55	278.11	-241.20	0	-610.36	2.55	-94.33	2.55	-0.11	2.85	**-0.17**
101	101	0.00	-603.55	-236.33	-241.66	0	-610.62	2.55	-94.25	2.55	-0.04	2.85	**-0.07**
101	102	3.05	-603.55	-262.67	674.92	0	11.41	2.55	-587.15	2.55	-91.32	2.85	**-136.96**
102	102	3.05	-1049.64	-261.04	243.39	0	-664.91	2.55	-342.96	2.55	-91.23	2.85	**-136.82**
102	103	6.10	-1049.64	-181.73	918.54	0	-207.56	2.55	-703.26	2.55	-158.86	2.85	**-238.24**
103	103	6.10	-1358.46	-180.87	634.54	0	-662.63	2.55	-552.62	2.55	-158.78	2.85	**-238.13**
103	104	9.15	-1358.46	-103.39	1070.17	0	-368.86	2.55	-780.64	2.55	-203.05	2.85	**-304.51**
104	104	9.15	-1667.29	-103.07	801.15	0	-810.63	2.55	-648.49	2.55	-203.00	2.85	**-304.43**
104	105	12.20	-1667.29	-25.43	1000.47	0	-678.63	2.55	-744.78	2.55	-224.38	2.85	**-336.50**
105	105	12.20	-1667.29	-25.42	1000.59	0	-678.56	2.55	-744.80	2.55	-224.40	2.85	**-336.53**



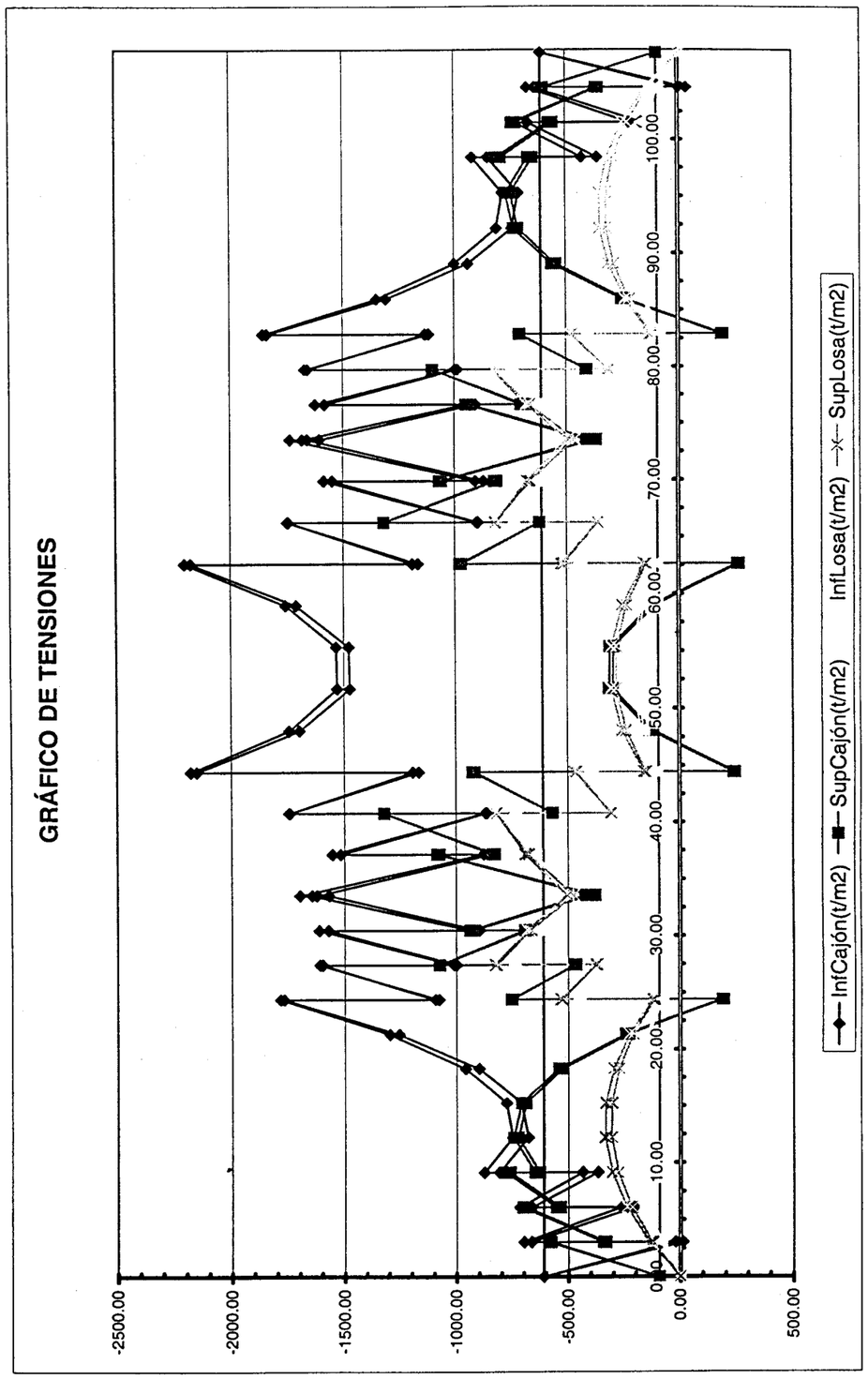
CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM2.T0.MZ+
CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	50.55	962.09	0	-709.18	2.55	-709.16	2.55	-222.67	2.85	-333.94
106	106	15.25	-1667.29	50.47	961.69	0	-709.41	2.55	-709.09	2.55	-222.61	2.85	-333.85
106	107	18.30	-1667.29	127.67	688.28	0	-900.99	2.55	-541.96	2.55	-198.22	2.85	-297.26
107	107	18.30	-1667.29	127.69	688.48	0	-900.87	2.55	-542.00	2.55	-198.25	2.85	-297.31
107	108	21.35	-1667.29	204.98	179.01	0	-1254.08	2.55	-243.18	2.55	-151.01	2.85	-226.47
108	108	21.35	-1667.29	205.27	179.33	0	-1253.90	2.55	-243.24	2.55	-151.06	2.85	-226.54
108	109	24.40	-1667.29	282.77	-568.08	0	-1769.78	2.55	187.54	2.55	-80.69	2.85	-121.01
109	109	24.40	-2473.95	282.27	559.22	0	-1076.37	2.55	-755.25	2.55	-451.81	2.85	-533.88
109	110	27.45	-2478.59	291.38	-300.53	0	-1609.89	2.55	-465.34	2.55	-343.28	2.85	-370.52
110	110	27.45	-3216.62	291.83	790.09	0	-1009.54	2.55	-1071.96	2.55	-734.75	2.85	-822.74
110	111	30.50	-3225.21	321.49	-143.09	0	-1613.18	2.55	-680.12	2.55	-628.89	2.85	-662.88
111	111	30.50	-2784.60	326.41	288.14	0	-938.67	2.55	-925.91	2.55	-630.35	2.85	-664.36
111	112	33.55	-2739.96	370.00	-804.89	0	-1644.51	2.55	-399.78	2.55	-499.41	2.85	-473.74
112	10112	33.55	-2776.21	-353.26	-839.80	0	-1698.62	2.55	-379.52	2.55	-499.89	2.85	-474.21
112	113	37.19	-2846.09	-299.84	398.20	0	-877.34	2.55	-1073.29	2.55	-640.20	2.85	-675.64
113	113	37.19	-3288.46	-293.82	-33.34	0	-1552.56	2.55	-827.98	2.55	-639.16	2.85	-674.55
113	114	40.82	-3245.79	-260.29	972.09	0	-868.51	2.55	-1318.85	2.55	-733.50	2.85	-821.53
114	114	40.82	-2543.56	-259.62	-391.40	0	-1746.48	2.55	-567.58	2.55	-289.65	2.85	-308.24
114	115	44.46	-2538.73	-230.13	521.49	0	-1165.04	2.55	-925.31	2.55	-397.88	2.85	-471.17
115	115	44.46	-2044.74	-229.50	-656.86	0	-2152.15	2.55	237.69	2.55	-107.03	2.85	-160.50
115	116	48.10	-2044.74	-137.07	7.85	0	-1697.19	2.55	-132.62	2.55	-171.41	2.85	-257.06
116	116	48.10	-2044.74	-136.93	7.58	0	-1697.34	2.55	-132.58	2.55	-171.37	2.85	-257.00
116	117	51.73	-2044.74	-44.19	336.31	0	-1472.36	2.55	-315.66	2.55	-203.22	2.85	-304.76
117	117	51.73	-2044.74	-44.31	336.21	0	-1472.41	2.55	-315.64	2.55	-203.20	2.85	-304.74
117	118	55.37	-2044.74	47.95	329.67	0	-1477.00	2.55	-311.62	2.55	-202.62	2.85	-303.87
118	118	55.37	-2044.74	47.83	329.76	0	-1476.95	2.55	-311.64	2.55	-202.64	2.85	-303.89
118	119	59.01	-2044.74	140.56	-12.08	0	-1711.13	2.55	-120.51	2.55	-169.62	2.85	-254.38
119	119	59.01	-2044.74	140.70	-11.81	0	-1710.97	2.55	-120.56	2.55	-169.66	2.85	-254.44
119	120	62.64	-2044.74	233.15	-689.74	0	-2175.20	2.55	257.85	2.55	-104.10	2.85	-156.12
120	120	62.64	-2677.92	233.81	597.17	0	-1164.21	2.55	-978.75	2.55	-445.40	2.85	-524.50
120	121	66.28	-2683.44	263.05	-320.08	0	-1748.54	2.55	-619.80	2.55	-336.78	2.85	-360.90
121	121	66.28	-3270.36	261.09	927.96	0	-901.74	2.55	-1316.18	2.55	-733.51	2.85	-818.38
121	122	69.91	-3280.62	303.36	-90.97	0	-1583.94	2.55	-812.53	2.55	-628.87	2.85	-660.13
122	122	69.91	-2838.03	303.26	340.56	0	-908.66	2.55	-1057.78	2.55	-629.86	2.85	-661.17
122	123	73.55	-2781.46	356.71	-899.70	0	-1735.43	2.55	-366.95	2.55	-492.73	2.85	-462.81
123	10123	73.55	-2745.19	-376.47	-865.17	0	-1681.53	2.55	-387.13	2.55	-492.19	2.85	-462.24
123	124	76.66	-2797.25	-326.45	273.36	0	-948.31	2.55	-935.72	2.55	-630.17	2.85	-662.47
124	124	76.66	-3237.69	-326.21	-158.21	0	-1622.97	2.55	-689.83	2.55	-628.62	2.85	-660.86
124	125	79.77	-3228.94	-296.14	809.03	0	-997.27	2.55	-1096.25	2.55	-738.34	2.85	-826.55
125	125	79.77	-2377.18	-295.74	-428.20	0	-1669.28	2.55	-408.23	2.55	-291.37	2.85	-310.16
125	126	82.88	-2373.05	-286.74	468.92	0	-1113.10	2.55	-709.90	2.55	-404.95	2.85	-481.02
126	126	82.88	-1735.92	-287.34	-583.24	0	-1837.22	2.55	191.42	2.55	-84.91	2.85	-127.34
126	127	85.99	-1735.92	-208.41	190.63	0	-1303.21	2.55	-254.13	2.55	-157.84	2.85	-236.71
127	127	85.99	-1735.92	-208.19	190.31	0	-1303.40	2.55	-254.07	2.55	-157.79	2.85	-236.64
127	128	89.10	-1735.92	-129.26	717.17	0	-938.32	2.55	-562.47	2.55	-206.73	2.85	-310.02
128	128	89.10	-1735.92	-129.29	716.97	0	-938.43	2.55	-562.44	2.55	-206.70	2.85	-309.98
128	129	92.21	-1735.92	-50.61	998.98	0	-741.07	2.55	-734.01	2.55	-231.97	2.85	-347.89
129	129	92.21	-1735.92	-50.76	998.75	0	-741.21	2.55	-733.97	2.55	-231.94	2.85	-347.83
129	130	95.32	-1735.92	26.80	1036.18	0	-711.38	2.55	-768.83	2.55	-233.59	2.85	-350.31
130	130	95.32	-1735.92	26.75	1036.19	0	-711.38	2.55	-768.83	2.55	-233.59	2.85	-350.31
130	131	98.43	-1735.92	105.78	827.06	0	-850.24	2.55	-666.57	2.55	-211.33	2.85	-316.92
131	131	98.43	-1392.78	106.07	1126.01	0	-359.36	2.55	-813.41	2.55	-211.39	2.85	-317.02
131	132	101.54	-1392.78	185.07	670.67	0	-666.70	2.55	-574.14	2.55	-165.25	2.85	-247.83
132	132	101.54	-1049.64	185.95	986.19	0	-161.09	2.55	-741.51	2.55	-165.33	2.85	-247.94
132	133	104.65	-1049.64	264.91	281.82	0	-638.52	2.55	-364.67	2.55	-94.91	2.85	-142.34
133	133	104.65	-603.55	266.60	713.37	0	37.81	2.55	-608.86	2.55	-95.01	2.85	-142.48
133	134	107.76	-603.55	242.18	-241.65	0	-610.61	2.55	-94.25	2.55	-0.05	2.85	-0.07



CÁLCULO TENSIONAL

Hipótesis de cálculo:

FRECUENTES1.T0.MZ+

TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [9; 1.1]PRETF3I.ISO.To + [9; 1.1]PRETF3I.HIP.To + [9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-299.11	-240.05	0	-609.70	2.55	-94.53	2.55	-0.29	2.85	-0.43
1	2	3.05	-603.55	-313.33	858.36	0	115.96	2.55	-619.35	2.55	-118.96	2.85	-178.40
2	2	3.05	-1049.64	-317.63	425.12	0	-561.34	2.55	-374.85	2.55	-118.61	2.85	-177.87
2	3	6.10	-1049.64	-209.91	1229.17	0	-30.53	2.55	-757.76	2.55	-205.65	2.85	-308.41
3	3	6.10	-1358.46	-216.96	943.74	0	-486.41	2.55	-606.88	2.55	-205.36	2.85	-307.98
3	4	9.15	-1358.46	-121.49	1459.73	0	-146.85	2.55	-849.01	2.55	-261.73	2.85	-392.52
4	4	9.15	-1667.29	-130.79	1189.66	0	-589.22	2.55	-716.67	2.55	-261.52	2.85	-392.20
4	5	12.20	-1667.29	-24.17	1430.74	0	-433.41	2.55	-820.29	2.55	-289.20	2.85	-433.71
5	5	12.20	-1667.29	-34.85	1430.00	0	-433.84	2.55	-820.16	2.55	-289.09	2.85	-433.54
5	6	15.25	-1667.29	60.34	1391.27	0	-464.58	2.55	-784.48	2.55	-287.32	2.85	-430.90
6	6	15.25	-1667.29	49.01	1391.13	0	-464.66	2.55	-784.46	2.55	-287.30	2.85	-430.86
6	7	18.30	-1667.29	149.09	1080.82	0	-677.27	2.55	-610.86	2.55	-257.35	2.85	-385.94
7	7	18.30	-1667.29	137.89	1081.28	0	-677.01	2.55	-610.94	2.55	-257.42	2.85	-386.05
7	8	21.35	-1667.29	238.01	499.75	0	-1071.28	2.55	-299.47	2.55	-199.33	2.85	-298.93
8	8	21.35	-1667.29	227.51	500.73	0	-1070.73	2.55	-299.64	2.55	-199.47	2.85	-299.15
8	9	24.40	-1667.29	328.68	-358.35	0	-1650.25	2.55	150.73	2.55	-112.28	2.85	-168.39
9	9	24.40	-2473.95	318.45	770.00	0	-956.24	2.55	-792.24	2.55	-483.56	2.85	-581.50
9	10	27.45	-2478.59	340.12	-238.17	0	-1574.35	2.55	-476.28	2.55	-352.67	2.85	-384.61
10	10	27.45	-3216.62	333.33	853.53	0	-973.39	2.55	-1083.10	2.55	-744.30	2.85	-837.07
10	11	30.50	-3225.21	349.50	-155.92	0	-1620.49	2.55	-677.87	2.55	-626.96	2.85	-659.98
11	11	30.50	-2784.59	345.41	275.48	0	-945.88	2.55	-923.69	2.55	-628.44	2.85	-661.50
11	12	33.55	-2739.96	351.73	-812.73	0	-1648.98	2.55	-398.41	2.55	-498.23	2.85	-471.97
12	10012	33.55	-2776.21	-324.29	-847.72	0	-1703.13	2.55	-378.13	2.55	-498.69	2.85	-472.43
12	13	37.19	-2846.09	-311.87	356.85	0	-900.90	2.55	-1066.04	2.55	-633.97	2.85	-666.30
13	13	37.19	-3288.46	-317.28	-74.50	0	-1576.01	2.55	-820.75	2.55	-632.95	2.85	-665.25
13	14	40.82	-3245.79	-291.97	1005.61	0	-849.41	2.55	-1324.73	2.55	-738.55	2.85	-829.10
14	14	40.82	-2543.56	-300.12	-359.06	0	-1728.05	2.55	-573.25	2.55	-294.52	2.85	-315.54
14	15	44.46	-2538.73	-261.01	673.16	0	-1078.60	2.55	-951.93	2.55	-420.73	2.85	-505.44
15	15	44.46	-2044.74	-272.58	-506.50	0	-2066.45	2.55	211.30	2.55	-129.68	2.85	-194.47
15	16	48.10	-2044.74	-151.78	257.59	0	-1554.85	2.55	-176.45	2.55	-209.03	2.85	-313.48
16	16	48.10	-2044.74	-165.34	256.51	0	-1555.47	2.55	-176.26	2.55	-208.87	2.85	-313.24
16	17	51.73	-2044.74	-43.76	634.27	0	-1302.54	2.55	-367.96	2.55	-248.11	2.85	-372.08
17	17	51.73	-2044.74	-58.23	633.91	0	-1302.75	2.55	-367.89	2.55	-248.05	2.85	-372.00
17	18	55.37	-2044.74	61.71	627.62	0	-1307.20	2.55	-363.91	2.55	-247.51	2.85	-371.19
18	18	55.37	-2044.74	47.24	628.00	0	-1306.98	2.55	-363.97	2.55	-247.57	2.85	-371.27
18	19	59.01	-2044.74	168.78	237.73	0	-1568.76	2.55	-164.35	2.55	-207.26	2.85	-310.82
19	19	59.01	-2044.74	155.21	238.79	0	-1568.15	2.55	-164.54	2.55	-207.42	2.85	-311.06
19	20	62.64	-2044.74	276.04	-537.83	0	-2088.63	2.55	231.19	2.55	-126.99	2.85	-190.44
20	20	62.64	-2677.92	264.44	750.39	0	-1076.89	2.55	-1005.64	2.55	-468.48	2.85	-559.12
20	21	66.28	-2683.44	303.49	-287.79	0	-1730.14	2.55	-625.47	2.55	-341.64	2.85	-368.19
21	21	66.28	-3270.36	292.36	961.44	0	-882.65	2.55	-1322.05	2.55	-738.55	2.85	-825.94
21	22	69.91	-3280.62	320.90	-133.99	0	-1608.45	2.55	-804.98	2.55	-622.39	2.85	-650.41
22	22	69.91	-2838.03	315.44	297.35	0	-933.28	2.55	-1050.20	2.55	-623.35	2.85	-651.41
22	23	73.55	-2781.46	327.89	-909.30	0	-1740.91	2.55	-365.26	2.55	-491.29	2.85	-460.64
23	10023	73.55	-2745.19	-358.04	-874.24	0	-1686.70	2.55	-385.54	2.55	-490.82	2.85	-460.19
23	24	76.66	-2797.25	-351.67	257.21	0	-957.52	2.55	-932.89	2.55	-627.74	2.85	-658.82
24	24	76.66	-3237.69	-355.84	-174.23	0	-1632.10	2.55	-687.02	2.55	-626.21	2.85	-657.25
24	25	79.77	-3228.94	-336.66	871.88	0	-961.45	2.55	-1107.28	2.55	-747.81	2.85	-840.74
25	25	79.77	-2377.18	-343.68	-366.46	0	-1634.10	2.55	-419.07	2.55	-300.67	2.85	-324.10
25	26	82.88	-2373.05	-323.49	683.97	0	-990.54	2.55	-747.65	2.55	-437.34	2.85	-529.60
26	26	82.88	-1735.92	-334.03	-369.28	0	-1715.28	2.55	153.87	2.55	-117.14	2.85	-175.68
26	27	85.99	-1735.92	-231.33	520.15	0	-1115.42	2.55	-311.96	2.55	-207.48	2.85	-311.15
27	27	85.99	-1735.92	-242.16	519.15	0	-1115.99	2.55	-311.79	2.55	-207.33	2.85	-310.92
27	28	89.10	-1735.92	-139.64	1121.11	0	-708.11	2.55	-633.37	2.55	-267.58	2.85	-401.28
28	28	89.10	-1735.92	-151.18	1120.62	0	-708.39	2.55	-633.28	2.55	-267.50	2.85	-401.17
28	29	92.21	-1735.92	-49.35	1440.86	0	-489.24	2.55	-811.56	2.55	-298.54	2.85	-447.71
29	29	92.21	-1735.92	-61.03	1441.01	0	-489.15	2.55	-811.59	2.55	-298.56	2.85	-447.75
29	30	95.32	-1735.92	36.45	1479.19	0	-458.90	2.55	-846.59	2.55	-300.33	2.85	-450.39
30	30	95.32	-1735.92	25.41	1479.68	0	-458.62	2.55	-846.67	2.55	-300.40	2.85	-450.50
30	31	98.43	-1735.92	128.38	1228.85	0	-621.25	2.55	-737.10	2.55	-271.85	2.85	-407.69
31	31	98.43	-1392.78	118.73	1528.80	0	-129.80	2.55	-884.11	2.55	-272.07	2.85	-408.01
31	32	101.54	-1392.78	221.42	990.76	0	-484.27	2.55	-630.31	2.55	-213.48	2.85	-320.15
32	32	101.54	-1049.64	214.23	1307.78	0	22.19	2.55	-797.94	2.55	-213.78	2.85	-320.60
32	33	104.65	-1049.64	317.04	469.92	0	-531.32	2.55	-397.69	2.55	-123.24	2.85	-184.83
33	33	104.65	-603.55	312.79	903.21	0	146.01	2.55	-642.19	2.55	-123.60	2.85	-185.37
33	34	107.76	-603.55	306.33	-239.96	0	-609.66	2.55	-94.54	2.55	-0.30	2.85	-0.45
101	101	0.00	-603.55	-265.55	-240.63	0	-610.03	2.55	-94.43	2.55	-0.20	2.85	-0.30
101	102	3.05	-603.55	-338.30	942.41	0	163.86	2.55	-634.10	2.55	-131.62	2.85	-197.39
102	102	3.05	-1049.64	-339.49	507.96	0	-514.13	2.55	-389.39	2.55	-131.09	2.85	-196.59
102	103	6.10	-1049.64	-225.53	1369.29	0	49.33	2.55	-782.37	2.55	-226.76	2.85	-340.07
103	103	6.10	-1358.46	-231.04	1082.88	0	-407.11	2.55	-631.31	2.55	-226.32	2.85	-339.41
103	104	9.15	-1358.46	-124.30	1633.24	0	-47.96	2.55	-879.46	2.55	-287.87	2.85	-431.71
104	104	9.15	-1667.29	-133.00	1362.50	0	-490.71	2.55	-747.01	2.55	-287.56	2.85	-431.25
104	105	12.20	-1667.29	-25.56	1617.67	0	-326.88	2.55	-853.10	2.55	-317.36	2.85	-475.94
105	105	12.20	-1667.29	-36.24	1616.89	0	-327.33	2.55	-852.96	2.55	-317.24	2.85	-475.76

CÁLCULO TENSIONAL

Hipótesis de cálculo:

FRECUENTES1.T0.MZ+

TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [95; 1.05]PRETF1D.ISO.To + [95; 1.05]PRETF1D.HIP.To + [9; 1.1]PRETF3I.ISO.To + [9; 1.1]PRETF3I.HIP.To + [9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	64.52	1573.66	0	-360.63	2.55	-816.49	2.55	-314.80	2.85	-472.10
106	106	15.25	-1667.29	53.03	1573.17	0	-360.91	2.55	-816.41	2.55	-314.73	2.85	-471.99
106	107	18.30	-1667.29	159.00	1241.40	0	-585.75	2.55	-639.04	2.55	-281.54	2.85	-422.22
107	107	18.30	-1667.29	147.85	1242.29	0	-585.24	2.55	-639.19	2.55	-281.67	2.85	-422.42
107	108	21.35	-1667.29	253.86	621.20	0	-1002.07	2.55	-320.79	2.55	-217.62	2.85	-326.36
108	108	21.35	-1667.29	244.02	622.89	0	-1001.10	2.55	-321.09	2.55	-217.88	2.85	-326.75
108	109	24.40	-1667.29	350.92	-296.92	0	-1615.24	2.55	139.95	2.55	-121.54	2.85	-182.27
109	109	24.40	-2473.95	342.14	832.28	0	-920.75	2.55	-803.17	2.55	-492.95	2.85	-595.57
109	110	27.45	-2478.59	361.25	-245.28	0	-1578.40	2.55	-475.03	2.55	-351.60	2.85	-383.00
110	110	27.45	-3216.62	356.17	847.01	0	-977.10	2.55	-1081.95	2.55	-743.32	2.85	-835.60
110	111	30.50	-3225.21	349.16	-226.13	0	-1660.51	2.55	-665.55	2.55	-616.38	2.85	-644.12
111	111	30.50	-2784.60	369.07	205.41	0	-985.82	2.55	-911.39	2.55	-617.89	2.85	-645.67
111	112	33.55	-2739.96	373.39	-952.28	0	-1728.51	2.55	-373.92	2.55	-477.20	2.85	-440.44
112	10112	33.55	-2776.21	-346.28	-987.37	0	-1782.73	2.55	-353.62	2.55	-477.66	2.85	-440.87
112	113	37.19	-2846.09	-334.49	296.50	0	-935.30	2.55	-1055.44	2.55	-624.88	2.85	-652.66
113	113	37.19	-3288.46	-313.21	-135.22	0	-1610.62	2.55	-810.09	2.55	-623.81	2.85	-651.53
113	114	40.82	-3245.79	-312.32	-1016.13	0	-843.42	2.55	-1326.58	2.55	-740.13	2.85	-831.47
114	114	40.82	-2543.56	-318.58	-349.21	0	-1722.44	2.55	-574.98	2.55	-296.00	2.85	-317.77
114	115	44.46	-2538.73	-279.85	754.26	0	-1032.38	2.55	-966.16	2.55	-432.95	2.85	-523.76
115	115	44.46	-2044.74	-290.20	-426.27	0	-2020.73	2.55	197.22	2.55	-141.76	2.85	-212.60
115	116	48.10	-2044.74	-162.35	389.08	0	-1479.91	2.55	-199.53	2.55	-228.84	2.85	-343.19
116	116	48.10	-2044.74	-175.67	387.39	0	-1480.88	2.55	-199.24	2.55	-228.59	2.85	-342.81
116	117	51.73	-2044.74	-46.94	789.59	0	-1214.02	2.55	-395.22	2.55	-271.50	2.85	-407.17
117	117	51.73	-2044.74	-61.72	789.00	0	-1214.36	2.55	-395.11	2.55	-271.41	2.85	-407.03
117	118	55.37	-2044.74	65.25	782.64	0	-1218.85	2.55	-391.12	2.55	-270.86	2.85	-406.20
118	118	55.37	-2044.74	50.49	783.22	0	-1218.52	2.55	-391.22	2.55	-270.95	2.85	-406.34
118	119	59.01	-2044.74	179.17	368.27	0	-1494.36	2.55	-187.26	2.55	-226.92	2.85	-340.31
119	119	59.01	-2044.74	165.87	369.96	0	-1493.40	2.55	-187.56	2.55	-227.17	2.85	-340.69
119	120	62.64	-2044.74	293.75	-458.30	0	-2043.30	2.55	217.24	2.55	-138.97	2.85	-208.40
120	120	62.64	-2677.92	283.43	830.78	0	-1031.07	2.55	-1019.75	2.55	-480.59	2.85	-577.28
120	121	66.28	-2683.44	322.08	-278.96	0	-1725.11	2.55	-627.02	2.55	-342.97	2.85	-370.19
121	121	66.28	-3270.36	312.87	970.93	0	-877.25	2.55	-1323.72	2.55	-739.98	2.85	-828.09
121	122	69.91	-3280.62	341.31	-196.61	0	-1644.14	2.55	-793.99	2.55	-612.96	2.85	-636.27
122	122	69.91	-2838.03	338.30	235.13	0	-968.74	2.55	-1039.28	2.55	-613.98	2.85	-637.35
122	123	73.55	-2781.46	350.03	-1050.41	0	-1821.32	2.55	-340.50	2.55	-470.03	2.85	-428.76
123	10123	73.55	-2745.19	-379.87	-1015.69	0	-1767.32	2.55	-360.71	2.55	-469.51	2.85	-428.24
123	124	76.66	-2797.25	-353.55	186.82	0	-997.63	2.55	-920.53	2.55	-617.14	2.85	-642.92
124	124	76.66	-3237.69	-355.27	-245.01	0	-1672.44	2.55	-674.59	2.55	-615.54	2.85	-641.25
124	125	79.77	-3228.94	-359.50	865.78	0	-964.93	2.55	-1106.21	2.55	-746.89	2.85	-839.37
125	125	79.77	-2377.18	-364.77	-373.18	0	-1637.93	2.55	-417.89	2.55	-299.66	2.85	-322.59
125	126	82.88	-2373.05	-347.22	748.61	0	-953.70	2.55	-758.99	2.55	-447.08	2.85	-544.20
126	126	82.88	-1735.92	-356.34	-305.53	0	-1678.95	2.55	142.68	2.55	-126.75	2.85	-190.08
126	127	85.99	-1735.92	-247.83	645.86	0	-1043.77	2.55	-334.03	2.55	-226.42	2.85	-339.55
127	127	85.99	-1735.92	-258.12	644.12	0	-1044.76	2.55	-333.72	2.55	-226.15	2.85	-339.16
127	128	89.10	-1735.92	-149.55	1286.47	0	-613.87	2.55	-662.39	2.55	-292.49	2.85	-438.64
128	128	89.10	-1735.92	-161.16	1285.55	0	-614.39	2.55	-662.23	2.55	-292.35	2.85	-438.43
128	129	92.21	-1735.92	-53.31	1628.19	0	-382.47	2.55	-844.44	2.55	-326.76	2.85	-490.03
129	129	92.21	-1735.92	-65.32	1628.05	0	-382.56	2.55	-844.42	2.55	-326.74	2.85	-490.00
129	130	95.32	-1735.92	37.86	1670.87	0	-349.66	2.55	-880.22	2.55	-329.20	2.85	-493.70
130	130	95.32	-1735.92	26.73	1671.81	0	-349.13	2.55	-880.38	2.55	-329.34	2.85	-493.91
130	131	98.43	-1735.92	135.74	1406.86	0	-519.80	2.55	-768.33	2.55	-298.67	2.85	-447.91
131	131	98.43	-1392.78	126.69	1707.60	0	-27.90	2.55	-915.48	2.55	-299.00	2.85	-448.41
131	132	101.54	-1392.78	235.55	1134.11	0	-402.57	2.55	-655.48	2.55	-235.07	2.85	-352.53
132	132	101.54	-1049.64	229.92	1452.13	0	104.46	2.55	-823.29	2.55	-235.52	2.85	-353.21
132	133	104.65	-1049.64	338.59	555.17	0	-482.74	2.55	-412.64	2.55	-136.09	2.85	-204.09
133	133	104.65	-603.55	337.55	989.73	0	195.32	2.55	-657.37	2.55	-136.64	2.85	-204.91
133	134	107.76	-603.55	271.70	-240.57	0	-610.00	2.55	-94.44	2.55	-0.21	2.85	-0.31

CÁLCULO TENSIONAL

Hipótesis de cálculo:

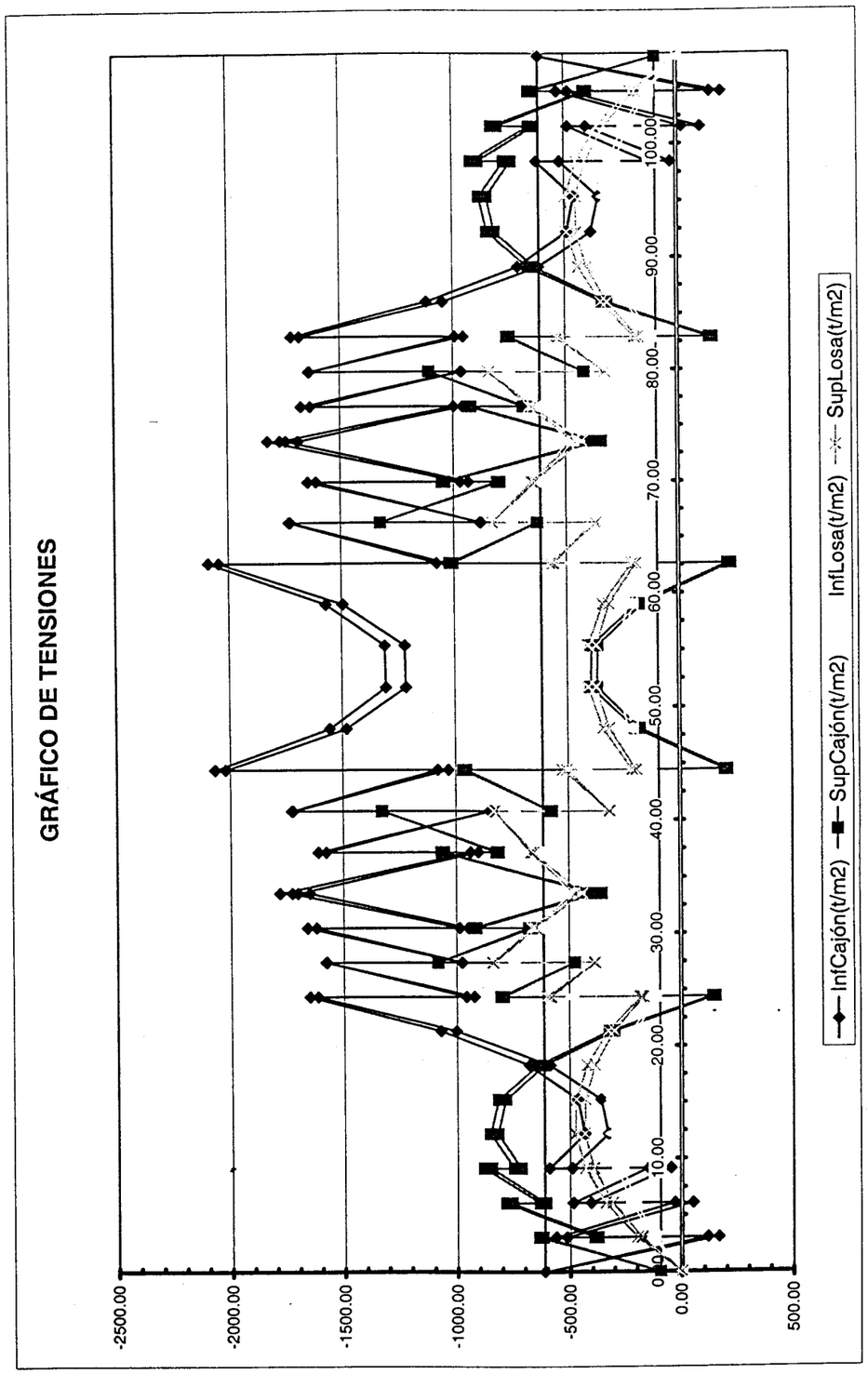
FRECUENTES1.T0.MZ-

TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-667.09	-360.30	-268.73	0	-675.83	2.55	-103.88	2.55	0.20	2.85	0.30
1	2	3.05	-667.09	-150.67	271.77	0	-271.00	2.55	-521.23	2.55	-35.78	2.85	-53.65
2	2	3.05	-1160.12	-151.08	-204.35	0	-1018.04	2.55	-251.48	2.55	-35.80	2.85	-53.68
2	3	6.10	-1160.12	-96.90	176.83	0	-731.09	2.55	-550.62	2.55	-60.49	2.85	-90.71
3	3	6.10	-1501.46	-99.19	-136.39	0	-1233.67	2.55	-384.25	2.55	-60.51	2.85	-90.74
3	4	9.15	-1501.46	-43.33	81.04	0	-1067.14	2.55	-564.42	2.55	-73.25	2.85	-109.85
4	4	9.15	-1842.79	-44.03	-215.25	0	-1554.81	2.55	-418.55	2.55	-73.35	2.85	-110.00
4	5	12.20	-1842.79	11.26	-165.27	0	-1510.79	2.55	-479.08	2.55	-73.58	2.85	-110.35
5	5	12.20	-1842.79	11.33	-164.79	0	-1510.52	2.55	-479.16	2.55	-73.66	2.85	-110.46
5	6	15.25	-1842.79	66.62	-283.66	0	-1589.80	2.55	-419.86	2.55	-61.17	2.85	-91.73
6	6	15.25	-1842.79	67.18	-283.38	0	-1589.64	2.55	-419.91	2.55	-61.21	2.85	-91.79
6	7	18.30	-1842.79	122.50	-572.60	0	-1793.10	2.55	-240.46	2.55	-35.78	2.85	-53.65
7	7	18.30	-1842.79	123.39	-572.52	0	-1793.05	2.55	-240.47	2.55	-35.79	2.85	-53.67
7	8	21.35	-1842.79	178.65	-1033.06	0	-2121.24	2.55	59.31	2.55	2.73	2.85	4.10
8	8	21.35	-1842.79	179.55	-1033.21	0	-2121.32	2.55	59.33	2.55	2.75	2.85	4.13
8	9	24.40	-1842.79	235.22	-1665.89	0	-2574.68	2.55	479.53	2.55	54.49	2.85	81.72
9	9	24.40	-2385.17	236.99	-668.20	0	-1832.23	2.55	-456.25	2.55	-222.32	2.85	-219.57
9	10	27.45	-2388.96	375.76	-1597.26	0	-2405.00	2.55	-153.92	2.55	-103.13	2.85	-40.34
10	10	27.45	-2880.85	375.30	-624.67	0	-1776.89	2.55	-686.28	2.55	-417.25	2.85	-404.08
10	11	30.50	-2887.87	491.64	-1953.82	0	-2605.73	2.55	-224.48	2.55	-251.34	2.85	-154.36
11	11	30.50	-2389.35	489.94	-1477.66	0	-1857.01	2.55	-492.59	2.55	-249.91	2.85	-152.92
11	12	33.55	-2352.84	646.03	-3224.62	0	-2937.98	2.55	145.86	2.55	-22.55	2.85	183.34
12	10012	33.55	-2388.86	-627.76	-3263.12	0	-2996.52	2.55	169.46	2.55	-22.05	2.85	183.84
12	13	37.19	-2446.03	-449.33	-1263.13	0	-1737.16	2.55	-654.23	2.55	-273.88	2.85	-186.46
13	13	37.19	-2942.78	-450.87	-1739.37	0	-2485.38	2.55	-385.56	2.55	-274.84	2.85	-187.42
13	14	40.82	-2966.83	-317.42	-328.59	0	-1590.36	2.55	-967.62	2.55	-447.45	2.85	-443.18
14	14	40.82	-2530.19	-318.36	-1570.67	0	-2511.73	2.55	-285.73	2.55	-84.31	2.85	-23.24
14	15	44.46	-2526.23	-170.02	-713.88	0	-1962.53	2.55	-633.88	2.55	-184.32	2.85	-173.73
15	15	44.46	-2259.98	-169.15	-1797.07	0	3023.18	2.55	564.20	2.55	27.06	2.85	40.58
15	16	48.10	-2259.98	-102.53	-1302.97	0	-2665.45	2.55	223.85	2.55	-11.63	2.85	-17.44
16	16	48.10	-2259.98	-100.99	-1302.66	0	-2665.28	2.55	223.80	2.55	-11.67	2.85	-17.51
16	17	51.73	-2259.98	-35.11	-1055.14	0	-2486.58	2.55	54.98	2.55	-31.29	2.85	-46.93
17	17	51.73	-2259.98	-33.42	-1055.08	0	-2486.55	2.55	54.97	2.55	-31.30	2.85	-46.94
17	18	55.37	-2259.98	38.04	-1064.52	0	-2492.80	2.55	59.54	2.55	-30.29	2.85	-45.43
18	18	55.37	-2259.98	39.78	-1064.56	0	-2492.82	2.55	59.54	2.55	-30.28	2.85	-45.42
18	19	59.01	-2259.98	105.68	-1328.89	0	-2682.83	2.55	237.08	2.55	-8.95	2.85	-13.42
19	19	59.01	-2259.98	107.24	-1329.18	0	-2683.00	2.55	237.13	2.55	-8.90	2.85	-13.35
19	20	62.64	-2259.98	173.84	-1840.35	0	-3052.19	2.55	586.30	2.55	31.53	2.85	47.29
20	20	62.64	-2640.12	174.82	-668.30	0	-1971.25	2.55	-674.44	2.55	-220.78	2.85	-213.73
20	21	66.28	-2644.64	323.19	-1548.08	0	-2533.92	2.55	-321.76	2.55	-117.55	2.85	-58.34
21	21	66.28	-2927.38	325.34	-400.52	0	-1620.20	2.55	-940.83	2.55	-426.77	2.85	-417.24
21	22	69.91	-2935.77	455.63	-1827.67	0	-2534.49	2.55	-364.98	2.55	-260.15	2.85	-166.29
22	22	69.91	-2439.24	454.14	-1351.45	0	-1786.34	2.55	-633.72	2.55	-259.24	2.85	-165.38
22	23	73.55	-2392.96	632.34	-3355.03	0	-3051.23	2.55	188.00	2.55	-9.78	2.85	202.78
23	10023	73.55	-2356.99	-656.04	-3316.45	0	-2992.65	2.55	164.38	2.55	-10.30	2.85	202.24
23	24	76.66	-2399.59	-497.14	-1501.48	0	-1871.08	2.55	-500.09	2.55	-247.75	2.85	-148.36
24	24	76.66	-2898.27	-498.79	-1977.67	0	-2619.86	2.55	-232.02	2.55	-249.21	2.85	-149.83
24	25	79.77	-2891.10	-380.32	-601.28	0	-1761.45	2.55	-710.73	2.55	-420.98	2.85	-408.36
25	25	79.77	-2316.94	-380.74	-1702.83	0	-2462.96	2.55	-107.26	2.55	-61.70	2.85	7.64
25	26	82.88	-2313.55	-239.53	-747.00	0	-1873.55	2.55	-419.46	2.55	-184.31	2.85	-176.68
26	26	82.88	-1918.64	-237.69	-1691.75	0	-2654.72	2.55	486.42	2.55	51.06	2.85	76.57
26	27	85.99	-1918.64	-180.95	-1040.70	0	-2187.88	2.55	53.01	2.55	-2.04	2.85	-3.06
27	27	85.99	-1918.64	-179.97	-1040.58	0	-2187.81	2.55	52.99	2.55	-2.06	2.85	-3.09
27	28	89.10	-1918.64	-123.63	-568.52	0	-1851.14	2.55	-255.22	2.55	-41.41	2.85	-62.11
28	28	89.10	-1918.64	-122.72	-568.59	0	-1851.18	2.55	-255.20	2.55	-41.40	2.85	-62.09
28	29	92.21	-1918.64	-66.32	-274.67	0	-1644.20	2.55	-438.30	2.55	-67.15	2.85	-100.70
29	29	92.21	-1918.64	-65.72	-274.92	0	-1644.34	2.55	-438.25	2.55	-67.11	2.85	-100.64
29	30	95.32	-1918.64	-9.39	-158.05	0	-1566.42	2.55	-496.48	2.55	-79.40	2.85	-119.07
30	30	95.32	-1918.64	-9.34	-158.69	0	-1566.78	2.55	-496.37	2.55	-79.30	2.85	-118.93
30	31	98.43	-1918.64	47.08	-217.27	0	-1617.01	2.55	-429.96	2.55	-78.39	2.85	-117.56
31	31	98.43	-1539.38	46.38	112.00	0	-1075.12	2.55	-592.05	2.55	-78.29	2.85	-117.40
31	32	101.54	-1539.38	102.93	-123.27	0	-1254.21	2.55	-400.81	2.55	-63.98	2.85	-95.94
32	32	101.54	-1160.12	102.71	224.80	0	-695.76	2.55	-585.68	2.55	-63.96	2.85	-95.92
32	33	104.65	-1160.12	155.87	-177.28	0	-998.07	2.55	-271.34	2.55	-37.75	2.85	-56.61
33	33	104.65	-667.09	155.44	298.80	0	-251.06	2.55	-541.08	2.55	-37.72	2.85	-56.56
33	34	107.76	-667.09	370.35	-268.79	0	-675.86	2.55	-103.87	2.55	0.21	2.85	0.31
101	101	0.00	-667.09	-438.59	-269.31	0	-676.16	2.55	-103.78	2.55	0.29	2.85	0.43
101	102	3.05	-667.09	-159.45	307.43	0	-250.67	2.55	-527.49	2.55	-41.15	2.85	-61.71
102	102	3.05	-1160.12	-160.81	-168.49	0	-997.60	2.55	-257.77	2.55	-41.20	2.85	-61.79
102	103	6.10	-1160.12	-102.76	233.33	0	-698.89	2.55	-560.55	2.55	-69.00	2.85	-103.48
103	103	6.10	-1501.46	-103.55	-79.67	0	-1201.34	2.55	-394.22	2.55	-69.05	2.85	-103.56
103	104	9.15	-1501.46	-45.62	147.82	0	-1029.08	2.55	-576.14	2.55	-83.31	2.85	-124.93
104	104	9.15	-1842.79	-45.93	-148.77	0	-1516.92	2.55	-430.21	2.55	-83.36	2.85	-125.02
104	105	12.20	-1842.79	12.08	-97.14	0	-1471.96	2.55	-491.03	2.55	-83.85	2.85	-125.74
105	105	12.20	-1842.79	12.31	-96.59	0	-1471.65	2.55	-491.13	2.55	-83.93	2.85	-125.87



CÁLCULO TENSIONAL

Hipótesis de cálculo:

FR[illegible]ENTES1.T0.MZ-

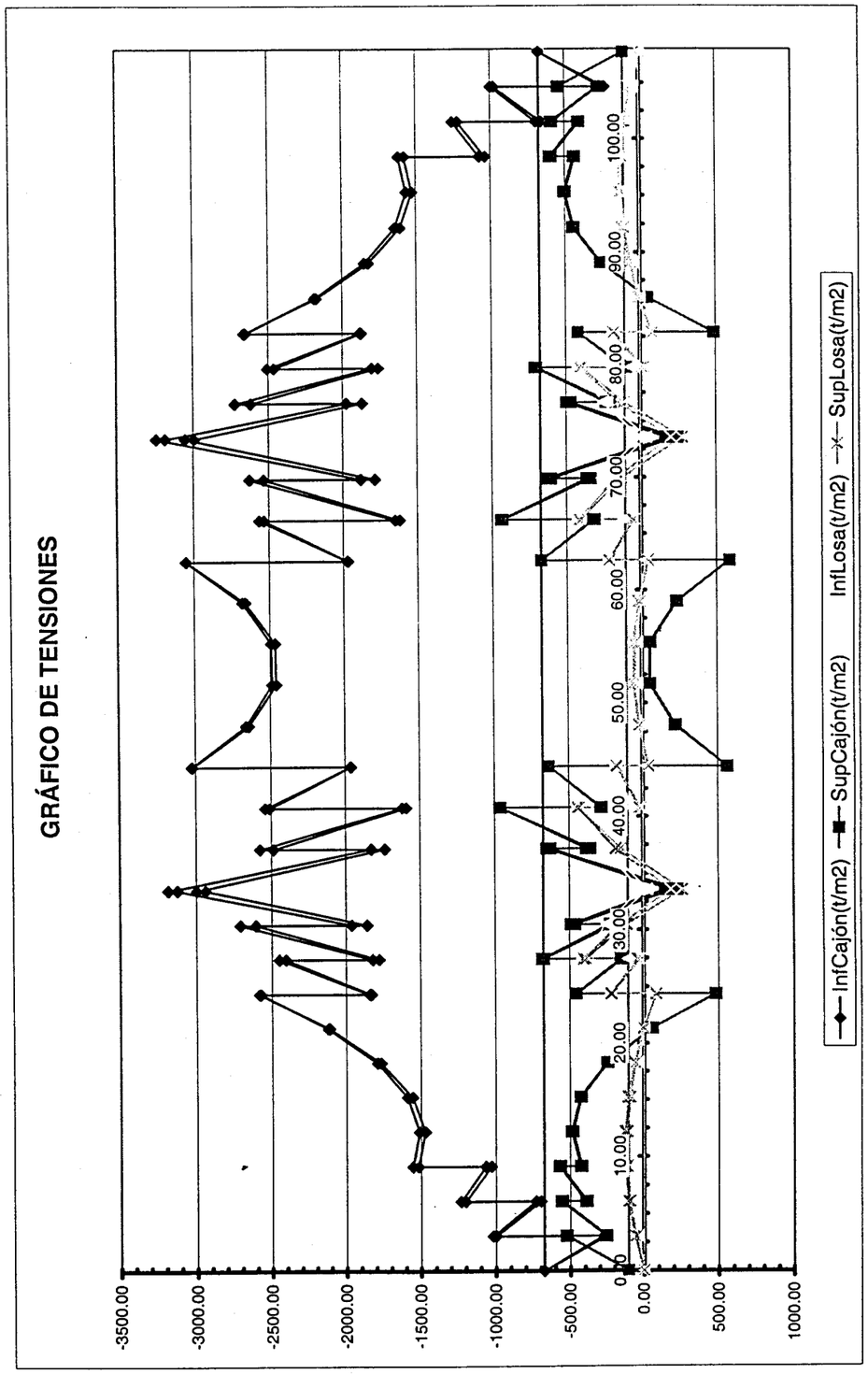
TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I ISO.To + [.95; 1.05]PRETF1I HIP.To + [.95; 1.05]PRETF1D ISO.To + [.95; 1.05]PRETF1D HIP.To + [9; 1.1]PRETF3I ISO.To + [9; 1.1]PRETF3I HIP.To + [9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1842.79	70.32	-222.77	0	-1555.10	2.55	-430.55	2.55	-70.34	2.85	-105.49
106	106	15.25	-1842.79	71.07	-222.70	0	-1555.06	2.55	-430.56	2.55	-70.35	2.85	-105.50
106	107	18.30	-1842.79	129.11	-527.62	0	-1767.46	2.55	-248.35	2.55	-42.55	2.85	-63.82
107	107	18.30	-1842.79	130.43	-527.27	0	-1767.26	2.55	-248.41	2.55	-42.61	2.85	-63.89
107	108	21.35	-1842.79	188.40	-1013.44	0	-2110.05	2.55	55.86	2.55	-0.23	2.85	-0.34
108	108	21.35	-1842.79	190.19	-1013.19	0	-2109.91	2.55	55.82	2.55	-0.26	2.85	-0.39
108	109	24.40	-1842.79	248.83	-1681.94	0	-2583.83	2.55	482.35	2.55	56.91	2.85	85.35
109	109	24.40	-2385.17	252.05	-683.80	0	-1841.12	2.55	-453.51	2.55	-219.97	2.85	-216.05
109	110	27.45	-2388.96	402.31	-1675.61	0	-2449.65	2.55	-140.17	2.55	-91.33	2.85	-22.64
110	110	27.45	-2880.85	404.60	-702.33	0	-1821.15	2.55	-672.65	2.55	-405.55	2.85	-386.53
110	111	30.50	-2887.87	550.69	-2135.19	0	-2709.09	2.55	-192.65	2.55	-224.02	2.85	-113.39
111	111	30.50	-2389.36	530.71	-1658.35	0	-1959.99	2.55	-460.88	2.55	-222.69	2.85	-112.10
111	112	33.55	-2352.84	697.52	-3550.06	0	-3123.45	2.55	202.98	2.55	26.47	2.85	256.86
112	10112	33.55	-2388.86	-677.96	-3588.71	0	-3182.08	2.55	226.60	2.55	27.00	2.85	257.40
112	113	37.19	-2446.03	-487.49	-1423.60	0	-1828.61	2.55	-626.07	2.55	-249.71	2.85	-150.20
113	113	37.19	-2942.78	-508.96	-1900.46	0	-2577.19	2.55	-357.29	2.55	-250.57	2.85	-151.03
113	114	40.82	-2966.83	-342.89	-379.77	0	-1619.53	2.55	-958.64	2.55	-439.74	2.85	-431.62
114	114	40.82	-2530.19	-340.77	-1622.63	0	-2541.34	2.55	-276.61	2.55	-76.49	2.85	-11.50
114	115	44.46	-2526.23	-181.65	-708.14	0	-1959.25	2.55	-634.89	2.55	-185.19	2.85	-175.03
115	115	44.46	-2259.98	-179.12	-1791.82	0	-3020.18	2.55	563.27	2.55	26.27	2.85	39.39
115	116	48.10	-2259.98	-109.16	-1268.03	0	-2645.54	2.55	217.72	2.55	-16.89	2.85	-25.33
116	116	48.10	-2259.98	-106.60	-1268.07	0	-2645.56	2.55	217.72	2.55	-16.89	2.85	-25.32
116	117	51.73	-2259.98	-37.49	-1006.02	0	-2458.59	2.55	46.36	2.55	-38.69	2.85	-58.03
117	117	51.73	-2259.98	-35.15	-1006.08	0	-2458.62	2.55	46.37	2.55	-38.68	2.85	-58.01
117	118	55.37	-2259.98	39.92	-1015.85	0	-2465.06	2.55	50.98	2.55	-37.62	2.85	-56.42
118	118	55.37	-2259.98	42.32	-1015.77	0	-2465.01	2.55	50.97	2.55	-37.63	2.85	-56.44
118	119	59.01	-2259.98	111.45	-1295.25	0	-2663.66	2.55	231.17	2.55	-14.02	2.85	-21.02
119	119	59.01	-2259.98	114.07	-1295.18	0	-2663.62	2.55	231.16	2.55	-14.02	2.85	-21.03
119	120	62.64	-2259.98	184.01	-1836.76	0	-3050.15	2.55	585.67	2.55	30.99	2.85	46.48
120	120	62.64	-2640.12	186.73	-664.28	0	-1968.96	2.55	-675.15	2.55	-221.39	2.85	-214.64
120	121	66.28	-2644.64	345.88	-1602.89	0	-2565.16	2.55	-312.14	2.55	-109.29	2.85	-45.95
121	121	66.28	-2927.38	351.18	-454.59	0	-1651.01	2.55	-931.35	2.55	-418.62	2.85	-405.03
121	122	69.91	-2935.77	489.83	-1992.71	0	-2628.55	2.55	-336.02	2.55	-235.29	2.85	-129.01
122	122	69.91	-2439.24	492.78	-1515.93	0	-1880.08	2.55	-604.85	2.55	-234.46	2.85	-128.22
122	123	73.55	-2392.96	683.00	-3685.65	0	-3239.66	2.55	246.03	2.55	40.03	2.85	277.47
123	10123	73.55	-2356.99	-707.91	-3647.57	0	-3181.37	2.55	222.49	2.55	39.58	2.85	277.05
123	124	76.66	-2399.59	-560.04	-1683.79	0	-1974.99	2.55	-468.09	2.55	-220.28	2.85	-107.17
124	124	76.66	-2898.27	-558.39	-2161.16	0	-2724.43	2.55	-199.81	2.55	-221.57	2.85	-108.38
124	125	79.77	-2891.10	-409.67	-678.01	0	-1805.19	2.55	-697.26	2.55	-409.42	2.85	-391.02
125	125	79.77	-2316.94	-407.29	-1780.29	0	-2507.11	2.55	-93.66	2.55	-50.03	2.85	25.14
125	126	82.88	-2313.55	-254.50	-760.91	0	-1881.48	2.55	-417.02	2.55	-182.22	2.85	-173.54
126	126	82.88	-1918.64	-251.21	-1706.15	0	-2662.92	2.55	488.95	2.55	53.22	2.85	79.82
126	127	85.99	-1918.64	-191.48	-1018.61	0	-2175.29	2.55	49.13	2.55	-5.37	2.85	-8.05
127	127	85.99	-1918.64	-189.66	-1018.87	0	-2175.44	2.55	49.18	2.55	-5.33	2.85	-7.99
127	128	89.10	-1918.64	-130.55	-520.99	0	-1824.06	2.55	-263.56	2.55	-48.57	2.85	-72.84
128	128	89.10	-1918.64	-129.29	-521.34	0	-1824.25	2.55	-263.50	2.55	-48.52	2.85	-72.77
128	129	92.21	-1918.64	-70.10	-211.30	0	-1608.09	2.55	-449.42	2.55	-76.69	2.85	-115.01
129	129	92.21	-1918.64	-69.40	-211.81	0	-1608.38	2.55	-449.33	2.55	-76.62	2.85	-114.90
129	130	95.32	-1918.64	-10.31	-87.69	0	-1526.32	2.55	-508.82	2.55	-90.00	2.85	-134.97
130	130	95.32	-1918.64	-10.15	-88.14	0	-1526.57	2.55	-508.74	2.55	-89.93	2.85	-134.87
130	131	98.43	-1918.64	49.05	-148.60	0	-1577.88	2.55	-442.00	2.55	-88.73	2.85	-133.07
131	131	98.43	-1539.38	48.69	181.04	0	-1035.77	2.55	-604.16	2.55	-88.69	2.85	-133.00
131	132	101.54	-1539.38	107.76	-62.29	0	-1219.45	2.55	-411.52	2.55	-73.16	2.85	-109.72
132	132	101.54	-1160.12	106.94	285.53	0	-661.14	2.55	-596.35	2.55	-73.11	2.85	-109.64
132	133	104.65	-1160.12	165.47	-139.54	0	-976.57	2.55	-277.95	2.55	-43.43	2.85	-65.14
133	133	104.65	-667.09	164.75	336.98	0	-229.30	2.55	-547.77	2.55	-43.47	2.85	-65.19
133	134	107.76	-667.09	447.03	-269.40	0	-676.21	2.55	-103.76	2.55	0.30	2.85	0.45

GRÁFICO DE TENSIONES



CÁLCULO TENSIONAL

Hipótesis de cálculo:
FRECUENTES2.T0.MZ+
TREN DOMINANTE CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-299.11	-240.05	0	-609.70	2.55	-94.53	2.55	-0.29	2.85	-0.43
1	2	3.05	-603.55	-318.81	875.09	0	125.49	2.55	-622.28	2.55	-121.48	2.85	-182.18
2	2	3.05	-1049.64	-323.11	441.85	0	-551.81	2.55	-377.79	2.55	-121.13	2.85	-181.65
2	3	6.10	-1049.64	-215.40	1262.63	0	-11.46	2.55	-763.64	2.55	-210.69	2.85	-315.97
3	3	6.10	-1358.46	-222.45	977.20	0	-467.34	2.55	-612.75	2.55	-210.40	2.85	-315.54
3	4	9.15	-1358.46	-126.98	1509.92	0	-118.24	2.55	-857.82	2.55	-269.29	2.85	-403.85
4	4	9.15	-1667.29	-136.27	1239.85	0	-560.61	2.55	-725.48	2.55	-269.08	2.85	-403.54
4	5	12.20	-1667.29	-29.65	1497.66	0	-395.28	2.55	-832.04	2.55	-299.28	2.85	-448.83
5	5	12.20	-1667.29	-40.34	1496.92	0	-395.70	2.55	-831.91	2.55	-299.17	2.85	-448.66
5	6	15.25	-1667.29	54.85	1474.92	0	-416.91	2.55	-799.16	2.55	-299.93	2.85	-449.79
6	6	15.25	-1667.29	43.53	1474.78	0	-416.99	2.55	-799.14	2.55	-299.91	2.85	-449.76
6	7	18.30	-1667.29	143.61	1181.21	0	-620.06	2.55	-628.47	2.55	-272.47	2.85	-408.62
7	7	18.30	-1667.29	132.41	1181.67	0	-619.80	2.55	-628.55	2.55	-272.54	2.85	-408.72
7	8	21.35	-1667.29	232.52	616.86	0	-1004.54	2.55	-320.03	2.55	-216.97	2.85	-325.38
8	8	21.35	-1667.29	222.03	617.84	0	-1003.98	2.55	-320.20	2.55	-217.12	2.85	-325.60
8	9	24.40	-1667.29	323.19	-224.51	0	-1573.97	2.55	127.24	2.55	-132.45	2.85	-198.63
9	9	24.40	-2473.95	312.96	903.84	0	-879.96	2.55	-815.73	2.55	-503.73	2.85	-611.73
9	10	27.45	-2478.59	334.63	-87.60	0	-1488.53	2.55	-502.71	2.55	-375.36	2.85	-418.62
10	10	27.45	-3216.62	327.85	1004.10	0	-887.57	2.55	-1109.52	2.55	-766.99	2.85	-871.09
10	11	30.50	-3225.21	344.01	11.39	0	-1525.14	2.55	-707.24	2.55	-652.16	2.85	-697.78
11	11	30.50	-2784.59	339.93	442.79	0	-850.53	2.55	-953.05	2.55	-653.64	2.85	-699.30
11	12	33.55	-2739.96	346.25	-628.70	0	-1544.10	2.55	-430.71	2.55	-525.95	2.85	-513.55
12	10012	33.55	-2776.21	-324.31	-663.68	0	-1598.25	2.55	-410.43	2.55	-526.42	2.85	-514.00
12	13	37.19	-2846.09	-311.88	540.94	0	-795.99	2.55	-1098.35	2.55	-661.71	2.85	-707.89
13	13	37.19	-3288.46	-317.29	109.59	0	-1471.10	2.55	-853.06	2.55	-660.69	2.85	-706.84
13	14	40.82	-3245.79	-291.98	1189.76	0	-744.46	2.55	-1357.05	2.55	-766.29	2.85	-870.70
14	14	40.82	-2543.56	-300.13	-174.91	0	-1623.10	2.55	-605.57	2.55	-322.26	2.85	-357.14
14	15	44.46	-2538.73	-261.03	857.36	0	-973.63	2.55	-984.25	2.55	-448.48	2.85	-547.05
15	15	44.46	-2044.74	-272.59	-322.30	0	-1961.47	2.55	178.97	2.55	-157.43	2.85	-236.09
15	16	48.10	-2044.74	-151.80	441.85	0	-1449.84	2.55	-208.79	2.55	-236.79	2.85	-355.11
16	16	48.10	-2044.74	-165.36	440.77	0	-1450.46	2.55	-208.60	2.55	-236.63	2.85	-354.87
16	17	51.73	-2044.74	-43.78	818.59	0	-1197.50	2.55	-400.31	2.55	-275.87	2.85	-413.72
17	17	51.73	-2044.74	-58.24	818.22	0	-1197.71	2.55	-400.24	2.55	-275.82	2.85	-413.64
17	18	55.37	-2044.74	61.69	811.99	0	-1202.12	2.55	-396.26	2.55	-275.28	2.85	-412.84
18	18	55.37	-2044.74	47.23	812.37	0	-1201.91	2.55	-396.33	2.55	-275.34	2.85	-412.92
18	19	59.01	-2044.74	168.77	422.16	0	-1463.65	2.55	-196.72	2.55	-235.04	2.85	-352.48
19	19	59.01	-2044.74	155.19	423.22	0	-1463.05	2.55	-196.91	2.55	-235.20	2.85	-352.72
19	20	62.64	-2044.74	276.02	-353.35	0	-1983.49	2.55	198.82	2.55	-154.78	2.85	-232.11
20	20	62.64	-2677.92	264.43	934.87	0	-971.75	2.55	-1038.02	2.55	-496.27	2.85	-600.80
20	21	66.28	-2683.44	303.48	-103.26	0	-1624.97	2.55	-657.85	2.55	-369.44	2.85	-409.88
21	21	66.28	-3270.36	292.34	1145.98	0	-777.48	2.55	-1354.44	2.55	-766.35	2.85	-867.63
21	22	69.91	-3280.62	320.88	50.60	0	-1503.25	2.55	-837.38	2.55	-650.20	2.85	-692.11
22	22	69.91	-2838.03	315.42	481.94	0	-828.08	2.55	-1082.60	2.55	-651.16	2.85	-693.11
22	23	73.55	-2781.46	327.88	-724.66	0	-1635.67	2.55	-397.67	2.55	-519.10	2.85	-502.35
23	10023	73.55	-2745.19	-352.64	-689.60	0	-1581.47	2.55	-417.95	2.55	-518.64	2.85	-501.91
23	24	76.66	-2797.25	-346.27	425.07	0	-861.85	2.55	-962.35	2.55	-653.03	2.85	-696.74
24	24	76.66	-3237.69	-350.44	-6.37	0	-1536.43	2.55	-716.48	2.55	-651.49	2.85	-695.17
24	25	79.77	-3228.94	-331.26	1022.96	0	-875.35	2.55	-1133.80	2.55	-770.57	2.85	-874.88
25	25	79.77	-2377.18	-338.28	-215.38	0	-1548.00	2.55	-445.58	2.55	-323.43	2.85	-358.24
25	26	82.88	-2373.05	-318.10	818.26	0	-914.00	2.55	-771.21	2.55	-457.57	2.85	-559.94
26	26	82.88	-1735.92	-328.63	-234.99	0	-1638.75	2.55	130.30	2.55	-137.37	2.85	-206.01
26	27	85.99	-1735.92	-225.94	637.66	0	-1048.45	2.55	-332.59	2.55	-225.18	2.85	-337.70
27	27	85.99	-1735.92	-236.77	636.65	0	-1049.02	2.55	-332.41	2.55	-225.03	2.85	-337.47
27	28	89.10	-1735.92	-134.25	1221.82	0	-650.71	2.55	-651.04	2.55	-282.75	2.85	-424.03
28	28	89.10	-1735.92	-145.79	1221.34	0	-650.99	2.55	-650.96	2.55	-282.68	2.85	-423.92
28	29	92.21	-1735.92	-43.95	1524.79	0	-441.40	2.55	-826.30	2.55	-311.18	2.85	-466.68
29	29	92.21	-1735.92	-55.63	1524.94	0	-441.32	2.55	-826.32	2.55	-311.21	2.85	-466.71
29	30	95.32	-1735.92	41.84	1546.33	0	-420.63	2.55	-858.37	2.55	-310.44	2.85	-465.56
30	30	95.32	-1735.92	30.81	1546.83	0	-420.35	2.55	-858.46	2.55	-310.51	2.85	-465.67
30	31	98.43	-1735.92	133.78	1279.21	0	-592.55	2.55	-745.94	2.55	-279.44	2.85	-419.07
31	31	98.43	-1392.78	124.13	1579.16	0	-101.10	2.55	-892.95	2.55	-279.65	2.85	-419.39
31	32	101.54	-1392.78	226.82	1024.33	0	-465.14	2.55	-636.21	2.55	-218.53	2.85	-327.73
32	32	101.54	-1049.64	219.62	1341.35	0	41.32	2.55	-803.83	2.55	-218.83	2.85	-328.18
32	33	104.65	-1049.64	322.44	486.70	0	-521.75	2.55	-400.64	2.55	-125.77	2.85	-188.62
33	33	104.65	-603.55	318.19	920.00	0	155.58	2.55	-645.14	2.55	-126.13	2.85	-189.16
33	34	107.76	-603.55	306.33	-239.96	0	-609.66	2.55	-94.54	2.55	-0.30	2.85	-0.45
101	101	0.00	-603.55	-265.55	-240.63	0	-610.03	2.55	-94.43	2.55	-0.20	2.85	-0.30
101	102	3.05	-603.55	-343.79	959.14	0	173.40	2.55	-637.04	2.55	-134.14	2.85	-201.17
102	102	3.05	-1049.64	-344.98	524.69	0	-504.59	2.55	-392.33	2.55	-133.61	2.85	-200.37
102	103	6.10	-1049.64	-231.01	1402.75	0	68.40	2.55	-788.24	2.55	-231.80	2.85	-347.63
103	103	6.10	-1358.46	-236.52	1116.34	0	-388.04	2.55	-637.18	2.55	-231.36	2.85	-346.97
103	104	9.15	-1358.46	-129.78	1683.43	0	-19.36	2.55	-888.27	2.55	-295.43	2.85	-443.05
104	104	9.15	-1667.29	-138.48	1412.69	0	-462.11	2.55	-755.82	2.55	-295.12	2.85	-442.59
104	105	12.20	-1667.29	-31.04	1684.59	0	-288.74	2.55	-864.85	2.55	-327.44	2.85	-491.06
105	105	12.20	-1667.29	-41.73	1683.81	0	-289.19	2.55	-864.71	2.55	-327.32	2.85	-490.88

CÁLCULO TENSIONAL

Hipótesis de cálculo:
FRECUENTES2.T0.MZ+
TREN DOMINANTE CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	59.04	1657.31	0	-312.96	2.55	-831.17	2.55	-327.40	2.85	-491.00
106	106	15.25	-1667.29	47.55	1656.82	0	-313.24	2.55	-831.09	2.55	-327.33	2.85	-490.89
106	107	18.30	-1667.29	153.52	1341.78	0	-528.55	2.55	-656.65	2.55	-296.66	2.85	-444.90
107	107	18.30	-1667.29	142.36	1342.67	0	-528.04	2.55	-656.81	2.55	-296.80	2.85	-445.10
107	108	21.35	-1667.29	248.37	738.31	0	-935.32	2.55	-341.34	2.55	-235.26	2.85	-352.82
108	108	21.35	-1667.29	238.54	740.01	0	-934.35	2.55	-341.64	2.55	-235.52	2.85	-353.20
108	109	24.40	-1667.29	345.43	-163.07	0	-1538.96	2.55	116.46	2.55	-141.70	2.85	-212.51
109	109	24.40	-2473.95	336.65	966.12	0	-844.47	2.55	-826.66	2.55	-513.11	2.85	-625.80
109	110	27.45	-2478.59	355.77	-94.70	0	-1492.58	2.55	-501.46	2.55	-374.29	2.85	-417.02
110	110	27.45	-3216.62	350.69	997.59	0	-891.29	2.55	-1108.38	2.55	-766.01	2.85	-869.62
110	111	30.50	-3225.21	343.68	-58.82	0	-1565.16	2.55	-694.91	2.55	-641.58	2.85	-681.92
111	111	30.50	-2784.60	363.59	372.72	0	-890.47	2.55	-940.75	2.55	-643.09	2.85	-683.47
111	112	33.55	-2739.96	367.90	-768.25	0	-1623.63	2.55	-406.22	2.55	-504.93	2.85	-482.02
112	10112	33.55	-2776.21	-346.30	-803.34	0	-1677.84	2.55	-385.92	2.55	-505.38	2.85	-482.45
112	113	37.19	-2846.09	-334.51	480.59	0	-830.38	2.55	-1087.75	2.55	-652.61	2.85	-694.25
113	113	37.19	-3288.46	-313.22	48.87	0	-1505.71	2.55	-842.40	2.55	-651.54	2.85	-693.12
113	114	40.82	-3245.79	-312.33	1200.27	0	-738.47	2.55	-1358.90	2.55	-767.87	2.85	-873.07
114	114	40.82	-2543.56	-318.59	-165.07	0	-1617.49	2.55	-607.30	2.55	-323.74	2.85	-359.37
114	115	44.46	-2538.73	-279.86	938.46	0	-927.40	2.55	-998.49	2.55	-460.69	2.85	-565.37
115	115	44.46	-2044.74	-290.21	-242.07	0	-1915.75	2.55	164.89	2.55	-169.51	2.85	-254.21
115	116	48.10	-2044.74	-162.36	573.34	0	-1374.90	2.55	-231.87	2.55	-256.60	2.85	-384.82
116	116	48.10	-2044.74	-175.68	571.65	0	-1375.86	2.55	-231.57	2.55	-256.34	2.85	-384.43
116	117	51.73	-2044.74	-46.95	973.90	0	-1108.98	2.55	-427.56	2.55	-299.27	2.85	-448.81
117	117	51.73	-2044.74	-61.73	973.32	0	-1109.31	2.55	-427.46	2.55	-299.18	2.85	-448.67
117	118	55.37	-2044.74	65.24	967.01	0	-1113.77	2.55	-423.48	2.55	-298.63	2.85	-447.86
118	118	55.37	-2044.74	50.47	967.59	0	-1113.44	2.55	-423.58	2.55	-298.72	2.85	-447.99
118	119	59.01	-2044.74	179.15	552.69	0	-1389.25	2.55	-219.63	2.55	-254.70	2.85	-381.97
119	119	59.01	-2044.74	165.85	554.38	0	-1388.29	2.55	-219.93	2.55	-254.96	2.85	-382.35
119	120	62.64	-2044.74	293.74	-273.82	0	-1938.16	2.55	184.86	2.55	-166.76	2.85	-250.08
120	120	62.64	-2677.92	283.42	1015.26	0	-925.93	2.55	-1052.13	2.55	-508.38	2.85	-618.96
120	121	66.28	-2683.44	322.06	-94.42	0	-1619.94	2.55	-659.40	2.55	-370.77	2.85	-411.88
121	121	66.28	-3270.36	312.86	1155.47	0	-772.08	2.55	-1356.11	2.55	-767.78	2.85	-869.77
121	122	69.91	-3280.62	341.29	-12.02	0	-1538.94	2.55	-826.39	2.55	-640.76	2.85	-677.97
122	122	69.91	-2838.03	338.28	419.72	0	-863.54	2.55	-1071.68	2.55	-641.79	2.85	-679.05
122	123	73.55	-2781.46	350.02	-865.77	0	-1716.09	2.55	-372.90	2.55	-497.84	2.85	-470.47
123	10123	73.55	-2745.19	-374.47	-831.05	0	-1662.08	2.55	-393.12	2.55	-497.33	2.85	-469.95
123	124	76.66	-2797.25	-348.16	354.68	0	-901.97	2.55	-949.99	2.55	-642.42	2.85	-680.84
124	124	76.66	-3237.69	-349.87	-77.15	0	-1576.77	2.55	-704.05	2.55	-640.83	2.85	-679.18
124	125	79.77	-3228.94	-354.10	1016.85	0	-878.83	2.55	-1132.72	2.55	-769.65	2.85	-873.50
125	125	79.77	-2377.18	-359.38	-222.10	0	-1551.83	2.55	-444.40	2.55	-322.42	2.85	-356.72
125	126	82.88	-2373.05	-341.82	882.90	0	-877.16	2.55	-782.56	2.55	-467.31	2.85	-574.54
126	126	82.88	-1735.92	-350.94	-171.24	0	-1602.41	2.55	119.11	2.55	-146.98	2.85	-220.42
126	127	85.99	-1735.92	-242.44	763.36	0	-976.80	2.55	-354.65	2.55	-244.12	2.85	-366.10
127	127	85.99	-1735.92	-252.72	761.62	0	-977.80	2.55	-354.34	2.55	-243.85	2.85	-365.70
127	128	89.10	-1735.92	-144.16	1387.19	0	-556.47	2.55	-680.07	2.55	-307.66	2.85	-461.39
128	128	89.10	-1735.92	-155.76	1386.27	0	-556.99	2.55	-679.90	2.55	-307.52	2.85	-461.18
128	129	92.21	-1735.92	-47.91	1712.12	0	-334.64	2.55	-859.17	2.55	-339.40	2.85	-509.00
129	129	92.21	-1735.92	-59.92	1711.98	0	-334.72	2.55	-859.15	2.55	-339.38	2.85	-508.96
129	130	95.32	-1735.92	43.26	1738.01	0	-311.39	2.55	-892.00	2.55	-339.32	2.85	-508.87
130	130	95.32	-1735.92	32.12	1738.95	0	-310.86	2.55	-892.17	2.55	-339.46	2.85	-509.08
130	131	98.43	-1735.92	141.14	1457.22	0	-491.10	2.55	-777.17	2.55	-306.26	2.85	-459.29
131	131	98.43	-1392.78	132.09	1757.96	0	0.80	2.55	-924.32	2.55	-306.59	2.85	-459.79
131	132	101.54	-1392.78	240.95	1167.68	0	-383.44	2.55	-661.37	2.55	-240.13	2.85	-360.11
132	132	101.54	-1049.64	235.32	1485.70	0	123.60	2.55	-829.18	2.55	-240.58	2.85	-360.79
132	133	104.65	-1049.64	343.99	571.95	0	-473.17	2.55	-415.59	2.55	-138.62	2.85	-207.88
133	133	104.65	-603.55	342.95	1006.52	0	204.89	2.55	-660.31	2.55	-139.17	2.85	-208.71
133	134	107.76	-603.55	271.70	-240.57	0	-610.00	2.55	-94.44	2.55	-0.21	2.85	-0.31

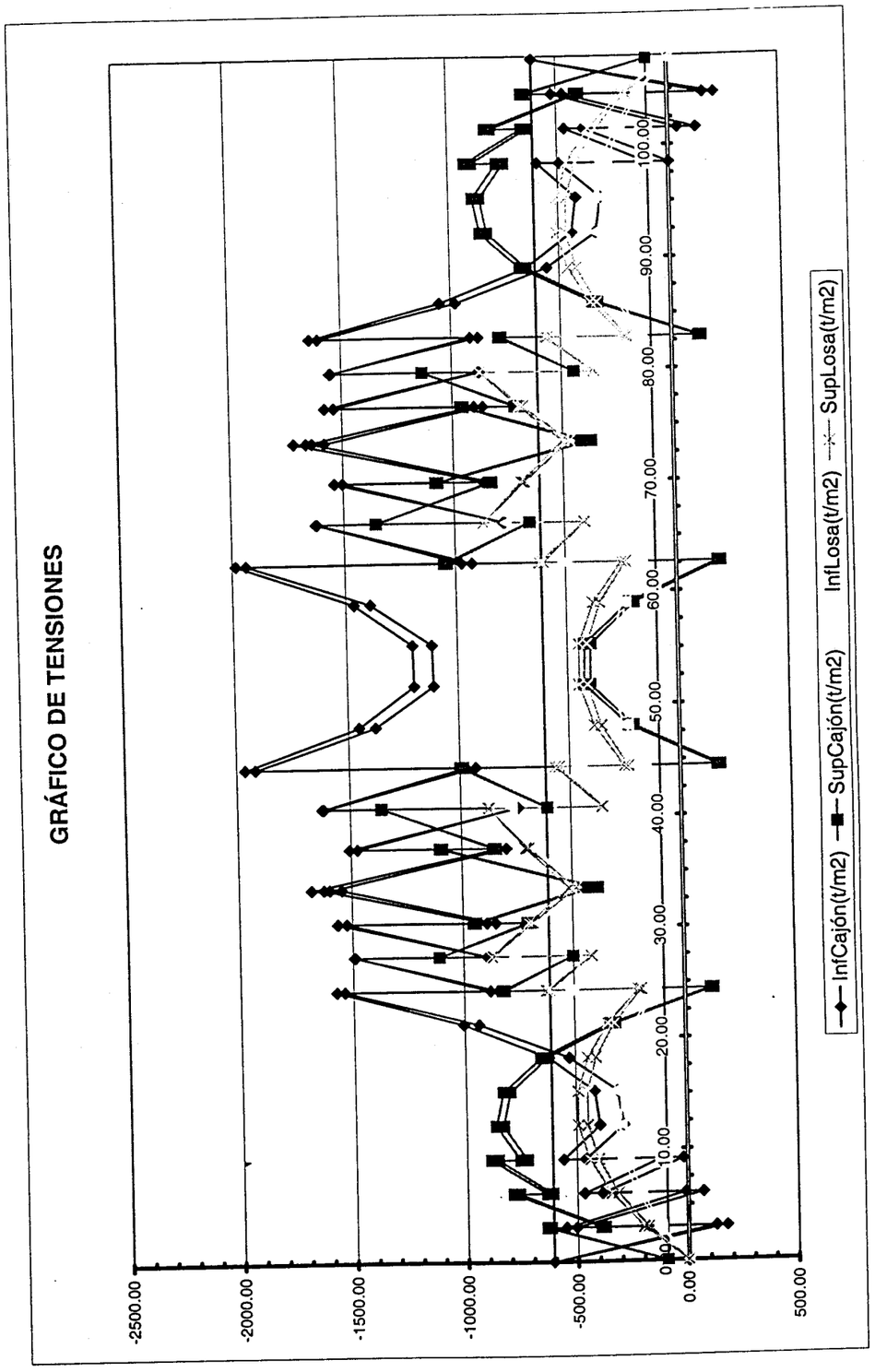
CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES1.T0.MZ+
TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-297.49	-239.24	0	-609.24	2.55	-94.67	2.55	-0.41	2.85	-0.61
1	2	3.05	-603.55	-394.17	1120.52	0	265.37	2.55	-665.36	2.55	-158.45	2.85	-237.62
2	2	3.05	-1049.64	-394.81	689.98	0	-410.40	2.55	-421.34	2.55	-158.51	2.85	-237.71
2	3	6.10	-1049.64	-274.63	1710.28	0	243.66	2.55	-842.20	2.55	-278.13	2.85	-417.10
3	3	6.10	-1358.46	-274.83	1427.09	0	-210.94	2.55	-691.71	2.55	-278.18	2.85	-417.18
3	4	9.15	-1358.46	-170.12	2105.49	0	221.19	2.55	-962.34	2.55	-359.01	2.85	-538.40
4	4	9.15	-1667.29	-170.19	1837.02	0	-220.27	2.55	-830.29	2.55	-359.04	2.85	-538.45
4	5	12.20	-1667.29	-51.67	2181.15	0	-5.75	2.55	-951.99	2.55	-402.24	2.85	-603.24
5	5	12.20	-1667.29	-51.61	2181.30	0	-5.66	2.55	-952.02	2.55	-402.27	2.85	-603.27
5	6	15.25	-1667.29	52.69	2179.83	0	-15.17	2.55	-922.88	2.55	-406.12	2.85	-609.04
6	6	15.25	-1667.29	52.82	2179.78	0	-15.19	2.55	-922.87	2.55	-406.11	2.85	-609.03
6	7	18.30	-1667.29	163.28	1839.88	0	-244.67	2.55	-744.07	2.55	-371.70	2.85	-557.42
7	7	18.30	-1667.29	163.29	1839.63	0	-244.81	2.55	-744.03	2.55	-371.66	2.85	-557.37
7	8	21.35	-1667.29	273.83	1162.54	0	-693.55	2.55	-415.80	2.55	-299.17	2.85	-448.66
8	8	21.35	-1667.29	273.48	1162.12	0	-693.79	2.55	-415.72	2.55	-299.11	2.85	-448.56
8	9	24.40	-1667.29	385.31	143.76	0	-1364.09	2.55	62.61	2.55	-187.92	2.85	-281.82
9	9	24.40	-2473.95	383.36	1270.12	0	-671.21	2.55	-880.02	2.55	-558.91	2.85	-694.48
9	10	27.45	-2478.59	407.71	52.34	0	-1408.78	2.55	-527.27	2.55	-396.44	2.85	-450.24
10	10	27.45	-3216.62	406.86	1141.45	0	-809.29	2.55	-1133.63	2.55	-787.68	2.85	-902.12
10	11	30.50	-3225.21	381.03	-28.00	0	-1547.59	2.55	-700.33	2.55	-646.23	2.85	-688.88
11	11	30.50	-2784.59	378.54	402.06	0	-873.74	2.55	-945.90	2.55	-647.51	2.85	-690.10
11	12	33.55	-2739.96	361.80	-724.86	0	-1598.90	2.55	-413.83	2.55	-511.46	2.85	-491.82
12	10012	33.55	-2776.21	-319.27	-759.64	0	-1652.93	2.55	-393.59	2.55	-511.96	2.85	-492.32
12	13	37.19	-2846.09	-311.02	428.06	0	-860.32	2.55	-1078.53	2.55	-644.70	2.85	-682.39
13	13	37.19	-3288.46	-317.50	-3.51	0	-1535.56	2.55	-833.21	2.55	-643.65	2.85	-681.28
13	14	40.82	-3245.79	-368.82	1236.25	0	-717.97	2.55	-1365.21	2.55	-773.29	2.85	-881.20
14	14	40.82	-2543.56	-370.96	-125.36	0	-1594.86	2.55	-614.27	2.55	-329.72	2.85	-368.34
14	15	44.46	-2538.73	-332.30	1169.36	0	-795.81	2.55	-1039.01	2.55	-495.48	2.85	-617.54
15	15	44.46	-2044.74	-332.77	-7.94	0	-1782.32	2.55	123.80	2.55	-204.78	2.85	-307.10
15	16	48.10	-2044.74	-199.45	950.46	0	-1159.98	2.55	-298.06	2.55	-313.41	2.85	-470.01
16	16	48.10	-2044.74	-199.53	950.88	0	-1159.74	2.55	-298.13	2.55	-313.47	2.85	-470.11
16	17	51.73	-2044.74	-64.92	1428.63	0	-849.82	2.55	-507.37	2.55	-367.77	2.85	-551.54
17	17	51.73	-2044.74	-64.59	1428.79	0	-849.73	2.55	-507.40	2.55	-367.79	2.85	-551.57
17	18	55.37	-2044.74	67.76	1423.09	0	-853.85	2.55	-503.51	2.55	-367.34	2.85	-550.89
18	18	55.37	-2044.74	68.10	1422.95	0	-853.93	2.55	-503.49	2.55	-367.32	2.85	-550.86
18	19	59.01	-2044.74	202.64	933.83	0	-1172.04	2.55	-286.52	2.55	-312.12	2.85	-468.08
19	19	59.01	-2044.74	202.56	933.40	0	-1172.29	2.55	-286.45	2.55	-312.05	2.85	-467.98
19	20	62.64	-2044.74	335.95	-36.46	0	-1802.89	2.55	143.20	2.55	-202.51	2.85	-303.70
20	20	62.64	-2677.92	335.43	1249.42	0	-792.48	2.55	-1093.23	2.55	-543.65	2.85	-671.86
20	21	66.28	-2683.44	375.69	-51.32	0	-1595.37	2.55	-666.97	2.55	-377.26	2.85	-421.62
21	21	66.28	-3270.36	370.93	1194.82	0	-749.65	2.55	-1363.01	2.55	-773.71	2.85	-878.66
21	22	69.91	-3280.62	325.81	-70.13	0	-1572.06	2.55	-816.19	2.55	-632.01	2.85	-664.84
22	22	69.91	-2838.03	315.65	361.40	0	-896.78	2.55	-1061.44	2.55	-633.00	2.85	-665.88
22	23	73.55	-2781.46	323.99	-834.74	0	-1698.41	2.55	-378.35	2.55	-502.52	2.85	-477.48
23	10023	73.55	-2745.19	-368.92	-799.87	0	-1644.32	2.55	-398.59	2.55	-502.02	2.85	-476.99
23	24	76.66	-2797.25	-381.01	373.83	0	-891.05	2.55	-953.35	2.55	-645.31	2.85	-685.17
24	24	76.66	-3237.69	-383.80	-56.55	0	-1565.03	2.55	-707.67	2.55	-643.93	2.85	-683.83
24	25	79.77	-3228.94	-412.10	1158.21	0	-798.26	2.55	-1157.53	2.55	-790.95	2.85	-905.43
25	25	79.77	-2377.18	-413.09	-77.46	0	-1469.39	2.55	-469.79	2.55	-344.21	2.85	-389.39
25	26	82.88	-2373.05	-390.69	1193.97	0	-699.88	2.55	-837.15	2.55	-514.17	2.85	-644.82
26	26	82.88	-1735.92	-392.70	142.80	0	-1423.44	2.55	63.99	2.55	-194.28	2.85	-291.36
26	27	85.99	-1735.92	-279.21	1200.59	0	-727.62	2.55	-431.38	2.55	-309.98	2.85	-464.87
27	27	85.99	-1735.92	-279.58	1201.10	0	-727.33	2.55	-431.47	2.55	-310.06	2.85	-464.99
27	28	89.10	-1735.92	-166.31	1904.88	0	-261.43	2.55	-770.92	2.55	-385.65	2.85	-578.34
28	28	89.10	-1735.92	-166.21	1905.14	0	-261.28	2.55	-770.97	2.55	-385.69	2.85	-578.40
28	29	92.21	-1735.92	-53.85	2257.94	0	-23.57	2.55	-954.97	2.55	-421.63	2.85	-632.31
29	29	92.21	-1735.92	-53.66	2258.00	0	-23.54	2.55	-954.98	2.55	-421.64	2.85	-632.32
29	30	95.32	-1735.92	58.24	2258.54	0	-14.73	2.55	-983.37	2.55	-417.73	2.85	-626.46
30	30	95.32	-1735.92	53.35	2258.07	0	-15.00	2.55	-983.29	2.55	-417.66	2.85	-626.35
30	31	98.43	-1735.92	166.92	1900.94	0	-238.21	2.55	-855.06	2.55	-373.10	2.85	-559.53
31	31	98.43	-1392.78	166.80	2199.23	0	252.29	2.55	-1001.78	2.55	-373.06	2.85	-559.47
31	32	101.54	-1392.78	280.32	1492.52	0	-198.31	2.55	-718.38	2.55	-289.06	2.85	-433.50
32	32	101.54	-1049.64	280.08	1807.19	0	306.81	2.55	-885.59	2.55	-289.01	2.85	-433.42
32	33	104.65	-1049.64	393.75	744.59	0	-374.78	2.55	-445.90	2.55	-164.62	2.85	-246.88
33	33	104.65	-603.55	393.13	1175.05	0	300.94	2.55	-689.90	2.55	-164.55	2.85	-246.78
33	34	107.76	-603.55	305.93	-239.13	0	-609.18	2.55	-94.69	2.55	-0.42	2.85	-0.64
101	101	0.00	-603.55	-265.73	-239.89	0	-609.61	2.55	-94.56	2.55	-0.31	2.85	-0.46
101	102	3.05	-603.55	-425.10	1223.14	0	323.85	2.55	-683.37	2.55	-173.91	2.85	-260.81
102	102	3.05	-1049.64	-420.46	790.76	0	-352.96	2.55	-439.03	2.55	-173.69	2.85	-260.48
102	103	6.10	-1049.64	-293.38	1878.98	0	339.81	2.55	-871.82	2.55	-303.54	2.85	-455.22
103	103	6.10	-1358.46	-290.69	1594.31	0	-115.64	2.55	-721.07	2.55	-303.37	2.85	-454.95
103	104	9.15	-1358.46	-172.73	2311.71	0	338.71	2.55	-998.54	2.55	-390.08	2.85	-584.99
104	104	9.15	-1667.29	-171.37	2042.21	0	-103.33	2.55	-866.30	2.55	-389.95	2.85	-584.81
104	105	12.20	-1667.29	-52.59	2400.61	0	119.33	2.55	-990.51	2.55	-435.30	2.85	-652.82
105	105	12.20	-1667.29	-52.01	2400.53	0	119.28	2.55	-990.50	2.55	-435.29	2.85	-652.80



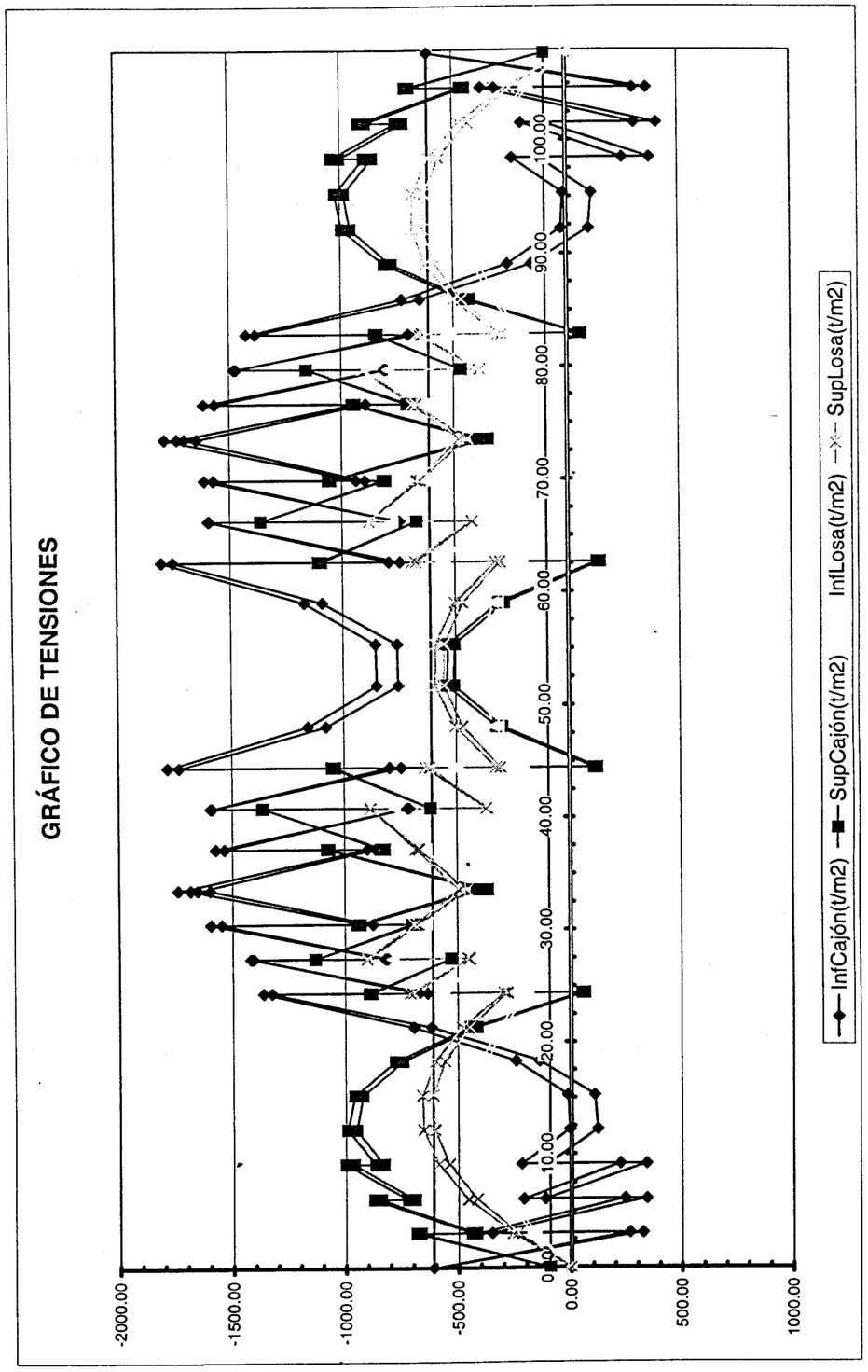
CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES1.T0.MZ+
TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	58.36	2390.81	0	105.07	2.55	-959.91	2.55	-437.90	2.85	-656.71
106	106	15.25	-1667.29	58.64	2390.44	0	104.86	2.55	-959.84	2.55	-437.84	2.85	-656.62
106	107	18.30	-1667.29	175.23	2023.17	0	-140.21	2.55	-776.24	2.55	-399.31	2.85	-598.83
107	107	18.30	-1667.29	175.56	2023.55	0	-139.99	2.55	-776.31	2.55	-399.36	2.85	-598.92
107	108	21.35	-1667.29	292.57	1298.89	0	-615.84	2.55	-439.73	2.55	-319.71	2.85	-479.46
108	108	21.35	-1667.29	293.33	1299.48	0	-615.50	2.55	-439.83	2.55	-319.80	2.85	-479.60
108	109	24.40	-1667.29	411.42	208.95	0	-1326.94	2.55	51.17	2.55	-197.74	2.85	-296.55
109	109	24.40	-2473.95	411.68	1336.59	0	-633.33	2.55	-891.68	2.55	-568.92	2.85	-709.50
109	110	27.45	-2478.59	433.42	34.73	0	-1418.82	2.55	-524.18	2.55	-393.79	2.85	-446.26
110	110	27.45	-3216.62	435.38	1124.89	0	-818.73	2.55	-1130.72	2.55	-785.18	2.85	-898.38
110	111	30.50	-3225.21	365.06	-112.01	0	-1595.47	2.55	-685.58	2.55	-633.57	2.85	-669.90
111	111	30.50	-2784.60	386.83	319.12	0	-921.01	2.55	-931.35	2.55	-635.02	2.85	-671.36
111	112	33.55	-2739.96	386.13	-875.99	0	-1685.03	2.55	-387.31	2.55	-488.70	2.85	-457.68
112	10112	33.55	-2776.21	-343.72	-910.90	0	-1739.14	2.55	-367.05	2.55	-489.18	2.85	-458.15
112	113	37.19	-2846.09	-337.31	362.06	0	-897.94	2.55	-1066.95	2.55	-634.76	2.85	-667.48
113	113	37.19	-3288.46	-310.23	-69.92	0	-1573.40	2.55	-821.56	2.55	-633.64	2.85	-666.28
113	114	40.82	-3245.79	-391.36	1246.85	0	-711.92	2.55	-1367.07	2.55	-774.89	2.85	-883.60
114	114	40.82	-2543.56	-390.54	-115.90	0	-1589.47	2.55	-615.93	2.55	-331.15	2.85	-370.48
114	115	44.46	-2538.73	-353.30	1257.80	0	-745.41	2.55	-1054.53	2.55	-508.80	2.85	-637.52
115	115	44.46	-2044.74	-351.98	79.13	0	-1732.69	2.55	108.52	2.55	-217.90	2.85	-326.78
115	116	48.10	-2044.74	-211.07	1093.85	0	-1078.26	2.55	-323.22	2.55	-335.01	2.85	-502.41
116	116	48.10	-2044.74	-210.74	1093.36	0	-1078.54	2.55	-323.14	2.55	-334.93	2.85	-502.29
116	117	51.73	-2044.74	-68.32	1597.52	0	-753.57	2.55	-537.01	2.55	-393.21	2.85	-589.69
117	117	51.73	-2044.74	-68.41	1597.35	0	-753.66	2.55	-536.98	2.55	-393.19	2.85	-589.65
117	118	55.37	-2044.74	71.64	1591.56	0	-757.83	2.55	-533.09	2.55	-392.72	2.85	-588.95
118	118	55.37	-2044.74	71.54	1591.73	0	-757.73	2.55	-533.12	2.55	-392.74	2.85	-588.99
118	119	59.01	-2044.74	213.92	1075.96	0	-1091.04	2.55	-311.47	2.55	-333.53	2.85	-500.18
119	119	59.01	-2044.74	214.28	1076.43	0	-1090.77	2.55	-311.55	2.55	-333.60	2.85	-500.29
119	120	62.64	-2044.74	355.27	49.87	0	-1753.69	2.55	128.05	2.55	-215.52	2.85	-323.21
120	120	62.64	-2677.92	356.64	1337.07	0	-742.53	2.55	-1108.61	2.55	-556.86	2.85	-691.66
120	121	66.28	-2683.44	395.61	-43.21	0	-1590.75	2.55	-668.39	2.55	-378.49	2.85	-423.45
121	121	66.28	-3270.36	395.10	1204.07	0	-744.38	2.55	-1364.64	2.55	-775.10	2.85	-880.75
121	122	69.91	-3280.62	345.73	-138.26	0	-1610.89	2.55	-804.23	2.55	-621.74	2.85	-649.45
122	122	69.91	-2838.03	342.10	293.74	0	-935.34	2.55	-1049.57	2.55	-622.81	2.85	-650.59
122	123	73.55	-2781.46	348.65	-988.06	0	-1785.79	2.55	-351.44	2.55	-479.42	2.85	-442.84
123	10123	73.55	-2745.19	-393.45	-953.55	0	-1731.90	2.55	-371.62	2.55	-478.88	2.85	-442.28
123	124	76.66	-2797.25	-366.35	291.78	0	-937.81	2.55	-938.96	2.55	-632.95	2.85	-666.63
124	124	76.66	-3237.69	-367.91	-139.82	0	-1612.49	2.55	-693.05	2.55	-631.39	2.85	-665.02
124	125	79.77	-3228.94	-440.50	1142.12	0	-807.43	2.55	-1154.71	2.55	-788.52	2.85	-901.80
125	125	79.77	-2377.18	-438.66	-94.61	0	-1479.17	2.55	-466.78	2.55	-341.63	2.85	-385.52
125	126	82.88	-2373.05	-418.97	1262.93	0	-660.58	2.55	-849.26	2.55	-524.56	2.85	-660.40
126	126	82.88	-1735.92	-418.81	210.42	0	-1384.90	2.55	52.12	2.55	-204.47	2.85	-306.64
126	127	85.99	-1735.92	-298.99	1341.63	0	-647.24	2.55	-456.14	2.55	-331.23	2.85	-496.73
127	127	85.99	-1735.92	-298.39	1341.05	0	-647.57	2.55	-456.04	2.55	-331.14	2.85	-496.61
127	128	89.10	-1735.92	-178.48	2093.23	0	-154.08	2.55	-803.98	2.55	-414.02	2.85	-620.90
128	128	89.10	-1735.92	-178.21	2092.88	0	-154.28	2.55	-803.92	2.55	-413.97	2.85	-620.82
128	129	92.21	-1735.92	-59.58	2474.00	0	99.57	2.55	-992.89	2.55	-454.17	2.85	-681.12
129	129	92.21	-1735.92	-59.45	2473.75	0	99.42	2.55	-992.84	2.55	-454.14	2.85	-681.06
129	130	95.32	-1735.92	53.67	2482.81	0	113.08	2.55	-1022.72	2.55	-451.52	2.85	-677.13
130	130	95.32	-1735.92	54.14	2483.02	0	113.20	2.55	-1022.76	2.55	-451.55	2.85	-677.17
130	131	98.43	-1735.92	174.56	2111.85	0	-118.02	2.55	-892.06	2.55	-404.87	2.85	-607.18
131	131	98.43	-1392.78	175.85	2411.28	0	373.13	2.55	-1038.98	2.55	-405.01	2.85	-607.38
131	132	101.54	-1392.78	296.13	1664.54	0	-100.27	2.55	-748.57	2.55	-314.97	2.85	-472.36
132	132	101.54	-1049.64	298.87	1980.74	0	405.72	2.55	-916.06	2.55	-315.15	2.85	-472.63
132	133	104.65	-1049.64	418.95	848.20	0	-315.73	2.55	-464.07	2.55	-180.23	2.85	-270.29
133	133	104.65	-603.55	423.74	1280.58	0	361.08	2.55	-708.41	2.55	-180.45	2.85	-270.62
133	134	107.76	-603.55	273.15	-239.82	0	-609.58	2.55	-94.57	2.55	-0.32	2.85	-0.48



CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES1.T0.MZ-
TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-667.09	-392.80	-269.47	0	-676.25	2.55	-103.75	2.55	0.31	2.85	0.46
1	2	3.05	-667.09	-132.57	222.84	0	-298.88	2.55	-512.64	2.55	-28.40	2.85	-42.60
2	2	3.05	-1160.12	-135.46	-252.60	0	-1045.54	2.55	-243.01	2.55	-28.53	2.85	-42.78
2	3	6.10	-1160.12	-79.44	75.14	0	-789.05	2.55	-532.77	2.55	-45.17	2.85	-67.74
3	3	6.10	-1501.46	-81.36	-237.53	0	-1291.32	2.55	-366.50	2.55	-45.27	2.85	-67.89
3	4	9.15	-1501.46	-25.13	-74.94	0	-1156.03	2.55	-537.05	2.55	-49.75	2.85	-74.61
4	4	9.15	-1842.79	-26.18	-371.44	0	-1643.83	2.55	-391.13	2.55	-49.82	2.85	-74.71
4	5	12.20	-1842.79	30.23	-377.34	0	-1631.65	2.55	-441.86	2.55	-41.64	2.85	-62.44
5	5	12.20	-1842.79	29.68	-377.23	0	-1631.59	2.55	-441.88	2.55	-41.65	2.85	-62.47
5	6	15.25	-1842.79	85.85	-553.43	0	-1743.55	2.55	-372.52	2.55	-20.53	2.85	-30.78
6	6	15.25	-1842.79	85.30	-553.54	0	-1743.61	2.55	-372.50	2.55	-20.51	2.85	-30.76
6	7	18.30	-1842.79	141.53	-899.37	0	-1979.33	2.55	-183.11	2.55	13.45	2.85	20.17
7	7	18.30	-1842.79	140.84	-899.57	0	-1979.44	2.55	-183.07	2.55	13.48	2.85	20.21
7	8	21.35	-1842.79	196.95	-1414.54	0	-2338.65	2.55	126.26	2.55	60.20	2.85	90.28
8	8	21.35	-1842.79	195.79	-1414.85	0	-2338.82	2.55	126.31	2.55	60.24	2.85	90.35
8	9	24.40	-1842.79	252.47	-2098.64	0	-2821.32	2.55	555.48	2.55	119.68	2.85	179.49
9	9	24.40	-2385.17	251.95	-1100.85	0	-2078.80	2.55	-380.32	2.55	-157.15	2.85	-121.83
9	10	27.45	-2388.96	400.66	-2084.53	0	-2682.70	2.55	-68.40	2.55	-29.73	2.85	69.74
10	10	27.45	-2880.85	398.03	-1111.21	0	-2054.17	2.55	-600.89	2.55	-343.96	2.85	-294.16
10	11	30.50	-2887.87	553.99	-2559.25	0	-2950.77	2.55	-118.22	2.55	-160.14	2.85	-17.59
11	11	30.50	-2389.35	552.22	-2082.65	0	-2201.81	2.55	-386.41	2.55	-158.77	2.85	-16.25
11	12	33.55	-2352.84	753.25	-4110.75	0	-3443.00	2.55	301.38	2.55	110.94	2.85	383.53
12	10012	33.55	-2388.86	-751.78	-4148.76	0	-3501.27	2.55	324.89	2.55	111.36	2.85	383.92
12	13	37.19	-2446.03	-533.92	-1772.88	0	-2027.67	2.55	-564.77	2.55	-197.09	2.85	-71.30
13	13	37.19	-2942.78	-532.49	-2247.87	0	-2775.18	2.55	-296.31	2.55	-198.24	2.85	-72.54
13	14	40.82	-2966.83	-326.89	-688.07	0	-1795.23	2.55	-904.53	2.55	-393.30	2.85	-361.97
14	14	40.82	-2530.19	-328.71	-1931.08	0	-2717.13	2.55	-222.48	2.55	-30.02	2.85	58.18
14	15	44.46	-2526.23	-165.90	-1070.28	0	-2165.64	2.55	-571.33	2.55	-130.63	2.85	-93.21
15	15	44.46	-2259.98	-167.93	-2153.79	0	-3226.48	2.55	626.80	2.55	80.80	2.85	121.17
15	16	48.10	-2259.98	-99.83	-1666.98	0	-2872.91	2.55	287.74	2.55	43.21	2.85	64.80
16	16	48.10	-2259.98	-101.11	-1666.76	0	-2872.79	2.55	287.70	2.55	43.17	2.85	64.75
16	17	51.73	-2259.98	-34.24	-1420.59	0	-2694.86	2.55	119.12	2.55	23.76	2.85	35.63
17	17	51.73	-2259.98	-35.33	-1420.50	0	-2694.81	2.55	119.11	2.55	23.75	2.85	35.61
17	18	55.37	-2259.98	41.74	-1434.92	0	-2703.90	2.55	124.55	2.55	25.51	2.85	38.25
18	18	55.37	-2259.98	40.66	-1435.02	0	-2703.96	2.55	124.56	2.55	25.52	2.85	38.28
18	19	59.01	-2259.98	107.58	-1704.34	0	-2896.81	2.55	302.97	2.55	47.61	2.85	71.40
19	19	59.01	-2259.98	106.17	-1704.55	0	-2896.93	2.55	303.01	2.55	47.64	2.85	71.45
19	20	62.64	-2259.98	174.25	-2214.39	0	-3265.37	2.55	651.95	2.55	87.88	2.85	131.79
20	20	62.64	-2640.12	172.18	-1042.04	0	-2184.25	2.55	-608.85	2.55	-164.48	2.85	-129.30
20	21	66.28	-2644.64	333.36	-1930.12	0	-2751.65	2.55	-254.71	2.55	-60.00	2.85	27.97
21	21	66.28	-2927.38	334.11	-781.59	0	-1837.38	2.55	-873.95	2.55	-369.36	2.85	-331.15
21	22	69.91	-2935.77	533.79	-2353.51	0	-2834.18	2.55	-272.70	2.55	-180.94	2.85	-47.50
22	22	69.91	-2439.24	538.71	-1878.47	0	-2086.70	2.55	-541.22	2.55	-179.85	2.85	-46.32
22	23	73.55	-2392.96	756.31	-4253.62	0	-3563.35	2.55	345.71	2.55	125.59	2.85	405.78
23	10023	73.55	-2356.99	-765.10	-4215.44	0	-3505.01	2.55	322.16	2.55	125.12	2.85	405.34
23	24	76.66	-2399.59	-565.42	-2107.20	0	-2216.29	2.55	-393.78	2.55	-156.50	2.85	-11.52
24	24	76.66	-2898.27	-566.95	-2583.45	0	-2965.10	2.55	-125.70	2.55	-157.96	2.85	-12.98
24	25	79.77	-2891.10	-402.78	-1083.07	0	-2036.04	2.55	-626.17	2.55	-348.40	2.85	-299.51
25	25	79.77	-2316.94	-405.40	-2185.35	0	-2737.96	2.55	-22.57	2.55	10.99	2.85	116.65
25	26	82.88	-2313.55	-254.12	-1174.44	0	-2117.15	2.55	-344.44	2.55	-119.92	2.85	-80.12
26	26	82.88	-1918.64	-254.55	-2119.27	0	-2898.37	2.55	561.45	2.55	115.46	2.85	173.15
26	27	85.99	-1918.64	-196.84	-1417.26	0	-2402.49	2.55	119.10	2.55	54.68	2.85	82.01
27	27	85.99	-1918.64	-197.84	-1416.97	0	-2402.33	2.55	119.05	2.55	54.64	2.85	81.94
27	28	89.10	-1918.64	-140.64	-890.71	0	-2034.76	2.55	-198.67	2.55	7.12	2.85	10.68
28	28	89.10	-1918.64	-141.31	-890.46	0	-2034.62	2.55	-198.71	2.55	7.08	2.85	10.62
28	29	92.21	-1918.64	-83.97	-540.21	0	-1795.54	2.55	-391.69	2.55	-27.14	2.85	-40.71
29	29	92.21	-1918.64	-84.42	-540.08	0	-1795.46	2.55	-391.71	2.55	-27.16	2.85	-40.74
29	30	95.32	-1918.64	-27.23	-366.31	0	-1685.11	2.55	-459.93	2.55	-48.03	2.85	-72.02
30	30	95.32	-1918.64	-27.75	-366.61	0	-1685.28	2.55	-459.88	2.55	-47.98	2.85	-71.95
30	31	98.43	-1918.64	29.85	-369.95	0	-1704.03	2.55	-403.16	2.55	-55.39	2.85	-83.06
31	31	98.43	-1539.38	28.86	-40.47	0	-1162.02	2.55	-565.29	2.55	-55.32	2.85	-82.96
31	32	101.54	-1539.38	86.20	-219.55	0	-1309.08	2.55	-383.91	2.55	-49.47	2.85	-74.19
32	32	101.54	-1160.12	84.27	127.91	0	-750.98	2.55	-568.67	2.55	-49.36	2.85	-74.03
32	33	104.65	-1160.12	141.44	-222.97	0	-1024.12	2.55	-263.31	2.55	-30.86	2.85	-46.28
33	33	104.65	-667.09	138.43	252.40	0	-277.50	2.55	-532.93	2.55	-30.73	2.85	-46.08
33	34	107.76	-667.09	404.65	-269.54	0	-676.29	2.55	-103.74	2.55	0.32	2.85	0.48
101	101	0.00	-667.09	-476.75	-270.12	0	-676.62	2.55	-103.63	2.55	0.41	2.85	0.61
101	102	3.05	-667.09	-144.98	264.55	0	-275.11	2.55	-519.96	2.55	-34.69	2.85	-52.02
102	102	3.05	-1160.12	-145.87	-211.51	0	-1022.12	2.55	-250.22	2.55	-34.72	2.85	-52.07
102	103	6.10	-1160.12	-86.93	143.33	0	-750.18	2.55	-544.75	2.55	-55.44	2.85	-83.14
103	103	6.10	-1501.46	-87.38	-169.83	0	-1252.73	2.55	-378.39	2.55	-55.47	2.85	-83.19
103	104	9.15	-1501.46	-28.59	7.03	0	-1109.31	2.55	-551.44	2.55	-62.10	2.85	-93.13
104	104	9.15	-1842.79	-28.82	-289.76	0	-1597.27	2.55	-405.47	2.55	-62.12	2.85	-93.17
104	105	12.20	-1842.79	30.12	-291.71	0	-1582.85	2.55	-456.89	2.55	-54.54	2.85	-81.79
105	105	12.20	-1842.79	30.18	-291.44	0	-1582.70	2.55	-456.93	2.55	-54.58	2.85	-81.85

CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES1.T0.MZ-
TREN DOMINANTE SIN GRADIENTE

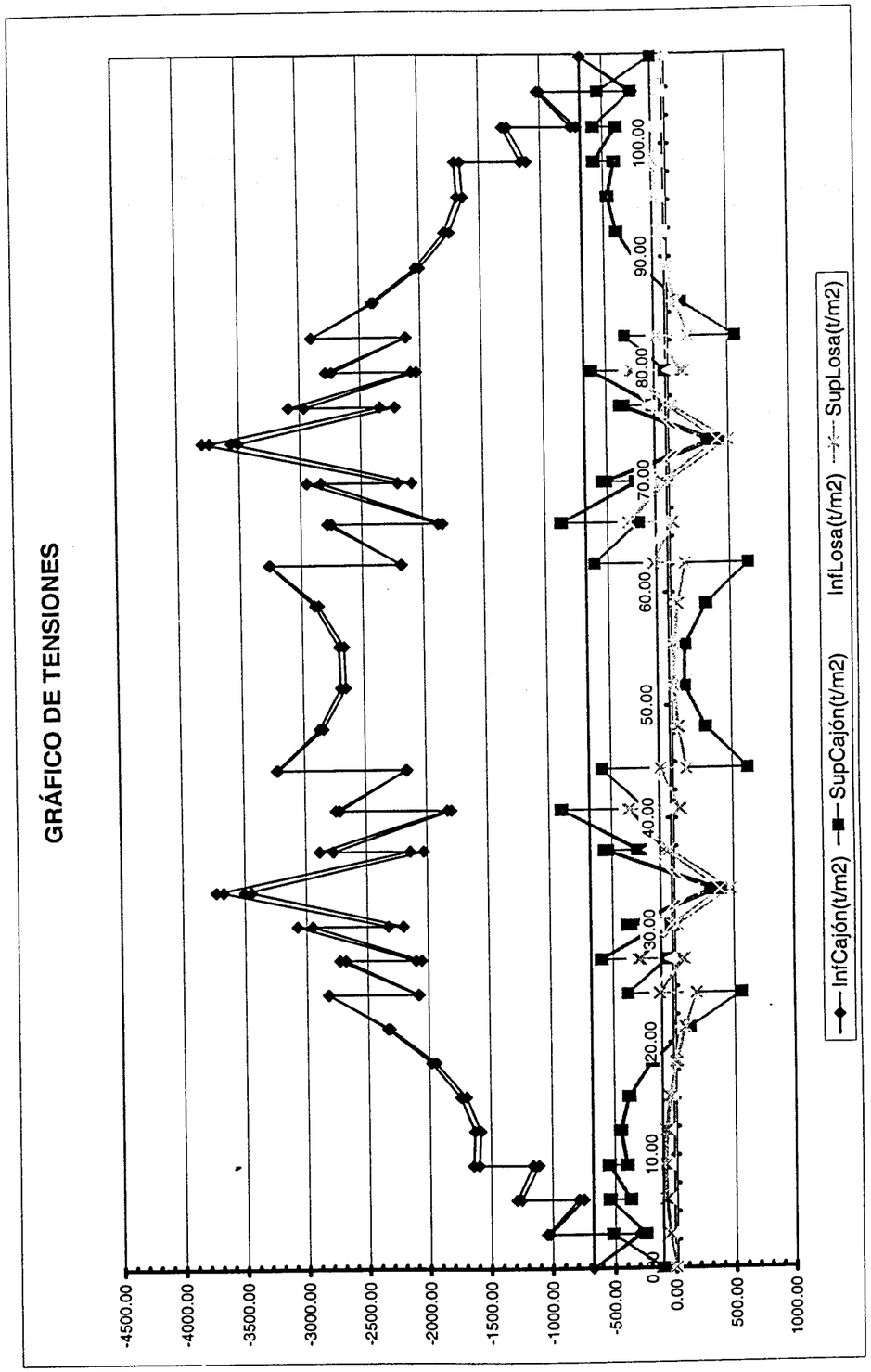
[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1842.79	89.11	-473.56	0	-1698.03	2.55	-386.53	2.55	-32.56	2.85	-48.83
106	106	15.25	-1842.79	89.30	-473.77	0	-1698.15	2.55	-386.50	2.55	-32.53	2.85	-48.78
106	107	18.30	-1842.79	148.66	-836.46	0	-1943.48	2.55	-194.15	2.55	3.97	2.85	5.96
107	107	18.30	-1842.79	149.19	-836.33	0	-1943.40	2.55	-194.17	2.55	3.95	2.85	5.93
107	108	21.35	-1842.79	208.06	-1381.01	0	-2319.54	2.55	120.37	2.55	55.15	2.85	82.70
108	108	21.35	-1842.79	208.76	-1380.83	0	-2319.44	2.55	120.34	2.55	55.12	2.85	82.66
108	109	24.40	-1842.79	268.51	-2107.79	0	-2826.53	2.55	557.08	2.55	121.06	2.85	181.55
109	109	24.40	-2385.17	270.65	-1109.48	0	-2083.72	2.55	-378.80	2.55	-155.85	2.85	-119.88
109	110	27.45	-2388.96	431.59	-2167.57	0	-2730.02	2.55	-53.83	2.55	-17.22	2.85	88.50
110	110	27.45	-2880.85	433.15	-1193.54	0	-2101.09	2.55	-586.44	2.55	-331.55	2.85	-275.56
110	111	30.50	-2887.87	639.89	-2775.05	0	-3073.76	2.55	-80.35	2.55	-127.63	2.85	31.17
111	111	30.50	-2389.36	622.39	-2298.48	0	-2324.82	2.55	-348.53	2.55	-126.26	2.85	32.51
111	112	33.55	-2352.84	817.96	-4512.35	0	-3671.88	2.55	371.87	2.55	171.44	2.85	474.25
112	10112	33.55	-2388.86	-813.67	-4550.54	0	-3730.24	2.55	395.41	2.55	171.89	2.85	474.69
112	113	37.19	-2446.03	-582.27	-1969.76	0	-2139.87	2.55	-530.21	2.55	-167.43	2.85	-26.82
113	113	37.19	-2942.78	-604.29	-2445.63	0	-2887.89	2.55	-261.61	2.55	-168.45	2.85	-27.87
113	114	40.82	-2966.83	-360.37	-745.12	0	-1827.75	2.55	-894.51	2.55	-384.70	2.85	-349.08
114	114	40.82	-2530.19	-357.33	-1988.93	0	-2750.10	2.55	-212.32	2.55	-21.31	2.85	71.25
114	115	44.46	-2526.23	-181.93	-1053.07	0	-2155.84	2.55	-574.35	2.55	-133.23	2.85	-97.10
115	115	44.46	-2259.98	-180.81	-2137.10	0	-3216.96	2.55	623.87	2.55	78.28	2.85	117.40
115	116	48.10	-2259.98	-109.13	-1610.83	0	-2840.91	2.55	277.88	2.55	34.75	2.85	52.11
116	116	48.10	-2259.98	-108.09	-1610.99	0	-2841.00	2.55	277.91	2.55	34.77	2.85	52.15
116	117	51.73	-2259.98	-37.87	-1345.54	0	-2652.08	2.55	105.95	2.55	12.45	2.85	18.68
117	117	51.73	-2259.98	-37.11	-1345.62	0	-2652.13	2.55	105.96	2.55	12.47	2.85	18.69
117	118	55.37	-2259.98	43.61	-1360.24	0	-2661.33	2.55	111.43	2.55	14.26	2.85	21.38
118	118	55.37	-2259.98	44.46	-1360.18	0	-2661.30	2.55	111.42	2.55	14.25	2.85	21.37
118	119	59.01	-2259.98	114.68	-1649.37	0	-2865.48	2.55	293.33	2.55	39.33	2.85	58.98
119	119	59.01	-2259.98	115.67	-1649.20	0	-2865.38	2.55	293.30	2.55	39.31	2.85	58.95
119	120	62.64	-2259.98	187.31	-2199.18	0	-3256.70	2.55	649.28	2.55	85.59	2.85	128.36
120	120	62.64	-2640.12	188.52	-1026.37	0	-2175.32	2.55	-611.60	2.55	-166.84	2.85	-132.84
120	121	66.28	-2644.64	362.13	-1990.56	0	-2786.10	2.55	-244.10	2.55	-50.89	2.85	41.63
121	121	66.28	-2927.38	366.55	-841.25	0	-1871.38	2.55	-863.48	2.55	-360.37	2.85	-317.68
121	122	69.91	-2935.77	579.05	-2555.69	0	-2949.40	2.55	-237.21	2.55	-150.48	2.85	-1.82
122	122	69.91	-2439.24	587.74	-2079.91	0	-2201.50	2.55	-505.87	2.55	-149.50	2.85	-0.81
122	123	73.55	-2392.96	818.84	-4661.70	0	-3795.92	2.55	417.33	2.55	187.06	2.85	497.97
123	10123	73.55	-2356.99	-830.20	-4624.03	0	-3737.87	2.55	393.87	2.55	186.68	2.85	497.64
123	124	76.66	-2399.59	-658.85	-2326.00	0	-2340.99	2.55	-355.38	2.55	-123.54	2.85	37.91
124	124	76.66	-2898.27	-653.02	-2802.86	0	-3090.15	2.55	-87.19	2.55	-124.90	2.85	36.59
124	125	79.77	-2891.10	-437.90	-1164.39	0	-2082.38	2.55	-611.90	2.55	-336.15	2.85	-281.14
125	125	79.77	-2316.94	-436.31	-2267.43	0	-2784.74	2.55	-8.17	2.55	23.36	2.85	135.19
125	126	82.88	-2313.55	-272.70	-1181.12	0	-2120.96	2.55	-343.27	2.55	-118.92	2.85	-78.61
126	126	82.88	-1918.64	-270.49	-2126.52	0	-2902.50	2.55	562.73	2.55	116.55	2.85	174.79
126	127	85.99	-1918.64	-209.68	-1380.92	0	-2381.78	2.55	112.72	2.55	49.21	2.85	73.80
127	127	85.99	-1918.64	-208.87	-1381.12	0	-2381.89	2.55	112.75	2.55	49.24	2.85	73.84
127	128	89.10	-1918.64	-148.85	-824.96	0	-1997.29	2.55	-210.21	2.55	-2.78	2.85	-4.17
128	128	89.10	-1918.64	-148.37	-825.07	0	-1997.36	2.55	-210.19	2.55	-2.77	2.85	-4.15
128	129	92.21	-1918.64	-87.85	-457.52	0	-1748.41	2.55	-406.20	2.55	-39.60	2.85	-59.39
129	129	92.21	-1918.64	-87.66	-457.74	0	-1748.54	2.55	-406.17	2.55	-39.57	2.85	-59.34
129	130	95.32	-1918.64	-27.66	-278.17	0	-1634.88	2.55	-475.39	2.55	-61.30	2.85	-91.94
130	130	95.32	-1918.64	-27.65	-278.34	0	-1634.98	2.55	-475.36	2.55	-61.28	2.85	-91.90
130	131	98.43	-1918.64	32.54	-285.94	0	-1656.16	2.55	-417.89	2.55	-68.04	2.85	-102.04
131	131	98.43	-1539.38	32.31	43.90	0	-1113.94	2.55	-580.09	2.55	-68.03	2.85	-102.02
131	132	101.54	-1539.38	92.25	-149.85	0	-1269.36	2.55	-396.16	2.55	-59.97	2.85	-89.94
132	132	101.54	-1160.12	91.78	198.10	0	-710.97	2.55	-581.00	2.55	-59.94	2.85	-89.89
132	133	104.65	-1160.12	151.86	-180.62	0	-999.98	2.55	-270.74	2.55	-37.25	2.85	-55.86
133	133	104.65	-667.09	150.96	295.43	0	-252.98	2.55	-540.48	2.55	-37.21	2.85	-55.81
133	134	107.76	-667.09	486.18	-270.23	0	-676.69	2.55	-103.62	2.55	0.42	2.85	0.64

Programa DINTEL PACADAR S.A.
INFRECUENTES1.T0.MZ-

GRÁFICO DE TENSIONES



CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES2.T0.MZ+
TREN DOMINANTE CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-297.49	-239.24	0	-609.24	2.55	-94.67	2.55	-0.41	2.85	-0.61
1	2	3.05	-603.55	-400.76	1140.59	0	276.81	2.55	-668.88	2.55	-161.47	2.85	-242.16
2	2	3.05	-1049.64	-401.39	710.05	0	-398.95	2.55	-424.86	2.55	-161.53	2.85	-242.24
2	3	6.10	-1049.64	-281.22	1750.43	0	266.55	2.55	-849.25	2.55	-284.18	2.85	-426.18
3	3	6.10	-1358.46	-281.41	1467.24	0	-188.06	2.55	-698.76	2.55	-284.23	2.85	-426.25
3	4	9.15	-1358.46	-176.71	2165.72	0	255.51	2.55	-972.92	2.55	-368.09	2.85	-552.01
4	4	9.15	-1667.29	-176.77	1897.25	0	-185.95	2.55	-840.86	2.55	-368.12	2.85	-552.06
4	5	12.20	-1667.29	-58.25	2261.45	0	40.02	2.55	-966.09	2.55	-414.34	2.85	-621.38
5	5	12.20	-1667.29	-58.19	2261.60	0	40.11	2.55	-966.11	2.55	-414.36	2.85	-621.41
5	6	15.25	-1667.29	46.11	2280.21	0	42.04	2.55	-940.50	2.55	-421.24	2.85	-631.72
6	6	15.25	-1667.29	46.24	2280.16	0	42.02	2.55	-940.49	2.55	-421.23	2.85	-631.71
6	7	18.30	-1667.29	156.69	1960.34	0	-176.02	2.55	-765.22	2.55	-389.84	2.85	-584.64
7	7	18.30	-1667.29	156.70	1960.10	0	-176.16	2.55	-765.17	2.55	-389.81	2.85	-584.58
7	8	21.35	-1667.29	267.24	1303.08	0	-613.45	2.55	-440.46	2.55	-320.34	2.85	-480.41
8	8	21.35	-1667.29	266.89	1302.65	0	-613.69	2.55	-440.39	2.55	-320.28	2.85	-480.31
8	9	24.40	-1667.29	378.73	304.37	0	-1272.55	2.55	34.42	2.55	-212.12	2.85	-318.11
9	9	24.40	-2473.95	376.78	1430.74	0	-579.67	2.55	-908.21	2.55	-583.10	2.85	-730.77
9	10	27.45	-2478.59	401.13	233.03	0	-1305.80	2.55	-558.98	2.55	-423.66	2.85	-491.06
10	10	27.45	-3216.62	400.27	1322.14	0	-706.31	2.55	-1165.34	2.55	-814.90	2.85	-942.94
10	11	30.50	-3225.21	374.45	172.77	0	-1433.17	2.55	-735.56	2.55	-676.47	2.85	-734.24
11	11	30.50	-2784.59	371.96	602.82	0	-759.32	2.55	-981.14	2.55	-677.75	2.85	-735.45
11	12	33.55	-2739.96	355.22	-504.02	0	-1473.04	2.55	-452.59	2.55	-544.73	2.85	-541.72
12	10012	33.55	-2776.21	-319.28	-538.80	0	-1527.07	2.55	-432.35	2.55	-545.23	2.85	-542.22
12	13	37.19	-2846.09	-311.03	648.97	0	-734.42	2.55	-1117.30	2.55	-677.98	2.85	-732.29
13	13	37.19	-3288.46	-317.52	217.39	0	-1409.66	2.55	-871.98	2.55	-676.93	2.85	-731.19
13	14	40.82	-3245.79	-368.84	1457.22	0	-592.03	2.55	-1403.99	2.55	-806.58	2.85	-931.12
14	14	40.82	-2543.56	-370.97	95.61	0	-1468.92	2.55	-653.05	2.55	-363.01	2.85	-418.26
14	15	44.46	-2538.73	-332.32	1390.40	0	-669.84	2.55	-1077.81	2.55	-528.77	2.85	-667.47
15	15	44.46	-2044.74	-332.78	213.10	0	-1656.34	2.55	85.04	2.55	-238.08	2.85	-357.04
15	16	48.10	-2044.74	-199.46	1171.57	0	-1033.96	2.55	-336.86	2.55	-346.72	2.85	-519.96
16	16	48.10	-2044.74	-199.55	1171.99	0	-1033.72	2.55	-336.94	2.55	-346.78	2.85	-520.06
16	17	51.73	-2044.74	-64.94	1649.81	0	-723.77	2.55	-546.19	2.55	-401.09	2.85	-601.50
17	17	51.73	-2044.74	-64.61	1649.97	0	-723.68	2.55	-546.22	2.55	-401.11	2.85	-601.54
17	18	55.37	-2044.74	67.74	1644.33	0	-727.76	2.55	-542.34	2.55	-400.67	2.85	-600.88
18	18	55.37	-2044.74	68.08	1644.19	0	-727.84	2.55	-542.32	2.55	-400.65	2.85	-600.84
18	19	59.01	-2044.74	202.62	1155.14	0	-1045.91	2.55	-325.36	2.55	-345.46	2.85	-518.07
19	19	59.01	-2044.74	202.55	1154.71	0	-1046.16	2.55	-325.29	2.55	-345.39	2.85	-517.98
19	20	62.64	-2044.74	335.93	184.91	0	-1676.72	2.55	104.35	2.55	-235.86	2.85	-353.72
20	20	62.64	-2677.92	335.41	1470.80	0	-666.32	2.55	-1132.08	2.55	-577.00	2.85	-721.87
20	21	66.28	-2683.44	375.67	170.12	0	-1469.17	2.55	-705.83	2.55	-410.62	2.85	-471.64
21	21	66.28	-3270.36	370.91	1416.26	0	-623.45	2.55	-1401.88	2.55	-807.07	2.85	-928.69
21	22	69.91	-3280.62	325.79	151.38	0	-1445.82	2.55	-855.06	2.55	-665.38	2.85	-714.88
22	22	69.91	-2838.03	315.63	582.90	0	-770.54	2.55	-1100.32	2.55	-666.37	2.85	-715.92
22	23	73.55	-2781.46	323.97	-613.17	0	-1572.13	2.55	-417.23	2.55	-535.90	2.85	-527.54
23	10023	73.55	-2745.19	-362.44	-578.30	0	-1518.04	2.55	-437.48	2.55	-535.40	2.85	-527.05
23	24	76.66	-2797.25	-374.53	575.26	0	-776.25	2.55	-988.71	2.55	-675.65	2.85	-730.67
24	24	76.66	-3237.69	-377.33	144.88	0	-1450.23	2.55	-743.02	2.55	-674.28	2.85	-729.34
24	25	79.77	-3228.94	-405.62	1339.50	0	-694.94	2.55	-1189.35	2.55	-818.26	2.85	-946.39
25	25	79.77	-2377.18	-406.62	103.83	0	-1366.07	2.55	-501.60	2.55	-371.52	2.85	-430.35
25	26	82.88	-2373.05	-384.22	1355.12	0	-608.04	2.55	-865.44	2.55	-538.45	2.85	-681.22
26	26	82.88	-1735.92	-386.22	303.95	0	-1331.60	2.55	35.71	2.55	-218.56	2.85	-327.77
26	27	85.99	-1735.92	-272.73	1341.60	0	-647.26	2.55	-456.13	2.55	-331.22	2.85	-496.73
27	27	85.99	-1735.92	-273.11	1342.11	0	-646.97	2.55	-456.22	2.55	-331.30	2.85	-496.84
27	28	89.10	-1735.92	-159.83	2025.73	0	-192.55	2.55	-792.13	2.55	-403.85	2.85	-605.65
28	28	89.10	-1735.92	-159.74	2026.00	0	-192.40	2.55	-792.18	2.55	-403.89	2.85	-605.71
28	29	92.21	-1735.92	-47.37	2358.66	0	33.83	2.55	-972.64	2.55	-436.80	2.85	-655.06
29	29	92.21	-1735.92	-47.19	2358.71	0	33.86	2.55	-972.65	2.55	-436.81	2.85	-655.07
29	30	95.32	-1735.92	59.72	2339.12	0	31.19	2.55	-997.51	2.55	-429.87	2.85	-644.66
30	30	95.32	-1735.92	59.82	2338.65	0	30.92	2.55	-997.43	2.55	-429.80	2.85	-644.56
30	31	98.43	-1735.92	173.39	1961.37	0	-203.77	2.55	-865.66	2.55	-382.20	2.85	-573.18
31	31	98.43	-1392.78	173.28	2259.66	0	286.73	2.55	-1012.38	2.55	-382.17	2.85	-573.13
31	32	101.54	-1392.78	286.79	1532.80	0	-175.35	2.55	-725.45	2.55	-295.13	2.85	-442.60
32	32	101.54	-1049.64	286.55	1847.47	0	329.77	2.55	-892.66	2.55	-295.08	2.85	-442.52
32	33	104.65	-1049.64	400.22	764.73	0	-363.30	2.55	-449.43	2.55	-167.66	2.85	-251.43
33	33	104.65	-603.55	399.61	1195.19	0	312.42	2.55	-693.44	2.55	-167.59	2.85	-251.33
33	34	107.76	-603.55	305.93	-239.13	0	-609.18	2.55	-94.69	2.55	-0.42	2.85	-0.64
101	101	0.00	-603.55	-265.73	-239.89	0	-609.61	2.55	-94.56	2.55	-0.31	2.85	-0.46
101	102	3.05	-603.55	-431.68	1243.21	0	335.29	2.55	-686.89	2.55	-176.93	2.85	-265.34
102	102	3.05	-1049.64	-427.04	810.84	0	-341.51	2.55	-442.55	2.55	-176.71	2.85	-265.01
102	103	6.10	-1049.64	-299.97	1919.13	0	362.70	2.55	-878.87	2.55	-309.59	2.85	-464.29
103	103	6.10	-1358.46	-297.28	1634.46	0	-92.75	2.55	-728.12	2.55	-309.41	2.85	-464.02
103	104	9.15	-1358.46	-179.31	2371.94	0	373.04	2.55	-1009.11	2.55	-399.15	2.85	-598.60
104	104	9.15	-1667.29	-177.95	2102.44	0	-69.01	2.55	-876.87	2.55	-399.03	2.85	-598.41
104	105	12.20	-1667.29	-59.17	2480.91	0	165.10	2.55	-1004.61	2.55	-447.40	2.85	-670.96
105	105	12.20	-1667.29	-58.59	2480.84	0	165.05	2.55	-1004.59	2.55	-447.39	2.85	-670.94

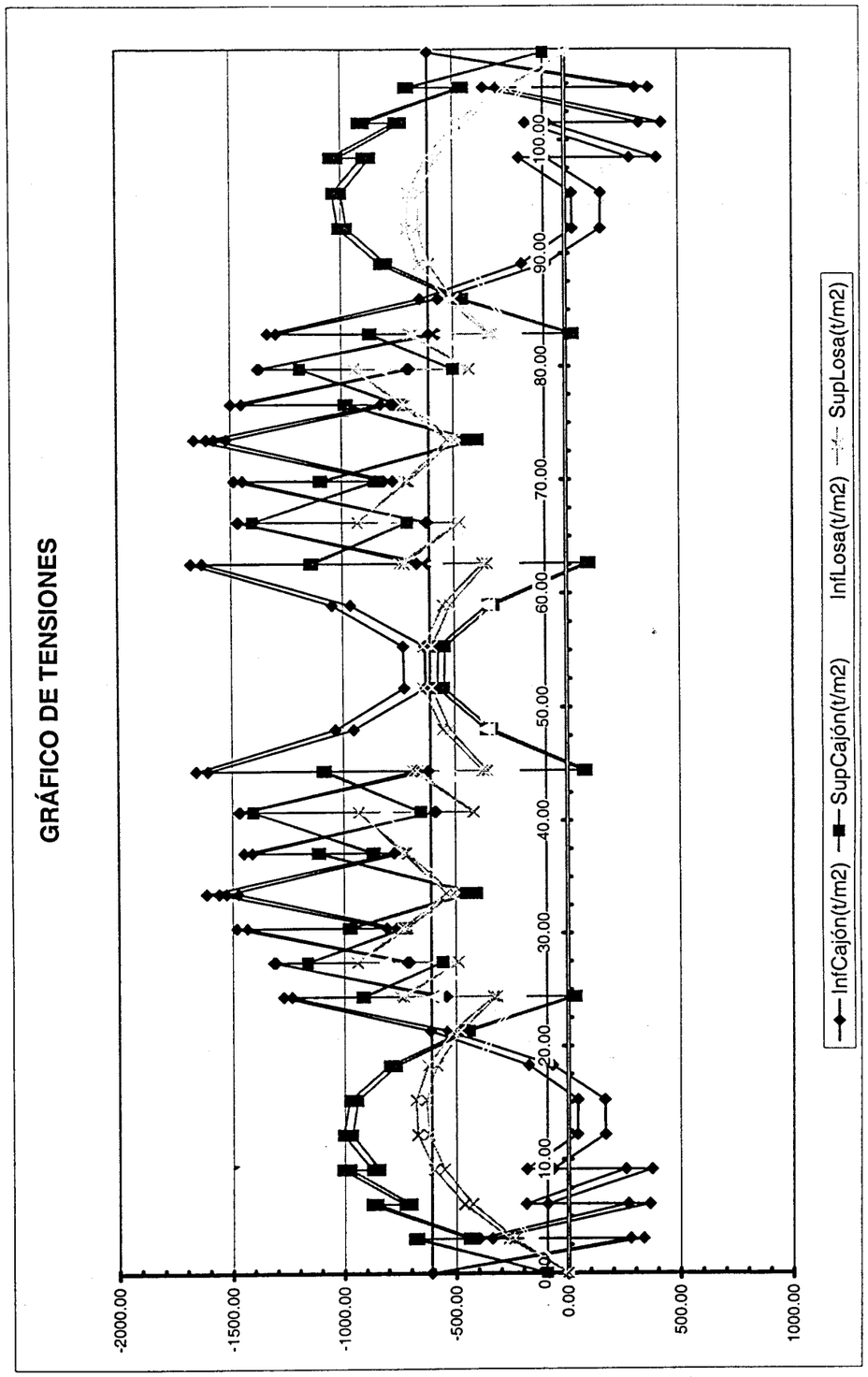
CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES2.T0.MZ+
TREN DOMINANTE CON GRADIENTE
[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [9; 1.1]PRETF3I.ISO.To + [9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	51.78	2491.19	0	162.28	2.55	-977.52	2.55	-453.02	2.85	-679.38
106	106	15.25	-1667.29	52.06	2490.82	0	162.07	2.55	-977.46	2.55	-452.96	2.85	-679.30
106	107	18.30	-1667.29	168.65	2143.63	0	-71.56	2.55	-797.38	2.55	-417.45	2.85	-626.05
107	107	18.30	-1667.29	168.98	2144.01	0	-71.34	2.55	-797.45	2.55	-417.51	2.85	-626.13
107	108	21.35	-1667.29	285.99	1439.42	0	-535.75	2.55	-464.39	2.55	-340.88	2.85	-511.21
108	108	21.35	-1667.29	286.75	1440.02	0	-535.41	2.55	-464.50	2.55	-340.97	2.85	-511.35
108	109	24.40	-1667.29	404.84	369.57	0	-1235.40	2.55	22.98	2.55	-221.94	2.85	-332.84
109	109	24.40	-2473.95	405.09	1497.20	0	-541.80	2.55	-919.87	2.55	-593.11	2.85	-745.78
109	110	27.45	-2478.59	426.84	215.42	0	-1315.84	2.55	-555.89	2.55	-421.00	2.85	-487.08
110	110	27.45	-3216.62	428.80	1305.58	0	-715.75	2.55	-1162.44	2.55	-812.40	2.85	-939.20
110	111	30.50	-3225.21	358.48	88.75	0	-1481.05	2.55	-720.82	2.55	-663.82	2.85	-715.26
111	111	30.50	-2784.60	380.25	519.89	0	-806.59	2.55	-966.58	2.55	-665.26	2.85	-716.72
111	112	33.55	-2739.96	379.54	-655.15	0	-1559.17	2.55	-426.06	2.55	-521.96	2.85	-507.57
112	10112	33.55	-2776.21	-343.74	-690.05	0	-1613.28	2.55	-405.81	2.55	-522.45	2.85	-508.04
112	113	37.19	-2846.09	-337.33	582.96	0	-772.04	2.55	-1105.72	2.55	-668.04	2.85	-717.38
113	113	37.19	-3288.46	-310.25	150.99	0	-1447.51	2.55	-860.33	2.55	-666.92	2.85	-716.19
113	114	40.82	-3245.79	-391.37	1467.83	0	-585.98	2.55	-1405.86	2.55	-808.18	2.85	-933.52
114	114	40.82	-2543.56	-390.55	105.08	0	-1463.53	2.55	-654.71	2.55	-364.44	2.85	-420.40
114	115	44.46	-2538.73	-353.32	1478.84	0	-619.43	2.55	-1093.33	2.55	-542.10	2.85	-687.45
115	115	44.46	-2044.74	-352.00	300.17	0	-1606.72	2.55	69.72	2.55	-251.20	2.85	-376.71
115	116	48.10	-2044.74	-211.08	1314.96	0	-952.24	2.55	-362.03	2.55	-368.32	2.85	-552.36
116	116	48.10	-2044.74	-210.76	1314.47	0	-952.52	2.55	-361.94	2.55	-368.24	2.85	-552.25
116	117	51.73	-2044.74	-68.33	1818.70	0	-627.52	2.55	-575.83	2.55	-426.53	2.85	-639.66
117	117	51.73	-2044.74	-68.43	1818.53	0	-627.61	2.55	-575.80	2.55	-426.51	2.85	-639.62
117	118	55.37	-2044.74	71.63	1812.80	0	-631.74	2.55	-571.92	2.55	-426.05	2.85	-638.93
118	118	55.37	-2044.74	71.52	1812.97	0	-631.64	2.55	-571.95	2.55	-426.07	2.85	-638.97
118	119	59.01	-2044.74	213.90	1297.27	0	-964.91	2.55	-350.31	2.55	-366.87	2.85	-550.18
119	119	59.01	-2044.74	214.26	1297.74	0	-964.64	2.55	-350.39	2.55	-366.94	2.85	-550.29
119	120	62.64	-2044.74	355.26	271.24	0	-1627.52	2.55	89.20	2.55	-248.87	2.85	-373.22
120	120	62.64	-2677.92	356.62	1558.45	0	-616.37	2.55	-1147.46	2.55	-590.21	2.85	-741.67
120	121	66.28	-2683.44	395.59	178.23	0	-1464.55	2.55	-707.26	2.55	-411.84	2.85	-473.47
121	121	66.28	-3270.36	395.08	1425.51	0	-618.18	2.55	-1403.50	2.55	-808.46	2.85	-930.78
121	122	69.91	-3280.62	345.71	83.25	0	-1484.65	2.55	-843.11	2.55	-655.11	2.85	-699.49
122	122	69.91	-2838.03	342.08	515.25	0	-809.10	2.55	-1088.44	2.55	-656.18	2.85	-700.63
122	123	73.55	-2781.46	348.63	-766.49	0	-1659.51	2.55	-390.33	2.55	-512.80	2.85	-492.90
123	10123	73.55	-2745.19	-386.97	-731.97	0	-1605.62	2.55	-410.51	2.55	-512.25	2.85	-492.33
123	124	76.66	-2797.25	-359.88	493.22	0	-823.01	2.55	-974.31	2.55	-663.29	2.85	-712.14
124	124	76.66	-3237.69	-361.44	61.61	0	-1497.69	2.55	-728.41	2.55	-661.73	2.85	-710.53
124	125	79.77	-3228.94	-434.02	1323.41	0	-704.11	2.55	-1186.53	2.55	-815.83	2.85	-942.75
125	125	79.77	-2377.18	-432.18	86.68	0	-1375.85	2.55	-498.59	2.55	-368.94	2.85	-426.48
125	126	82.88	-2373.05	-412.49	1424.08	0	-568.74	2.55	-877.54	2.55	-548.84	2.85	-696.80
126	126	82.88	-1735.92	-412.34	371.57	0	-1293.06	2.55	23.84	2.55	-228.75	2.85	-343.05
126	127	85.99	-1735.92	-292.52	1482.63	0	-566.89	2.55	-480.88	2.55	-352.47	2.85	-528.59
127	127	85.99	-1735.92	-291.91	1482.05	0	-567.21	2.55	-480.78	2.55	-352.38	2.85	-528.46
127	128	89.10	-1735.92	-172.01	2214.09	0	-85.20	2.55	-825.19	2.55	-432.23	2.85	-648.20
128	128	89.10	-1735.92	-171.74	2213.73	0	-85.40	2.55	-825.13	2.55	-432.17	2.85	-648.12
128	129	92.21	-1735.92	-53.11	2574.72	0	156.97	2.55	-1010.56	2.55	-469.35	2.85	-703.87
129	129	92.21	-1735.92	-52.97	2574.46	0	156.82	2.55	-1010.52	2.55	-469.31	2.85	-703.81
129	130	95.32	-1735.92	60.14	2563.39	0	159.00	2.55	-1036.86	2.55	-463.65	2.85	-695.33
130	130	95.32	-1735.92	60.61	2563.59	0	159.12	2.55	-1036.90	2.55	-463.68	2.85	-695.38
130	131	98.43	-1735.92	181.03	2172.28	0	-83.57	2.55	-902.67	2.55	-413.97	2.85	-620.83
131	131	98.43	-1392.78	182.32	2471.71	0	407.58	2.55	-1049.59	2.55	-414.11	2.85	-621.03
131	132	101.54	-1392.78	302.60	1704.82	0	-77.32	2.55	-755.64	2.55	-321.04	2.85	-481.46
132	132	101.54	-1049.64	305.35	2021.02	0	428.68	2.55	-923.13	2.55	-321.22	2.85	-481.73
132	133	104.65	-1049.64	425.43	868.35	0	-304.25	2.55	-467.61	2.55	-183.27	2.85	-274.84
133	133	104.65	-603.55	430.22	1300.72	0	372.56	2.55	-711.95	2.55	-183.49	2.85	-275.17
133	134	107.76	-603.55	273.15	-239.82	0	-609.58	2.55	-94.57	2.55	-0.32	2.85	-0.48

GRÁFICO DE TENSIONES



CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES3.T0.MZ+
GRADIENTE DOMINATE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-603.55	-290.65	-239.75	0	-609.53	2.55	-94.58	2.55	-0.33	2.85	-0.50
1	2	3.05	-603.55	-365.16	1018.99	0	207.51	2.55	-647.54	2.55	-143.16	2.85	-214.69
2	2	3.05	-1049.64	-365.84	588.46	0	-468.25	2.55	-403.52	2.55	-143.21	2.85	-214.77
2	3	6.10	-1049.64	-257.39	1538.42	0	145.72	2.55	-812.04	2.55	-252.24	2.85	-378.28
3	3	6.10	-1358.46	-257.62	1255.22	0	-308.89	2.55	-661.55	2.55	-252.29	2.85	-378.35
3	4	9.15	-1358.46	-161.43	1894.16	0	100.75	2.55	-925.25	2.55	-327.18	2.85	-490.66
4	4	9.15	-1667.29	-161.49	1625.69	0	-340.72	2.55	-793.20	2.55	-327.21	2.85	-490.71
4	5	12.20	-1667.29	-54.35	1959.43	0	-132.11	2.55	-913.08	2.55	-368.84	2.85	-553.15
5	5	12.20	-1667.29	-54.27	1959.57	0	-132.03	2.55	-913.11	2.55	-368.86	2.85	-553.18
5	6	15.25	-1667.29	41.60	1979.05	0	-129.60	2.55	-887.64	2.55	-375.87	2.85	-563.68
6	6	15.25	-1667.29	41.74	1979.00	0	-129.62	2.55	-887.63	2.55	-375.86	2.85	-563.67
6	7	18.30	-1667.29	142.49	1689.86	0	-330.17	2.55	-717.74	2.55	-349.10	2.85	-523.53
7	7	18.30	-1667.29	142.51	1689.63	0	-330.30	2.55	-717.71	2.55	-349.06	2.85	-523.48
7	8	21.35	-1667.29	243.33	1092.91	0	-733.23	2.55	-403.58	2.55	-288.68	2.85	-432.93
8	8	21.35	-1667.29	243.01	1092.52	0	-733.45	2.55	-403.51	2.55	-288.62	2.85	-432.84
8	9	24.40	-1667.29	344.85	185.16	0	-1340.49	2.55	55.34	2.55	-194.16	2.85	-291.18
9	9	24.40	-2473.95	342.97	1311.58	0	-647.58	2.55	-887.29	2.55	-565.15	2.85	-703.85
9	10	27.45	-2478.59	363.97	228.74	0	-1308.25	2.55	-558.23	2.55	-423.01	2.85	-490.09
10	10	27.45	-3216.62	363.07	1318.11	0	-708.61	2.55	-1164.63	2.55	-814.29	2.85	-942.03
10	11	30.50	-3225.21	353.38	252.33	0	-1387.82	2.55	-749.53	2.55	-688.46	2.85	-752.21
11	11	30.50	-2784.59	351.23	682.58	0	-713.87	2.55	-995.13	2.55	-689.77	2.85	-753.47
11	12	33.55	-2739.96	348.76	-390.42	0	-1408.30	2.55	-472.53	2.55	-561.84	2.85	-567.38
12	10012	33.55	-2776.21	-322.59	-425.21	0	-1462.34	2.55	-452.29	2.55	-562.34	2.85	-567.88
12	13	37.19	-2846.09	-303.17	756.91	0	-672.90	2.55	-1136.25	2.55	-694.24	2.85	-756.68
13	13	37.19	-3288.46	-308.55	325.43	0	-1348.09	2.55	-890.94	2.55	-693.20	2.85	-755.60
13	14	40.82	-3245.79	-336.98	1490.03	0	-573.33	2.55	-1409.75	2.55	-811.52	2.85	-938.54
14	14	40.82	-2543.56	-338.80	128.09	0	-1450.42	2.55	-658.75	2.55	-367.90	2.85	-425.60
14	15	44.46	-2538.73	-302.29	1310.29	0	-715.49	2.55	-1063.75	2.55	-516.71	2.85	-649.38
15	15	44.46	-2044.74	-302.75	132.91	0	-1702.04	2.55	99.08	2.55	-226.00	2.85	-338.93
15	16	48.10	-2044.74	-181.35	1005.78	0	-1128.45	2.55	-307.77	2.55	-321.74	2.85	-482.51
16	16	48.10	-2044.74	-181.43	1006.16	0	-1128.23	2.55	-307.83	2.55	-321.80	2.85	-482.60
16	17	51.73	-2044.74	-59.00	1440.88	0	-842.84	2.55	-509.52	2.55	-369.62	2.85	-554.30
17	17	51.73	-2044.74	-58.71	1441.03	0	-842.76	2.55	-509.55	2.55	-369.64	2.85	-554.34
17	18	55.37	-2044.74	61.93	1435.23	0	-846.93	2.55	-505.64	2.55	-369.17	2.85	-553.64
18	18	55.37	-2044.74	62.23	1435.10	0	-847.00	2.55	-505.62	2.55	-369.15	2.85	-553.61
18	19	59.01	-2044.74	184.60	988.83	0	-1140.70	2.55	-296.18	2.55	-320.40	2.85	-480.50
19	19	59.01	-2044.74	184.52	988.44	0	-1140.92	2.55	-296.11	2.55	-320.34	2.85	-480.41
19	20	62.64	-2044.74	305.97	103.96	0	-1722.86	2.55	118.56	2.55	-223.67	2.85	-335.43
20	20	62.64	-2677.92	305.46	1389.92	0	-712.41	2.55	-1117.88	2.55	-564.82	2.85	-703.60
20	21	66.28	-2683.44	343.10	202.37	0	-1450.79	2.55	-711.49	2.55	-415.48	2.85	-478.93
21	21	66.28	-3270.36	338.58	1448.85	0	-604.87	2.55	-1407.60	2.55	-811.98	2.85	-936.05
21	22	69.91	-3280.62	315.68	262.42	0	-1382.54	2.55	-874.55	2.55	-682.10	2.85	-739.97
22	22	69.91	-2838.03	307.39	693.85	0	-707.31	2.55	-1119.79	2.55	-683.08	2.85	-740.98
22	23	73.55	-2781.46	326.88	-494.80	0	-1504.67	2.55	-438.01	2.55	-553.73	2.85	-554.28
23	10023	73.55	-2745.19	-355.82	-459.93	0	-1450.58	2.55	-458.25	2.55	-553.23	2.85	-553.79
23	24	76.66	-2797.25	-354.39	658.85	0	-728.62	2.55	-1003.38	2.55	-688.24	2.85	-749.56
24	24	76.66	-3237.69	-356.80	228.34	0	-1402.67	2.55	-757.67	2.55	-686.85	2.85	-748.19
24	25	79.77	-3228.94	-368.23	1336.21	0	-696.82	2.55	-1188.77	2.55	-817.76	2.85	-945.64
25	25	79.77	-2377.18	-369.25	100.27	0	-1368.10	2.55	-500.98	2.55	-370.98	2.85	-429.55
25	26	82.88	-2373.05	-349.72	1232.10	0	-678.15	2.55	-843.85	2.55	-519.92	2.85	-653.43
26	26	82.88	-1735.92	-351.67	180.87	0	-1401.74	2.55	57.31	2.55	-200.02	2.85	-299.96
26	27	85.99	-1735.92	-248.25	1124.02	0	-771.26	2.55	-417.95	2.55	-298.45	2.85	-447.57
27	27	85.99	-1735.92	-248.58	1124.48	0	-771.00	2.55	-418.03	2.55	-298.52	2.85	-447.68
27	28	89.10	-1735.92	-145.34	1745.24	0	-352.40	2.55	-742.91	2.55	-361.60	2.85	-542.28
28	28	89.10	-1735.92	-145.23	1745.49	0	-352.27	2.55	-742.95	2.55	-361.63	2.85	-542.34
28	29	92.21	-1735.92	-42.71	2046.14	0	-144.28	2.55	-917.80	2.55	-389.72	2.85	-584.46
29	29	92.21	-1735.92	-42.52	2046.19	0	-144.25	2.55	-917.80	2.55	-389.73	2.85	-584.47
29	30	95.32	-1735.92	56.67	2025.64	0	-147.47	2.55	-942.49	2.55	-382.64	2.85	-573.84
30	30	95.32	-1735.92	55.80	2025.19	0	-147.72	2.55	-942.42	2.55	-382.58	2.85	-573.74
30	31	98.43	-1735.92	159.28	1679.22	0	-364.58	2.55	-816.14	2.55	-339.70	2.85	-509.44
31	31	98.43	-1392.78	159.18	1977.51	0	125.93	2.55	-962.86	2.55	-339.66	2.85	-509.38
31	32	101.54	-1392.78	262.62	1312.53	0	-300.89	2.55	-686.79	2.55	-261.95	2.85	-392.84
32	32	101.54	-1049.64	262.35	1627.20	0	204.23	2.55	-854.00	2.55	-261.90	2.85	-392.76
32	33	104.65	-1049.64	365.91	638.52	0	-435.23	2.55	-427.28	2.55	-148.64	2.85	-222.92
33	33	104.65	-603.55	365.25	1068.99	0	240.49	2.55	-671.29	2.55	-148.58	2.85	-222.82
33	34	107.76	-603.55	298.69	-239.66	0	-609.48	2.55	-94.60	2.55	-0.34	2.85	-0.52
101	101	0.00	-603.55	-258.07	-240.35	0	-609.87	2.55	-94.48	2.55	-0.24	2.85	-0.36
101	102	3.05	-603.55	-392.57	1110.24	0	259.51	2.55	-663.55	2.55	-156.90	2.85	-235.30
102	102	3.05	-1049.64	-388.70	678.08	0	-417.18	2.55	-419.25	2.55	-156.71	2.85	-235.02
102	103	6.10	-1049.64	-274.01	1688.40	0	231.19	2.55	-838.37	2.55	-274.83	2.85	-412.16
103	103	6.10	-1358.46	-271.78	1403.89	0	-224.16	2.55	-687.65	2.55	-274.68	2.85	-411.93
103	104	9.15	-1358.46	-164.31	2077.41	0	205.18	2.55	-957.42	2.55	-354.78	2.85	-532.06
104	104	9.15	-1667.29	-163.22	1808.03	0	-236.80	2.55	-825.20	2.55	-354.68	2.85	-531.90
104	105	12.20	-1667.29	-55.10	2154.32	0	-21.04	2.55	-947.29	2.55	-398.20	2.85	-597.18
105	105	12.20	-1667.29	-54.66	2154.29	0	-21.05	2.55	-947.28	2.55	-398.20	2.85	-597.17

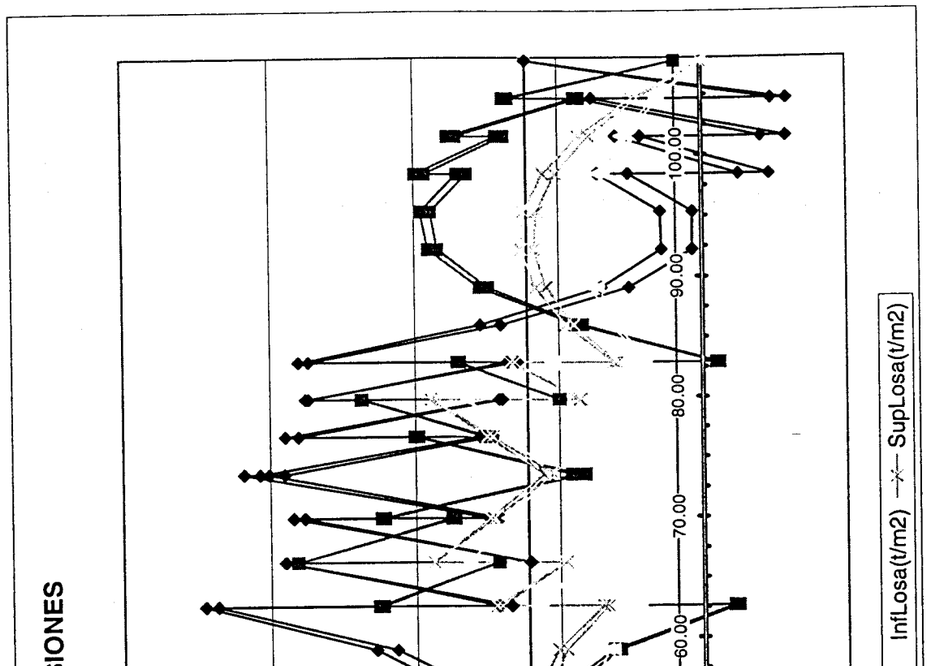
CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES3.T0.MZ+
GRADIENTE DOMINATE

[1; 1]PPCF1 + [1; 1]PPLF3 + [1; 1]PPLF2 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1667.29	46.79	2166.23	0	-22.92	2.55	-920.49	2.55	-404.07	2.85	-605.97
106	106	15.25	-1667.29	46.98	2165.85	0	-23.13	2.55	-920.43	2.55	-404.01	2.85	-605.89
106	107	18.30	-1667.29	153.36	1852.03	0	-237.74	2.55	-746.21	2.55	-373.53	2.85	-560.17
107	107	18.30	-1667.29	153.61	1852.37	0	-237.55	2.55	-746.27	2.55	-373.58	2.85	-560.25
107	108	21.35	-1667.29	260.32	1212.59	0	-665.02	2.55	-424.58	2.55	-306.71	2.85	-459.97
108	108	21.35	-1667.29	260.97	1213.12	0	-664.72	2.55	-424.67	2.55	-306.79	2.85	-460.09
108	109	24.40	-1667.29	368.53	240.64	0	-1308.88	2.55	45.61	2.55	-202.52	2.85	-303.71
109	109	24.40	-2473.95	368.59	1368.18	0	-615.33	2.55	-897.23	2.55	-573.68	2.85	-716.64
109	110	27.45	-2478.59	387.04	210.04	0	-1318.90	2.55	-554.95	2.55	-420.19	2.85	-485.86
110	110	27.45	-3216.62	388.61	1300.32	0	-718.75	2.55	-1161.51	2.55	-811.61	2.85	-938.01
110	111	30.50	-3225.21	344.20	171.34	0	-1433.98	2.55	-735.31	2.55	-676.26	2.85	-733.91
111	111	30.50	-2784.60	361.58	602.50	0	-759.51	2.55	-981.08	2.55	-677.70	2.85	-735.38
111	112	33.55	-2739.96	372.34	-536.87	0	-1491.76	2.55	-446.82	2.55	-539.78	2.85	-534.29
112	10112	33.55	-2776.21	-346.17	-571.77	0	-1545.86	2.55	-426.57	2.55	-540.26	2.85	-534.77
112	113	37.19	-2846.09	-327.58	692.03	0	-709.88	2.55	-1124.86	2.55	-684.47	2.85	-742.02
113	113	37.19	-3288.46	-305.98	260.17	0	-1385.28	2.55	-879.49	2.55	-683.37	2.85	-740.85
113	114	40.82	-3245.79	-357.40	1496.26	0	-569.78	2.55	-1410.85	2.55	-812.46	2.85	-939.94
114	114	40.82	-2543.56	-356.62	133.32	0	-1447.43	2.55	-659.67	2.55	-368.69	2.85	-426.78
114	115	44.46	-2538.73	-321.40	1387.69	0	-671.38	2.55	-1077.33	2.55	-528.37	2.85	-666.86
115	115	44.46	-2044.74	-320.26	209.10	0	-1658.62	2.55	85.71	2.55	-237.48	2.85	-356.14
115	116	48.10	-2044.74	-191.92	1133.21	0	-1055.82	2.55	-330.13	2.55	-340.94	2.85	-511.30
116	116	48.10	-2044.74	-191.64	1132.78	0	-1056.07	2.55	-330.05	2.55	-340.87	2.85	-511.20
116	117	51.73	-2044.74	-62.09	1591.58	0	-756.96	2.55	-535.97	2.55	-392.32	2.85	-588.35
117	117	51.73	-2044.74	-62.19	1591.43	0	-757.04	2.55	-535.94	2.55	-392.29	2.85	-588.31
117	118	55.37	-2044.74	65.48	1585.53	0	-761.26	2.55	-532.03	2.55	-391.81	2.85	-587.59
118	118	55.37	-2044.74	65.37	1585.68	0	-761.18	2.55	-532.06	2.55	-391.83	2.85	-587.62
118	119	59.01	-2044.74	194.88	1115.08	0	-1068.74	2.55	-318.33	2.55	-339.42	2.85	-509.02
119	119	59.01	-2044.74	195.19	1115.50	0	-1068.50	2.55	-318.41	2.55	-339.49	2.85	-509.12
119	120	62.64	-2044.74	323.59	179.39	0	-1679.87	2.55	105.32	2.55	-235.03	2.85	-352.47
120	120	62.64	-2677.92	324.77	1466.51	0	-668.76	2.55	-1131.33	2.55	-576.36	2.85	-720.90
120	121	66.28	-2683.44	361.22	206.33	0	-1448.53	2.55	-712.19	2.55	-416.08	2.85	-479.82
121	121	66.28	-3270.36	360.33	1453.81	0	-602.05	2.55	-1408.47	2.55	-812.72	2.85	-937.17
121	122	69.91	-3280.62	334.69	195.48	0	-1420.69	2.55	-862.80	2.55	-672.02	2.85	-724.84
122	122	69.91	-2838.03	331.96	627.36	0	-745.21	2.55	-1108.12	2.55	-673.06	2.85	-725.96
122	123	73.55	-2781.46	350.66	-643.39	0	-1589.36	2.55	-411.93	2.55	-531.34	2.85	-520.71
123	10123	73.55	-2745.19	-379.60	-608.87	0	-1535.46	2.55	-432.11	2.55	-530.80	2.85	-520.14
123	124	76.66	-2797.25	-346.59	579.38	0	-773.90	2.55	-989.43	2.55	-676.27	2.85	-731.60
124	124	76.66	-3237.69	-347.69	147.79	0	-1448.57	2.55	-743.53	2.55	-674.72	2.85	-729.99
124	125	79.77	-3228.94	-393.67	1318.86	0	-706.70	2.55	-1185.73	2.55	-815.15	2.85	-941.73
125	125	79.77	-2377.18	-392.21	82.00	0	-1378.51	2.55	-497.77	2.55	-368.23	2.85	-425.42
125	126	82.88	-2373.05	-375.31	1290.99	0	-644.59	2.55	-854.18	2.55	-528.79	2.85	-666.74
126	126	82.88	-1735.92	-375.35	238.57	0	-1368.86	2.55	47.18	2.55	-208.71	2.85	-313.00
126	127	85.99	-1735.92	-266.13	1247.94	0	-700.64	2.55	-439.69	2.55	-317.11	2.85	-475.57
127	127	85.99	-1735.92	-265.62	1247.43	0	-700.93	2.55	-439.60	2.55	-317.04	2.85	-475.46
127	128	89.10	-1735.92	-156.34	1912.00	0	-257.37	2.55	-772.17	2.55	-386.72	2.85	-579.95
128	128	89.10	-1735.92	-156.15	1911.69	0	-257.55	2.55	-772.12	2.55	-386.67	2.85	-579.88
128	129	92.21	-1735.92	-47.87	2237.91	0	-34.99	2.55	-951.45	2.55	-418.61	2.85	-627.78
129	129	92.21	-1735.92	-47.81	2237.66	0	-35.13	2.55	-951.41	2.55	-418.57	2.85	-627.72
129	130	95.32	-1735.92	56.09	2224.86	0	-33.93	2.55	-977.45	2.55	-412.66	2.85	-618.85
130	130	95.32	-1735.92	56.43	2225.01	0	-33.84	2.55	-977.47	2.55	-412.68	2.85	-618.89
130	131	98.43	-1735.92	166.12	1866.63	0	-257.77	2.55	-849.02	2.55	-367.93	2.85	-551.78
131	131	98.43	-1392.78	167.16	2165.93	0	233.31	2.55	-995.92	2.55	-368.05	2.85	-551.95
131	132	101.54	-1392.78	276.74	1465.48	0	-213.72	2.55	-713.64	2.55	-284.99	2.85	-427.39
132	132	101.54	-1049.64	279.02	1781.51	0	292.18	2.55	-881.09	2.55	-285.14	2.85	-427.62
132	133	104.65	-1049.64	388.44	730.69	0	-382.70	2.55	-443.45	2.55	-162.53	2.85	-243.74
133	133	104.65	-603.55	392.44	1162.86	0	293.99	2.55	-687.75	2.55	-162.72	2.85	-244.03
133	134	107.76	-603.55	265.09	-240.30	0	-609.84	2.55	-94.48	2.55	-0.25	2.85	-0.37



TCIERRE.MS

CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM1.Tinf.MZ+
SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D ISO.To + [.95; 1.05]PRETF1D HIP.To + [.9; 1.1]PRETF3I ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-473.47	-311.09	-73.83	0	-523.26	2.55	-48.17	2.55	-12.80	2.85	6.92
1	2	3.05	-473.47	-279.67	888.31	0	119.28	2.55	-383.11	2.55	-138.77	2.85	-173.11
2	2	3.05	-823.41	-280.55	635.86	0	-419.21	2.55	-284.89	2.55	-131.74	2.85	-144.53
2	3	6.10	-823.41	-205.60	1377.12	0	74.06	2.55	-538.27	2.55	-229.47	2.85	-284.20
3	3	6.10	-1065.68	-206.01	1214.02	0	-289.80	2.55	-478.14	2.55	-225.58	2.85	-265.80
3	4	9.15	-1065.68	-134.15	1732.70	0	53.11	2.55	-649.56	2.55	-294.80	2.85	-364.78
4	4	9.15	-1307.94	-134.25	1581.12	0	-301.90	2.55	-597.28	2.55	-291.87	2.85	-347.73
4	5	12.20	-1307.94	-59.63	1877.94	0	-109.05	2.55	-686.76	2.55	-332.71	2.85	-406.19
5	5	12.20	-1307.94	-59.53	1878.03	0	-108.99	2.55	-686.78	2.55	-332.72	2.85	-406.21
5	6	15.25	-1307.94	12.24	1950.20	0	-67.82	2.55	-693.81	2.55	-344.76	2.85	-423.52
6	6	15.25	-1307.94	12.38	1950.15	0	-67.86	2.55	-693.80	2.55	-344.75	2.85	-423.51
6	7	18.30	-1307.94	85.39	1798.97	0	-177.66	2.55	-618.58	2.55	-328.19	2.85	-399.98
7	7	18.30	-1307.94	85.43	1798.80	0	-177.77	2.55	-618.53	2.55	-328.16	2.85	-399.94
7	8	21.35	-1307.94	158.44	1424.79	0	-438.21	2.55	-461.17	2.55	-283.07	2.85	-335.68
8	8	21.35	-1307.93	158.22	1424.51	0	-438.39	2.55	-461.10	2.55	-283.02	2.85	-335.62
8	9	24.40	-1307.93	231.49	827.42	0	-849.55	2.55	-221.63	2.55	-209.36	2.85	-230.56
9	9	24.40	-2046.22	229.76	1731.87	0	-262.78	2.55	-965.71	2.55	-535.28	2.85	-616.63
9	10	27.45	-2050.29	241.31	1027.30	0	-731.44	2.55	-751.41	2.55	-439.46	2.85	-479.81
10	10	27.45	-2727.96	240.27	1898.32	0	-172.46	2.55	-1367.16	2.55	-760.57	2.85	-864.14
10	11	30.50	-2735.50	276.80	1120.76	0	-699.54	2.55	-1105.60	2.55	-659.18	2.85	-719.46
11	11	30.50	-2391.04	275.60	1373.50	0	-162.46	2.55	-1206.13	2.55	-667.53	2.85	-749.41
11	12	33.55	-2351.89	313.96	451.27	0	-781.86	2.55	-857.19	2.55	-538.52	2.85	-570.45
12	10012	33.55	-2380.73	-333.21	430.52	0	-824.86	2.55	-849.53	2.55	-538.32	2.85	-568.56
12	13	37.19	-2442.04	-281.84	1594.03	0	-45.14	2.55	-1309.85	2.55	-701.59	2.85	-794.05
13	13	37.19	-2788.26	-283.99	1340.88	0	-582.99	2.55	-1209.95	2.55	-693.59	2.85	-764.43
13	14	40.82	-2746.84	-246.91	2295.30	0	[74.10]	2.55	-1530.55	2.55	-808.63	2.85	-931.74
14	14	40.82	-2086.22	-247.87	1232.39	0	-719.10	2.55	-807.60	2.55	-443.25	2.85	-488.22
14	15	44.46	-2081.99	-217.47	2096.79	0	-145.00	2.55	-1078.10	2.55	-559.86	2.85	-654.79
15	15	44.46	-1604.04	-217.93	1194.30	0	-925.17	2.55	-314.63	2.55	-283.59	2.85	-320.23
15	16	48.10	-1604.04	-130.57	1826.06	0	-498.48	2.55	-546.64	2.55	-364.59	2.85	-435.89
16	16	48.10	-1604.05	-130.65	1826.31	0	-498.33	2.55	-546.70	2.55	-364.63	2.85	-435.94
16	17	51.73	-1604.05	-43.04	2141.52	0	-285.61	2.55	-662.05	2.55	-405.10	2.85	-493.74
17	17	51.73	-1604.05	-42.88	2141.61	0	-285.55	2.55	-662.07	2.55	-405.11	2.85	-493.76
17	18	55.37	-1604.05	44.28	2139.10	0	-287.53	2.55	-660.48	2.55	-404.88	2.85	-493.44
18	18	55.37	-1604.05	44.45	2139.01	0	-287.59	2.55	-660.46	2.55	-404.87	2.85	-493.42
18	19	59.01	-1604.05	132.05	1818.77	0	-504.27	2.55	-541.95	2.55	-363.94	2.85	-434.99
19	19	59.01	-1604.05	131.95	1818.50	0	-504.44	2.55	-541.88	2.55	-363.90	2.85	-434.93
19	20	62.64	-1604.05	219.32	1181.70	0	-935.10	2.55	-306.69	2.55	-282.44	2.85	-318.63
20	20	62.64	-2204.09	218.83	2179.45	0	-127.20	2.55	-1148.16	2.55	-600.41	2.85	-701.21
20	21	66.28	-2208.93	249.01	1318.58	0	-699.36	2.55	-878.55	2.55	-484.50	2.85	-535.57
21	21	66.28	-2772.43	245.17	2280.23	0	[55.74]	2.55	-1535.97	2.55	-812.53	2.85	-935.03
21	22	69.91	-2781.43	285.86	1320.52	0	-595.22	2.55	-1200.84	2.55	-689.19	2.85	-758.84
22	22	69.91	-2434.98	282.97	1573.65	0	-57.31	2.55	-1300.64	2.55	-697.13	2.85	-788.40
22	23	73.55	-2385.36	334.36	414.70	0	-837.55	2.55	-846.09	2.55	-537.28	2.85	-566.68
23	10023	73.55	-2356.48	-319.77	435.51	0	-794.50	2.55	-853.74	2.55	-537.48	2.85	-568.58
23	24	76.66	-2402.15	-279.66	1396.63	0	-150.55	2.55	-1218.97	2.55	-673.12	2.85	-756.34
24	24	76.66	-2746.45	-280.93	1143.82	0	-687.63	2.55	-1118.36	2.55	-664.72	2.85	-726.33
24	25	79.77	-2738.77	-244.05	1950.96	0	-140.60	2.55	-1389.86	2.55	-770.01	2.85	-876.57
25	25	79.77	-1958.07	-245.15	960.81	0	-768.23	2.55	-688.69	2.55	-403.51	2.85	-438.30
25	26	82.88	-1954.44	-233.75	1697.62	0	-278.45	2.55	-912.61	2.55	-503.93	2.85	-581.62
26	26	82.88	-1361.78	-235.54	868.46	0	-879.20	2.55	-233.73	2.55	-218.86	2.85	-241.22
26	27	85.99	-1361.78	-160.92	1487.53	0	-453.05	2.55	-481.67	2.55	-295.28	2.85	-350.22
27	27	85.99	-1361.78	-161.11	1487.84	0	-452.84	2.55	-481.75	2.55	-295.33	2.85	-350.29
27	28	89.10	-1361.78	-86.54	1875.02	0	-183.38	2.55	-644.32	2.55	-342.05	2.85	-416.88
28	28	89.10	-1361.78	-86.43	1875.20	0	-183.26	2.55	-644.36	2.55	-342.08	2.85	-416.92
28	29	92.21	-1361.78	-12.05	2030.43	0	-70.59	2.55	-721.47	2.55	-359.10	2.85	-441.11
29	29	92.21	-1361.78	-11.83	2030.48	0	-70.55	2.55	-721.48	2.55	-359.11	2.85	-441.12
29	30	95.32	-1361.78	61.45	1953.30	0	-114.96	2.55	-713.04	2.55	-346.36	2.85	-422.80
30	30	95.32	-1361.78	61.63	1952.91	0	-115.22	2.55	-712.94	2.55	-346.31	2.85	-422.72
30	31	98.43	-1361.78	136.26	1642.51	0	-317.13	2.55	-618.82	2.55	-303.67	2.85	-361.71
31	31	98.43	-1092.60	136.20	1810.94	0	77.32	2.55	-676.91	2.55	-306.93	2.85	-380.65
31	32	101.54	-1092.60	210.82	1269.05	0	-281.11	2.55	-497.43	2.55	-234.66	2.85	-277.34
32	32	101.54	-823.41	210.44	1450.30	0	123.20	2.55	-564.24	2.55	-238.99	2.85	-297.79
32	33	104.65	-823.41	285.09	676.78	0	-391.71	2.55	-299.48	2.55	-137.05	2.85	-152.11
33	33	104.65	-473.47	284.24	929.20	0	146.76	2.55	-397.70	2.55	-144.08	2.85	-180.68
33	34	107.76	-473.47	318.58	-73.80	0	-523.25	2.55	-48.18	2.55	-12.80	2.85	6.91
101	101	0.00	-473.47	-276.39	-74.26	0	-523.54	2.55	-48.07	2.55	-12.73	2.85	7.01
101	102	3.05	-473.47	-297.25	947.79	0	157.34	2.55	-397.35	2.55	-147.51	2.85	-185.58
102	102	3.05	-823.41	-295.58	694.31	0	-381.81	2.55	-298.88	2.55	-140.33	2.85	-156.78
102	103	6.10	-823.41	-216.28	1474.79	0	136.56	2.55	-561.65	2.55	-243.81	2.85	-304.69
103	103	6.10	-1065.68	-215.38	1310.87	0	-227.82	2.55	-501.33	2.55	-239.80	2.85	-286.11
103	104	9.15	-1065.68	-137.89	1851.73	0	129.26	2.55	-678.04	2.55	-312.29	2.85	-389.74
104	104	9.15	-1307.94	-137.55	1699.60	0	-226.10	2.55	-625.63	2.55	-309.27	2.85	-372.58
104	105	12.20	-1307.94	-59.91	2004.08	0	-28.36	2.55	-716.93	2.55	-351.24	2.85	-432.65
105	105	12.20	-1307.94	-59.86	2004.19	0	-28.29	2.55	-716.96	2.55	-351.25	2.85	-432.67

CÁLCULO TENSIONAL

Hipótesis de cálculo:

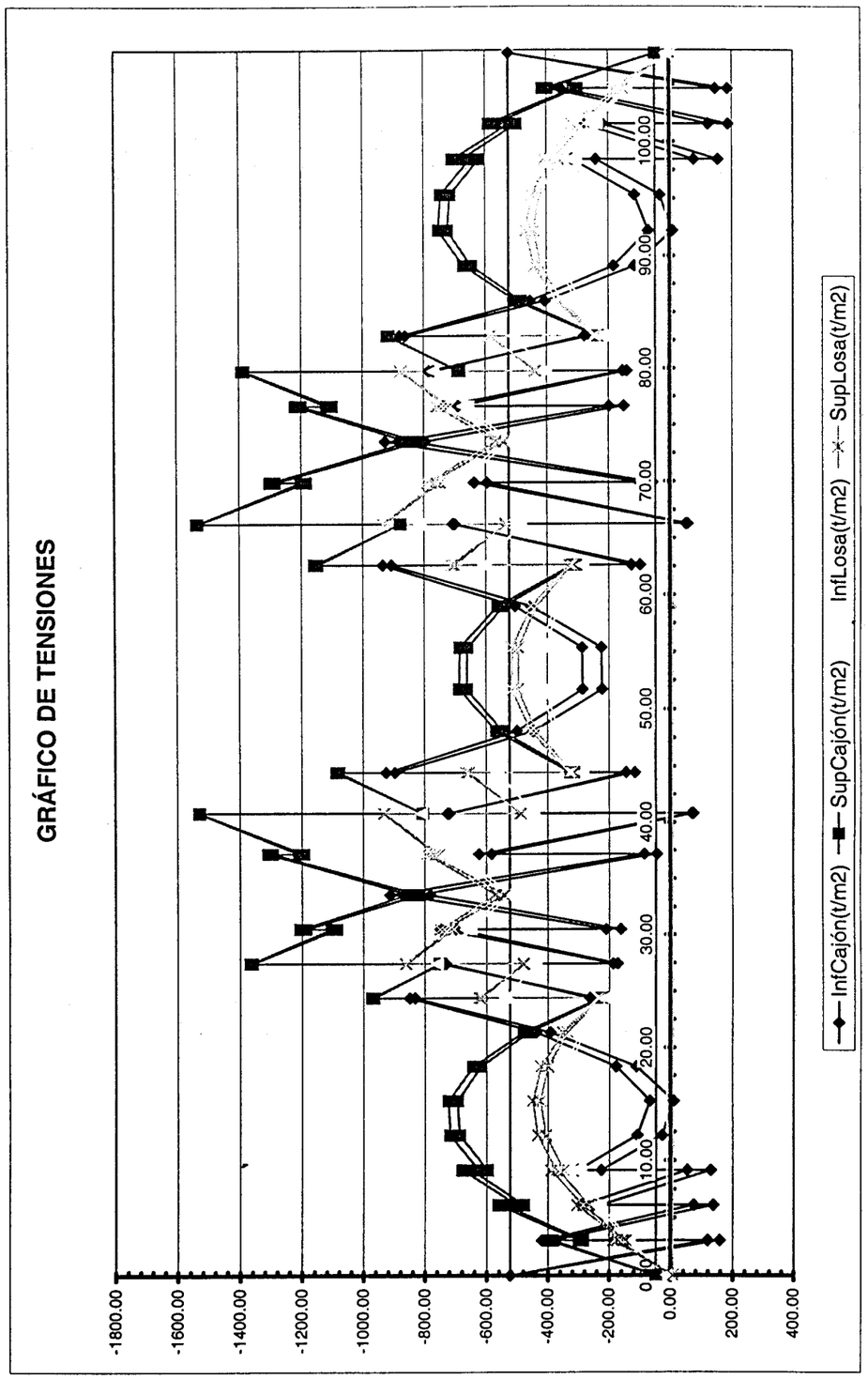
CUASIPERM1.Tinf.MZ+

SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1307.94	16.09	2070.75	0	9.25	2.55	-722.62	2.55	-362.47	2.85	-448.81
106	106	15.25	-1307.94	16.03	2070.34	0	8.98	2.55	-722.51	2.55	-362.41	2.85	-448.72
106	107	18.30	-1307.94	93.24	1901.94	0	-111.88	2.55	-643.12	2.55	-343.32	2.85	-421.60
107	107	18.30	-1307.94	93.26	1902.14	0	-111.76	2.55	-643.17	2.55	-343.35	2.85	-421.64
107	108	21.35	-1307.94	170.54	1497.66	0	-391.81	2.55	-478.41	2.55	-293.78	2.85	-351.01
108	108	21.35	-1307.93	170.85	1497.98	0	-391.60	2.55	-478.49	2.55	-293.83	2.85	-351.08
108	109	24.40	-1307.93	248.36	855.51	0	-831.95	2.55	-228.03	2.55	-213.50	2.85	-236.53
109	109	24.40	-2046.22	247.86	1760.67	0	-244.71	2.55	-972.28	2.55	-539.53	2.85	-622.75
109	110	27.45	-2050.29	256.98	1005.39	0	-745.90	2.55	-745.77	2.55	-436.27	2.85	-475.32
110	110	27.45	-2727.96	257.45	1876.96	0	-186.57	2.55	-1361.64	2.55	-757.46	2.85	-859.76
110	111	30.50	-2735.50	287.11	1047.81	0	-747.14	2.55	-1087.30	2.55	-648.52	2.85	-704.37
111	111	30.50	-2391.04	292.03	1300.99	0	-209.78	2.55	-1187.93	2.55	-656.93	2.85	-734.42
111	112	33.55	-2351.89	335.62	317.04	0	-869.49	2.55	-823.47	2.55	-518.91	2.85	-542.71
112	10112	33.55	-2380.73	-354.39	296.21	0	-912.55	2.55	-815.78	2.55	-518.69	2.85	-540.79
112	113	37.19	-2442.04	-300.98	1531.67	0	-85.95	2.55	-1294.10	2.55	-692.48	2.85	-781.18
[illegible]13	113	37.19	-2788.26	-294.93	1278.18	0	-624.01	2.55	-1194.12	2.55	-684.43	2.85	-751.49
[illegible]13	114	40.82	-2746.84	-261.40	2288.67	0	69.40	2.55	-1528.53	2.55	-807.68	2.85	-930.46
114	114	40.82	-2086.22	-260.73	1225.17	0	-724.18	2.55	-805.45	2.55	-442.22	2.85	-486.81
114	115	44.46	-2081.99	-231.24	2142.56	0	-115.89	2.55	-1088.89	2.55	-566.59	2.85	-664.42
115	115	44.46	-1604.04	-230.61	1239.30	0	-896.55	2.55	-325.24	2.55	-290.21	2.85	-329.70
115	116	48.10	-1604.04	-138.18	1907.98	0	-446.07	2.55	-566.24	2.55	-376.62	2.85	-453.07
116	116	48.10	-1604.05	-138.02	1907.71	0	-446.24	2.55	-566.18	2.55	-376.58	2.85	-453.02
116	117	51.73	-1604.05	-45.29	2240.41	0	-222.24	2.55	-685.79	2.55	-419.62	2.85	-514.46
117	117	51.73	-1604.05	-45.40	2240.32	0	-222.31	2.55	-685.77	2.55	-419.60	2.85	-514.44
117	118	55.37	-1604.05	46.86	2237.71	0	-224.35	2.55	-684.16	2.55	-419.36	2.85	-514.10
118	118	55.37	-1604.05	46.75	2237.80	0	-224.29	2.55	-684.18	2.55	-419.37	2.85	-514.12
118	119	59.01	-1604.05	139.47	1899.86	0	-452.39	2.55	-561.34	2.55	-375.85	2.85	-452.00
119	119	59.01	-1604.05	139.62	1900.13	0	-452.22	2.55	-561.41	2.55	-375.89	2.85	-452.05
119	120	62.64	-1604.05	232.06	1226.15	0	-906.85	2.55	-317.16	2.55	-288.98	2.85	-327.99
120	120	62.64	-2204.09	232.73	2224.64	0	-98.47	2.55	-1158.80	2.55	-607.06	2.85	-710.73
120	121	66.28	-2208.93	261.98	1310.78	0	-704.83	2.55	-876.25	2.55	-483.38	2.85	-534.04
121	121	66.28	-2772.43	260.02	2272.99	0	50.63	2.55	-1533.81	2.55	-811.50	2.85	-933.62
121	122	69.91	-2781.43	302.27	1256.98	0	-636.79	2.55	-1184.79	2.55	-679.91	2.85	-745.73
122	122	69.91	-2434.98	302.19	1510.46	0	-98.67	2.55	-1284.68	2.55	-687.90	2.85	-775.36
122	123	73.55	-2385.36	355.63	279.52	0	-925.84	2.55	-812.11	2.55	-517.52	2.85	-538.75
123	10123	73.55	-2356.48	-341.41	300.00	0	-883.00	2.55	-819.68	2.55	-517.67	2.85	-540.58
123	124	76.66	-2402.15	-291.40	1324.47	0	-197.67	2.55	-1200.84	2.55	-662.57	2.85	-741.43
124	124	76.66	-2746.45	-291.15	1070.97	0	-735.19	2.55	-1100.07	2.55	-654.08	2.85	-711.28
124	125	79.77	-2738.77	-261.07	1930.02	0	-154.43	2.55	-1384.45	2.55	-766.96	2.85	-872.29
125	125	79.77	-1958.07	-260.68	939.32	0	-782.42	2.55	-683.14	2.55	-400.38	2.85	-433.89
[illegible]25	126	82.88	-1954.44	-251.68	1727.79	0	-259.49	2.55	-919.51	2.55	-508.38	2.85	-588.03
[illegible]26	126	82.88	-1361.78	-252.27	897.87	0	-860.73	2.55	-240.45	2.55	-223.20	2.85	-247.47
126	127	85.99	-1361.78	-173.35	1562.70	0	-405.15	2.55	-499.47	2.55	-306.33	2.85	-366.04
127	127	85.99	-1361.78	-173.12	1562.40	0	-405.35	2.55	-499.40	2.55	-306.29	2.85	-365.97
127	128	89.10	-1361.78	-94.21	1980.20	0	-116.17	2.55	-669.40	2.55	-357.51	2.85	-438.96
128	128	89.10	-1361.78	-94.22	1979.99	0	-116.30	2.55	-669.35	2.55	-357.48	2.85	-438.92
128	129	92.21	-1361.78	-15.55	2152.97	0	7.78	2.55	-750.76	2.55	-377.10	2.85	-466.82
129	129	92.21	-1361.78	-15.70	2152.73	0	7.63	2.55	-750.70	2.55	-377.07	2.85	-466.77
129	130	95.32	-1361.78	61.86	2081.11	0	-33.19	2.55	-743.61	2.55	-365.14	2.85	-449.61
130	130	95.32	-1361.78	61.82	2081.11	0	-33.20	2.55	-743.61	2.55	-365.14	2.85	-449.61
130	131	98.43	-1361.78	140.86	1762.94	0	-240.08	2.55	-647.63	2.55	-321.36	2.85	-386.97
131	131	98.43	-1092.60	141.14	1932.02	0	154.80	2.55	-705.88	2.55	-324.72	2.85	-406.05
131	132	101.54	-1092.60	220.15	1367.64	0	-218.01	2.55	-521.03	2.55	-249.14	2.85	-298.01
132	132	101.54	-823.41	221.02	1549.73	0	186.83	2.55	-588.05	2.55	-253.59	2.85	-318.64
132	133	104.65	-823.41	299.97	736.33	0	-353.60	2.55	-313.74	2.55	-145.80	2.85	-164.59
133	133	104.65	-473.47	301.66	989.82	0	185.56	2.55	-412.21	2.55	-152.98	2.85	-193.39
133	134	107.76	-473.47	282.65	-74.25	0	-523.54	2.55	-48.07	2.55	-12.73	2.85	7.01



CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM1.Tinf.MZ-
SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-549.42	-291.96	-116.29	0	-608.07	2.55	-55.07	2.55	-15.20	2.85	8.57
1	2	3.05	-549.42	-196.02	562.76	0	-139.38	2.55	-326.63	2.55	-99.61	2.85	-110.84
2	2	3.05	-955.50	-197.12	247.94	0	-763.01	2.55	-216.90	2.55	-91.13	2.85	-76.46
2	3	6.10	-955.50	-144.21	768.47	0	-405.11	2.55	-420.54	2.55	-156.52	2.85	-168.93
3	3	6.10	-1236.63	-144.86	564.05	0	-826.56	2.55	-353.43	2.55	-151.82	2.85	-146.79
3	4	9.15	-1236.63	-91.90	925.11	0	-580.08	2.55	-488.90	2.55	-198.06	2.85	-212.12
4	4	9.15	-1517.76	-92.18	734.08	0	-991.33	2.55	-430.62	2.55	-194.51	2.85	-191.62
4	5	12.20	-1517.76	-39.19	934.47	0	-857.01	2.55	-497.65	2.55	-221.42	2.85	-229.55
5	5	12.20	-1517.76	-39.24	934.54	0	-856.97	2.55	-497.66	2.55	-221.43	2.85	-229.57
5	6	15.25	-1517.76	13.69	973.51	0	-835.27	2.55	-496.10	2.55	-228.90	2.85	-239.94
6	6	15.25	-1517.76	13.66	973.46	0	-835.30	2.55	-496.09	2.55	-228.89	2.85	-239.93
6	7	18.30	-1517.76	66.61	851.07	0	-926.21	2.55	-425.92	2.55	-216.92	2.85	-222.77
7	7	18.30	-1517.76	66.50	850.94	0	-926.29	2.55	-425.89	2.55	-216.90	2.85	-222.74
7	8	21.35	-1517.76	119.41	567.46	0	-1129.63	2.55	-287.17	2.55	-185.55	2.85	-178.09
8	8	21.35	-1517.75	119.07	567.26	0	-1129.75	2.55	-287.12	2.55	-185.52	2.85	-178.05
8	9	24.40	-1517.75	172.12	123.12	0	-1445.22	2.55	-80.00	2.55	-134.83	2.85	-106.00
[redacted]	9	24.40	-1955.40	172.68	886.65	0	-836.47	2.55	-702.52	2.55	-370.42	2.85	-390.53
9	10	27.45	-1958.50	288.37	174.04	0	-1315.32	2.55	-481.04	2.55	-273.48	2.85	-253.03
10	10	27.45	-2355.48	287.56	917.08	0	-737.60	2.55	-963.50	2.55	-514.23	2.85	-548.04
10	11	30.50	-2361.22	369.66	-81.02	0	-1407.57	2.55	-646.34	2.55	-380.15	2.85	-357.20
11	11	30.50	-1949.68	368.44	233.91	0	-782.28	2.55	-753.86	2.55	-387.37	2.85	-390.30
11	12	33.55	-1919.86	459.55	-1053.80	0	-1632.71	2.55	-326.33	2.55	-206.56	2.85	-135.64
12	10012	33.55	-1949.18	-484.11	-1079.44	0	-1681.20	2.55	-316.15	2.55	-205.35	2.85	-132.37
12	13	37.19	-1995.87	-379.84	526.52	0	-622.89	2.55	-868.37	2.55	-430.67	2.85	-449.19
13	13	37.19	-2405.64	-380.51	212.02	0	-1247.40	2.55	-760.22	2.55	-423.10	2.85	-415.76
13	14	40.82	-2431.23	-276.31	1405.58	0	-455.01	2.55	-1167.10	2.55	-588.76	2.85	-648.83
14	14	40.82	-2078.34	-277.44	470.84	0	-1285.47	2.55	-581.56	2.55	-307.96	2.85	-298.64
14	15	44.46	-2075.11	-157.13	1233.65	0	-771.16	2.55	-833.17	2.55	-409.58	2.85	-442.87
15	15	44.46	-1861.35	-157.79	428.55	0	-1602.58	2.55	-154.52	2.55	-207.29	2.85	-190.47
15	16	48.10	-1861.35	-94.45	887.15	0	-1283.07	2.55	-348.39	2.55	-262.66	2.85	-268.98
16	16	48.10	-1861.36	-94.75	887.31	0	-1282.97	2.55	-348.44	2.55	-262.69	2.85	-269.01
16	17	51.73	-1861.36	-31.66	1117.18	0	-1123.08	2.55	-444.97	2.55	-290.53	2.85	-308.50
17	17	51.73	-1861.36	-31.82	1117.24	0	-1123.05	2.55	-444.98	2.55	-290.54	2.85	-308.51
17	18	55.37	-1861.36	33.31	1113.99	0	-1125.35	2.55	-443.35	2.55	-290.19	2.85	-308.01
18	18	55.37	-1861.36	33.16	1113.93	0	-1125.38	2.55	-443.34	2.55	-290.18	2.85	-307.99
18	19	59.01	-1861.36	96.27	878.67	0	-1289.22	2.55	-343.76	2.55	-261.82	2.85	-267.74
19	19	59.01	-1861.36	95.93	878.50	0	-1289.33	2.55	-343.72	2.55	-261.79	2.85	-267.70
19	20	62.64	-1861.36	159.26	414.54	0	-1612.79	2.55	-146.79	2.55	-205.90	2.85	-188.43
20	20	62.64	-2168.11	158.59	1292.18	0	-759.81	2.55	-886.01	2.55	-439.78	2.85	-477.17
20	21	66.28	-2171.80	279.13	516.36	0	-1282.89	2.55	-631.12	2.55	-336.40	2.85	-330.40
21	21	66.28	-2393.02	280.89	1373.92	0	-464.62	2.55	-1143.16	2.55	-575.34	2.85	-633.21
[redacted]	22	69.91	-2399.87	381.51	174.81	0	-1270.52	2.55	-747.68	2.55	-416.46	2.85	-406.86
22	22	69.91	-1990.30	381.50	489.33	0	-646.06	2.55	-855.92	2.55	-424.08	2.85	-440.33
22	23	73.55	-1952.50	485.72	-1113.86	0	-1705.47	2.55	-307.68	2.55	-201.27	2.85	-126.29
23	10023	73.55	-1923.23	-467.54	-1088.11	0	-1656.91	2.55	-317.91	2.55	-202.52	2.85	-129.60
23	24	76.66	-1958.02	-375.68	251.45	0	-773.40	2.55	-763.99	2.55	-391.51	2.85	-395.45
24	24	76.66	-2369.73	-376.85	-63.40	0	-1398.69	2.55	-656.56	2.55	-384.34	2.85	-362.42
24	25	79.77	-2363.88	-292.10	971.86	0	-703.81	2.55	-985.60	2.55	-523.43	2.85	-560.38
25	25	79.77	-1900.06	-292.87	129.19	0	-1350.30	2.55	-435.86	2.55	-248.16	2.85	-223.64
25	26	82.88	-1897.30	-175.11	862.31	0	-857.68	2.55	-664.23	2.55	-347.94	2.85	-365.13
26	26	82.88	-1580.23	-174.46	147.72	0	-1492.21	2.55	-89.19	2.55	-143.03	2.85	-114.24
26	27	85.99	-1580.23	-120.38	606.20	0	-1166.47	2.55	-303.07	2.55	-195.35	2.85	-188.59
27	27	85.99	-1580.23	-120.66	606.40	0	-1166.34	2.55	-303.12	2.55	-195.38	2.85	-188.63
27	28	89.10	-1580.23	-66.69	897.72	0	-957.28	2.55	-445.85	2.55	-227.58	2.85	-234.47
28	28	89.10	-1580.23	-66.77	897.86	0	-957.19	2.55	-445.88	2.55	-227.60	2.85	-234.50
28	29	92.21	-1580.23	-12.78	1021.51	0	-865.14	2.55	-517.30	2.55	-239.62	2.85	-251.73
29	29	92.21	-1580.23	-12.75	1021.56	0	-865.10	2.55	-517.31	2.55	-239.62	2.85	-251.74
29	30	95.32	-1580.23	41.21	977.31	0	-890.20	2.55	-517.38	2.55	-231.42	2.85	-240.31
30	30	95.32	-1580.23	41.22	977.05	0	-890.37	2.55	-517.32	2.55	-231.38	2.85	-240.25
30	31	98.43	-1580.23	95.27	764.96	0	-1032.57	2.55	-446.05	2.55	-202.96	2.85	-200.17
31	31	98.43	-1267.87	95.05	977.23	0	-575.62	2.55	-510.80	2.55	-206.90	2.85	-222.95
31	32	101.54	-1267.87	149.04	597.66	0	-834.70	2.55	-368.29	2.55	-158.32	2.85	-154.29
32	32	101.54	-955.50	148.43	824.83	0	-366.40	2.55	-442.85	2.55	-163.54	2.85	-178.89
32	33	104.65	-955.50	202.38	279.32	0	-741.42	2.55	-229.42	2.55	-95.03	2.85	-81.99
33	33	104.65	-549.42	201.29	594.12	0	-117.81	2.55	-339.14	2.55	-103.50	2.85	-116.36
33	34	107.76	-549.42	299.20	-116.30	0	-608.07	2.55	-55.07	2.55	-15.20	2.85	8.57
1	101	0.00	-549.42	-361.31	-116.72	0	-608.34	2.55	-54.96	2.55	-15.14	2.85	8.66
101	102	3.05	-549.42	-206.32	597.81	0	-116.57	2.55	-335.38	2.55	-104.73	2.85	-118.10
102	102	3.05	-955.50	-205.98	282.41	0	-740.57	2.55	-225.51	2.55	-96.17	2.85	-83.60
102	103	6.10	-955.50	-150.46	825.93	0	-367.70	2.55	-434.89	2.55	-164.92	2.85	-180.83
103	103	6.10	-1236.63	-150.30	621.05	0	-789.45	2.55	-367.67	2.55	-160.16	2.85	-158.60
103	104	9.15	-1236.63	-94.80	994.82	0	-534.68	2.55	-506.32	2.55	-208.26	2.85	-226.55
104	104	9.15	-1517.76	-94.79	803.50	0	-946.12	2.55	-447.97	2.55	-204.67	2.85	-205.99
104	105	12.20	-1517.76	-39.28	1007.96	0	-809.13	2.55	-516.03	2.55	-232.17	2.85	-244.76
105	105	12.20	-1517.76	-39.31	1008.09	0	-809.04	2.55	-516.07	2.55	-232.19	2.85	-244.79

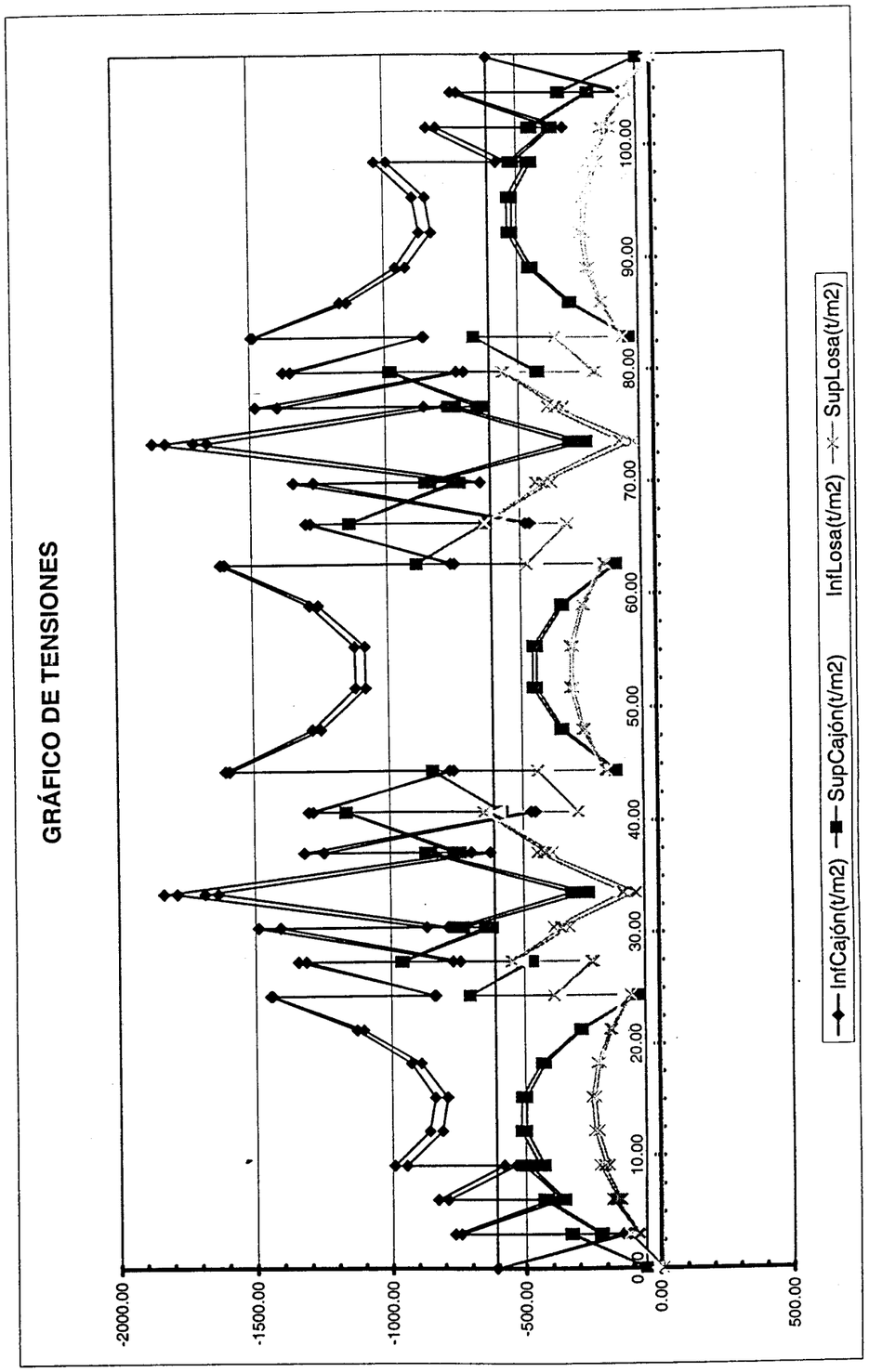
CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM1.Tinf.MZ-
SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1517.76	16.20	1043.16	0	-789.86	2.55	-513.55	2.55	-239.08	2.85	-254.35
106	106	15.25	-1517.76	16.16	1042.88	0	-790.04	2.55	-513.48	2.55	-239.04	2.85	-254.29
106	107	18.30	-1517.76	71.78	909.06	0	-888.32	2.55	-440.52	2.55	-225.40	2.85	-234.75
107	107	18.30	-1517.76	71.85	909.16	0	-888.25	2.55	-440.55	2.55	-225.41	2.85	-234.77
107	108	21.35	-1517.76	127.35	605.39	0	-1104.68	2.55	-296.87	2.55	-191.08	2.85	-185.89
108	108	21.35	-1517.75	127.60	605.56	0	-1104.56	2.55	-296.91	2.55	-191.11	2.85	-185.92
108	109	24.40	-1517.75	183.28	131.63	0	-1439.27	2.55	-82.50	2.55	-136.05	2.85	-107.67
109	109	24.40	-1955.40	184.93	895.58	0	-830.25	2.55	-705.12	2.55	-371.70	2.85	-392.29
109	110	27.45	-1958.50	309.98	130.43	0	-1343.08	2.55	-470.74	2.55	-267.07	2.85	-243.85
110	110	27.45	-2355.48	311.39	874.10	0	-764.94	2.55	-953.36	2.55	-507.91	2.85	-538.99
110	111	30.50	-2361.22	406.61	-206.49	0	-1487.91	2.55	-616.26	2.55	-361.73	2.85	-330.90
111	111	30.50	-1949.68	404.11	108.77	0	-862.39	2.55	-723.87	2.55	-369.00	2.85	-364.06
111	112	33.55	-1919.86	497.11	-1286.50	0	-1781.67	2.55	-270.58	2.55	-172.39	2.85	-86.85
112	10112	33.55	-1949.18	-520.39	-1312.28	0	-1830.26	2.55	-260.36	2.55	-171.15	2.85	-83.55
112	113	37.19	-1995.87	-409.87	415.17	0	-694.06	2.55	-841.79	2.55	-414.31	2.85	-425.82
113	113	37.19	-2405.64	-413.06	100.13	0	-1318.92	2.55	-733.50	2.55	-406.66	2.85	-392.28
113	114	40.82	-2431.23	-297.64	1381.47	0	-470.10	2.55	-1161.63	2.55	-585.20	2.85	-643.70
114	114	40.82	-2078.34	-296.29	446.04	0	-1301.00	2.55	-575.92	2.55	-304.30	2.85	-293.36
114	115	44.46	-2075.11	-166.87	1256.14	0	-756.28	2.55	-838.99	2.55	-412.86	2.85	-447.47
115	115	44.46	-1861.35	-166.39	450.61	0	-1587.99	2.55	-160.23	2.55	-210.51	2.85	-194.98
115	116	48.10	-1861.35	-99.91	934.58	0	-1252.14	2.55	-360.27	2.55	-269.60	2.85	-278.79
116	116	48.10	-1861.36	-99.64	934.44	0	-1252.24	2.55	-360.24	2.55	-269.58	2.85	-278.76
116	117	51.73	-1861.36	-33.46	1176.50	0	-1084.51	2.55	-459.72	2.55	-299.21	2.85	-320.80
117	117	51.73	-1861.36	-33.37	1176.44	0	-1084.55	2.55	-459.71	2.55	-299.20	2.85	-320.79
117	118	55.37	-1861.36	34.91	1173.11	0	-1086.90	2.55	-458.07	2.55	-298.84	2.85	-320.26
118	118	55.37	-1861.36	35.02	1173.16	0	-1086.87	2.55	-458.08	2.55	-298.85	2.85	-320.27
118	119	59.01	-1861.36	101.20	925.50	0	-1258.68	2.55	-355.50	2.55	-268.67	2.85	-277.42
119	119	59.01	-1861.36	101.45	925.66	0	-1258.58	2.55	-355.54	2.55	-268.69	2.85	-277.46
119	120	62.64	-1861.36	167.91	436.09	0	-1598.52	2.55	-152.39	2.55	-209.04	2.85	-192.84
120	120	62.64	-2168.11	168.43	1314.16	0	-745.26	2.55	-891.72	2.55	-442.99	2.85	-481.66
120	121	66.28	-2171.80	298.08	490.38	0	-1299.19	2.55	-625.19	2.55	-332.57	2.85	-324.88
121	121	66.28	-2393.02	302.10	1348.60	0	-480.49	2.55	-1137.40	2.55	-571.60	2.85	-627.82
121	122	69.91	-2399.87	408.84	60.98	0	-1343.29	2.55	-720.51	2.55	-399.74	2.85	-382.97
122	122	69.91	-1990.30	411.79	376.01	0	-718.50	2.55	-828.87	2.55	-407.43	2.85	-416.55
122	123	73.55	-1952.50	522.26	-1349.14	0	-1856.09	2.55	-251.31	2.55	-166.72	2.85	-76.96
123	10123	73.55	-1923.23	-505.16	-1323.88	0	-1807.85	2.55	-261.41	2.55	-167.89	2.85	-80.17
123	124	76.66	-1958.02	-415.94	125.73	0	-853.86	2.55	-733.89	2.55	-373.05	2.85	-369.09
124	124	76.66	-2369.73	-413.77	-189.89	0	-1479.67	2.55	-626.26	2.55	-365.77	2.85	-335.90
124	125	79.77	-2363.88	-315.80	929.55	0	-730.72	2.55	-975.62	2.55	-517.21	2.85	-551.47
125	125	79.77	-1900.06	-314.36	86.24	0	-1377.64	2.55	-425.72	2.55	-241.84	2.85	-214.60
125	126	82.88	-1897.29	-187.17	872.11	0	-850.90	2.55	-667.04	2.55	-349.35	2.85	-367.07
126	126	82.88	-1580.23	-185.47	157.08	0	-1485.71	2.55	-91.89	2.55	-144.38	2.85	-116.08
126	127	85.99	-1580.23	-128.71	645.40	0	-1140.69	2.55	-313.09	2.55	-201.07	2.85	-196.65
127	127	85.99	-1580.23	-128.48	645.24	0	-1140.80	2.55	-313.05	2.55	-201.05	2.85	-196.62
127	128	89.10	-1580.23	-71.90	956.78	0	-918.68	2.55	-460.72	2.55	-236.21	2.85	-246.67
128	128	89.10	-1580.23	-71.85	956.66	0	-918.75	2.55	-460.69	2.55	-236.19	2.85	-246.65
128	129	92.21	-1580.23	-15.15	1091.99	0	-819.16	2.55	-534.96	2.55	-249.92	2.85	-266.31
129	129	92.21	-1580.23	-15.24	1091.83	0	-819.27	2.55	-534.92	2.55	-249.90	2.85	-266.28
129	130	95.32	-1580.23	41.35	1051.36	0	-841.93	2.55	-535.91	2.55	-242.24	2.85	-255.63
130	130	95.32	-1580.23	41.26	1051.29	0	-841.97	2.55	-535.89	2.55	-242.23	2.85	-255.62
130	131	98.43	-1580.23	97.89	834.99	0	-986.94	2.55	-463.56	2.55	-213.20	2.85	-214.67
131	131	98.43	-1267.87	97.87	1047.61	0	-529.75	2.55	-528.40	2.55	-217.19	2.85	-237.52
131	132	101.54	-1267.87	154.45	655.26	0	-797.18	2.55	-382.68	2.55	-166.74	2.85	-166.22
132	132	101.54	-955.50	154.57	882.89	0	-328.58	2.55	-457.37	2.55	-172.03	2.85	-190.91
132	133	104.65	-955.50	211.16	314.20	0	-718.70	2.55	-238.13	2.55	-100.13	2.85	-89.21
133	133	104.65	-549.42	211.48	629.60	0	-94.70	2.55	-348.00	2.55	-108.69	2.85	-123.71
133	134	107.76	-549.42	368.97	-116.75	0	-608.36	2.55	-54.96	2.55	-15.14	2.85	8.66



CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM2.Tinf.MZ+
CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-473.47	-311.09	-73.83	0	-523.26	2.55	-48.17	2.55	-12.80	2.85	6.92
1	2	3.05	-473.47	-281.87	895.00	0	123.10	2.55	-384.28	2.55	-139.78	2.85	-174.62
2	2	3.05	-823.41	-282.75	642.55	0	-415.40	2.55	-286.06	2.55	-132.75	2.85	-146.04
2	3	6.10	-823.41	-207.80	1390.50	0	81.69	2.55	-540.62	2.55	-231.48	2.85	-287.23
3	3	6.10	-1065.68	-208.21	1227.40	0	-282.17	2.55	-480.49	2.55	-227.59	2.85	-268.83
3	4	9.15	-1065.68	-136.34	1752.77	0	64.55	2.55	-653.08	2.55	-297.83	2.85	-369.31
4	4	9.15	-1307.94	-136.44	1601.19	0	-290.46	2.55	-600.80	2.55	-294.89	2.85	-352.27
4	5	12.20	-1307.94	-61.83	1904.71	0	-93.79	2.55	-691.46	2.55	-336.74	2.85	-412.23
5	5	12.20	-1307.94	-61.72	1904.80	0	-93.73	2.55	-691.48	2.55	-336.75	2.85	-412.25
5	6	15.25	-1307.94	10.05	1983.66	0	-48.75	2.55	-699.69	2.55	-349.80	2.85	-431.08
6	6	15.25	-1307.94	10.19	1983.61	0	-48.79	2.55	-699.67	2.55	-349.79	2.85	-431.06
6	7	18.30	-1307.94	83.19	1839.13	0	-154.77	2.55	-625.63	2.55	-334.24	2.85	-409.05
7	7	18.30	-1307.94	83.23	1838.95	0	-154.89	2.55	-625.58	2.55	-334.21	2.85	-409.01
7	8	21.35	-1307.94	156.25	1471.64	0	-411.51	2.55	-469.40	2.55	-290.13	2.85	-346.26
8	8	21.35	-1307.93	156.02	1471.36	0	-411.70	2.55	-469.32	2.55	-290.08	2.85	-346.20
8	9	24.40	-1307.93	229.30	880.96	0	-819.04	2.55	-231.03	2.55	-217.42	2.85	-242.65
9	9	24.40	-2046.22	227.56	1785.41	0	-232.27	2.55	-975.11	2.55	-543.34	2.85	-628.72
9	10	27.45	-2050.29	239.11	1087.53	0	-697.11	2.55	-761.99	2.55	-448.53	2.85	-493.42
10	10	27.45	-2727.96	238.07	1958.55	0	-138.13	2.55	-1377.73	2.55	-769.65	2.85	-877.75
10	11	30.50	-2735.50	274.61	1187.69	0	-661.40	2.55	-1117.34	2.55	-669.26	2.85	-734.58
11	11	30.50	-2391.04	273.41	1440.42	0	-124.32	2.55	-1217.87	2.55	-677.61	2.85	-764.53
11	12	33.55	-2351.89	311.76	524.88	0	-739.90	2.55	-870.11	2.55	-549.61	2.85	-587.08
12	10012	33.55	-2380.73	-333.21	504.14	0	-782.91	2.55	-862.45	2.55	-549.41	2.85	-585.19
12	13	37.19	-2442.04	-281.84	1667.67	0	-3.18	2.55	-1322.77	2.55	-712.68	2.85	-810.68
13	13	37.19	-2788.26	-283.99	1414.51	0	-541.03	2.55	-1222.87	2.55	-704.69	2.85	-781.06
13	14	40.82	-2746.84	-246.92	2368.96	0	116.08	2.55	-1543.47	2.55	-819.73	2.85	-948.38
14	14	40.82	-2086.22	-247.87	1306.05	0	-677.12	2.55	-820.53	2.55	-454.35	2.85	-504.86
14	15	44.46	-2081.99	-217.47	2170.47	0	-103.01	2.55	-1091.03	2.55	-570.96	2.85	-671.43
15	15	44.46	-1604.04	-217.94	1267.98	0	-883.18	2.55	-327.56	2.55	-294.69	2.85	-336.87
15	16	48.10	-1604.04	-130.58	1899.76	0	-456.48	2.55	-559.58	2.55	-375.69	2.85	-452.54
16	16	48.10	-1604.05	-130.66	1900.02	0	-456.32	2.55	-559.64	2.55	-375.73	2.85	-452.60
16	17	51.73	-1604.05	-43.04	2215.25	0	-243.59	2.55	-674.99	2.55	-416.20	2.85	-510.40
17	17	51.73	-1604.05	-42.89	2215.33	0	-243.53	2.55	-675.01	2.55	-416.22	2.85	-510.42
17	18	55.37	-1604.05	44.28	2212.84	0	-245.50	2.55	-673.42	2.55	-415.99	2.85	-510.10
18	18	55.37	-1604.05	44.44	2212.76	0	-245.55	2.55	-673.40	2.55	-415.98	2.85	-510.09
18	19	59.01	-1604.05	132.04	1892.54	0	-462.22	2.55	-554.90	2.55	-375.05	2.85	-451.65
19	19	59.01	-1604.05	131.94	1892.27	0	-462.40	2.55	-554.83	2.55	-375.01	2.85	-451.60
19	20	62.64	-1604.05	219.31	1255.49	0	-893.04	2.55	-319.64	2.55	-293.55	2.85	-335.30
20	20	62.64	-2204.09	218.82	2253.24	0	-85.14	2.55	-1161.11	2.55	-611.53	2.85	-717.88
20	21	66.28	-2208.93	249.00	1392.40	0	-657.29	2.55	-891.50	2.55	-495.62	2.85	-552.24
21	21	66.28	-2772.43	245.16	2354.04	0	97.80	2.55	-1548.93	2.55	-823.65	2.85	-951.70
21	22	69.91	-2781.43	285.85	1394.35	0	-553.13	2.55	-1213.80	2.55	-700.31	2.85	-775.52
22	22	69.91	-2434.98	282.96	1647.49	0	-15.23	2.55	-1313.60	2.55	-708.26	2.85	-805.08
22	23	73.55	-2385.36	334.35	488.56	0	-795.46	2.55	-859.05	2.55	-548.40	2.85	-583.37
23	10023	73.55	-2356.48	-317.61	509.36	0	-752.41	2.55	-866.71	2.55	-548.61	2.85	-585.27
23	24	76.66	-2402.15	-277.50	1463.77	0	-112.29	2.55	-1230.75	2.55	-683.23	2.85	-771.51
24	24	76.66	-2746.45	-278.77	1210.96	0	-649.36	2.55	-1130.15	2.55	-674.84	2.85	-741.50
24	25	79.77	-2738.77	-241.89	2011.39	0	-106.16	2.55	-1400.46	2.55	-779.12	2.85	-890.23
25	25	79.77	-1958.07	-242.99	1021.24	0	-733.79	2.55	-699.29	2.55	-412.62	2.85	-451.95
25	26	82.88	-1954.44	-231.59	1751.34	0	-247.83	2.55	-922.04	2.55	-512.02	2.85	-593.76
26	26	82.88	-1361.78	-233.38	922.17	0	-848.59	2.55	-243.15	2.55	-226.95	2.85	-253.35
26	27	85.99	-1361.78	-158.76	1534.53	0	-426.26	2.55	-489.92	2.55	-302.36	2.85	-360.84
27	27	85.99	-1361.78	-158.95	1534.84	0	-426.06	2.55	-490.00	2.55	-302.41	2.85	-360.91
27	28	89.10	-1361.78	-84.38	1915.30	0	-160.42	2.55	-651.39	2.55	-348.12	2.85	-425.98
28	28	89.10	-1361.78	-84.27	1915.48	0	-160.30	2.55	-651.43	2.55	-348.15	2.85	-426.02
28	29	92.21	-1361.78	-9.90	2064.00	0	-51.45	2.55	-727.36	2.55	-364.16	2.85	-448.69
29	29	92.21	-1361.78	-9.68	2064.05	0	-51.42	2.55	-727.38	2.55	-364.17	2.85	-448.71
29	30	95.32	-1361.78	63.51	1980.15	0	-99.65	2.55	-717.76	2.55	-350.41	2.85	-428.87
30	30	95.32	-1361.78	63.78	1979.76	0	-99.91	2.55	-717.66	2.55	-350.35	2.85	-428.79
30	31	98.43	-1361.78	138.42	1662.65	0	-305.65	2.55	-622.36	2.55	-306.70	2.85	-366.26
31	31	98.43	-1092.60	138.36	1831.08	0	88.80	2.55	-680.45	2.55	-309.97	2.85	-385.20
31	32	101.54	-1092.60	212.98	1282.48	0	-273.46	2.55	-499.79	2.55	-236.68	2.85	-280.37
32	32	101.54	-823.41	212.60	1463.73	0	130.85	2.55	-566.60	2.55	-241.01	2.85	-300.82
32	33	104.65	-823.41	287.24	683.49	0	-387.88	2.55	-300.66	2.55	-138.07	2.85	-153.62
33	33	104.65	-473.47	286.40	935.91	0	150.59	2.55	-398.88	2.55	-145.09	2.85	-182.20
33	34	107.76	-473.47	318.58	-73.80	0	-523.25	2.55	-48.18	2.55	-12.80	2.85	6.91
101	101	0.00	-473.47	-276.39	-74.26	0	-523.54	2.55	-48.07	2.55	-12.73	2.85	7.01
101	102	3.05	-473.47	-299.45	954.48	0	161.16	2.55	-398.52	2.55	-148.51	2.85	-187.09
102	102	3.05	-823.41	-297.78	701.00	0	-377.99	2.55	-300.06	2.55	-141.33	2.85	-158.30
102	103	6.10	-823.41	-218.47	1488.17	0	144.18	2.55	-564.00	2.55	-245.83	2.85	-307.71
103	103	6.10	-1065.68	-217.58	1324.25	0	-220.20	2.55	-503.68	2.55	-241.82	2.85	-289.14
103	104	9.15	-1065.68	-140.08	1871.81	0	140.70	2.55	-681.56	2.55	-315.31	2.85	-394.28
104	104	9.15	-1307.94	-139.74	1719.68	0	-214.66	2.55	-629.15	2.55	-312.29	2.85	-377.12
104	105	12.20	-1307.94	-62.10	2030.85	0	-13.11	2.55	-721.63	2.55	-355.27	2.85	-438.69
105	105	12.20	-1307.94	-62.06	2030.96	0	-13.03	2.55	-721.66	2.55	-355.29	2.85	-438.72

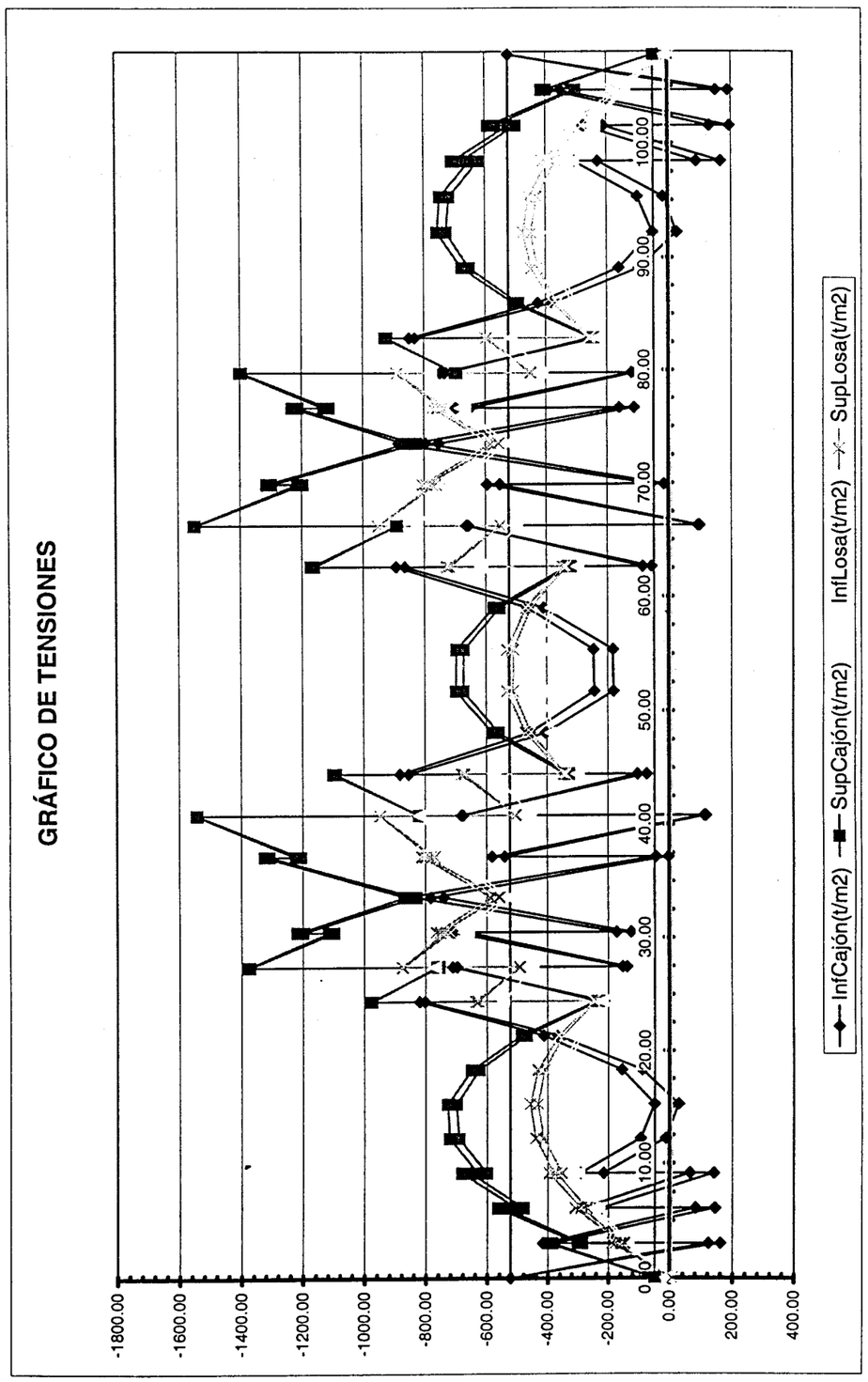
CÁLCULO TENSIONAL

Hipótesis de cálculo:
CUASIPERM2.Tinf.MZ+
CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [95; 1.05]PRETF1D.ISO.To + [95; 1.05]PRETF1D.HIP.To + [9; 1.1]PRETF3I.ISO.To + [9; 1.1]PRETF3I.HIP.To + [9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1307.94	13.89	2104.21	0	28.32	2.55	-728.49	2.55	-367.51	2.85	-456.37
106	106	15.25	-1307.94	13.83	2103.80	0	28.05	2.55	-728.39	2.55	-367.45	2.85	-456.28
106	107	18.30	-1307.94	91.05	1942.10	0	-89.00	2.55	-650.17	2.55	-349.37	2.85	-430.67
107	107	18.30	-1307.94	91.07	1942.29	0	-88.88	2.55	-650.22	2.55	-349.39	2.85	-430.71
107	108	21.35	-1307.94	168.35	1544.51	0	-365.11	2.55	-486.64	2.55	-300.84	2.85	-361.60
108	108	21.35	-1307.93	168.66	1544.82	0	-364.91	2.55	-486.71	2.55	-300.88	2.85	-361.66
108	109	24.40	-1307.93	246.16	909.04	0	-801.43	2.55	-237.42	2.55	-221.57	2.85	-248.62
109	109	24.40	-2046.22	245.67	1814.21	0	-214.20	2.55	-981.67	2.55	-547.59	2.85	-634.85
109	110	27.45	-2050.29	254.79	1065.62	0	-711.57	2.55	-756.34	2.55	-445.34	2.85	-488.92
110	110	27.45	-2727.96	255.26	1937.19	0	-152.25	2.55	-1372.21	2.55	-766.53	2.85	-873.37
110	111	30.50	-2735.50	284.91	1114.73	0	-709.00	2.55	-1099.05	2.55	-658.60	2.85	-719.49
111	111	30.50	-2391.04	289.84	1367.91	0	-171.64	2.55	-1199.68	2.55	-667.01	2.85	-749.54
111	112	33.55	-2351.89	333.43	390.66	0	-827.53	2.55	-636.38	2.55	-529.99	2.85	-559.34
112	10112	33.55	-2380.73	-354.40	369.82	0	-870.60	2.55	-828.70	2.55	-529.78	2.85	-557.43
112	113	37.19	-2442.04	-300.98	1605.30	0	-43.98	2.55	-1307.02	2.55	-703.57	2.85	-797.81
[illegible]3	113	37.19	-2788.26	-294.94	1351.82	0	-582.04	2.55	-1207.04	2.55	-695.53	2.85	-768.12
[illegible]3	114	40.82	-2746.84	-261.41	2362.33	0	111.38	2.55	-1541.46	2.55	-818.78	2.85	-947.10
114	114	40.82	-2086.22	-260.73	1298.83	0	-682.20	2.55	-818.38	2.55	-453.31	2.85	-503.45
114	115	44.46	-2081.99	-231.25	2216.24	0	-73.90	2.55	-1101.82	2.55	-577.69	2.85	-681.07
115	115	44.46	-1604.04	-230.61	1312.98	0	-854.56	2.55	-338.17	2.55	-301.31	2.85	-346.35
115	116	48.10	-1604.04	-138.18	1981.68	0	-404.06	2.55	-579.18	2.55	-387.72	2.85	-469.72
116	116	48.10	-1604.05	-138.03	1981.42	0	-404.24	2.55	-579.12	2.55	-387.69	2.85	-469.67
116	117	51.73	-1604.05	-45.29	2314.14	0	-180.22	2.55	-698.73	2.55	-430.72	2.85	-531.12
117	117	51.73	-1604.05	-45.41	2314.04	0	-180.29	2.55	-698.71	2.55	-430.71	2.85	-531.10
117	118	55.37	-1604.05	46.85	2311.46	0	-182.32	2.55	-697.10	2.55	-430.47	2.85	-530.76
118	118	55.37	-1604.05	46.74	2311.55	0	-182.26	2.55	-697.12	2.55	-430.48	2.85	-530.78
118	119	59.01	-1604.05	139.47	1973.63	0	-410.35	2.55	-574.29	2.55	-386.96	2.85	-468.66
119	119	59.01	-1604.05	139.61	1973.90	0	-410.18	2.55	-574.36	2.55	-387.00	2.85	-468.72
119	120	62.64	-1604.05	232.06	1299.94	0	-864.79	2.55	-330.11	2.55	-300.09	2.85	-344.66
120	120	62.64	-2204.09	232.73	2298.43	0	-56.41	2.55	-1171.75	2.55	-618.18	2.85	-727.40
120	121	66.28	-2208.93	261.97	1384.59	0	-662.76	2.55	-889.20	2.55	-494.50	2.85	-550.72
121	121	66.28	-2772.43	260.01	2346.81	0	92.70	2.55	-1546.76	2.55	-822.62	2.85	-950.29
121	122	69.91	-2781.43	302.26	1330.82	0	-594.71	2.55	-1197.75	2.55	-691.03	2.85	-762.41
122	122	69.91	-2434.98	302.18	1584.29	0	-56.59	2.55	-1297.64	2.55	-699.02	2.85	-792.05
122	123	73.55	-2385.36	355.63	353.38	0	-883.74	2.55	-825.07	2.55	-528.64	2.85	-555.43
123	10123	73.55	-2356.48	-339.25	373.85	0	-840.91	2.55	-832.64	2.55	-528.80	2.85	-557.26
123	124	76.66	-2402.15	-289.24	1391.62	0	-159.40	2.55	-1212.62	2.55	-672.69	2.85	-756.59
124	124	76.66	-2746.45	-288.99	1138.11	0	-696.92	2.55	-1111.85	2.55	-664.19	2.85	-726.44
124	125	79.77	-2738.77	-258.92	1990.45	0	-119.99	2.55	-1395.05	2.55	-776.07	2.85	-885.94
125	125	79.77	-1958.07	-258.52	999.75	0	-747.98	2.55	-693.75	2.55	-409.48	2.85	-447.55
[illegible]5	126	82.88	-1954.44	-249.52	1781.51	0	-228.88	2.55	-928.94	2.55	-516.47	2.85	-600.16
[illegible]6	126	82.88	-1361.78	-250.11	951.59	0	-830.12	2.55	-249.88	2.55	-231.29	2.85	-259.60
126	127	85.99	-1361.78	-171.19	1609.70	0	-378.37	2.55	-507.72	2.55	-313.41	2.85	-376.65
127	127	85.99	-1361.78	-170.97	1609.40	0	-378.56	2.55	-507.65	2.55	-313.37	2.85	-376.59
127	128	89.10	-1361.78	-92.05	2020.49	0	-93.21	2.55	-676.47	2.55	-363.58	2.85	-448.07
128	128	89.10	-1361.78	-92.07	2020.28	0	-93.34	2.55	-676.42	2.55	-363.54	2.85	-448.02
128	129	92.21	-1361.78	-13.39	2186.54	0	26.92	2.55	-756.65	2.55	-382.16	2.85	-474.40
129	129	92.21	-1361.78	-13.55	2186.30	0	26.76	2.55	-756.59	2.55	-382.13	2.85	-474.35
129	130	95.32	-1361.78	64.02	2107.97	0	-17.89	2.55	-748.32	2.55	-369.18	2.85	-455.68
130	130	95.32	-1361.78	63.98	2107.96	0	-17.89	2.55	-748.32	2.55	-369.18	2.85	-455.68
130	131	98.43	-1361.78	143.02	1783.08	0	-228.60	2.55	-651.17	2.55	-324.39	2.85	-391.53
131	131	98.43	-1092.60	143.30	1952.17	0	166.28	2.55	-709.41	2.55	-327.75	2.85	-410.60
131	132	101.54	-1092.60	222.31	1381.07	0	-210.36	2.55	-523.39	2.55	-251.16	2.85	-301.05
132	132	101.54	-823.41	223.18	1563.16	0	194.48	2.55	-590.40	2.55	-255.61	2.85	-321.67
132	133	104.65	-823.41	302.13	743.04	0	-349.77	2.55	-314.92	2.55	-146.81	2.85	-166.11
133	133	104.65	-473.47	303.82	996.53	0	189.39	2.55	-413.39	2.55	-153.99	2.85	-194.91
133	134	107.76	-473.47	282.65	-74.25	0	-523.54	2.55	-48.07	2.55	-12.73	2.85	7.01



CÁLCULO TENSIONAL

Hipótesis de cálculo:
FRECUENTES1.Tinf.MZ+
TREN DOMINANTE SIN GRADIENTE
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-473.47	-338.95	-72.65	0	-522.59	2.55	-48.38	2.55	-12.97	2.85	6.65
1	2	3.05	-473.47	-353.18	1147.28	0	266.87	2.55	-428.56	2.55	-177.78	2.85	-231.61
2	2	3.05	-823.41	-357.52	892.10	0	-273.18	2.55	-329.86	2.55	-170.34	2.85	-202.41
2	3	6.10	-823.41	-249.80	1817.79	0	325.21	2.55	-615.61	2.55	-295.85	2.85	-383.76
3	3	6.10	-1065.68	-256.89	1652.45	0	-39.93	2.55	-555.09	2.55	-291.62	2.85	-364.85
3	4	9.15	-1065.68	-161.40	2290.17	0	370.82	2.55	-747.40	2.55	-378.78	2.85	-490.72
4	4	9.15	-1307.94	-170.74	2136.98	0	14.90	2.55	-694.84	2.55	-375.60	2.85	-473.31
4	5	12.20	-1307.94	-64.12	2499.94	0	245.45	2.55	-795.93	2.55	-426.41	2.85	-546.71
5	5	12.20	-1307.94	-74.82	2499.19	0	245.02	2.55	-795.80	2.55	-426.30	2.85	-546.54
5	6	15.25	-1307.94	20.36	2582.37	0	292.46	2.55	-804.76	2.55	-439.99	2.85	-566.33
6	6	15.25	-1307.94	9.01	2582.22	0	292.37	2.55	-804.73	2.55	-439.97	2.85	-566.30
6	7	18.30	-1307.94	109.10	2393.88	0	161.39	2.55	-722.99	2.55	-417.81	2.85	-534.37
7	7	18.30	-1307.94	97.89	2394.33	0	161.63	2.55	-723.05	2.55	-417.87	2.85	-534.48
7	8	21.35	-1307.94	198.00	1934.81	0	-147.54	2.55	-550.69	2.55	-359.90	2.85	-450.90
8	8	21.35	-1307.93	187.49	1935.79	0	-147.00	2.55	-550.83	2.55	-360.05	2.85	-451.13
8	9	24.40	-1307.93	288.66	1198.73	0	-637.94	2.55	-286.80	2.55	-265.29	2.85	-314.44
9	9	24.40	-2046.22	278.42	2104.96	0	-50.15	2.55	-1031.19	2.55	-591.48	2.85	-700.91
9	10	27.45	-2050.29	300.10	1218.41	0	-622.52	2.55	-784.95	2.55	-468.25	2.85	-522.98
10	10	27.45	-2727.96	293.30	2091.02	0	-62.63	2.55	-1400.98	2.55	-789.60	2.85	-907.68
10	11	30.50	-2735.50	309.47	1202.87	0	-652.75	2.55	-1120.01	2.55	-671.55	2.85	-738.01
11	11	30.50	-2391.04	305.36	1456.20	0	-115.33	2.55	-1220.64	2.55	-679.99	2.85	-768.09
11	12	33.55	-2351.89	311.68	494.41	0	-757.27	2.55	-864.76	2.55	-545.02	2.85	-580.20
12	10012	33.55	-2380.73	-325.32	473.48	0	-800.38	2.55	-857.07	2.55	-544.79	2.85	-578.26
12	13	37.19	-2442.04	-312.90	1675.11	0	1.06	2.55	-1324.08	2.55	-713.80	2.85	-812.36
13	13	37.19	-2788.26	-318.31	1421.80	0	-536.87	2.55	-1224.15	2.55	-705.78	2.85	-782.71
13	14	40.82	-2746.84	-293.00	2506.70	0	194.59	2.55	-1567.65	2.55	-840.48	2.85	-979.50
14	14	40.82	-2086.22	-301.18	1442.03	0	-599.62	2.55	-844.40	2.55	-474.83	2.85	-535.58
14	15	44.46	-2081.99	-262.08	2478.56	0	72.58	2.55	-1145.10	2.55	-617.37	2.85	-741.03
15	15	44.46	-1604.04	-273.66	1574.01	0	-708.77	2.55	-381.27	2.55	-340.79	2.85	-406.01
15	16	48.10	-1604.04	-152.86	2341.98	0	-204.45	2.55	-637.19	2.55	-442.31	2.85	-552.44
16	16	48.10	-1604.05	-166.42	2340.90	0	-205.05	2.55	-637.02	2.55	-442.15	2.85	-552.20
16	17	51.73	-1604.05	-44.85	2722.59	0	45.56	2.55	-764.03	2.55	-492.63	2.85	-625.02
17	17	51.73	-1604.05	-59.33	2722.23	0	45.35	2.55	-763.97	2.55	-492.58	2.85	-624.93
17	18	55.37	-1604.05	60.61	2719.92	0	43.49	2.55	-762.42	2.55	-492.38	2.85	-624.66
18	18	55.37	-1604.05	46.14	2720.30	0	43.70	2.55	-762.48	2.55	-492.44	2.85	-624.75
18	19	59.01	-1604.05	167.68	2333.99	0	-210.63	2.55	-632.37	2.55	-441.55	2.85	-551.38
19	19	59.01	-1604.05	154.11	2335.04	0	-210.05	2.55	-632.54	2.55	-441.71	2.85	-551.63
19	20	62.64	-1604.05	274.94	1562.43	0	-718.11	2.55	-373.51	2.55	-339.79	2.85	-404.64
20	20	62.64	-2204.09	263.34	2562.23	0	90.96	2.55	-1215.34	2.55	-658.07	2.85	-787.69
20	21	66.28	-2208.93	302.39	1527.54	0	-580.27	2.55	-915.22	2.55	-515.98	2.85	-582.78
21	21	66.28	-2772.43	291.26	2490.96	0	175.83	2.55	-1572.96	2.55	-844.28	2.85	-982.63
21	22	69.91	-2781.43	319.79	1398.55	0	-550.74	2.55	-1214.53	2.55	-700.95	2.85	-776.47
22	22	69.91	-2434.98	314.34	1651.84	0	-12.75	2.55	-1314.36	2.55	-708.91	2.85	-806.07
22	23	73.55	-2385.36	326.79	454.62	0	-814.80	2.55	-853.09	2.55	-543.29	2.85	-575.70
23	10023	73.55	-2356.48	-317.58	475.63	0	-771.63	2.55	-860.78	2.55	-543.52	2.85	-577.65
23	24	76.66	-2402.15	-311.21	1476.23	0	-105.18	2.55	-1232.94	2.55	-685.11	2.85	-774.32
24	24	76.66	-2746.45	-315.38	1222.86	0	-642.58	2.55	-1132.24	2.55	-676.63	2.85	-744.19
24	25	79.77	-2738.77	-296.19	2143.97	0	-30.60	2.55	-1423.73	2.55	-799.09	2.85	-920.18
25	25	79.77	-1958.07	-303.21	1152.16	0	-659.18	2.55	-722.27	2.55	-432.34	2.85	-481.53
25	26	82.88	-1954.44	-283.03	2077.12	0	-62.16	2.55	-979.21	2.55	-561.09	2.85	-667.35
26	26	82.88	-1361.78	-293.57	1246.11	0	-663.98	2.55	-300.01	2.55	-275.75	2.85	-326.53
26	27	85.99	-1361.78	-190.87	2009.71	0	-155.45	2.55	-573.32	2.55	-373.94	2.85	-468.19
27	27	85.99	-1361.78	-201.70	2008.71	0	-155.99	2.55	-573.16	2.55	-373.79	2.85	-467.96
27	28	89.10	-1361.78	-99.18	2484.83	0	164.16	2.55	-751.35	2.55	-433.92	2.85	-554.65
28	28	89.10	-1361.78	-110.72	2484.35	0	163.90	2.55	-751.27	2.55	-433.84	2.85	-554.54
28	29	92.21	-1361.78	-8.89	2678.75	0	298.90	2.55	-835.25	2.55	-456.77	2.85	-587.58
29	29	92.21	-1361.78	-20.57	2678.90	0	298.99	2.55	-835.28	2.55	-456.79	2.85	-587.61
29	30	95.32	-1361.78	76.91	2591.23	0	248.61	2.55	-825.00	2.55	-442.46	2.85	-566.92
30	30	95.32	-1361.78	65.88	2591.73	0	248.86	2.55	-825.06	2.55	-442.54	2.85	-567.04
30	31	98.43	-1361.78	168.85	2215.05	0	9.17	2.55	-719.31	2.55	-389.92	2.85	-491.06
31	31	98.43	-1092.60	159.20	2385.14	0	404.57	2.55	-777.69	2.55	-393.43	2.85	-510.38
31	32	101.54	-1092.60	261.89	1721.28	0	-23.37	2.55	-576.80	2.55	-302.79	2.85	-379.50
32	32	101.54	-823.41	254.69	1904.88	0	382.27	2.55	-644.02	2.55	-307.47	2.85	-400.48
32	33	104.65	-823.41	357.49	941.19	0	-241.02	2.55	-345.89	2.55	-176.89	2.85	-211.84
33	33	104.65	-473.47	353.25	1196.43	0	299.07	2.55	-444.60	2.55	-184.34	2.85	-241.05
33	34	107.76	-473.47	346.80	-72.57	0	-522.54	2.55	-48.39	2.55	-12.99	2.85	6.63
101	101	0.00	-473.47	-305.61	-73.23	0	-522.95	2.55	-48.25	2.55	-12.89	2.85	6.78
101	102	3.05	-473.47	-378.37	1232.01	0	319.33	2.55	-447.23	2.55	-190.32	2.85	-249.79
102	102	3.05	-823.41	-379.52	975.62	0	-221.49	2.55	-348.25	2.55	-182.70	2.85	-220.34
102	103	6.10	-823.41	-265.56	1959.00	0	412.52	2.55	-646.63	2.55	-316.76	2.85	-414.08
103	103	6.10	-1065.68	-271.04	1792.67	0	46.76	2.55	-585.89	2.55	-312.38	2.85	-394.96
103	104	9.15	-1065.68	-164.28	2464.98	0	478.76	2.55	-785.67	2.55	-404.67	2.85	-528.29
104	104	9.15	-1307.94	-172.96	2311.14	0	122.43	2.55	-732.96	2.55	-401.39	2.85	-510.74
104	105	12.20	-1307.94	-65.52	2688.20	0	361.53	2.55	-836.99	2.55	-454.29	2.85	-587.20
105	105	12.20	-1307.94	-76.17	2687.40	0	361.09	2.55	-836.87	2.55	-454.17	2.85	-587.02

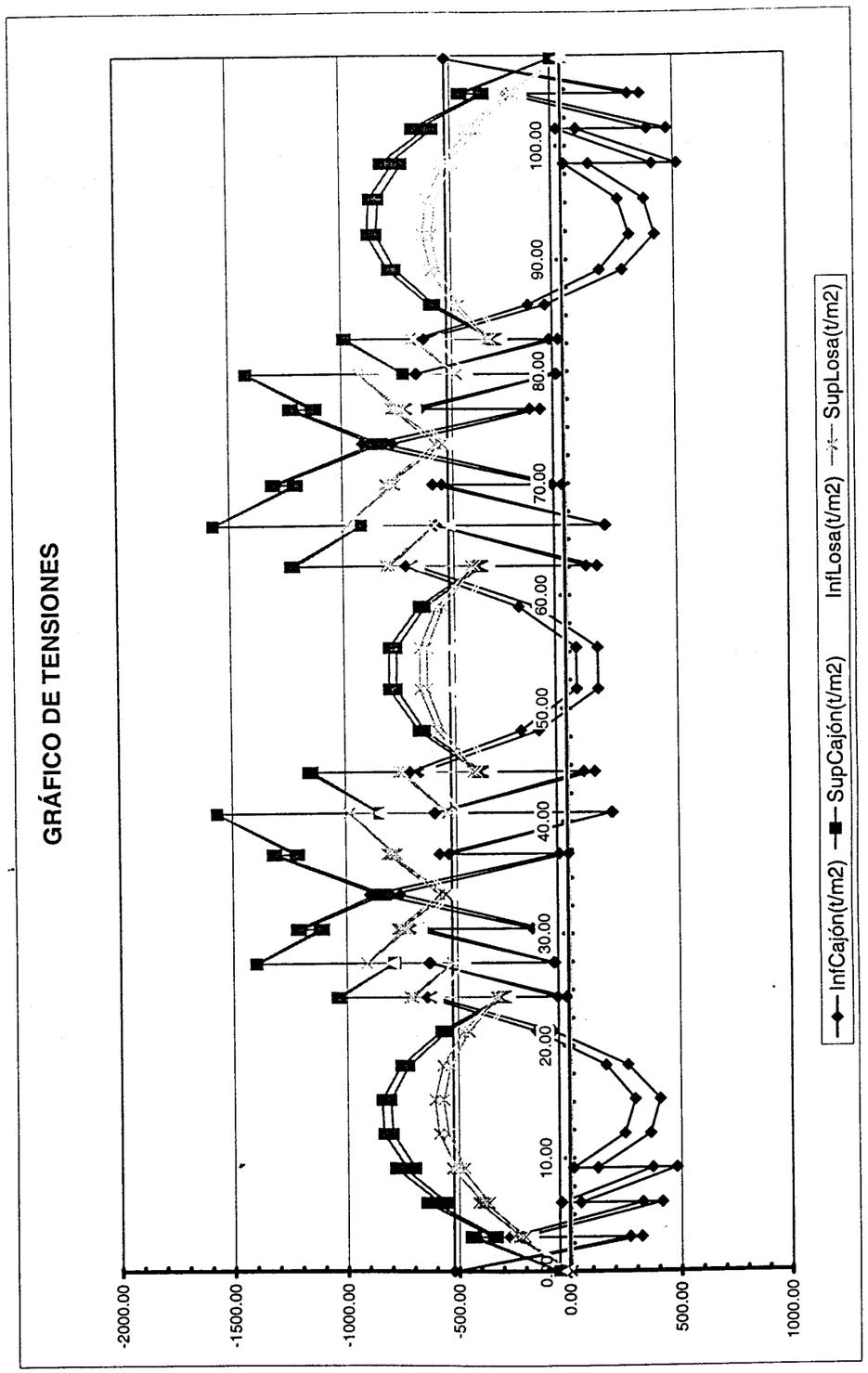
Pórtico 7

CÁLCULO TENSIONAL

Hipótesis de cálculo:
FRECUENTES1.Tinf.MZ+
TREN DOMINANTE SIN GRADIENTE
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1307.94	24.57	2765.97	0	405.47	2.55	-844.64	2.55	-467.20	2.85	-605.87
106	106	15.25	-1307.94	13.10	2765.47	0	405.15	2.55	-844.52	2.55	-467.13	2.85	-605.77
106	107	18.30	-1307.94	119.09	2555.45	0	260.56	2.55	-757.82	2.55	-441.76	2.85	-569.23
107	107	18.30	-1307.94	107.94	2556.33	0	261.08	2.55	-757.99	2.55	-441.90	2.85	-569.43
107	108	21.35	-1307.94	213.94	2056.97	0	-73.05	2.55	-576.58	2.55	-378.04	2.85	-477.37
108	108	21.35	-1307.93	204.12	2058.66	0	-72.06	2.55	-576.89	2.55	-378.29	2.85	-477.74
108	109	24.40	-1307.93	311.02	1260.51	0	-601.13	2.55	-299.11	2.55	-274.51	2.85	-328.02
109	109	24.40	-2046.22	302.25	2167.58	0	-12.81	2.55	-1043.69	2.55	-600.83	2.85	-714.68
109	110	27.45	-2050.29	321.37	1211.22	0	-628.59	2.55	-781.89	2.55	-467.27	2.85	-521.82
110	110	27.45	-2727.96	316.31	2084.45	0	-68.32	2.55	-1398.06	2.55	-788.72	2.85	-906.64
110	111	30.50	-2735.50	309.29	1132.08	0	-699.11	2.55	-1102.09	2.55	-661.21	2.85	-723.41
111	111	30.50	-2391.04	329.21	1385.57	0	-161.58	2.55	-1202.78	2.55	-669.67	2.85	-753.53
111	112	33.55	-2351.89	333.53	353.69	0	-848.60	2.55	-829.90	2.55	-524.43	2.85	-550.99
112	10112	33.55	-2380.73	-347.43	332.67	0	-891.77	2.55	-822.18	2.55	-524.18	2.85	-549.03
112	113	37.19	-2442.04	-335.64	1614.05	0	-38.99	2.55	-1308.56	2.55	-704.89	2.85	-799.79
113	113	37.19	-2788.26	-314.34	1360.39	0	-577.16	2.55	-1208.54	2.55	-696.82	2.85	-770.06
113	114	40.82	-2746.84	-313.45	2516.85	0	199.44	2.55	-1568.58	2.55	-842.06	2.85	-982.01
114	114	40.82	-2086.22	-319.70	1451.50	0	-595.19	2.55	-845.18	2.55	-476.31	2.85	-537.94
114	115	44.46	-2081.99	-280.98	2559.53	0	121.75	2.55	-1162.07	2.55	-629.40	2.85	-758.62
115	115	44.46	-1604.04	-291.32	1654.09	0	-660.15	2.55	-398.04	2.55	-352.70	2.85	-423.41
115	116	48.10	-1604.04	-163.47	2473.47	0	-123.78	2.55	-665.49	2.55	-461.81	2.85	-580.83
116	116	48.10	-1604.05	-176.77	2471.79	0	-124.77	2.55	-665.18	2.55	-461.56	2.85	-580.45
116	117	51.73	-1604.05	-48.05	2878.01	0	141.14	2.55	-797.69	2.55	-515.67	2.85	-658.51
117	117	51.73	-1604.05	-62.83	2877.42	0	140.79	2.55	-797.58	2.55	-515.58	2.85	-658.37
117	118	55.37	-1604.05	64.14	2875.05	0	138.88	2.55	-796.01	2.55	-515.37	2.85	-658.09
118	118	55.37	-1604.05	49.39	2875.63	0	139.22	2.55	-796.12	2.55	-515.46	2.85	-658.22
118	119	59.01	-1604.05	178.07	2464.63	0	-130.52	2.55	-660.47	2.55	-460.92	2.85	-579.59
119	119	59.01	-1604.05	164.77	2466.32	0	-129.54	2.55	-660.78	2.55	-461.18	2.85	-579.96
119	120	62.64	-1604.05	292.65	1642.06	0	-669.81	2.55	-390.15	2.55	-351.63	2.85	-421.95
120	120	62.64	-2204.09	282.34	2642.73	0	139.81	2.55	-1232.18	2.55	-670.04	2.85	-805.18
120	121	66.28	-2208.93	320.99	1536.43	0	-576.22	2.55	-915.85	2.55	-517.37	2.85	-585.02
121	121	66.28	-2772.43	311.78	2500.50	0	180.29	2.55	-1573.74	2.55	-845.77	2.85	-985.02
121	122	69.91	-2781.43	340.21	1335.93	0	-591.80	2.55	-1198.65	2.55	-691.80	2.85	-763.57
122	122	69.91	-2434.98	337.21	1589.62	0	-53.56	2.55	-1298.57	2.55	-699.83	2.85	-793.25
122	123	73.55	-2385.36	348.94	313.46	0	-906.50	2.55	-818.06	2.55	-522.63	2.85	-546.41
123	10123	73.55	-2356.48	-339.42	334.11	0	-863.56	2.55	-825.67	2.55	-522.81	2.85	-548.29
123	124	76.66	-2402.15	-313.10	1405.79	0	-151.33	2.55	-1215.11	2.55	-674.82	2.85	-759.80
124	124	76.66	-2746.45	-314.82	1152.03	0	-688.99	2.55	-1114.29	2.55	-666.29	2.85	-729.59
124	125	79.77	-2738.77	-319.04	2137.85	0	-35.99	2.55	-1420.92	2.55	-798.27	2.85	-919.24
125	125	79.77	-1958.07	-324.31	1145.41	0	-664.97	2.55	-719.32	2.55	-431.43	2.85	-480.45
125	126	82.88	-1954.44	-306.76	2141.77	0	-23.56	2.55	-992.17	2.55	-570.74	2.85	-681.55
126	126	82.88	-1361.78	-315.88	1309.86	0	-625.93	2.55	-312.76	2.55	-285.26	2.85	-340.54
126	127	85.99	-1361.78	-207.37	2135.43	0	-78.74	2.55	-599.99	2.55	-392.61	2.85	-495.42
127	127	85.99	-1361.78	-217.66	2133.71	0	-79.75	2.55	-599.67	2.55	-392.35	2.85	-495.04
127	128	89.10	-1361.78	-109.10	2650.22	0	265.69	2.55	-787.00	2.55	-458.44	2.85	-590.33
128	128	89.10	-1361.78	-120.70	2649.29	0	265.14	2.55	-786.82	2.55	-458.30	2.85	-590.12
128	129	92.21	-1361.78	-12.85	2866.11	0	414.21	2.55	-875.92	2.55	-484.53	2.85	-627.93
129	129	92.21	-1361.78	-24.87	2865.96	0	414.11	2.55	-875.88	2.55	-484.51	2.85	-627.90
129	130	95.32	-1361.78	78.32	2782.95	0	366.79	2.55	-866.79	2.55	-470.86	2.85	-608.17
130	130	95.32	-1361.78	67.20	2783.87	0	367.32	2.55	-866.95	2.55	-471.00	2.85	-608.38
130	131	98.43	-1361.78	176.21	2393.10	0	119.06	2.55	-758.23	2.55	-416.29	2.85	-529.34
131	131	98.43	-1092.60	167.16	2563.97	0	514.95	2.55	-816.79	2.55	-419.92	2.85	-548.82
131	132	101.54	-1092.60	276.03	1864.65	0	65.24	2.55	-608.26	2.55	-324.01	2.85	-410.30
132	132	101.54	-823.41	270.39	2049.25	0	471.51	2.55	-675.71	2.55	-328.84	2.85	-431.49
132	133	104.65	-823.41	379.05	1026.46	0	-188.24	2.55	-364.66	2.55	-189.51	2.85	-230.14
133	133	104.65	-473.47	378.01	1282.97	0	352.64	2.55	-463.66	2.55	-197.14	2.85	-259.62
133	134	107.76	-473.47	312.17	-73.17	0	-522.92	2.55	-48.26	2.55	-12.90	2.85	6.76

Pórtico 8



CÁLCULO TENSIONAL

Hipótesis de cálculo:
FRECUENTES1.Tinf.MZ-
TREN DOMINANTE SIN GRADIENTE
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]
Coef. exc:

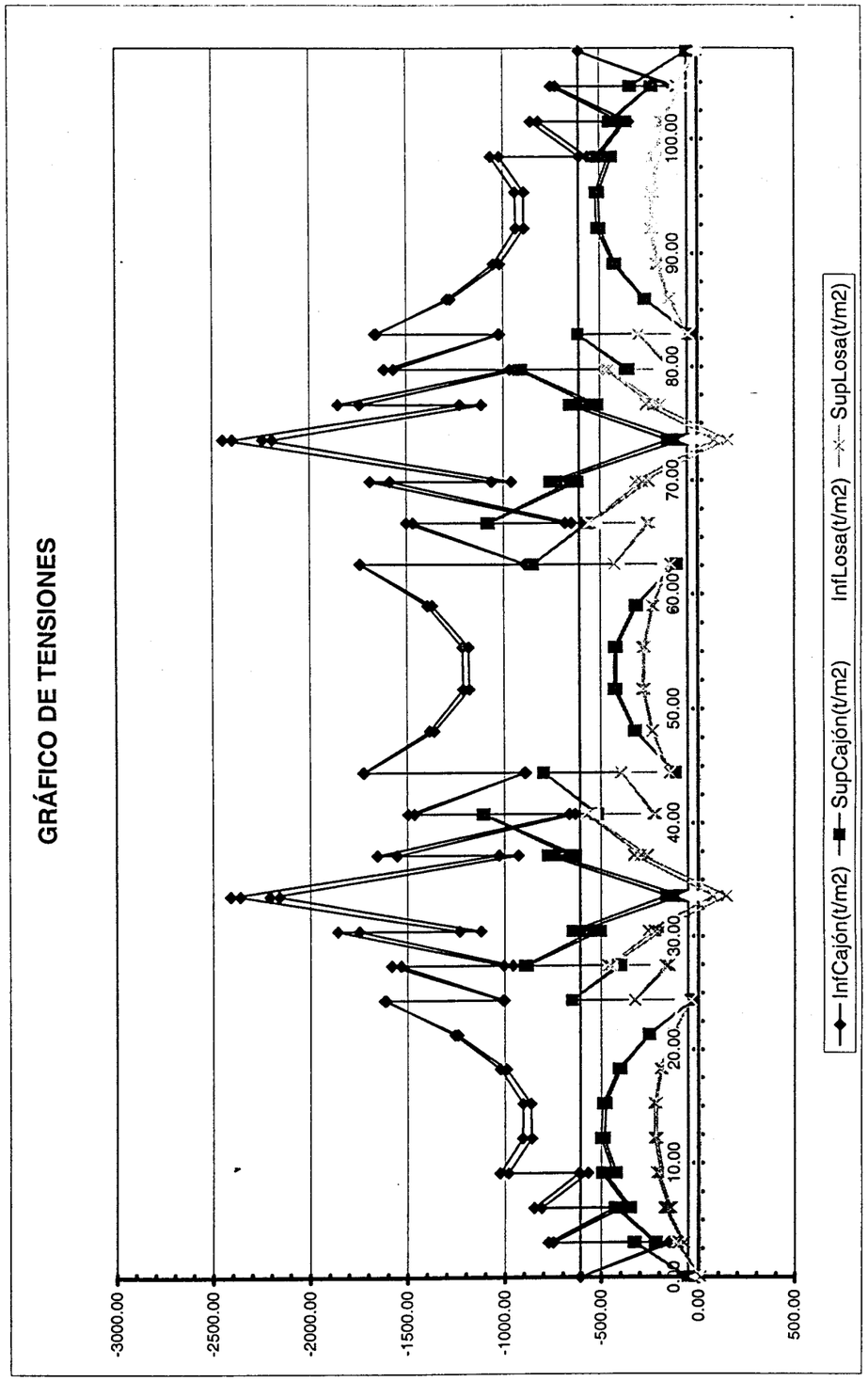
Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-549.42	-400.14	-117.32	0	-608.65	2.55	-54.89	2.55	-15.05	2.85	8.80
1	2	3.05	-549.42	-190.52	544.70	0	-149.67	2.55	-323.46	2.55	-96.89	2.85	-106.76
2	2	3.05	-955.50	-190.97	229.64	0	-773.44	2.55	-213.69	2.55	-88.37	2.85	-72.33
2	3	6.10	-955.50	-136.79	732.47	0	-425.63	2.55	-414.22	2.55	-151.10	2.85	-160.79
3	3	6.10	-1236.63	-139.12	527.87	0	-847.18	2.55	-347.08	2.55	-146.37	2.85	-138.62
3	4	9.15	-1236.63	-83.24	867.02	0	-613.19	2.55	-478.70	2.55	-189.31	2.85	-199.00
4	4	9.15	-1517.76	-83.98	676.47	0	-1024.16	2.55	-420.51	2.55	-185.83	2.85	-178.61
4	5	12.20	-1517.76	-28.69	848.32	0	-906.11	2.55	-482.53	2.55	-208.44	2.85	-210.09
5	5	12.20	-1517.76	-28.64	848.78	0	-905.84	2.55	-482.61	2.55	-208.51	2.85	-210.19
5	6	15.25	-1517.76	26.64	851.83	0	-904.62	2.55	-474.75	2.55	-210.57	2.85	-212.45
6	6	15.25	-1517.76	27.18	852.10	0	-904.47	2.55	-474.79	2.55	-210.61	2.85	-212.51
6	7	18.30	-1517.76	82.51	684.84	0	-1020.94	2.55	-396.74	2.55	-191.88	2.85	-185.21
7	7	18.30	-1517.76	83.39	684.92	0	-1020.91	2.55	-396.75	2.55	-191.89	2.85	-185.23
7	8	21.35	-1517.76	138.64	346.40	0	-1255.61	2.55	-248.38	2.55	-152.25	2.85	-128.15
8	8	21.35	-1517.75	139.53	346.24	0	-1255.71	2.55	-248.33	2.55	-152.22	2.85	-128.12
8	9	24.40	-1517.75	195.20	-164.41	0	-1609.08	2.55	-29.54	2.55	-91.52	2.85	-41.05
9	9	24.40	-1955.40	196.96	598.92	0	-1000.45	2.55	-652.02	2.55	-327.07	2.85	-325.53
9	10	27.45	-1958.50	335.74	-208.63	0	-1533.41	2.55	-413.88	2.55	-215.83	2.85	-166.58
10	10	27.45	-2355.48	335.27	534.35	0	-955.72	2.55	-896.33	2.55	-456.57	2.85	-461.58
10	11	30.50	-2361.22	451.61	-673.69	0	-1745.34	2.55	-542.32	2.55	-290.87	2.85	-223.31
11	11	30.50	-1949.68	449.89	-358.59	0	-1119.96	2.55	-649.87	2.55	-298.12	2.85	-256.44
11	12	33.55	-1919.86	605.98	-1978.19	0	-2159.53	2.55	-164.10	2.55	-67.31	2.85	73.20
12	10012	33.55	-1949.18	-628.79	-2003.98	0	-2208.11	2.55	-153.88	2.55	-66.07	2.85	76.50
12	13	37.19	-1995.87	-450.36	-8.41	0	-927.75	2.55	-774.48	2.55	-350.08	2.85	-328.34
13	13	37.19	-2405.64	-451.90	-323.60	0	-1552.66	2.55	-666.21	2.55	-342.41	2.85	-294.76
13	14	40.82	-2431.23	-318.45	1092.19	0	-633.62	2.55	-1112.09	2.55	-541.55	2.85	-578.03
14	14	40.82	-2078.34	-319.42	157.43	0	-1464.08	2.55	-526.55	2.55	-260.75	2.85	-227.83
14	15	44.46	-2075.11	-171.09	1018.64	0	-893.70	2.55	-795.43	2.55	-377.19	2.85	-394.30
15	15	44.46	-1861.35	-170.23	213.91	0	-1724.91	2.55	-116.85	2.55	-174.96	2.85	-141.98
15	16	48.10	-1861.35	-103.61	711.91	0	-1382.94	2.55	-317.64	2.55	-236.26	2.85	-229.39
16	16	48.10	-1861.36	-102.07	712.21	0	-1382.76	2.55	-317.71	2.55	-236.31	2.85	-229.45
16	17	51.73	-1861.36	-36.20	963.66	0	-1210.58	2.55	-418.02	2.55	-267.40	2.85	-273.82
17	17	51.73	-1861.36	-34.52	963.72	0	-1210.54	2.55	-418.04	2.55	-267.41	2.85	-273.83
17	18	55.37	-1861.36	36.94	958.27	0	-1214.09	2.55	-416.02	2.55	-266.73	2.85	-272.83
18	18	55.37	-1861.36	38.68	958.22	0	-1214.12	2.55	-416.01	2.55	-266.73	2.85	-272.82
18	19	59.01	-1861.36	104.58	697.85	0	-1392.27	2.55	-312.03	2.55	-234.58	2.85	-226.89
19	19	59.01	-1861.36	106.14	697.55	0	-1392.46	2.55	-311.96	2.55	-234.53	2.85	-226.82
19	20	62.64	-1861.36	172.74	190.39	0	-1740.53	2.55	-107.45	2.55	-172.14	2.85	-137.79
20	20	62.64	-2168.11	173.72	1067.69	0	-887.75	2.55	-846.61	2.55	-405.97	2.85	-426.45
20	21	66.28	-2171.80	322.09	191.29	0	-1468.16	2.55	-574.06	2.55	-287.43	2.85	-256.96
21	21	66.28	-2393.02	324.24	1048.85	0	-649.88	2.55	-1086.10	2.55	-526.37	2.85	-559.77
21	22	69.91	-2399.87	454.52	-375.49	0	-1584.14	2.55	-651.10	2.55	-333.56	2.85	-282.54
22	22	69.91	-1990.30	453.04	-60.32	0	-959.31	2.55	-759.46	2.55	-341.28	2.85	-316.16
22	23	73.55	-1952.50	631.24	-2053.26	0	-2240.85	2.55	-142.81	2.55	-59.76	2.85	85.93
23	10023	73.55	-1923.23	-615.58	-2027.39	0	-2192.22	2.55	-153.06	2.55	-61.02	2.85	82.60
23	24	76.66	-1958.02	-456.68	-344.37	0	-1112.97	2.55	-659.42	2.55	-301.75	2.85	-260.85
24	24	76.66	-2369.73	-458.33	-659.50	0	-1738.42	2.55	-551.94	2.55	-294.54	2.85	-227.75
24	25	79.77	-2363.88	-339.85	592.08	0	-920.25	2.55	-918.94	2.55	-466.22	2.85	-474.58
25	25	79.77	-1900.06	-340.27	-250.55	0	-1566.73	2.55	-369.21	2.55	-190.96	2.85	-137.85
25	26	82.88	-1897.30	-199.07	579.90	0	-1018.62	2.55	-614.67	2.55	-305.40	2.85	-301.33
26	26	82.88	-1580.23	-197.23	-134.49	0	-1653.04	2.55	-39.66	2.55	-100.52	2.85	-50.48
26	27	85.99	-1580.23	-140.49	390.73	0	-1289.27	2.55	-265.26	2.55	-162.89	2.85	-139.91
27	27	85.99	-1580.23	-139.51	390.87	0	-1289.18	2.55	-265.30	2.55	-162.91	2.85	-139.94
27	28	89.10	-1580.23	-83.17	737.08	0	-1048.83	2.55	-417.66	2.55	-203.38	2.85	-198.18
28	28	89.10	-1580.23	-82.26	737.01	0	-1048.86	2.55	-417.65	2.55	-203.37	2.85	-198.16
28	29	92.21	-1580.23	-25.86	905.10	0	-931.48	2.55	-496.87	2.55	-222.08	2.85	-225.43
29	29	92.21	-1580.23	-25.26	904.84	0	-931.62	2.55	-496.83	2.55	-222.04	2.85	-225.37
29	30	95.32	-1580.23	31.07	895.87	0	-936.61	2.55	-503.09	2.55	-219.15	2.85	-221.91
30	30	95.32	-1580.23	31.13	895.23	0	-937.00	2.55	-502.96	2.55	-219.05	2.85	-221.77
30	31	98.43	-1580.23	87.55	710.82	0	-1063.43	2.55	-436.55	2.55	-194.80	2.85	-187.94
31	31	98.43	-1267.87	86.85	922.62	0	-606.74	2.55	-501.22	2.55	-198.67	2.85	-210.61
31	32	101.54	-1267.87	143.40	561.52	0	-855.30	2.55	-361.94	2.55	-152.87	2.85	-146.13
32	32	101.54	-955.50	143.17	788.92	0	-386.87	2.55	-436.55	2.55	-158.13	2.85	-170.78
32	33	104.65	-955.50	196.32	261.01	0	-751.85	2.55	-226.21	2.55	-92.27	2.85	-77.86
33	33	104.65	-549.42	195.90	576.03	0	-128.12	2.55	-335.97	2.55	-100.77	2.85	-112.28
33	34	107.76	-549.42	410.82	-117.38	0	-608.69	2.55	-54.88	2.55	-15.04	2.85	8.81
101	101	0.00	-549.42	-478.65	-117.90	0	-609.01	2.55	-54.76	2.55	-14.96	2.85	8.92
101	102	3.05	-549.42	-199.52	581.05	0	-126.12	2.55	-332.44	2.55	-102.21	2.85	-114.31
102	102	3.05	-955.50	-200.84	266.18	0	-749.82	2.55	-222.66	2.55	-93.73	2.85	-79.93
102	103	6.10	-955.50	-142.79	790.06	0	-388.14	2.55	-428.60	2.55	-159.52	2.85	-172.72
103	103	6.10	-1236.63	-143.55	585.67	0	-809.61	2.55	-361.46	2.55	-154.83	2.85	-150.60
103	104	9.15	-1236.63	-85.60	935.11	0	-568.70	2.55	-495.84	2.55	-199.26	2.85	-213.06
104	104	9.15	-1517.76	-85.89	744.26	0	-979.88	2.55	-437.58	2.55	-195.74	2.85	-192.61
104	105	12.20	-1517.76	-27.88	917.78	0	-860.52	2.55	-500.21	2.55	-218.58	2.85	-224.39
105	105	12.20	-1517.76	-27.62	918.32	0	-860.20	2.55	-500.31	2.55	-218.66	2.85	-224.51

CÁLCULO TENSIONAL

Hipótesis de cálculo:
FRECUENTES1.Tinf.MZ-
TREN DOMINANTE SIN GRADIENTE
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1517.76	30.37	913.93	0	-863.51	2.55	-490.87	2.55	-219.61	2.85	-225.16
106	106	15.25	-1517.76	31.14	913.98	0	-863.50	2.55	-490.86	2.55	-219.62	2.85	-225.17
106	107	18.30	-1517.76	89.20	730.82	0	-989.90	2.55	-409.24	2.55	-198.55	2.85	-194.48
107	107	18.30	-1517.76	90.52	731.15	0	-989.70	2.55	-409.30	2.55	-198.60	2.85	-194.55
107	108	21.35	-1517.76	148.48	366.72	0	-1240.70	2.55	-254.99	2.55	-155.13	2.85	-131.97
108	108	21.35	-1517.75	150.29	366.97	0	-1240.54	2.55	-255.04	2.55	-155.16	2.85	-132.02
108	109	24.40	-1517.75	208.93	-180.12	0	-1616.94	2.55	-27.78	2.55	-89.09	2.85	-37.24
109	109	24.40	-1955.40	212.16	583.66	0	-1008.02	2.55	-650.37	2.55	-324.71	2.85	-321.82
109	110	27.45	-1958.50	362.43	-287.05	0	-1581.01	2.55	-397.47	2.55	-204.18	2.85	-149.53
110	110	27.45	-2355.48	364.74	456.64	0	-1002.86	2.55	-880.09	2.55	-445.02	2.85	-444.68
110	111	30.50	-2361.22	510.82	-855.64	0	-1857.87	2.55	-502.33	2.55	-263.94	2.85	-184.25
111	111	30.50	-1949.68	490.85	-539.84	0	-1232.05	2.55	-610.03	2.55	-271.29	2.85	-217.53
111	112	33.55	-1919.86	657.66	-2304.79	0	-2362.01	2.55	-91.86	2.55	-18.99	2.85	143.20
112	10112	33.55	-1949.18	-679.11	-2330.71	0	-2410.68	2.55	-81.61	2.55	-17.73	2.85	146.53
112	113	37.19	-1995.87	-488.64	-169.58	0	-1027.32	2.55	-739.16	2.55	-326.22	2.85	-293.71
113	113	37.19	-2405.64	-510.09	-485.38	0	-1652.61	2.55	-630.74	2.55	-318.46	2.85	-260.01
113	114	40.82	-2431.23	-344.02	1040.64	0	-664.35	2.55	-1101.81	2.55	-533.86	2.85	-566.70
114	114	40.82	-2078.34	-341.89	105.09	0	-1495.32	2.55	-516.08	2.55	-252.94	2.85	-216.34
114	115	44.46	-2075.11	-182.78	1024.24	0	-888.45	2.55	-798.29	2.55	-377.93	2.85	-395.09
115	115	44.46	-1861.35	-180.24	219.03	0	-1719.98	2.55	-119.59	2.55	-175.62	2.85	-142.67
115	116	48.10	-1861.35	-110.28	746.84	0	-1359.14	2.55	-327.32	2.55	-241.32	2.85	-236.38
116	116	48.10	-1861.36	-107.70	746.80	0	-1359.18	2.55	-327.31	2.55	-241.31	2.85	-236.37
116	117	51.73	-1861.36	-38.60	1012.88	0	-1177.76	2.55	-431.01	2.55	-274.56	2.85	-283.84
117	117	51.73	-1861.36	-36.26	1012.82	0	-1177.80	2.55	-430.99	2.55	-274.55	2.85	-283.82
117	118	55.37	-1861.36	38.81	1007.04	0	-1181.55	2.55	-428.92	2.55	-273.83	2.85	-282.74
118	118	55.37	-1861.36	41.22	1007.12	0	-1181.49	2.55	-428.94	2.55	-273.84	2.85	-282.76
118	119	59.01	-1861.36	110.35	731.60	0	-1369.19	2.55	-321.46	2.55	-239.45	2.85	-233.62
119	119	59.01	-1861.36	112.97	731.66	0	-1369.14	2.55	-321.49	2.55	-239.46	2.85	-233.63
119	120	62.64	-1861.36	182.91	194.08	0	-1736.44	2.55	-109.91	2.55	-172.59	2.85	-138.17
120	120	62.64	-2168.11	185.64	1071.82	0	-883.38	2.55	-849.18	2.55	-406.48	2.85	-426.91
120	121	66.28	-2171.80	344.79	136.54	0	-1500.86	2.55	-563.09	2.55	-279.26	2.85	-244.94
121	121	66.28	-2393.02	350.09	994.84	0	-682.11	2.55	-1075.31	2.55	-518.31	2.85	-547.90
121	122	69.91	-2399.87	488.73	-540.52	0	-1686.09	2.55	-614.94	2.55	-309.13	2.85	-247.08
122	122	69.91	-1990.30	491.69	-224.80	0	-1060.91	2.55	-723.42	2.55	-316.93	2.85	-280.82
122	123	73.55	-1952.50	681.91	-2383.94	0	-2445.84	2.55	-69.69	2.55	-10.84	2.85	156.81
123	10123	73.55	-1923.23	-667.46	-2358.58	0	-2397.55	2.55	-79.82	2.55	-12.02	2.85	153.59
123	124	76.66	-1958.02	-519.59	-526.74	0	-1225.72	2.55	-619.37	2.55	-274.76	2.85	-221.69
124	124	76.66	-2369.73	-517.94	-843.04	0	-1851.91	2.55	-511.62	2.55	-267.37	2.85	-188.34
124	125	79.77	-2363.88	-369.21	515.32	0	-966.80	2.55	-902.92	2.55	-454.81	2.85	-457.89
125	125	79.77	-1900.06	-366.83	-328.03	0	-1613.74	2.55	-353.01	2.55	-179.44	2.85	-121.01
125	126	82.88	-1897.29	-214.04	565.99	0	-1025.35	2.55	-613.32	2.55	-303.24	2.85	-297.91
126	126	82.88	-1580.23	-210.75	-148.87	0	-1660.08	2.55	-38.19	2.55	-98.29	2.85	-46.96
126	127	85.99	-1580.23	-151.02	412.83	0	-1273.24	2.55	-272.27	2.55	-166.03	2.85	-144.11
127	127	85.99	-1580.23	-149.20	412.59	0	-1273.39	2.55	-272.21	2.55	-166.00	2.85	-144.06
127	128	89.10	-1580.23	-90.10	784.63	0	-1016.79	2.55	-430.51	2.55	-210.28	2.85	-207.78
128	128	89.10	-1580.23	-88.83	784.28	0	-1017.00	2.55	-430.43	2.55	-210.23	2.85	-207.70
128	129	92.21	-1580.23	-29.64	968.49	0	-889.55	2.55	-513.29	2.55	-231.32	2.85	-238.41
129	129	92.21	-1580.23	-28.95	967.98	0	-889.85	2.55	-513.19	2.55	-231.24	2.85	-238.30
129	130	95.32	-1580.23	30.15	966.27	0	-890.43	2.55	-520.97	2.55	-229.42	2.85	-236.41
130	130	95.32	-1580.23	30.32	965.81	0	-890.69	2.55	-520.89	2.55	-229.36	2.85	-236.31
130	131	98.43	-1580.23	89.52	779.52	0	-1018.55	2.55	-453.82	2.55	-204.84	2.85	-202.13
131	131	98.43	-1267.87	89.16	991.69	0	-561.62	2.55	-518.59	2.55	-208.77	2.85	-224.89
131	132	101.54	-1267.87	148.24	622.53	0	-815.84	2.55	-376.94	2.55	-161.81	2.85	-158.82
132	132	101.54	-955.50	147.41	849.66	0	-347.51	2.55	-451.54	2.55	-167.03	2.85	-183.41
132	133	104.65	-955.50	205.93	298.77	0	-727.50	2.55	-235.42	2.55	-97.80	2.85	-85.73
133	133	104.65	-549.42	205.21	614.23	0	-103.46	2.55	-345.31	2.55	-106.37	2.85	-120.24
133	134	107.76	-549.42	487.50	-117.98	0	-609.07	2.55	-54.74	2.55	-14.95	2.85	8.94



CÁLCULO TENSIONAL

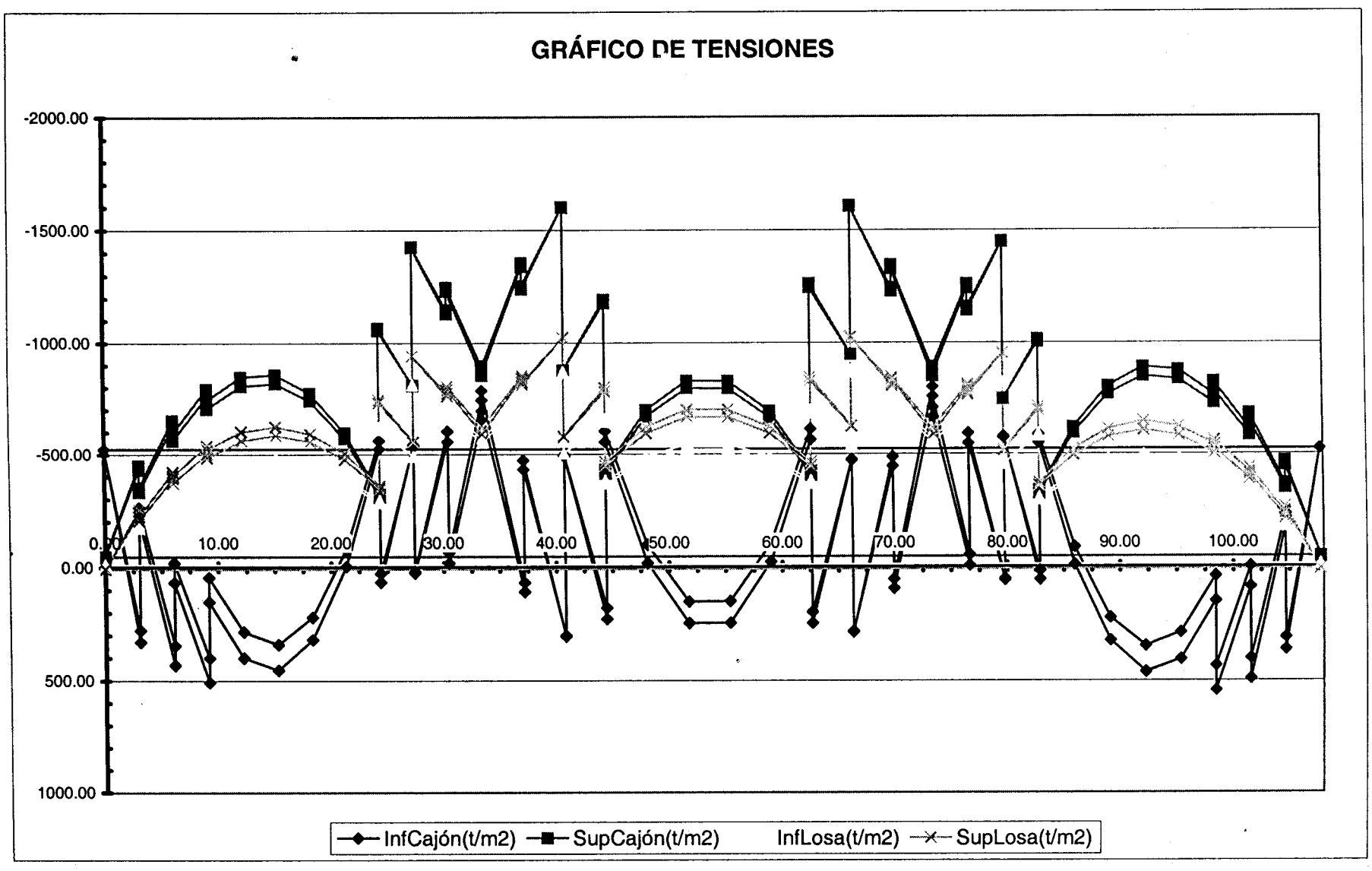
Hipótesis de cálculo:
FRECUENTES2.Tinf.MZ+
TREN DOMINANTE CON GRADIENTE
[1: 1]PPCF1 + [1: 1]PPLF2 + [1: 1]PPLF:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-473.47	-338.95	-72.65	0	-522.59	2.55	-48.38	2.55	-12.97	2.85	6.65
1	2	3.05	-473.47	-358.66	1164.01	0	276.41	2.55	-431.50	2.55	-180.30	2.85	-235.39
2	2	3.05	-823.41	-363.00	908.83	0	-263.64	2.55	-332.80	2.55	-172.86	2.85	-206.19
2	3	6.10	-823.41	-255.29	1851.25	0	344.28	2.55	-621.48	2.55	-300.89	2.85	-391.32
3	3	6.10	-1065.68	-262.38	1685.91	0	-20.86	2.55	-560.96	2.55	-296.66	2.85	-372.41
3	4	9.15	-1065.68	-166.89	2340.36	0	399.42	2.55	-756.21	2.55	-386.34	2.85	-502.06
4	4	9.15	-1307.94	-176.22	2187.17	0	43.50	2.55	-703.65	2.55	-383.16	2.85	-484.65
4	5	12.20	-1307.94	-69.60	2566.86	0	283.58	2.55	-807.67	2.55	-436.49	2.85	-561.83
5	5	12.20	-1307.94	-80.31	2566.11	0	283.16	2.55	-807.54	2.55	-436.38	2.85	-561.65
5	6	15.25	-1307.94	14.87	2666.01	0	340.13	2.55	-819.44	2.55	-452.59	2.85	-585.23
6	6	15.25	-1307.94	3.53	2665.87	0	340.04	2.55	-819.41	2.55	-452.57	2.85	-585.20
6	7	18.30	-1307.94	103.62	2494.26	0	218.60	2.55	-740.61	2.55	-432.93	2.85	-557.05
7	7	18.30	-1307.94	92.41	2494.71	0	218.84	2.55	-740.67	2.55	-433.00	2.85	-557.16
7	8	21.35	-1307.94	192.51	2051.93	0	-80.80	2.55	-571.24	2.55	-377.54	2.85	-477.36
8	8	21.35	-1307.93	182.01	2052.91	0	-80.26	2.55	-571.39	2.55	-377.69	2.85	-477.58
8	9	24.40	-1307.93	283.17	1332.58	0	-561.66	2.55	-310.29	2.55	-285.46	2.85	-344.68
9	9	24.40	-2046.22	272.93	2238.80	0	26.13	2.55	-1054.68	2.55	-611.64	2.85	-731.15
9	10	27.45	-2050.29	294.61	1368.98	0	-536.71	2.55	-811.38	2.55	-490.93	2.85	-557.00
10	10	27.45	-2727.96	287.82	2241.60	0	23.18	2.55	-1427.41	2.55	-812.29	2.85	-941.69
10	11	30.50	-2735.50	303.98	1370.17	0	-557.40	2.55	-1149.37	2.55	-696.75	2.85	-775.80
11	11	30.50	-2391.04	299.88	1623.51	0	-19.98	2.55	-1250.01	2.55	-705.19	2.85	-805.89
11	12	33.55	-2351.89	306.20	678.44	0	-652.38	2.55	-897.06	2.55	-572.75	2.85	-621.78
12	10012	33.55	-2380.73	-325.34	657.51	0	-695.49	2.55	-889.37	2.55	-572.51	2.85	-619.84
12	13	37.19	-2442.04	-312.91	1859.20	0	105.98	2.55	-1356.38	2.55	-741.53	2.85	-853.95
13	13	37.19	-2788.26	-318.32	1605.89	0	-431.96	2.55	-1256.46	2.55	-733.52	2.85	-824.30
13	14	40.82	-2746.84	-293.01	2690.85	0	299.53	2.55	-1599.97	2.55	-868.22	2.85	-1021.11
14	14	40.82	-2086.22	-301.19	1626.18	0	-494.67	2.55	-876.72	2.55	-502.58	2.85	-577.18
14	15	44.46	-2081.99	-262.10	2662.76	0	177.56	2.55	-1177.43	2.55	-645.12	2.85	-782.65
15	15	44.46	-1604.04	-273.67	1758.21	0	-603.79	2.55	-413.60	2.55	-368.54	2.85	-447.62
15	16	48.10	-1604.04	-152.88	2526.24	0	-99.44	2.55	-669.53	2.55	-470.07	2.85	-594.07
16	16	48.10	-1604.05	-166.44	2525.16	0	-100.04	2.55	-669.36	2.55	-469.90	2.85	-593.83
16	17	51.73	-1604.05	-44.87	2906.91	0	150.60	2.55	-796.38	2.55	-520.40	2.85	-666.65
17	17	51.73	-1604.05	-59.34	2906.54	0	150.40	2.55	-796.32	2.55	-520.34	2.85	-666.57
17	18	55.37	-1604.05	60.59	2904.29	0	148.57	2.55	-794.78	2.55	-520.15	2.85	-666.31
18	18	55.37	-1604.05	46.13	2904.67	0	148.78	2.55	-794.84	2.55	-520.21	2.85	-666.40
18	19	59.01	-1604.05	167.67	2518.42	0	-105.53	2.55	-664.74	2.55	-469.33	2.85	-593.05
19	19	59.01	-1604.05	154.09	2519.47	0	-104.95	2.55	-664.91	2.55	-469.49	2.85	-593.29
19	20	62.64	-1604.05	274.92	1746.91	0	-612.98	2.55	-405.89	2.55	-367.58	2.85	-446.32
20	20	62.64	-2204.09	263.33	2746.71	0	196.10	2.55	-1247.71	2.55	-685.87	2.85	-829.36
20	21	66.28	-2208.93	302.38	1712.07	0	-475.10	2.55	-947.61	2.55	-543.78	2.85	-624.46
21	21	66.28	-2772.43	291.24	2675.49	0	281.00	2.55	-1605.34	2.55	-872.08	2.85	-1024.32
21	22	69.91	-2781.43	319.77	1583.14	0	-445.54	2.55	-1246.93	2.55	-728.75	2.85	-818.18
22	22	69.91	-2434.98	314.32	1836.43	0	92.45	2.55	-1346.76	2.55	-736.72	2.85	-847.77
22	23	73.55	-2385.36	326.78	639.27	0	-709.57	2.55	-885.50	2.55	-571.10	2.85	-617.42
23	10023	73.55	-2356.48	-312.18	660.27	0	-666.40	2.55	-893.19	2.55	-571.34	2.85	-619.36
23	24	76.66	-2402.15	-305.81	1644.09	0	-9.52	2.55	-1262.40	2.55	-710.40	2.85	-812.25
24	24	76.66	-2746.45	-309.98	1390.72	0	-546.91	2.55	-1161.70	2.55	-701.92	2.85	-782.11
24	25	79.77	-2738.77	-290.79	2295.04	0	55.50	2.55	-1450.25	2.55	-821.85	2.85	-954.31
25	25	79.77	-1958.07	-297.81	1303.23	0	-573.08	2.55	-748.78	2.55	-455.10	2.85	-515.66
25	26	82.88	-1954.44	-277.64	2211.41	0	14.37	2.55	-1002.78	2.55	-581.32	2.85	-697.69
26	26	82.88	-1361.78	-288.17	1380.40	0	-587.44	2.55	-323.58	2.55	-295.98	2.85	-356.87
26	27	85.99	-1361.78	-185.48	2127.21	0	-88.48	2.55	-593.94	2.55	-391.65	2.85	-494.74
27	27	85.99	-1361.78	-196.31	2126.22	0	-89.02	2.55	-593.79	2.55	-391.50	2.85	-494.51
27	28	89.10	-1361.78	-93.79	2585.55	0	221.56	2.55	-769.02	2.55	-449.09	2.85	-577.40
28	28	89.10	-1361.78	-105.33	2585.06	0	221.30	2.55	-768.95	2.55	-449.02	2.85	-577.29
28	29	92.21	-1361.78	-3.49	2762.68	0	346.73	2.55	-849.98	2.55	-469.41	2.85	-606.54
29	29	92.21	-1361.78	-15.17	2762.83	0	346.82	2.55	-850.01	2.55	-469.43	2.85	-606.57
29	30	95.32	-1361.78	82.30	2658.38	0	286.88	2.55	-836.79	2.55	-452.58	2.85	-582.09
30	30	95.32	-1361.78	71.28	2658.87	0	287.13	2.55	-836.85	2.55	-452.66	2.85	-582.21
30	31	98.43	-1361.78	174.25	2265.41	0	37.87	2.55	-728.15	2.55	-397.50	2.85	-502.44
31	31	98.43	-1092.60	164.60	2435.50	0	433.27	2.55	-786.53	2.55	-401.02	2.85	-521.75
31	32	101.54	-1092.60	267.29	1754.85	0	-4.24	2.55	-582.69	2.55	-307.84	2.85	-387.09
32	32	101.54	-823.41	260.08	1938.45	0	401.40	2.55	-649.92	2.55	-312.53	2.85	-408.07
32	33	104.65	-823.41	362.89	957.97	0	-231.45	2.55	-348.84	2.55	-179.41	2.85	-215.63
33	33	104.65	-473.47	358.65	1213.21	0	308.63	2.55	-447.55	2.55	-186.86	2.85	-244.84
33	34	107.76	-473.47	346.80	-72.57	0	-522.54	2.55	-48.39	2.55	-12.99	2.85	6.63
101	101	0.00	-473.47	-305.61	-73.23	0	-522.95	2.55	-48.25	2.55	-12.89	2.85	6.78
101	102	3.05	-473.47	-383.86	1248.74	0	328.86	2.55	-450.17	2.55	-192.84	2.85	-253.57
102	102	3.05	-823.41	-385.01	992.35	0	-211.95	2.55	-351.19	2.55	-185.22	2.85	-224.12
102	103	6.10	-823.41	-271.04	1992.46	0	431.59	2.55	-652.51	2.55	-321.80	2.85	-421.64
103	103	6.10	-1065.68	-276.52	1826.13	0	65.83	2.55	-591.76	2.55	-317.42	2.85	-402.52
103	104	9.15	-1065.68	-169.76	2515.17	0	507.37	2.55	-794.48	2.55	-412.23	2.85	-539.63
104	104	9.15	-1307.94	-178.44	2361.33	0	151.03	2.55	-741.77	2.55	-408.95	2.85	-522.08
104	105	12.20	-1307.94	-71.00	2755.12	0	399.67	2.55	-848.74	2.55	-464.38	2.85	-602.32
105	105	12.20	-1307.94	-81.66	2754.32	0	399.23	2.55	-848.61	2.55	-464.25	2.85	-602.14

CÁLCULO TENSIONAL

Hipótesis de cálculo:
FRECUENTES2.Tinf.MZ+
TREN DOMINANTE CON GRADIENTE
[1: 1]PPCF1 + [1: 1]PPLF2 + [1: 1]PPLF:
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1307.94	19.09	2849.62	0	453.15	2.55	-859.32	2.55	-479.80	2.85	-624.77
106	106	15.25	-1307.94	7.62	2849.12	0	452.83	2.55	-859.20	2.55	-479.73	2.85	-624.66
106	107	18.30	-1307.94	113.61	2655.83	0	317.77	2.55	-775.44	2.55	-456.88	2.85	-591.91
107	107	18.30	-1307.94	102.45	2656.71	0	318.29	2.55	-775.60	2.55	-457.02	2.85	-592.11
107	108	21.35	-1307.94	208.45	2174.08	0	-6.31	2.55	-597.13	2.55	-395.68	2.85	-503.83
108	108	21.35	-1307.93	198.64	2175.78	0	-5.32	2.55	-597.44	2.55	-395.93	2.85	-504.20
108	109	24.40	-1307.93	305.53	1394.35	0	-524.85	2.55	-322.60	2.55	-294.68	2.85	-358.26
109	109	24.40	-2046.22	296.76	2301.42	0	63.47	2.55	-1067.18	2.55	-620.99	2.85	-744.92
109	110	27.45	-2050.29	315.89	1361.80	0	-542.78	2.55	-808.32	2.55	-489.96	2.85	-555.83
110	110	27.45	-2727.96	310.83	2235.02	0	17.50	2.55	-1424.49	2.55	-811.40	2.85	-940.66
110	111	30.50	-2735.50	303.81	1299.38	0	-603.76	2.55	-1131.46	2.55	-686.41	2.85	-761.20
111	111	30.50	-2391.04	323.73	1552.88	0	-66.23	2.55	-1232.14	2.55	-694.88	2.85	-791.32
111	112	33.55	-2351.89	328.04	537.72	0	-743.72	2.55	-862.20	2.55	-552.15	2.85	-592.57
112	10112	33.55	-2380.73	-347.45	516.70	0	-786.89	2.55	-854.48	2.55	-551.90	2.85	-590.61
112	113	37.19	-2442.04	-335.66	1798.14	0	65.92	2.55	-1340.87	2.55	-732.62	2.85	-841.38
113	113	37.19	-2788.26	-314.35	1544.48	0	-472.25	2.55	-1240.85	2.55	-724.55	2.85	-811.65
113	114	40.82	-2746.84	-313.46	2700.99	0	304.39	2.55	-1600.90	2.55	-869.80	2.85	-1023.61
114	114	40.82	-2086.22	-319.71	1635.64	0	-490.24	2.55	-877.49	2.55	-504.05	2.85	-579.54
114	115	44.46	-2081.99	-280.99	2743.73	0	226.73	2.55	-1194.40	2.55	-657.15	2.85	-800.24
115	115	44.46	-1604.04	-291.33	1838.29	0	-555.17	2.55	-430.37	2.55	-380.44	2.85	-465.03
115	116	48.10	-1604.04	-163.48	2657.73	0	-18.77	2.55	-697.83	2.55	-489.56	2.85	-622.45
116	116	48.10	-1604.05	-176.78	2656.05	0	-19.75	2.55	-697.52	2.55	-489.31	2.85	-622.08
116	117	51.73	-1604.05	-48.06	3062.33	0	246.18	2.55	-830.04	2.55	-543.43	2.85	-700.15
117	117	51.73	-1604.05	-62.84	3061.74	0	245.84	2.55	-829.93	2.55	-543.34	2.85	-700.01
117	118	55.37	-1604.05	64.13	3059.42	0	243.96	2.55	-828.37	2.55	-543.14	2.85	-699.74
118	118	55.37	-1604.05	49.37	3060.00	0	244.29	2.55	-828.48	2.55	-543.23	2.85	-699.87
118	119	59.01	-1604.05	178.05	2649.06	0	-25.41	2.55	-692.83	2.55	-488.71	2.85	-621.25
119	119	59.01	-1604.05	164.75	2650.74	0	-24.43	2.55	-693.15	2.55	-488.96	2.85	-621.63
119	120	62.64	-1604.05	292.64	1826.54	0	-564.67	2.55	-422.53	2.55	-379.42	2.85	-463.63
120	120	62.64	-2204.09	282.33	2827.21	0	244.95	2.55	-1264.55	2.55	-697.83	2.85	-846.86
120	121	66.28	-2208.93	320.97	1720.97	0	-471.05	2.55	-948.24	2.55	-545.17	2.85	-626.71
121	121	66.28	-2772.43	311.77	2685.04	0	285.46	2.55	-1606.12	2.55	-873.57	2.85	-1026.71
121	122	69.91	-2781.43	340.19	1520.52	0	-486.60	2.55	-1231.04	2.55	-719.61	2.85	-805.27
122	122	69.91	-2434.98	337.19	1774.21	0	51.65	2.55	-1330.97	2.55	-727.63	2.85	-834.95
122	123	73.55	-2385.36	348.93	498.10	0	-801.26	2.55	-850.47	2.55	-550.45	2.85	-588.13
123	10123	73.55	-2356.48	-334.02	518.76	0	-758.32	2.55	-858.08	2.55	-550.63	2.85	-590.00
123	124	76.66	-2402.15	-307.71	1573.65	0	-55.66	2.55	-1244.57	2.55	-700.11	2.85	-797.72
124	124	76.66	-2746.45	-309.42	1319.89	0	-593.33	2.55	-1143.75	2.55	-691.57	2.85	-767.51
124	125	79.77	-2738.77	-313.64	2288.92	0	50.11	2.55	-1447.43	2.55	-821.03	2.85	-953.37
125	125	79.77	-1958.07	-318.92	1296.49	0	-578.87	2.55	-745.83	2.55	-454.19	2.85	-514.58
125	126	82.88	-1954.44	-301.36	2276.06	0	52.98	2.55	-1015.74	2.55	-590.97	2.85	-711.89
126	126	82.88	-1361.78	-310.48	1444.15	0	-549.39	2.55	-336.32	2.55	-305.49	2.85	-370.88
126	127	85.99	-1361.78	-201.98	2252.93	0	-11.78	2.55	-620.61	2.55	-410.31	2.85	-521.97
127	127	85.99	-1361.78	-212.26	2251.21	0	-12.78	2.55	-620.29	2.55	-410.05	2.85	-521.59
127	128	89.10	-1361.78	-103.71	2750.94	0	323.09	2.55	-804.67	2.55	-473.61	2.85	-613.08
128	128	89.10	-1361.78	-115.30	2750.00	0	322.54	2.55	-804.50	2.55	-473.47	2.85	-612.88
128	129	92.21	-1361.78	-7.45	2950.04	0	462.05	2.55	-890.65	2.55	-497.18	2.85	-646.89
129	129	92.21	-1361.78	-19.47	2949.89	0	461.95	2.55	-890.61	2.55	-497.16	2.85	-646.86
129	130	95.32	-1361.78	83.72	2850.09	0	405.06	2.55	-878.57	2.55	-480.98	2.85	-623.34
130	130	95.32	-1361.78	72.59	2851.02	0	405.59	2.55	-878.73	2.55	-481.12	2.85	-623.55
130	131	98.43	-1361.78	181.61	2443.46	0	147.76	2.55	-767.07	2.55	-423.87	2.85	-540.71
131	131	98.43	-1092.60	172.56	2614.33	0	543.65	2.55	-825.63	2.55	-427.50	2.85	-560.19
131	132	101.54	-1092.60	281.43	1898.22	0	84.37	2.55	-614.16	2.55	-329.07	2.85	-417.88
132	132	101.54	-823.41	275.79	2082.82	0	490.64	2.55	-681.61	2.55	-333.90	2.85	-439.07
132	133	104.65	-823.41	384.45	1043.25	0	-178.68	2.55	-367.61	2.55	-192.04	2.85	-233.93
133	133	104.65	-473.47	383.41	1299.76	0	362.20	2.55	-466.61	2.55	-199.67	2.85	-263.41
133	134	107.76	-473.47	312.17	-73.17	0	-522.92	2.55	-48.26	2.55	-12.90	2.85	6.76


GRÁFICO DE TENSIONES
-2000.00
-1500.00
-1000.00
-500.00
0.00
500.00
1000.00
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00
InfCajón(t/m2)
SupCajón(t/m2)
InfLosa(t/m2)
SupLlosa(t/m2)

CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES1.Tinf.MZ+
TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-473.47	-337.33	-71.84	0	-522.13	2.55	-48.52	2.55	-13.10	2.85	6.47
1	2	3.05	-473.47	-434.02	1409.43	0	416.28	2.55	-474.57	2.55	-217.27	2.85	-290.84
2	2	3.05	-823.41	-434.70	1156.95	0	-122.23	2.55	-376.34	2.55	-210.24	2.85	-262.25
2	3	6.10	-823.41	-314.52	2298.90	0	599.40	2.55	-700.05	2.55	-368.33	2.85	-492.45
3	3	6.10	-1065.68	-314.76	2135.80	0	235.54	2.55	-639.92	2.55	-364.44	2.85	-474.05
3	4	9.15	-1065.68	-210.03	2935.93	0	738.85	2.55	-860.73	2.55	-476.06	2.85	-636.61
4	4	9.15	-1307.94	-210.14	2784.35	0	383.84	2.55	-808.45	2.55	-473.12	2.85	-619.56
4	5	12.20	-1307.94	-91.62	3250.34	0	673.11	2.55	-927.63	2.55	-539.45	2.85	-716.23
5	5	12.20	-1307.94	-91.58	3250.49	0	673.20	2.55	-927.66	2.55	-539.47	2.85	-716.27
5	6	15.25	-1307.94	12.71	3370.93	0	741.88	2.55	-943.16	2.55	-558.78	2.85	-744.48
6	6	15.25	-1307.94	12.82	3370.87	0	741.84	2.55	-943.15	2.55	-558.77	2.85	-744.47
6	7	18.30	-1307.94	123.29	3152.93	0	593.99	2.55	-856.21	2.55	-532.15	2.85	-705.86
7	7	18.30	-1307.94	123.29	3152.68	0	593.83	2.55	-856.15	2.55	-532.11	2.85	-705.80
7	8	21.35	-1307.94	233.82	2597.61	0	230.20	2.55	-667.01	2.55	-459.74	2.85	-600.64
8	8	21.35	-1307.93	233.46	2597.18	0	229.93	2.55	-666.91	2.55	-459.68	2.85	-600.54
8	9	24.40	-1307.93	345.29	1700.85	0	-351.78	2.55	-374.92	2.55	-340.93	2.85	-427.88
9	9	24.40	-2046.22	343.33	2605.08	0	234.88	2.55	-1118.97	2.55	-666.82	2.85	-813.90
9	10	27.45	-2050.29	367.69	1508.92	0	-456.96	2.55	-835.94	2.55	-512.01	2.85	-588.61
10	10	27.45	-2727.96	366.83	2378.95	0	101.46	2.55	-1451.52	2.55	-832.98	2.85	-972.72
10	11	30.50	-2735.50	341.00	1330.79	0	-579.85	2.55	-1142.46	2.55	-690.82	2.85	-766.91
11	11	30.50	-2391.04	338.49	1582.77	0	-43.20	2.55	-1242.86	2.55	-699.06	2.85	-796.69
11	12	33.55	-2351.89	321.75	582.28	0	-707.19	2.55	-880.18	2.55	-558.26	2.85	-600.05
12	10012	33.55	-2380.73	-320.30	561.55	0	-750.18	2.55	-872.53	2.55	-558.06	2.85	-598.16
12	13	37.19	-2442.04	-312.05	1746.31	0	41.64	2.55	-1336.57	2.55	-724.53	2.85	-828.45
13	13	37.19	-2788.26	-318.53	1492.79	0	-496.42	2.55	-1236.61	2.55	-716.48	2.85	-798.75
13	14	40.82	-2746.84	-369.85	2737.34	0	326.03	2.55	-1608.13	2.55	-875.22	2.85	-1031.61
14	14	40.82	-2086.22	-372.02	1675.73	0	-466.43	2.55	-885.41	2.55	-510.04	2.85	-588.37
14	15	44.46	-2081.99	-333.37	2974.76	0	355.37	2.55	-1232.19	2.55	-692.12	2.85	-853.13
15	15	44.46	-1604.04	-333.85	2072.56	0	-424.64	2.55	-468.77	2.55	-415.89	2.85	-518.64
15	16	48.10	-1604.04	-200.53	3034.85	0	190.43	2.55	-758.79	2.55	-546.68	2.85	-708.97
16	16	48.10	-1604.05	-200.61	3035.27	0	190.68	2.55	-758.88	2.55	-546.75	2.85	-709.07
16	17	51.73	-1604.05	-66.01	3516.95	0	498.28	2.55	-903.45	2.55	-612.30	2.85	-804.47
17	17	51.73	-1604.05	-65.69	3517.12	0	498.38	2.55	-903.48	2.55	-612.32	2.85	-804.51
17	18	55.37	-1604.05	66.66	3515.39	0	496.84	2.55	-902.03	2.55	-612.21	2.85	-804.37
18	18	55.37	-1604.05	67.00	3515.25	0	496.76	2.55	-902.00	2.55	-612.19	2.85	-804.34
18	19	59.01	-1604.05	201.54	3030.09	0	186.08	2.55	-754.54	2.55	-546.41	2.85	-708.64
19	19	59.01	-1604.05	201.46	3029.65	0	185.81	2.55	-754.45	2.55	-546.35	2.85	-708.55
19	20	62.64	-1604.05	334.85	2063.80	0	-432.38	2.55	-461.51	2.55	-415.32	2.85	-517.91
20	20	62.64	-2204.09	334.33	3061.26	0	375.36	2.55	-1302.92	2.55	-733.25	2.85	-900.42
20	21	66.28	-2208.93	374.59	1764.01	0	-445.50	2.55	-956.72	2.55	-551.60	2.85	-636.20
21	21	66.28	-2772.43	369.83	2724.33	0	308.84	2.55	-1613.91	2.55	-879.43	2.85	-1035.36
21	22	69.91	-2781.43	324.70	1462.41	0	-514.35	2.55	-1225.74	2.55	-710.57	2.85	-790.90
22	22	69.91	-2434.98	314.55	1715.88	0	23.75	2.55	-1325.60	2.55	-718.56	2.85	-820.54
22	23	73.55	-2385.36	322.89	529.19	0	-772.31	2.55	-866.18	2.55	-554.52	2.85	-592.55
23	10023	73.55	-2356.48	-328.46	549.99	0	-729.25	2.55	-873.84	2.55	-554.73	2.85	-594.45
23	24	76.66	-2402.15	-340.55	1592.85	0	-38.72	2.55	-1253.41	2.55	-702.68	2.85	-800.67
24	24	76.66	-2746.45	-343.34	1340.54	0	-575.51	2.55	-1152.89	2.55	-694.36	2.85	-770.78
24	25	79.77	-2738.77	-371.63	2430.30	0	132.59	2.55	-1473.99	2.55	-842.22	2.85	-984.86
25	25	79.77	-1958.07	-372.62	1441.15	0	-494.48	2.55	-772.99	2.55	-475.87	2.85	-546.82
25	26	82.88	-1954.44	-350.23	2587.13	0	228.50	2.55	-1068.72	2.55	-637.92	2.85	-782.57
26	26	82.88	-1361.78	-352.24	1758.18	0	-372.13	2.55	-389.88	2.55	-352.89	2.85	-442.22
26	27	85.99	-1361.78	-238.75	2690.15	0	232.35	2.55	-692.74	2.55	-476.45	2.85	-621.91
27	27	85.99	-1361.78	-239.12	2690.67	0	232.67	2.55	-692.85	2.55	-476.53	2.85	-622.03
27	28	89.10	-1361.78	-125.85	3268.60	0	610.85	2.55	-888.90	2.55	-551.99	2.85	-731.71
28	28	89.10	-1361.78	-125.75	3268.87	0	611.01	2.55	-888.96	2.55	-552.03	2.85	-731.77
28	29	92.21	-1361.78	-13.39	3495.83	0	764.57	2.55	-978.66	2.55	-579.86	2.85	-772.17
29	29	92.21	-1361.78	-13.20	3495.88	0	764.60	2.55	-978.67	2.55	-579.86	2.85	-772.18
29	30	95.32	-1361.78	93.70	3370.59	0	692.78	2.55	-961.79	2.55	-559.87	2.85	-742.99
30	30	95.32	-1361.78	93.82	3370.12	0	692.48	2.55	-961.67	2.55	-559.80	2.85	-742.89
30	31	98.43	-1361.78	207.39	2887.15	0	392.21	2.55	-837.27	2.55	-491.16	2.85	-642.90
31	31	98.43	-1092.60	207.27	3055.57	0	786.66	2.55	-895.35	2.55	-494.43	2.85	-661.83
31	32	101.54	-1092.60	320.79	2223.04	0	262.59	2.55	-664.86	2.55	-378.37	2.85	-492.86
32	32	101.54	-823.41	320.54	2404.29	0	666.89	2.55	-731.67	2.55	-382.70	2.85	-513.31
32	33	104.65	-823.41	434.20	1215.86	0	-84.48	2.55	-394.10	2.55	-218.26	2.85	-273.89
33	33	104.65	-473.47	433.59	1468.27	0	453.99	2.55	-492.31	2.55	-225.29	2.85	-302.46
33	34	107.76	-473.47	346.40	-71.73	0	-522.07	2.55	-48.54	2.55	-13.11	2.85	6.44
101	101	0.00	-473.47	-305.79	-72.50	0	-522.53	2.55	-48.38	2.55	-13.00	2.85	6.61
101	102	3.05	-473.47	-465.17	1512.74	0	479.32	2.55	-496.50	2.55	-232.61	2.85	-313.21
102	102	3.05	-823.41	-460.49	1258.42	0	-60.31	2.55	-397.89	2.55	-225.30	2.85	-284.22
102	103	6.10	-823.41	-333.41	2468.70	0	703.00	2.55	-736.09	2.55	-393.54	2.85	-529.22
103	103	6.10	-1065.68	-330.69	2304.09	0	338.23	2.55	-675.65	2.55	-389.42	2.85	-510.50
103	104	9.15	-1065.68	-212.71	3143.46	0	865.44	2.55	-904.75	2.55	-506.88	2.85	-681.56
104	104	9.15	-1307.94	-211.33	2990.85	0	509.80	2.55	-852.25	2.55	-503.78	2.85	-664.30
104	105	12.20	-1307.94	-92.55	3471.14	0	807.74	2.55	-974.40	2.55	-572.24	2.85	-764.08
105	105	12.20	-1307.94	-91.94	3471.05	0	807.70	2.55	-974.40	2.55	-572.22	2.85	-764.05

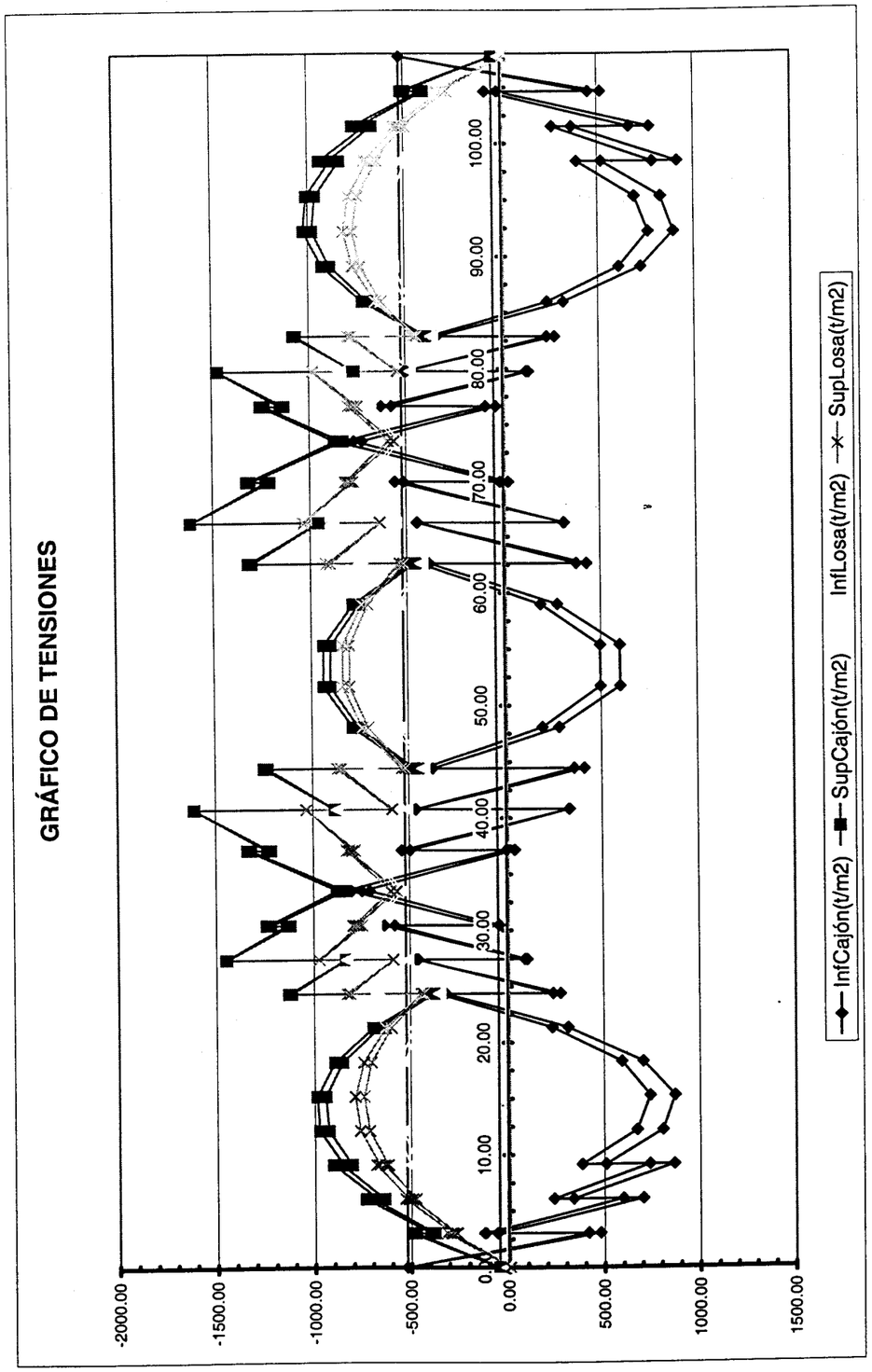
CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES1.Tinf.MZ+
TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1307.94	18.41	3583.11	0	871.18	2.55	-988.05	2.55	-590.30	2.85	-790.48
106	106	15.25	-1307.94	18.71	3582.74	0	870.93	2.55	-987.95	2.55	-590.24	2.85	-790.40
106	107	18.30	-1307.94	135.32	3337.22	0	706.11	2.55	-895.03	2.55	-559.53	2.85	-745.85
107	107	18.30	-1307.94	135.65	3337.59	0	706.33	2.55	-895.10	2.55	-559.59	2.85	-745.93
107	108	21.35	-1307.94	252.65	2734.65	0	313.17	2.55	-695.51	2.55	-480.13	2.85	-630.47
108	108	21.35	-1307.93	253.43	2735.25	0	313.54	2.55	-695.63	2.55	-480.21	2.85	-630.60
108	109	24.40	-1307.93	371.52	1766.38	0	-312.82	2.55	-387.89	2.55	-350.72	2.85	-442.31
109	109	24.40	-2046.22	371.79	2671.89	0	274.61	2.55	-1132.20	2.55	-676.80	2.85	-828.61
109	110	27.45	-2050.29	393.54	1491.23	0	-469.01	2.55	-831.04	2.55	-509.45	2.85	-585.07
110	110	27.45	-2727.96	395.52	2362.33	0	90.05	2.55	-1446.83	2.55	-830.58	2.85	-969.42
110	111	30.50	-2735.50	325.19	1246.19	0	-634.07	2.55	-1122.12	2.55	-678.40	2.85	-749.19
111	111	30.50	-2391.04	346.97	1499.28	0	-96.77	2.55	-1222.73	2.55	-686.80	2.85	-779.21
111	112	33.55	-2351.89	346.27	429.98	0	-805.13	2.55	-843.29	2.55	-535.92	2.85	-568.22
112	10112	33.55	-2380.73	-344.87	409.15	0	-848.19	2.55	-835.60	2.55	-535.70	2.85	-566.31
112	113	37.19	-2442.04	-338.46	1679.61	0	-1.63	2.55	-1320.06	2.55	-714.77	2.85	-814.60
113	113	37.19	-2788.26	-311.36	1425.69	0	-539.94	2.55	-1220.01	2.55	-706.65	2.85	-784.81
113	114	40.82	-2746.84	-392.49	2747.57	0	330.94	2.55	-1609.07	2.55	-876.81	2.85	-1034.14
114	114	40.82	-2086.22	-391.66	1684.81	0	-462.22	2.55	-886.12	2.55	-511.46	2.85	-590.65
114	115	44.46	-2081.99	-354.43	3063.06	0	408.72	2.55	-1250.44	2.55	-705.26	2.85	-872.38
115	115	44.46	-1604.04	-353.10	2159.50	0	-372.11	2.55	-486.74	2.55	-428.83	2.85	-537.59
115	116	48.10	-1604.04	-212.19	3178.24	0	277.88	2.55	-789.18	2.55	-567.98	2.85	-740.04
116	116	48.10	-1604.05	-211.84	3177.75	0	277.57	2.55	-789.08	2.55	-567.90	2.85	-739.94
116	117	51.73	-1604.05	-69.43	3685.94	0	601.59	2.55	-939.49	2.55	-637.37	2.85	-841.03
117	117	51.73	-1604.05	-69.52	3685.77	0	601.49	2.55	-939.45	2.55	-637.35	2.85	-840.99
117	118	55.37	-1604.05	70.53	3683.97	0	599.90	2.55	-937.98	2.55	-637.23	2.85	-840.84
118	118	55.37	-1604.05	70.44	3684.14	0	600.00	2.55	-938.02	2.55	-637.25	2.85	-840.87
118	119	59.01	-1604.05	212.82	3172.32	0	272.80	2.55	-784.67	2.55	-567.53	2.85	-739.46
119	119	59.01	-1604.05	213.18	3172.79	0	273.09	2.55	-784.77	2.55	-567.60	2.85	-739.57
119	120	62.64	-1604.05	354.17	2150.23	0	-380.20	2.55	-479.34	2.55	-428.18	2.85	-536.76
120	120	62.64	-2204.09	355.55	3149.02	0	428.35	2.55	-1321.03	2.55	-746.31	2.85	-919.56
120	121	66.28	-2208.93	394.52	1772.18	0	-441.86	2.55	-957.23	2.55	-552.89	2.85	-638.28
121	121	66.28	-2772.43	394.01	2733.64	0	313.16	2.55	-1614.65	2.55	-880.89	2.85	-1037.69
121	122	69.91	-2781.43	344.63	1394.28	0	-558.54	2.55	-1208.89	2.55	-700.59	2.85	-776.75
122	122	69.91	-2434.98	341.01	1648.23	0	-20.15	2.55	-1308.86	2.55	-708.66	2.85	-806.49
122	123	73.55	-2385.36	347.56	375.81	0	-870.96	2.55	-829.01	2.55	-532.02	2.85	-560.50
123	10123	73.55	-2356.48	-353.00	396.26	0	-828.14	2.55	-836.58	2.55	-532.18	2.85	-562.33
123	124	76.66	-2402.15	-325.90	1510.76	0	-91.50	2.55	-1233.53	2.55	-690.64	2.85	-783.51
124	124	76.66	-2746.45	-327.46	1257.22	0	-629.04	2.55	-1132.75	2.55	-682.13	2.85	-753.35
124	125	79.77	-2738.77	-400.04	2414.19	0	121.50	2.55	-1469.42	2.55	-839.90	2.85	-981.67
125	125	79.77	-1958.07	-398.20	1423.98	0	-506.20	2.55	-768.21	2.55	-473.39	2.85	-543.39
125	126	82.88	-1954.44	-378.51	2656.09	0	269.56	2.55	-1082.43	2.55	-648.22	2.85	-797.74
126	126	82.88	-1361.78	-378.35	1825.82	0	-331.88	2.55	-403.31	2.55	-362.99	2.85	-457.10
126	127	85.99	-1361.78	-258.53	2831.19	0	317.78	2.55	-722.10	2.55	-497.42	2.85	-652.61
127	127	85.99	-1361.78	-257.93	2830.64	0	317.45	2.55	-721.99	2.55	-497.34	2.85	-652.49
127	128	89.10	-1361.78	-138.03	3456.98	0	725.47	2.55	-928.59	2.55	-579.97	2.85	-772.59
128	128	89.10	-1361.78	-137.75	3456.61	0	725.25	2.55	-928.51	2.55	-579.92	2.85	-772.51
128	129	92.21	-1361.78	-19.12	3711.92	0	896.25	2.55	-1024.36	2.55	-611.95	2.85	-819.01
129	129	92.21	-1361.78	-19.00	3711.66	0	896.09	2.55	-1024.30	2.55	-611.91	2.85	-818.96
129	130	95.32	-1361.78	94.13	3594.89	0	829.54	2.55	-1009.29	2.55	-593.18	2.85	-791.60
130	130	95.32	-1361.78	94.61	3595.08	0	829.64	2.55	-1009.32	2.55	-593.21	2.85	-791.65
130	131	98.43	-1361.78	215.03	3098.08	0	520.84	2.55	-881.96	2.55	-522.49	2.85	-688.60
131	131	98.43	-1092.60	216.32	3267.65	0	915.99	2.55	-940.29	2.55	-525.92	2.85	-707.79
131	132	101.54	-1092.60	336.61	2395.07	0	367.54	2.55	-701.36	2.55	-403.92	2.85	-530.13
132	132	101.54	-823.41	339.34	2577.85	0	772.77	2.55	-768.49	2.55	-408.47	2.85	-550.91
132	133	104.65	-823.41	459.41	1319.50	0	-21.24	2.55	-416.09	2.55	-233.65	2.85	-296.34
133	133	104.65	-473.47	464.20	1573.82	0	518.40	2.55	-514.71	2.55	-240.96	2.85	-325.33
133	134	107.76	-473.47	313.62	-72.43	0	-522.50	2.55	-48.39	2.55	-13.01	2.85	6.59



CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES1.Tinf.MZ-
TREN DOMINANTE SIN GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE...
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-549.42	-432.64	-118.05	0	-609.07	2.55	-54.76	2.55	-14.94	2.85	8.97
1	2	3.05	-549.42	-172.42	495.78	0	-177.56	2.55	-314.87	2.55	-89.52	2.85	-95.71
2	2	3.05	-955.50	-175.35	181.39	0	-800.93	2.55	-205.22	2.55	-81.11	2.85	-61.43
2	3	6.10	-955.50	-119.33	630.77	0	-483.59	2.55	-396.37	2.55	-135.78	2.85	-137.82
3	3	6.10	-1236.63	-121.29	426.73	0	-904.82	2.55	-329.33	2.55	-131.14	2.85	-115.77
3	4	9.15	-1236.63	-65.04	711.05	0	-702.08	2.55	-451.33	2.55	-165.81	2.85	-163.76
4	4	9.15	-1517.76	-66.13	520.28	0	-1113.18	2.55	-393.10	2.55	-162.30	2.85	-143.32
4	5	12.20	-1517.76	-9.72	636.25	0	-1026.98	2.55	-445.31	2.55	-176.50	2.85	-162.18
5	5	12.20	-1517.76	-10.29	636.35	0	-1026.91	2.55	-445.33	2.55	-176.51	2.85	-162.20
5	6	15.25	-1517.76	45.87	582.05	0	-1058.37	2.55	-427.40	2.55	-169.93	2.85	-151.51
6	6	15.25	-1517.76	45.30	581.94	0	-1058.44	2.55	-427.38	2.55	-169.91	2.85	-151.48
6	7	18.30	-1517.76	101.54	358.08	0	-1207.17	2.55	-339.40	2.55	-142.66	2.85	-111.39
7	7	18.30	-1517.76	100.84	357.86	0	-1207.30	2.55	-339.35	2.55	-142.63	2.85	-111.35
7	8	21.35	-1517.76	156.94	-35.08	0	-1473.02	2.55	-181.43	2.55	-94.78	2.85	-41.97
8	8	21.35	-1517.75	155.77	-35.39	0	-1473.21	2.55	-181.35	2.55	-94.73	2.85	-41.90
8	9	24.40	-1517.75	212.45	-597.16	0	-1855.72	2.55	46.41	2.55	-26.32	2.85	56.72
9	9	24.40	-1955.40	211.92	166.27	0	-1247.03	2.55	-576.08	2.55	-261.90	2.85	-227.79
9	10	27.45	-1958.50	360.64	-695.89	0	-1811.11	2.55	-328.36	2.55	-142.43	2.85	-56.50
10	10	27.45	-2355.48	358.00	47.82	0	-1233.01	2.55	-810.94	2.55	-383.28	2.85	-351.66
10	11	30.50	-2361.22	513.96	-1279.11	0	-2090.38	2.55	-436.07	2.55	-199.67	2.85	-86.54
11	11	30.50	-1949.68	512.17	-963.58	0	-1464.75	2.55	-543.69	2.55	-206.98	2.85	-119.77
11	12	33.55	-1919.86	713.20	-2864.31	0	-2664.55	2.55	-8.57	2.55	66.18	2.85	273.39
12	10012	33.55	-1949.18	-752.81	-2889.62	0	-2712.85	2.55	1.55	2.55	67.34	2.85	276.58
12	13	37.19	-1995.87	-534.95	-518.15	0	-1218.27	2.55	-685.02	2.55	-273.30	2.85	-213.18
13	13	37.19	-2405.64	-533.52	-832.10	0	-1842.46	2.55	-576.97	2.55	-265.81	2.85	-179.88
13	14	40.82	-2431.23	-327.92	732.70	0	-838.49	2.55	-1049.00	2.55	-487.40	2.85	-496.82
14	14	40.82	-2078.34	-329.77	-202.98	0	-1669.48	2.55	-463.30	2.55	-206.46	2.85	-146.41
14	15	44.46	-2075.11	-166.97	662.23	0	-1096.82	2.55	-732.88	2.55	-323.50	2.85	-313.78
15	15	44.46	-1861.35	-169.01	-142.81	0	-1928.21	2.55	-54.24	2.55	-121.22	2.85	-61.39
15	16	48.10	-1861.35	-100.91	347.89	0	-1590.40	2.55	-253.75	2.55	-181.43	2.85	-147.15
16	16	48.10	-1861.36	-102.19	348.11	0	-1590.27	2.55	-253.80	2.55	-181.46	2.85	-147.20
16	17	51.73	-1861.36	-35.33	598.22	0	-1418.85	2.55	-353.89	2.55	-212.35	2.85	-191.26
17	17	51.73	-1861.36	-36.43	598.30	0	-1418.80	2.55	-353.91	2.55	-212.36	2.85	-191.28
17	18	55.37	-1861.36	40.64	587.86	0	-1425.20	2.55	-351.02	2.55	-210.94	2.85	-189.15
18	18	55.37	-1861.36	39.56	587.76	0	-1425.25	2.55	-351.00	2.55	-210.92	2.85	-189.12
18	19	59.01	-1861.36	106.48	322.40	0	-1606.25	2.55	-246.14	2.55	-178.02	2.85	-142.07
19	19	59.01	-1861.36	105.07	322.18	0	-1606.39	2.55	-246.08	2.55	-177.99	2.85	-142.02
19	20	62.64	-1861.36	173.15	-183.65	0	-1953.71	2.55	-41.80	2.55	-115.79	2.85	-53.29
20	20	62.64	-2168.11	171.08	693.95	0	-1100.75	2.55	-781.02	2.55	-349.66	2.85	-342.02
20	21	66.28	-2171.80	332.26	-190.76	0	-1685.89	2.55	-507.01	2.55	-229.88	2.85	-170.65
21	21	66.28	-2393.02	333.01	667.78	0	-867.06	2.55	-1019.22	2.55	-468.96	2.85	-473.68
21	22	69.91	-2399.87	532.68	-901.33	0	-1883.83	2.55	-558.81	2.55	-254.35	2.85	-163.74
22	22	69.91	-1990.30	537.61	-587.35	0	-1259.67	2.55	-666.96	2.55	-261.89	2.85	-197.10
22	23	73.55	-1952.50	755.21	-2951.84	0	-2752.96	2.55	14.90	2.55	75.61	2.85	288.94
23	10023	73.55	-1923.23	-724.64	-2926.39	0	-2704.57	2.55	4.72	2.55	74.41	2.85	285.70
23	24	76.66	-1958.02	-524.96	-950.10	0	-1458.18	2.55	-553.11	2.55	-210.50	2.85	-124.01
24	24	76.66	-2369.73	-526.49	-1265.28	0	-2083.66	2.55	-445.62	2.55	-203.29	2.85	-90.90
24	25	79.77	-2363.88	-362.31	110.28	0	-1194.84	2.55	-834.38	2.55	-393.64	2.85	-365.74
25	25	79.77	-1900.06	-364.93	-733.08	0	-1841.73	2.55	-284.53	2.55	-118.27	2.85	-28.84
25	26	82.88	-1897.30	-213.66	152.47	0	-1262.23	2.55	-539.65	2.55	-241.01	2.85	-204.77
26	26	82.88	-1580.23	-214.09	-562.00	0	-1896.69	2.55	35.37	2.55	-36.11	2.85	46.10
26	27	85.99	-1580.23	-156.38	14.17	0	-1503.88	2.55	-199.17	2.55	-106.16	2.85	-54.84
27	27	85.99	-1580.23	-157.38	14.47	0	-1503.69	2.55	-199.24	2.55	-106.21	2.85	-54.90
27	28	89.10	-1580.23	-100.18	414.90	0	-1232.45	2.55	-361.11	2.55	-154.85	2.85	-125.39
28	28	89.10	-1580.23	-100.85	415.15	0	-1232.30	2.55	-361.16	2.55	-154.88	2.85	-125.45
28	29	92.21	-1580.23	-43.51	639.55	0	-1082.82	2.55	-450.26	2.55	-182.08	2.85	-165.44
29	29	92.21	-1580.23	-43.96	639.68	0	-1082.74	2.55	-450.29	2.55	-182.10	2.85	-165.47
29	30	95.32	-1580.23	13.23	687.61	0	-1055.31	2.55	-466.54	2.55	-187.77	2.85	-174.86
30	30	95.32	-1580.23	12.72	687.31	0	-1055.50	2.55	-466.47	2.55	-187.73	2.85	-174.80
30	31	98.43	-1580.23	70.32	558.13	0	-1150.45	2.55	-409.75	2.55	-171.80	2.85	-153.44
31	31	98.43	-1267.87	69.33	770.14	0	-693.64	2.55	-474.46	2.55	-175.70	2.85	-176.17
31	32	101.54	-1267.87	126.67	465.25	0	-910.17	2.55	-345.05	2.55	-138.37	2.85	-124.38
32	32	101.54	-955.50	124.73	692.03	0	-442.09	2.55	-419.55	2.55	-143.54	2.85	-148.89
32	33	104.65	-955.50	181.89	215.32	0	-777.90	2.55	-218.19	2.55	-85.39	2.85	-67.53
33	33	104.65	-549.42	178.89	529.63	0	-154.56	2.55	-327.82	2.55	-93.78	2.85	-101.80
33	34	107.76	-549.42	445.12	-118.12	0	-609.11	2.55	-54.75	2.55	-14.93	2.85	8.98
101	101	0.00	-549.42	-516.81	-118.71	0	-609.48	2.55	-54.62	2.55	-14.84	2.85	9.11
101	102	3.05	-549.42	-185.05	538.17	0	-150.56	2.55	-324.91	2.55	-95.75	2.85	-104.62
102	102	3.05	-955.50	-185.90	223.16	0	-774.34	2.55	-215.11	2.55	-87.25	2.85	-70.22
102	103	6.10	-955.50	-126.96	700.06	0	-439.43	2.55	-412.80	2.55	-145.96	2.85	-152.39
103	103	6.10	-1236.63	-127.38	495.51	0	-861.00	2.55	-345.64	2.55	-141.25	2.85	-130.23
103	104	9.15	-1236.63	-68.57	794.33	0	-648.94	2.55	-471.14	2.55	-178.05	2.85	-181.26
104	104	9.15	-1517.76	-68.78	603.27	0	-1060.23	2.55	-412.83	2.55	-174.50	2.85	-160.76
104	105	12.20	-1517.76	-9.84	723.21	0	-971.41	2.55	-466.06	2.55	-189.27	2.85	-180.43
105	105	12.20	-1517.76	-9.75	723.47	0	-971.25	2.55	-466.11	2.55	-189.31	2.85	-180.49

30/1

Programa DINTEL PACADAR S.A.
INFRECUENTES1.Tinf.MZ+

TINF1.

CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES1.Tinf.MZ-
TREN DOMINANTE SIN GRADIENTE

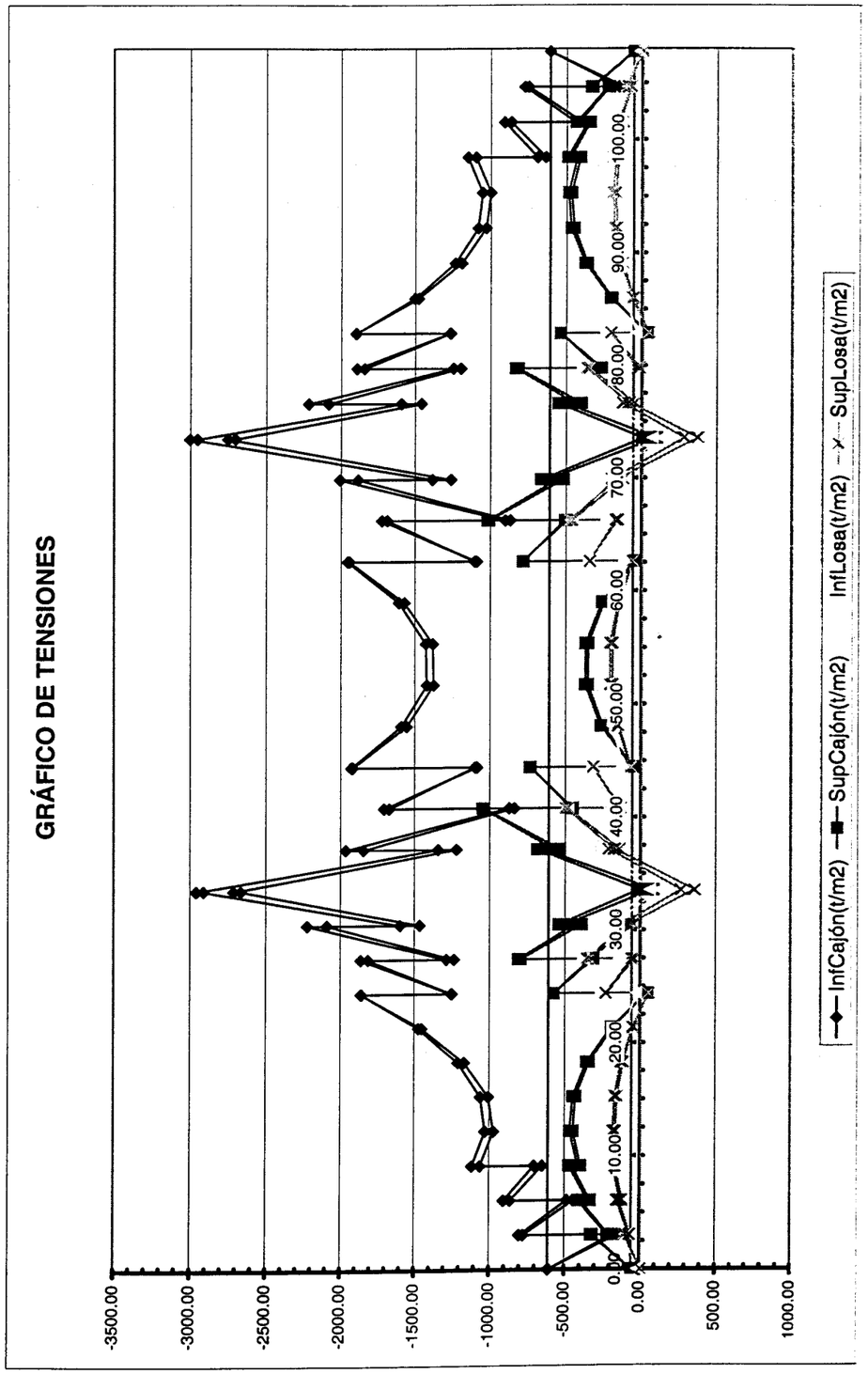
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1517.76	49.16	663.14	0	-1006.44	2.55	-446.86	2.55	-181.83	2.85	-168.50
106	106	15.25	-1517.76	49.37	662.91	0	-1006.59	2.55	-446.79	2.55	-181.80	2.85	-168.45
106	107	18.30	-1517.76	108.75	421.98	0	-1165.91	2.55	-355.03	2.55	-152.02	2.85	-124.71
107	107	18.30	-1517.76	109.28	422.10	0	-1165.83	2.55	-355.06	2.55	-152.04	2.85	-124.73
107	108	21.35	-1517.76	168.14	-0.85	0	-1450.18	2.55	-190.48	2.55	-99.76	2.85	-48.93
108	108	21.35	-1517.75	168.86	-0.67	0	-1450.06	2.55	-190.52	2.55	-99.78	2.85	-48.97
108	109	24.40	-1517.75	228.61	-605.97	0	-1859.64	2.55	46.96	2.55	-24.94	2.85	58.96
109	109	24.40	-1955.40	230.76	157.98	0	-1250.62	2.55	-575.67	2.55	-260.59	2.85	-225.65
109	110	27.45	-1958.50	391.71	-779.01	0	-1861.38	2.55	-311.12	2.55	-130.07	2.85	-38.39
110	110	27.45	-2355.48	393.29	-34.57	0	-1282.81	2.55	-793.88	2.55	-371.02	2.85	-333.71
110	111	30.50	-2361.22	600.02	-1495.50	0	-2222.53	2.55	-390.03	2.55	-167.55	2.85	-39.70
111	111	30.50	-1949.68	582.53	-1179.97	0	-1596.87	2.55	-497.69	2.55	-174.86	2.85	-72.92
111	112	33.55	-1919.86	778.10	-3267.08	0	-2910.44	2.55	77.03	2.55	125.97	2.85	360.59
112	10112	33.55	-1949.18	-814.82	-3292.54	0	-2958.84	2.55	87.19	2.55	127.16	2.85	363.82
112	113	37.19	-1995.87	-583.42	-715.74	0	-1338.59	2.55	-643.30	2.55	-243.95	2.85	-170.33
113	113	37.19	-2405.64	-605.42	-1030.55	0	-1963.31	2.55	-535.06	2.55	-236.34	2.85	-136.84
113	114	40.82	-2431.23	-361.50	675.29	0	-872.57	2.55	-1037.69	2.55	-478.82	2.85	-484.16
114	114	40.82	-2078.34	-358.45	-261.21	0	-1704.08	2.55	-451.79	2.55	-197.76	2.85	-133.58
114	115	44.46	-2075.11	-183.06	679.30	0	-1085.03	2.55	-737.75	2.55	-325.97	2.85	-317.16
115	115	44.46	-1861.35	-181.93	-126.26	0	-1916.76	2.55	-58.99	2.55	-123.61	2.85	-64.66
115	116	48.10	-1861.35	-110.25	404.04	0	-1554.51	2.55	-267.16	2.55	-189.68	2.85	-158.93
116	116	48.10	-1861.36	-109.19	403.88	0	-1554.62	2.55	-267.12	2.55	-189.65	2.85	-158.90
116	117	51.73	-1861.36	-38.98	673.36	0	-1371.26	2.55	-371.42	2.55	-223.42	2.85	-207.14
117	117	51.73	-1861.36	-38.22	673.28	0	-1371.31	2.55	-371.40	2.55	-223.40	2.85	-207.12
117	118	55.37	-1861.36	42.50	662.65	0	-1377.82	2.55	-368.48	2.55	-221.95	2.85	-204.94
118	118	55.37	-1861.36	43.36	662.71	0	-1377.78	2.55	-368.49	2.55	-221.96	2.85	-204.96
118	119	59.01	-1861.36	113.58	377.48	0	-1571.01	2.55	-259.31	2.55	-186.11	2.85	-153.62
119	119	59.01	-1861.36	114.57	377.64	0	-1570.90	2.55	-259.35	2.55	-186.13	2.85	-153.65
119	120	62.64	-1861.36	186.21	-168.34	0	-1942.99	2.55	-46.31	2.55	-117.99	2.85	-56.29
120	120	62.64	-2168.11	187.43	709.73	0	-1089.74	2.55	-785.63	2.55	-351.93	2.85	-345.11
120	121	66.28	-2171.80	361.04	-251.14	0	-1721.80	2.55	-495.05	2.55	-220.86	2.85	-157.35
121	121	66.28	-2393.02	365.46	608.18	0	-902.47	2.55	-1007.45	2.55	-460.06	2.85	-460.55
121	122	69.91	-2399.87	577.95	-1103.51	0	-2006.95	2.55	-516.13	2.55	-224.32	2.85	-119.89
122	122	69.91	-1990.30	586.65	-788.78	0	-1382.33	2.55	-624.44	2.55	-231.97	2.85	-153.41
122	123	73.55	-1952.50	817.75	-3359.98	0	-3002.11	2.55	101.61	2.55	136.20	2.85	377.32
123	10123	73.55	-1923.23	-789.75	-3335.04	0	-2954.05	2.55	91.56	2.55	135.07	2.85	374.18
123	124	76.66	-1958.02	-618.40	-1168.95	0	-1591.72	2.55	-506.66	2.55	-178.01	2.85	-76.60
124	124	76.66	-2369.73	-612.57	-1484.74	0	-2217.62	2.55	-399.00	2.55	-170.71	2.85	-43.37
124	125	79.77	-2363.88	-397.44	28.94	0	-1244.00	2.55	-817.55	2.55	-381.54	2.85	-348.01
125	125	79.77	-1900.06	-395.85	-815.18	0	-1891.37	2.55	-267.51	2.55	-106.05	2.85	-10.95
125	126	82.88	-1897.29	-232.24	145.79	0	-1264.84	2.55	-539.57	2.55	-239.93	2.85	-202.98
126	126	82.88	-1580.23	-230.03	-569.24	0	-1899.65	2.55	35.58	2.55	-34.96	2.85	48.01
126	127	85.99	-1580.23	-169.22	50.52	0	-1479.73	2.55	-208.68	2.55	-111.45	2.85	-62.26
127	127	85.99	-1580.23	-168.41	50.35	0	-1479.84	2.55	-208.64	2.55	-111.43	2.85	-62.22
127	128	89.10	-1580.23	-108.40	480.66	0	-1190.03	2.55	-377.16	2.55	-164.49	2.85	-139.11
128	128	89.10	-1580.23	-107.91	480.54	0	-1190.11	2.55	-377.13	2.55	-164.47	2.85	-139.08
128	129	92.21	-1580.23	-47.39	722.27	0	-1029.87	2.55	-470.07	2.55	-194.23	2.85	-182.78
129	129	92.21	-1580.23	-47.21	722.05	0	-1030.01	2.55	-470.02	2.55	-194.19	2.85	-182.74
129	130	95.32	-1580.23	12.80	775.78	0	-998.99	2.55	-487.54	2.55	-200.73	2.85	-193.37
130	130	95.32	-1580.23	12.82	775.60	0	-999.09	2.55	-487.51	2.55	-200.70	2.85	-193.34
130	131	98.43	-1580.23	73.01	642.17	0	-1096.83	2.55	-429.72	2.55	-184.15	2.85	-171.10
131	131	98.43	-1267.87	72.78	854.54	0	-639.78	2.55	-494.52	2.55	-188.11	2.85	-193.90
131	132	101.54	-1267.87	132.73	534.96	0	-865.74	2.55	-361.57	2.55	-148.62	2.85	-139.04
132	132	101.54	-955.50	132.25	762.23	0	-397.34	2.55	-436.19	2.55	-153.86	2.85	-163.65
132	133	104.65	-955.50	192.32	257.69	0	-750.91	2.55	-228.21	2.55	-91.62	2.85	-76.45
133	133	104.65	-549.42	191.42	572.68	0	-127.14	2.55	-338.01	2.55	-100.11	2.85	-110.85
133	134	107.76	-549.42	526.65	-118.82	0	-609.54	2.55	-54.60	2.55	-14.82	2.85	9.13

GRÁFICO DE TENSIONES

Programa DINTEL PACADAR S.A.
INFRECUENTES1.Tinf.MZ-



CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES2.Tinf.MZ+
TREN DOMINANTE CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-473.47	-337.33	-71.84	0	-522.13	2.55	-48.52	2.55	-13.10	2.85	6.47
1	2	3.05	-473.47	-440.61	1429.51	0	427.72	2.55	-478.09	2.55	-220.30	2.85	-295.37
2	2	3.05	-823.41	-441.28	1177.03	0	-110.79	2.55	-379.87	2.55	-213.26	2.85	-266.78
2	3	6.10	-823.41	-321.11	2339.05	0	622.29	2.55	-707.09	2.55	-374.38	2.85	-501.52
3	3	6.10	-1065.68	-321.34	2175.95	0	258.43	2.55	-646.97	2.55	-370.48	2.85	-483.12
3	4	9.15	-1065.68	-216.62	2996.16	0	773.18	2.55	-871.30	2.55	-485.14	2.85	-650.21
4	4	9.15	-1307.94	-216.72	2844.57	0	418.17	2.55	-819.02	2.55	-482.20	2.85	-633.17
4	5	12.20	-1307.94	-98.20	3330.65	0	718.88	2.55	-941.72	2.55	-551.55	2.85	-734.38
5	5	12.20	-1307.94	-98.16	3330.79	0	718.97	2.55	-941.75	2.55	-551.57	2.85	-734.41
5	6	15.25	-1307.94	6.13	3471.31	0	799.08	2.55	-960.78	2.55	-573.91	2.85	-767.16
6	6	15.25	-1307.94	6.24	3471.25	0	799.05	2.55	-960.76	2.55	-573.90	2.85	-767.15
6	7	18.30	-1307.94	116.70	3273.40	0	662.64	2.55	-877.35	2.55	-550.30	2.85	-733.07
7	7	18.30	-1307.94	116.70	3273.14	0	662.48	2.55	-877.29	2.55	-550.26	2.85	-733.02
7	8	21.35	-1307.94	227.23	2738.15	0	310.29	2.55	-691.68	2.55	-480.92	2.85	-632.39
8	8	21.35	-1307.93	226.87	2737.72	0	310.03	2.55	-691.58	2.55	-480.85	2.85	-632.29
8	9	24.40	-1307.93	338.71	1861.46	0	-260.24	2.55	-403.11	2.55	-365.13	2.85	-464.16
9	9	24.40	-2046.22	336.75	2765.70	0	326.42	2.55	-1147.16	2.55	-691.02	2.85	-850.19
9	10	27.45	-2050.29	361.11	1689.61	0	-353.98	2.55	-867.65	2.55	-539.23	2.85	-629.43
10	10	27.45	-2727.96	360.24	2559.64	0	204.44	2.55	-1483.23	2.55	-860.20	2.85	-1013.54
10	11	30.50	-2735.50	334.42	1531.55	0	-465.43	2.55	-1177.69	2.55	-721.07	2.85	-812.26
11	11	30.50	-2391.04	331.91	1783.54	0	71.22	2.55	-1278.09	2.55	-729.30	2.85	-842.04
11	12	33.55	-2351.89	315.17	803.12	0	-581.33	2.55	-918.94	2.55	-591.53	2.85	-649.94
12	10012	33.55	-2380.73	-320.31	782.40	0	-624.32	2.55	-911.29	2.55	-591.33	2.85	-648.05
12	13	37.19	-2442.04	-312.06	1967.22	0	167.54	2.55	-1375.34	2.55	-757.81	2.85	-878.36
13	13	37.19	-2788.26	-318.55	1713.69	0	-370.52	2.55	-1275.38	2.55	-749.75	2.85	-848.65
13	14	40.82	-2746.84	-369.87	2958.31	0	451.97	2.55	-1646.91	2.55	-908.51	2.85	-1081.53
14	14	40.82	-2086.22	-372.03	1896.71	0	-340.50	2.55	-924.20	2.55	-543.33	2.85	-638.29
14	15	44.46	-2081.99	-333.39	3195.80	0	481.35	2.55	-1270.98	2.55	-725.42	2.85	-903.07
15	15	44.46	-1604.04	-333.86	2293.60	0	-298.66	2.55	-507.57	2.55	-449.19	2.85	-568.58
15	16	48.10	-1604.04	-200.54	3255.96	0	316.44	2.55	-797.60	2.55	-579.99	2.85	-758.93
16	16	48.10	-1604.05	-200.63	3256.38	0	316.70	2.55	-797.69	2.55	-580.06	2.85	-759.02
16	17	51.73	-1604.05	-66.03	3738.13	0	624.33	2.55	-942.26	2.55	-645.61	2.85	-854.44
17	17	51.73	-1604.05	-65.71	3738.29	0	624.43	2.55	-942.30	2.55	-645.64	2.85	-854.48
17	18	55.37	-1604.05	66.64	3736.63	0	622.93	2.55	-940.86	2.55	-645.54	2.85	-854.35
18	18	55.37	-1604.05	66.98	3736.49	0	622.85	2.55	-940.83	2.55	-645.52	2.85	-854.32
18	19	59.01	-1604.05	201.52	3251.40	0	312.21	2.55	-793.38	2.55	-579.75	2.85	-758.64
19	19	59.01	-1604.05	201.45	3250.96	0	311.94	2.55	-793.29	2.55	-579.69	2.85	-758.54
19	20	62.64	-1604.05	334.83	2285.18	0	-306.21	2.55	-500.36	2.55	-448.67	2.85	-567.92
20	20	62.64	-2204.09	334.31	3282.63	0	501.53	2.55	-1341.77	2.55	-766.60	2.85	-950.44
20	21	66.28	-2208.93	374.57	1985.45	0	-319.30	2.55	-995.59	2.55	-584.96	2.85	-686.23
21	21	66.28	-2772.43	369.81	2945.77	0	435.04	2.55	-1652.78	2.55	-912.79	2.85	-1085.38
21	22	69.91	-2781.43	324.68	1683.92	0	-388.11	2.55	-1264.62	2.55	-743.93	2.85	-840.94
22	22	69.91	-2434.98	314.53	1937.39	0	149.99	2.55	-1364.48	2.55	-751.93	2.85	-870.58
22	23	73.55	-2385.36	322.87	750.76	0	-646.03	2.55	-905.07	2.55	-587.90	2.85	-642.60
23	10023	73.55	-2356.48	-321.98	771.57	0	-602.97	2.55	-912.72	2.55	-588.11	2.85	-644.51
23	24	76.66	-2402.15	-334.07	1794.29	0	76.08	2.55	-1288.76	2.55	-733.02	2.85	-846.18
24	24	76.66	-2746.45	-336.87	1541.97	0	-460.71	2.55	-1188.24	2.55	-724.70	2.85	-816.28
24	25	79.77	-2738.77	-365.15	2611.59	0	235.91	2.55	-1505.80	2.55	-869.53	2.85	-1025.82
25	25	79.77	-1958.07	-366.15	1622.44	0	-391.16	2.55	-804.81	2.55	-503.18	2.85	-587.77
25	26	82.88	-1954.44	-343.76	2748.28	0	320.34	2.55	-1097.01	2.55	-662.20	2.85	-818.98
26	26	82.88	-1361.78	-345.76	1919.33	0	-280.29	2.55	-418.16	2.55	-377.17	2.85	-478.63
26	27	85.99	-1361.78	-232.27	2831.16	0	312.71	2.55	-717.49	2.55	-497.69	2.85	-653.77
27	27	85.99	-1361.78	-232.65	2831.67	0	313.03	2.55	-717.60	2.55	-497.77	2.85	-653.88
27	28	89.10	-1361.78	-119.37	3389.46	0	679.73	2.55	-910.11	2.55	-570.19	2.85	-759.02
28	28	89.10	-1361.78	-119.28	3389.73	0	679.89	2.55	-910.17	2.55	-570.23	2.85	-759.07
28	29	92.21	-1361.78	-6.91	3596.55	0	821.97	2.55	-996.33	2.55	-595.03	2.85	-794.92
29	29	92.21	-1361.78	-6.73	3596.60	0	822.00	2.55	-996.35	2.55	-595.04	2.85	-794.93
29	30	95.32	-1361.78	100.18	3451.16	0	738.70	2.55	-975.93	2.55	-572.01	2.85	-761.19
30	30	95.32	-1361.78	100.29	3450.70	0	738.40	2.55	-975.82	2.55	-571.94	2.85	-761.10
30	31	98.43	-1361.78	213.86	2947.58	0	426.65	2.55	-847.87	2.55	-500.27	2.85	-656.55
31	31	98.43	-1092.60	213.75	3116.00	0	821.10	2.55	-905.96	2.55	-503.53	2.85	-675.49
31	32	101.54	-1092.60	327.26	2263.32	0	285.55	2.55	-671.93	2.55	-384.44	2.85	-501.96
32	32	101.54	-823.41	327.01	2444.57	0	689.85	2.55	-738.74	2.55	-388.77	2.85	-522.41
32	33	104.65	-823.41	440.67	1236.00	0	-73.00	2.55	-397.63	2.55	-221.30	2.85	-278.44
33	33	104.65	-473.47	440.07	1488.41	0	465.47	2.55	-495.84	2.55	-228.32	2.85	-307.01
33	34	107.76	-473.47	346.40	-71.73	0	-522.07	2.55	-48.54	2.55	-13.11	2.85	6.44
101	101	0.00	-473.47	-305.79	-72.50	0	-522.53	2.55	-48.38	2.55	-13.00	2.85	6.61
101	102	3.05	-473.47	-471.75	1532.81	0	490.76	2.55	-500.02	2.55	-235.64	2.85	-317.75
102	102	3.05	-823.41	-467.07	1278.49	0	-48.87	2.55	-401.41	2.55	-228.33	2.85	-288.76
102	103	6.10	-823.41	-340.00	2508.85	0	725.88	2.55	-743.13	2.55	-399.59	2.85	-536.30
103	103	6.10	-1065.68	-337.28	2344.25	0	361.12	2.55	-682.70	2.55	-395.47	2.85	-519.57
103	104	9.15	-1065.68	-219.29	3203.69	0	899.76	2.55	-915.32	2.55	-515.95	2.85	-695.17
104	104	9.15	-1307.94	-217.91	3051.07	0	544.13	2.55	-862.82	2.55	-512.86	2.85	-677.90
104	105	12.20	-1307.94	-99.13	3551.44	0	853.50	2.55	-988.50	2.55	-584.34	2.85	-782.22
105	105	12.20	-1307.94	-98.52	3551.35	0	853.47	2.55	-988.50	2.55	-584.32	2.85	-782.20

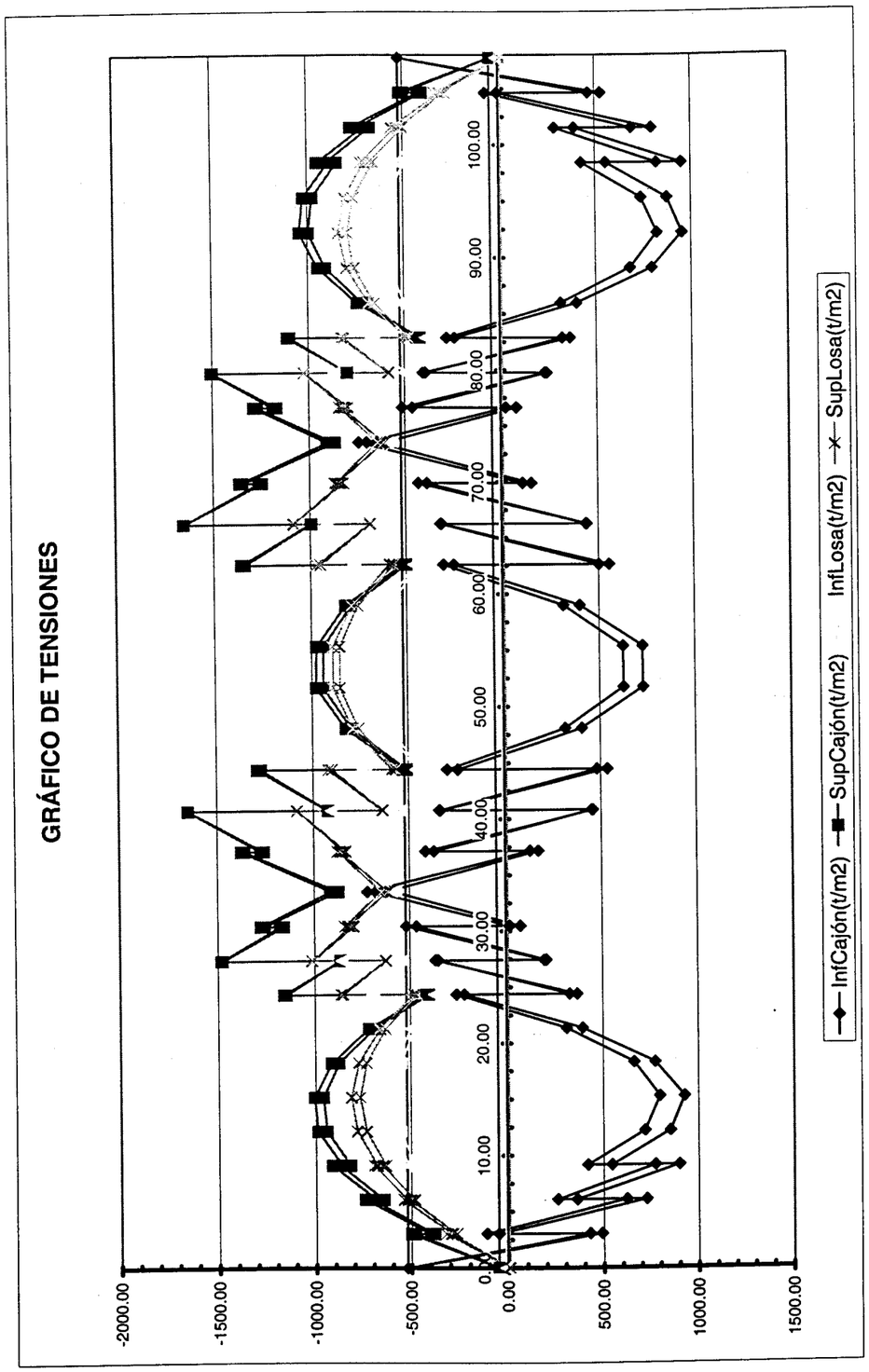
CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES2.Tinf.MZ+
TREN DOMINANTE CON GRADIENTE

[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]PPLF3 + [.95; 1.05]PRETF1I.ISO.To + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRETF1D.ISO.To + [.95; 1.05]PRETF1D.HIP.To + [.9; 1.1]PRETF3I.ISO.To + [.9; 1.1]PRETF3I.HIP.To + [.9; 1.1]PRE

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1307.94	11.83	3683.49	0	928.39	2.55	-1005.67	2.55	-605.42	2.85	-813.15
106	106	15.25	-1307.94	12.13	3683.12	0	928.14	2.55	-1005.57	2.55	-605.36	2.85	-813.08
106	107	18.30	-1307.94	128.74	3457.68	0	774.76	2.55	-916.17	2.55	-577.68	2.85	-773.06
107	107	18.30	-1307.94	129.07	3458.05	0	774.98	2.55	-916.24	2.55	-577.73	2.85	-773.14
107	108	21.35	-1307.94	246.07	2875.19	0	393.27	2.55	-720.18	2.55	-501.30	2.85	-662.22
108	108	21.35	-1307.93	246.85	2875.78	0	393.63	2.55	-720.30	2.55	-501.38	2.85	-662.35
108	109	24.40	-1307.93	364.94	1926.99	0	-221.29	2.55	-416.08	2.55	-374.91	2.85	-478.59
109	109	24.40	-2046.22	365.20	2832.50	0	366.14	2.55	-1160.39	2.55	-700.99	2.85	-864.89
109	110	27.45	-2050.29	386.96	1671.92	0	-366.03	2.55	-862.75	2.55	-536.67	2.85	-625.89
110	110	27.45	-2727.96	388.94	2543.02	0	193.03	2.55	-1478.54	2.55	-857.80	2.85	-1010.24
110	111	30.50	-2735.50	318.61	1446.96	0	-519.65	2.55	-1157.36	2.55	-708.65	2.85	-794.54
111	111	30.50	-2391.04	340.39	1700.05	0	17.65	2.55	-1257.97	2.55	-717.05	2.85	-824.57
111	112	33.55	-2351.89	339.68	650.82	0	-679.27	2.55	-882.04	2.55	-569.19	2.85	-618.12
112	10112	33.55	-2380.73	-344.89	629.99	0	-722.33	2.55	-874.36	2.55	-568.97	2.85	-616.20
112	113	37.19	-2442.04	-338.48	1900.52	0	124.27	2.55	-1358.83	2.55	-748.04	2.85	-864.50
113	113	37.19	-2788.26	-311.38	1646.60	0	-414.04	2.55	-1258.78	2.55	-739.93	2.85	-834.72
113	114	40.82	-2746.84	-392.50	2968.55	0	456.87	2.55	-1647.86	2.55	-910.10	2.85	-1084.06
114	114	40.82	-2086.22	-391.67	1905.79	0	-336.28	2.55	-924.91	2.55	-544.75	2.85	-640.57
114	115	44.46	-2081.99	-354.45	3284.10	0	534.70	2.55	-1289.24	2.55	-738.55	2.85	-922.32
115	115	44.46	-1604.04	-353.12	2380.54	0	-246.14	2.55	-525.54	2.55	-462.13	2.85	-587.53
115	116	48.10	-1604.04	-212.20	3399.35	0	403.89	2.55	-827.99	2.55	-601.28	2.85	-790.00
116	116	48.10	-1604.05	-211.86	3398.86	0	403.59	2.55	-827.89	2.55	-601.21	2.85	-789.89
116	117	51.73	-1604.05	-69.44	3907.12	0	727.64	2.55	-978.31	2.55	-670.69	2.85	-891.00
117	117	51.73	-1604.05	-69.54	3906.95	0	727.54	2.55	-978.27	2.55	-670.67	2.85	-890.96
117	118	55.37	-1604.05	70.52	3905.21	0	725.99	2.55	-976.81	2.55	-670.56	2.85	-890.82
118	118	55.37	-1604.05	70.42	3905.39	0	726.09	2.55	-976.85	2.55	-670.58	2.85	-890.86
118	119	59.01	-1604.05	212.80	3393.63	0	398.93	2.55	-823.51	2.55	-600.87	2.85	-789.46
119	119	59.01	-1604.05	213.16	3394.10	0	399.22	2.55	-823.61	2.55	-600.94	2.85	-789.56
119	120	62.64	-1604.05	354.16	2371.61	0	-254.03	2.55	-518.19	2.55	-461.53	2.85	-586.77
120	120	62.64	-2204.09	355.53	3370.39	0	554.52	2.55	-1359.89	2.55	-779.66	2.85	-969.57
120	121	66.28	-2208.93	394.50	1993.62	0	-315.66	2.55	-996.09	2.55	-586.24	2.85	-688.31
121	121	66.28	-2772.43	393.99	2955.08	0	439.37	2.55	-1653.52	2.55	-914.25	2.85	-1087.71
121	122	69.91	-2781.43	344.61	1615.79	0	-432.30	2.55	-1247.76	2.55	-733.96	2.85	-826.79
122	122	69.91	-2434.98	340.99	1869.74	0	106.09	2.55	-1347.73	2.55	-742.02	2.85	-856.53
122	123	73.55	-2385.36	347.54	597.38	0	-744.68	2.55	-867.89	2.55	-565.40	2.85	-610.56
123	10123	73.55	-2356.48	-346.52	617.83	0	-701.86	2.55	-875.46	2.55	-565.55	2.85	-612.38
123	124	76.66	-2402.15	-319.43	1712.19	0	23.30	2.55	-1268.89	2.55	-720.98	2.85	-829.02
124	124	76.66	-2746.45	-320.99	1458.65	0	-514.24	2.55	-1168.11	2.55	-712.48	2.85	-798.86
124	125	79.77	-2738.77	-393.56	2595.48	0	224.82	2.55	-1501.24	2.55	-867.21	2.85	-1022.62
125	125	79.77	-1958.07	-391.72	1605.27	0	-402.88	2.55	-800.02	2.55	-500.70	2.85	-584.34
125	126	82.88	-1954.44	-372.03	2817.24	0	361.40	2.55	-1110.72	2.55	-672.49	2.85	-834.15
126	126	82.88	-1361.78	-371.88	1986.97	0	-240.04	2.55	-431.59	2.55	-387.26	2.85	-493.51
126	127	85.99	-1361.78	-252.06	2972.19	0	398.14	2.55	-746.85	2.55	-518.66	2.85	-684.46
127	127	85.99	-1361.78	-251.45	2971.64	0	397.81	2.55	-746.73	2.55	-518.58	2.85	-684.34
127	128	89.10	-1361.78	-131.56	3577.84	0	794.35	2.55	-949.80	2.55	-598.18	2.85	-799.89
128	128	89.10	-1361.78	-131.28	3577.47	0	794.13	2.55	-949.72	2.55	-598.12	2.85	-799.81
128	129	92.21	-1361.78	-12.65	3812.63	0	953.65	2.55	-1042.04	2.55	-627.12	2.85	-841.76
129	129	92.21	-1361.78	-12.52	3812.38	0	953.49	2.55	-1041.98	2.55	-627.08	2.85	-841.71
129	130	95.32	-1361.78	100.60	3675.46	0	875.46	2.55	-1023.43	2.55	-605.31	2.85	-809.80
130	130	95.32	-1361.78	101.08	3675.66	0	875.56	2.55	-1023.46	2.55	-605.34	2.85	-809.85
130	131	98.43	-1361.78	221.50	3158.52	0	555.29	2.55	-892.57	2.55	-531.59	2.85	-702.26
131	131	98.43	-1092.60	222.79	3328.08	0	950.43	2.55	-950.89	2.55	-535.02	2.85	-721.44
131	132	101.54	-1092.60	343.08	2435.36	0	390.50	2.55	-708.43	2.55	-409.98	2.85	-539.23
132	132	101.54	-823.41	345.82	2618.14	0	795.73	2.55	-775.56	2.55	-414.54	2.85	-560.01
132	133	104.65	-823.41	465.89	1339.64	0	-9.76	2.55	-419.63	2.55	-236.68	2.85	-300.89
133	133	104.65	-473.47	470.68	1593.96	0	529.88	2.55	-518.24	2.55	-243.99	2.85	-329.88
133	134	107.76	-473.47	313.62	-72.43	0	-522.50	2.55	-48.39	2.55	-13.01	2.85	6.59



CÁLCULO TENSIONAL

Hipótesis de cálculo:
INFRECUENTES3.Tinf.MZ+
DOMINANTE CON GRADIENTE
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]
Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
1	1	0.00	-473.47	-330.77	-72.34	0	-522.41	2.55	-48.43	2.55	-13.02	2.85	6.58
1	2	3.05	-473.47	-406.41	1312.61	0	361.10	2.55	-457.58	2.55	-202.69	2.85	-268.96
2	2	3.05	-823.41	-407.13	1060.14	0	-177.41	2.55	-359.35	2.55	-195.66	2.85	-240.38
2	3	6.10	-823.41	-298.26	2135.38	0	506.21	2.55	-671.35	2.55	-343.69	2.85	-455.51
3	3	6.10	-1065.68	-298.54	1972.27	0	142.35	2.55	-611.22	2.55	-339.80	2.85	-437.11
3	4	9.15	-1065.68	-202.03	2735.50	0	624.62	2.55	-825.56	2.55	-445.87	2.85	-591.33
4	4	9.15	-1307.94	-202.13	2583.92	0	269.62	2.55	-773.28	2.55	-442.93	2.85	-574.28
4	5	12.20	-1307.94	-94.59	3041.08	0	553.85	2.55	-890.90	2.55	-507.93	2.85	-668.96
5	5	12.20	-1307.94	-94.54	3041.21	0	553.93	2.55	-890.93	2.55	-507.95	2.85	-668.99
5	6	15.25	-1307.94	1.63	3183.05	0	634.80	2.55	-910.19	2.55	-530.48	2.85	-702.04
6	6	15.25	-1307.94	1.74	3182.99	0	634.76	2.55	-910.17	2.55	-530.47	2.85	-702.02
6	7	18.30	-1307.94	102.84	3015.21	0	515.50	2.55	-832.04	2.55	-511.41	2.85	-674.74
7	7	18.30	-1307.94	102.85	3014.98	0	515.35	2.55	-831.98	2.55	-511.37	2.85	-674.69
7	8	21.35	-1307.94	204.00	2538.64	0	196.59	2.55	-656.66	2.55	-450.86	2.85	-587.32
8	8	21.35	-1307.93	203.68	2538.24	0	196.34	2.55	-656.57	2.55	-450.80	2.85	-587.23
8	9	24.40	-1307.93	305.87	1750.18	0	-323.66	2.55	-383.58	2.55	-348.37	2.85	-439.02
9	9	24.40	-2046.22	303.97	2654.47	0	263.03	2.55	-1127.64	2.55	-674.26	2.85	-825.06
9	10	27.45	-2050.29	325.13	1689.66	0	-353.95	2.55	-867.66	2.55	-539.24	2.85	-629.45
10	10	27.45	-2727.96	324.22	2559.94	0	204.61	2.55	-1483.28	2.55	-860.24	2.85	-1013.61
10	11	30.50	-2735.50	313.98	1612.89	0	-419.07	2.55	-1191.97	2.55	-733.32	2.85	-830.64
11	11	30.50	-2391.04	311.80	1865.07	0	117.69	2.55	-1292.40	2.55	-741.58	2.85	-860.46
11	12	33.55	-2351.89	308.83	917.60	0	-516.09	2.55	-939.03	2.55	-608.77	2.85	-675.81
12	10012	33.55	-2380.73	-323.55	896.87	0	-559.08	2.55	-931.38	2.55	-608.57	2.85	-673.91
12	13	37.19	-2442.04	-304.52	2076.42	0	229.78	2.55	-1394.51	2.55	-774.26	2.85	-903.03
13	13	37.19	-2788.26	-309.93	1822.99	0	-308.23	2.55	-1294.56	2.55	-766.22	2.85	-873.34
13	14	40.82	-2746.84	-339.15	2995.12	0	472.94	2.55	-1653.37	2.55	-914.06	2.85	-1089.84
14	14	40.82	-2086.22	-341.01	1933.19	0	-319.71	2.55	-930.60	2.55	-548.82	2.85	-646.54
14	15	44.46	-2081.99	-304.42	3123.67	0	440.24	2.55	-1258.32	2.55	-714.55	2.85	-886.77
15	15	44.46	-1604.04	-304.90	2221.39	0	-339.81	2.55	-494.90	2.55	-438.32	2.85	-552.26
15	16	48.10	-1604.04	-183.07	3101.17	0	228.22	2.55	-770.43	2.55	-556.67	2.85	-723.96
16	16	48.10	-1604.05	-183.15	3101.55	0	228.46	2.55	-770.52	2.55	-556.73	2.85	-724.04
16	17	51.73	-1604.05	-60.30	3541.72	0	512.39	2.55	-907.79	2.55	-616.03	2.85	-810.07
17	17	51.73	-1604.05	-60.02	3541.87	0	512.48	2.55	-907.82	2.55	-616.05	2.85	-810.10
17	18	55.37	-1604.05	61.03	3540.05	0	510.90	2.55	-906.36	2.55	-615.92	2.85	-809.94
18	18	55.37	-1604.05	61.33	3539.93	0	510.82	2.55	-906.33	2.55	-615.91	2.85	-809.91
18	19	59.01	-1604.05	184.14	3096.11	0	223.71	2.55	-766.13	2.55	-556.36	2.85	-723.56
19	19	59.01	-1604.05	184.05	3095.71	0	223.46	2.55	-766.04	2.55	-556.30	2.85	-723.47
19	20	62.64	-1604.05	305.93	2212.23	0	-347.78	2.55	-487.56	2.55	-437.68	2.85	-551.44
20	20	62.64	-2204.09	305.42	3209.76	0	460.00	2.55	-1328.98	2.55	-755.62	2.85	-933.97
20	21	66.28	-2208.93	343.16	2021.72	0	-298.63	2.55	-1001.95	2.55	-590.42	2.85	-694.42
21	21	66.28	-2772.43	338.63	2982.38	0	455.90	2.55	-1659.20	2.55	-918.31	2.85	-1093.65
21	22	69.91	-2781.43	314.96	1796.12	0	-324.16	2.55	-1284.31	2.55	-760.84	2.85	-866.29
22	22	69.91	-2434.98	306.62	2049.50	0	213.89	2.55	-1384.16	2.55	-768.82	2.85	-895.91
22	23	73.55	-2385.36	325.73	869.86	0	-578.15	2.55	-925.97	2.55	-605.84	2.85	-669.51
23	10023	73.55	-2356.48	-315.50	890.66	0	-535.10	2.55	-933.63	2.55	-606.05	2.85	-671.41
23	24	76.66	-2402.15	-314.53	1879.52	0	124.65	2.55	-1303.72	2.55	-745.86	2.85	-865.43
24	24	76.66	-2746.45	-316.95	1627.08	0	-412.21	2.55	-1203.18	2.55	-737.52	2.85	-835.51
24	25	79.77	-2738.77	-328.94	2612.61	0	236.49	2.55	-1505.98	2.55	-869.69	2.85	-1026.05
25	25	79.77	-1958.07	-329.96	1623.22	0	-390.72	2.55	-804.94	2.55	-503.30	2.85	-587.95
25	26	82.88	-1954.44	-310.32	2633.33	0	254.83	2.55	-1076.83	2.55	-644.88	2.85	-793.01
26	26	82.88	-1361.78	-312.27	1804.33	0	-345.83	2.55	-397.98	2.55	-359.84	2.85	-452.65
26	27	85.99	-1361.78	-208.50	2624.50	0	194.94	2.55	-681.22	2.55	-466.56	2.85	-607.08
27	27	85.99	-1361.78	-208.83	2624.97	0	195.22	2.55	-681.32	2.55	-466.63	2.85	-607.18
27	28	89.10	-1361.78	-105.23	3121.64	0	527.09	2.55	-863.11	2.55	-529.85	2.85	-698.51
28	28	89.10	-1361.78	-105.13	3121.88	0	527.24	2.55	-863.16	2.55	-529.88	2.85	-698.56
28	29	92.21	-1361.78	-2.26	3297.34	0	651.45	2.55	-943.82	2.55	-549.96	2.85	-727.33
29	29	92.21	-1361.78	-2.07	3297.39	0	651.48	2.55	-943.83	2.55	-549.96	2.85	-727.34
29	30	95.32	-1361.78	96.43	3150.55	0	567.38	2.55	-923.17	2.55	-526.72	2.85	-693.28
30	30	95.32	-1361.78	96.56	3150.11	0	567.09	2.55	-923.06	2.55	-526.66	2.85	-693.19
30	31	98.43	-1361.78	200.40	2676.71	0	272.28	2.55	-800.33	2.55	-459.46	2.85	-595.36
31	31	98.43	-1092.60	200.29	2845.13	0	666.73	2.55	-858.42	2.55	-462.73	2.85	-614.29
31	32	101.54	-1092.60	304.09	2051.68	0	164.93	2.55	-634.79	2.55	-352.56	2.85	-454.15
32	32	101.54	-823.41	303.81	2232.93	0	569.23	2.55	-701.60	2.55	-356.89	2.85	-474.60
32	33	104.65	-823.41	407.71	1114.66	0	-142.15	2.55	-376.34	2.55	-203.02	2.85	-251.03
33	33	104.65	-473.47	407.05	1367.07	0	396.32	2.55	-474.55	2.55	-210.04	2.85	-279.60
33	34	107.76	-473.47	339.45	-72.25	0	-522.36	2.55	-48.45	2.55	-13.03	2.85	6.56
101	101	0.00	-473.47	-298.44	-72.94	0	-522.79	2.55	-48.30	2.55	-12.93	2.85	6.71
101	102	3.05	-473.47	-434.16	1404.96	0	417.89	2.55	-477.58	2.55	-216.38	2.85	-288.86
102	102	3.05	-823.41	-430.23	1150.85	0	-121.62	2.55	-379.01	2.55	-209.10	2.85	-259.92
102	103	6.10	-823.41	-315.10	2287.14	0	599.53	2.55	-704.22	2.55	-366.19	2.85	-488.21
103	103	6.10	-1065.68	-312.84	2122.71	0	234.86	2.55	-643.82	2.55	-362.10	2.85	-469.52
103	104	9.15	-1065.68	-204.97	2920.91	0	738.60	2.55	-865.69	2.55	-473.35	2.85	-631.29
104	104	9.15	-1307.94	-203.85	2768.41	0	383.04	2.55	-813.21	2.55	-470.28	2.85	-614.05
104	105	12.20	-1307.94	-95.36	3238.21	0	674.99	2.55	-933.53	2.55	-537.15	2.85	-711.46
105	105	12.20	-1307.94	-94.89	3238.17	0	674.98	2.55	-933.53	2.55	-537.14	2.85	-711.44

CÁLCULO TENSIONAL

Hipótesis de cálculo:

INFRECUENTES3.Tinf.MZ+

DOMINANTE CON GRADIENTE

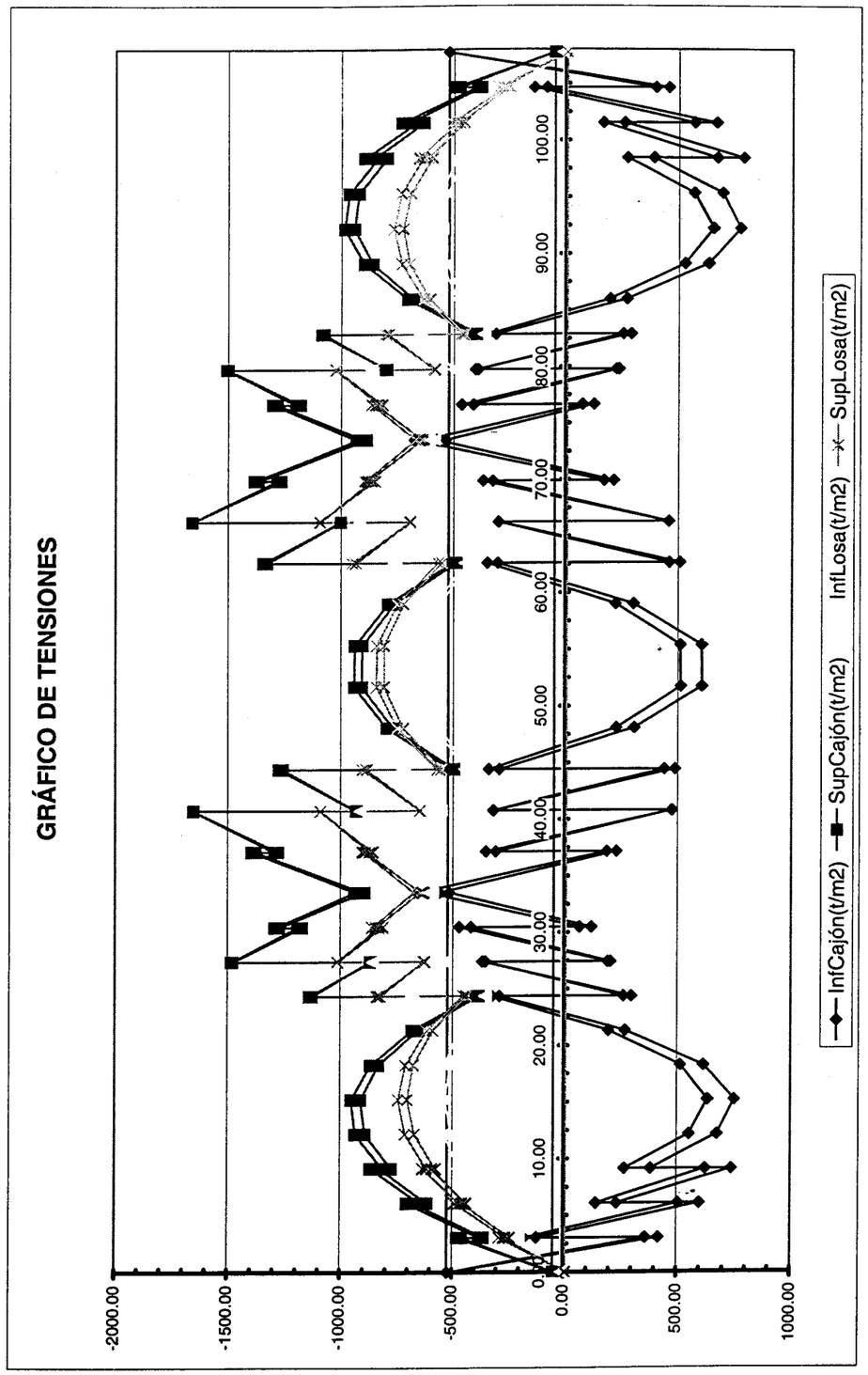
[1; 1]PPCF1 + [1; 1]PPLF2 + [1; 1]

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)	Fibra y fibra	InfCajón sig (t/m2)	Fibra y fibra	SupCajón sig (t/m2)	Fibra y fibra	InfLosa sig (t/m2)	Fibra y fibra	SupLosa sig (t/m2)
105	106	15.25	-1307.94	6.86	3372.32	0	751.04	2.55	-951.05	2.55	-558.54	2.85	-742.85
106	106	15.25	-1307.94	7.07	3371.94	0	750.79	2.55	-950.95	2.55	-558.48	2.85	-742.78
106	107	18.30	-1307.94	113.83	3179.16	0	616.03	2.55	-867.28	2.55	-535.72	2.85	-710.14
107	107	18.30	-1307.94	114.09	3179.49	0	616.22	2.55	-867.35	2.55	-535.77	2.85	-710.21
107	108	21.35	-1307.94	221.15	2659.63	0	270.42	2.55	-682.35	2.55	-468.83	2.85	-613.52
108	108	21.35	-1307.93	221.82	2660.16	0	270.74	2.55	-682.46	2.55	-468.90	2.85	-613.63
108	109	24.40	-1307.93	329.76	1806.35	0	-290.04	2.55	-394.91	2.55	-356.74	2.85	-451.34
109	109	24.40	-2046.22	329.84	2711.77	0	297.34	2.55	-1139.20	2.55	-682.80	2.85	-837.62
109	110	27.45	-2050.29	348.43	1670.92	0	-366.60	2.55	-862.57	2.55	-536.52	2.85	-625.67
110	110	27.45	-2727.96	350.04	2542.14	0	192.52	2.55	-1478.39	2.55	-857.66	2.85	-1010.04
110	111	30.50	-2735.50	304.70	1531.21	0	-471.64	2.55	-1172.14	2.55	-721.34	2.85	-813.58
111	111	30.50	-2391.04	322.26	1784.32	0	65.68	2.55	-1272.76	2.55	-729.74	2.85	-843.61
111	112	33.55	-2351.89	332.63	769.81	0	-611.45	2.55	-902.93	2.55	-587.11	2.85	-645.00
112	10112	33.55	-2380.73	-347.28	748.98	0	-654.51	2.55	-895.25	2.55	-586.89	2.85	-643.08
112	113	37.19	-2442.04	-329.12	2010.80	0	187.12	2.55	-1378.19	2.55	-764.66	2.85	-889.42
113	113	37.19	-2788.26	-307.28	1757.00	0	-351.13	2.55	-1278.15	2.55	-756.56	2.85	-859.66
113	114	40.82	-2746.84	-359.75	3001.14	0	475.45	2.55	-1653.58	2.55	-915.01	2.85	-1091.42
114	114	40.82	-2086.22	-358.95	1938.19	0	-317.82	2.55	-930.59	2.55	-549.63	2.85	-647.89
114	115	44.46	-2081.99	-323.66	3201.33	0	487.53	2.55	-1274.71	2.55	-726.09	2.85	-903.62
115	115	44.46	-1604.04	-322.51	2297.85	0	-293.27	2.55	-511.02	2.55	-449.67	2.85	-568.85
115	116	48.10	-1604.04	-193.71	3229.20	0	306.92	2.55	-798.12	2.55	-575.65	2.85	-751.55
116	116	48.10	-1604.05	-193.42	3228.76	0	306.65	2.55	-798.03	2.55	-575.59	2.85	-751.46
116	117	51.73	-1604.05	-63.42	3693.19	0	605.72	2.55	-940.76	2.55	-638.47	2.85	-842.67
117	117	51.73	-1604.05	-63.52	3693.04	0	605.63	2.55	-940.73	2.55	-638.44	2.85	-842.64
117	118	55.37	-1604.05	64.58	3691.15	0	603.99	2.55	-939.24	2.55	-638.31	2.85	-842.46
118	118	55.37	-1604.05	64.49	3691.30	0	604.08	2.55	-939.28	2.55	-638.33	2.85	-842.49
118	119	59.01	-1604.05	194.45	3223.05	0	301.72	2.55	-793.57	2.55	-575.18	2.85	-750.93
119	119	59.01	-1604.05	194.76	3223.48	0	301.98	2.55	-793.66	2.55	-575.24	2.85	-751.02
119	120	62.64	-1604.05	323.62	2288.17	0	-301.58	2.55	-503.55	2.55	-448.96	2.85	-567.92
120	120	62.64	-2204.09	324.81	3286.88	0	506.92	2.55	-1345.23	2.55	-767.08	2.85	-950.71
120	121	66.28	-2208.93	361.35	2025.90	0	-297.27	2.55	-1001.76	2.55	-591.11	2.85	-695.60
121	121	66.28	-2772.43	360.48	2987.55	0	457.87	2.55	-1659.22	2.55	-919.14	2.85	-1095.05
121	122	69.91	-2781.43	334.01	1729.14	0	-367.70	2.55	-1267.66	2.55	-751.04	2.85	-852.40
122	122	69.91	-2434.98	331.27	1982.96	0	170.62	2.55	-1367.61	2.55	-759.08	2.85	-882.11
122	123	73.55	-2385.36	349.55	721.03	0	-674.22	2.55	-889.59	2.55	-584.03	2.85	-638.49
123	10123	73.55	-2356.48	-339.31	741.48	0	-631.39	2.55	-897.17	2.55	-584.18	2.85	-640.32
123	124	76.66	-2402.15	-306.49	1799.91	0	73.29	2.55	-1284.28	2.55	-734.19	2.85	-848.83
124	124	76.66	-2746.45	-307.60	1546.38	0	-464.25	2.55	-1183.50	2.55	-725.69	2.85	-818.68
124	125	79.77	-2738.77	-354.51	2595.30	0	224.72	2.55	-1501.21	2.55	-867.18	2.85	-1022.58
125	125	79.77	-1958.07	-353.03	1604.97	0	-403.06	2.55	-799.97	2.55	-500.66	2.85	-584.27
125	126	82.88	-1954.44	-336.01	2692.60	0	290.37	2.55	-1088.84	2.55	-653.72	2.85	-805.99
126	126	82.88	-1361.78	-336.04	1862.41	0	-311.02	2.55	-409.73	2.55	-368.50	2.85	-465.37
126	127	85.99	-1361.78	-226.44	2749.07	0	270.98	2.55	-707.69	2.55	-485.05	2.85	-634.05
127	127	85.99	-1361.78	-225.94	2748.58	0	270.68	2.55	-707.58	2.55	-484.98	2.85	-633.95
127	128	89.10	-1361.78	-116.28	3289.21	0	629.86	2.55	-899.14	2.55	-554.70	2.85	-734.69
128	128	89.10	-1361.78	-116.08	3288.89	0	629.66	2.55	-899.07	2.55	-554.65	2.85	-734.62
128	129	92.21	-1361.78	-7.44	3490.04	0	769.80	2.55	-985.42	2.55	-578.52	2.85	-768.88
129	129	92.21	-1361.78	-7.38	3489.79	0	769.64	2.55	-985.36	2.55	-578.49	2.85	-768.83
129	130	95.32	-1361.78	96.85	3350.74	0	690.39	2.55	-966.44	2.55	-556.40	2.85	-736.44
130	130	95.32	-1361.78	97.20	3350.88	0	690.47	2.55	-966.46	2.55	-556.42	2.85	-736.48
130	131	98.43	-1361.78	207.27	2865.02	0	388.02	2.55	-841.06	2.55	-487.38	2.85	-635.95
131	131	98.43	-1092.60	208.31	3034.46	0	783.09	2.55	-899.36	2.55	-490.79	2.85	-655.11
131	132	101.54	-1092.60	318.29	2205.36	0	259.42	2.55	-668.06	2.55	-375.34	2.85	-487.27
132	132	101.54	-823.41	320.56	2387.96	0	664.55	2.55	-735.16	2.55	-379.86	2.85	-508.01
132	133	104.65	-823.41	430.35	1207.28	0	-85.19	2.55	-396.40	2.55	-216.75	2.85	-270.99
133	133	104.65	-473.47	434.37	1461.39	0	454.32	2.55	-494.98	2.55	-224.02	2.85	-299.93
133	134	107.76	-473.47	305.88	-72.88	0	-522.76	2.55	-48.31	2.55	-12.94	2.85	6.70

GRÁFICO DE TENSIONES

Programa DINTEL PACADAR S.A.
INFRECUENTES3.TInf.MZ+



PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

A.3) COMPROBACIÓN DE LA SECCIÓN

CRITICA DE CENTRO DE VANO CON "CSEC"

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

ESTUDIO DE LA SECCIÓN DE CENTRO DE VANO

En este apartado se recoge el cálculo tensional con el programa CSEC relativo a la sección de centro de vano. Este cálculo se realiza con las secciones homogeneizadas (Acero + hormigón) y considerando de forma más ajustada las pérdidas de pretensado.

ESTUDIO SIN FISURACIÓN

Esf sobre sección abierta: C+P $758'67 + 88'86 + 90 = 937'53$

Retracción Losa $= 41'08 \cdot 10^{-5}$

Retracción cajón $= 29'11 \cdot 10^{-5}$

Pretensado superior $8 > 2072 = 165'76$ ton

Pretensado inferior $110 \times 2072 = 2281'4$ ton

Esf sobre sección total: $M_{CM} = 722'12$ m/t.

$$M_{SCU} = 1'35 \times 1'20 \times \left[394'75 + 925'21\right] + \frac{1}{2}\left[82'89 + 6'73\right] = 1756'6 \text{ m/t.}$$

$$M_{GRAD} = 365'74 \text{ m/t.}$$

En los diferentes escalones de carga se tiene:

$$M_{cuasiperm.} = 0'20 \times \left[1756'6 + 365'74\right] = 425'07 \text{ m/t.}$$

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

$M_{Frecuentes} = 0'50 \cdot 1756'6 + 0'20 \cdot 368'74 = 952'05$ mton

$\Delta_{CUASI \to FREC} = 526'98$ mton

$M_{INFREC} = 1756'6 + 0'6 \cdot 368'74 = 1977'84$ mton

$\Delta_{FREC \to INFREC} = 1025'79$ mton

Esf de redistribuciones:

- Red ppropio = -322'70 mton
- Red pretensado = 1687'01 mton

1364'31 mton.

Proyecto:
V-3 STA OLIVA

Seccion:CDV118

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	285770	2.60	1.45
2(HO)	600.0	1.50	338219	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	28.0	13.4	270.4	*T	0
8	4	28.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	2.0	25.0	280.0	CT	0
11	3	2.0	25.0	270.0	CT	0
12	3	2.0	25.0	260.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 10 11 12
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2916.9	28.83	10392775.8
	(1)	1073.4	56.95	9024167.6
	(2)	1431.0	45.81	9539730.3
F.pura -	(0)	522.8	272.79	518686.7
	(1)	311.6	267.44	497554.9
	(2)	359.0	269.02	503431.4
C.Simple	(0)	5390.0	92.91	57491833.0
	(1)	1620.7	105.67	19506722.0
	(2)	2301.2	100.27	26455632.5
T.Simple	(0)	171.0	260.23	474206.0

(1)	171.0	260.23	474206.0
(2)	171.0	260.23	474206.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

** CALCULO ELASTICO **

Título Sección: CDV118

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 937.53m.T PP
Tipo de Solicitacion: CP
Seccion Afectada: C+P

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	117.2	-18.9	-14.1	0.0	0.0
2	180.8	-111.9	-89.7	0.0	0.0	2	101.8	-14.2	-8.3	0.0	0.0
3	180.8	-89.7	57.2	0.0	0.0	3	101.8	-8.3	31.0	0.0	0.0
4	180.8	57.2	77.3	0.0	0.0	4	101.8	31.0	36.3	0.0	0.0
5	180.8	391.5	396.8	0.0	396.8	5	156.2	797.3	805.9	0.0	805.9
6	180.8	372.6	377.8	0.0	377.8	6	156.2	766.4	775.0	0.0	775.0
7	180.8	353.6	358.9	0.0	358.9	7	156.2	735.5	744.1	0.0	744.1
8	180.8	333.9	339.2	0.0	339.2	8	156.2	703.3	711.9	0.0	711.9
9	180.8	-536.4	-531.1	0.0	536.4	9	156.2	-716.4	-707.8	0.0	716.4
10	180.8	456.8	468.3	0.0	468.3	10	156.2	930.2	949.0	0.0	949.0
11	180.8	410.7	422.2	0.0	422.2	11	156.2	855.0	873.8	0.0	873.8
12	180.8	364.7	376.2	0.0	376.2	12	156.2	779.9	798.7	0.0	798.7

Incrementos de Carga:
1

Incremento de Carga 2 :
Retraccion(Eso/ri;Tinf.): 41.08(*1.E-05)
Actua sobre la Sintermedia LOS
Seccion Afectada: TOTAL

Incremento de Carga 3 :
Retraccion(Eso/ri;Tinf.): 29.11(*1.E-05)
Actua sobre la Sintermedia CAJ
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	48.8	-16.4	-6.3	0.0	0.0
2	180.8	-111.9	-89.7	0.0	0.0	2	142.7	-45.5	-33.4	0.0	0.0
3	180.8	-89.7	57.2	0.0	0.0	3	142.7	-33.4	46.6	0.0	0.0
4	180.8	57.2	77.3	0.0	0.0	4	142.7	46.6	57.5	0.0	0.0
5	180.8	391.5	396.8	0.0	396.8	5	229.5	380.6	390.7	0.0	390.7
6	180.8	372.6	377.8	0.0	377.8	6	229.5	344.4	354.5	0.0	354.5
7	180.8	353.6	358.9	0.0	358.9	7	229.5	308.3	318.3	0.0	318.3
8	180.8	333.9	339.2	0.0	339.2	8	229.5	270.6	280.6	0.0	280.6
9	180.8	-536.4	-531.1	0.0	536.4	9	229.5	-1390.4	-1380.4	0.0	1390.4
10	180.8	456.8	468.3	0.0	468.3	10	229.5	444.0	466.0	0.0	466.0
11	180.8	410.7	422.2	0.0	422.2	11	229.5	356.1	378.1	0.0	378.1
12	180.8	364.7	376.2	0.0	376.2	12	229.5	268.2	290.2	0.0	290.2

Incrementos de Carga:
1 2 3

Incremento de Carga 4 :
Pretensado: 165.76Tn.
P.relajacion: 5.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: C+P

Incremento de Carga 5 :
Pretensado: 2281.40Tn.
P.relajacion: 5.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: C+P

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	-3.9	-1.1	-9.3	0.0	0.0
2	-26.3	-42.3	-64.9	0.0	0.0	2	-58.1	-39.4	-52.9	0.0	0.0
3	-26.3	-64.9	-213.6	0.0	0.0	3	-58.1	-52.9	-141.5	0.0	0.0
4	-26.3	-213.6	-233.9	0.0	0.0	4	-58.1	-141.5	-153.6	0.0	0.0
5	$$$$$$	13592.0	13586.7	0.0	13592.0	5	$$$$$$	10445.3	10432.2	0.0	10445.3
6	$$$$$$	13611.2	13605.9	0.0	13611.2	6	$$$$$$	10492.4	10479.3	0.0	10492.4
7	$$$$$$	13630.4	13625.1	0.0	13630.4	7	$$$$$$	10539.5	10526.4	0.0	10539.5
8	$$$$$$	13650.4	13645.1	0.0	13650.4	8	$$$$$$	10588.5	10575.4	0.0	10588.5
9	$$$$$$	14517.4	14512.1	0.0	14517.4	9	$$$$$$	12736.5	12723.5	0.0	12736.5
10	-26.3	-1429.0	-1440.6	0.0	1440.6	10	-90.2	-4235.8	-4264.5	0.0	4264.5
11	-26.3	-1382.3	-1394.0	0.0	1394.0	11	-90.2	-4121.4	-4150.0	0.0	4150.0
12	-26.3	-1335.7	-1347.3	0.0	1347.3	12	-90.2	-4007.0	-4035.6	0.0	4035.6

Incrementos de Carga:
1 2 3 4 5

Incremento de Carga 6 :
Flector : 722.12m.T CM
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	92.9	-15.9	-10.8	0.0	0.0	1	-118.7	-15.9	-19.9	0.0	0.0
2	-70.2	-55.0	-71.5	0.0	0.0	2	-154.2	-52.0	-60.4	0.0	0.0
3	-70.2	-71.5	-180.2	0.0	0.0	3	-154.2	-60.4	-116.3	0.0	0.0
4	-70.2	-180.2	-195.0	0.0	0.0	4	-154.2	-116.3	-123.9	0.0	0.0
5	$$$$$$	13793.5	13789.6	0.0	13793.5	5	$$$$$$	10998.5	10989.6	0.0	10998.5
6	$$$$$$	13807.5	13803.6	0.0	13807.5	6	$$$$$$	11030.3	11021.5	0.0	11030.3
7	$$$$$$	13821.5	13817.6	0.0	13821.5	7	$$$$$$	11062.2	11053.3	0.0	11062.2
8	$$$$$$	13836.1	13832.2	0.0	13836.1	8	$$$$$$	11095.3	11086.5	0.0	11095.3
9	$$$$$$	14465.8	14461.9	0.0	14465.8	9	$$$$$$	12544.1	12535.2	0.0	12544.1
10	-70.2	-1194.0	-1202.5	0.0	1202.5	10	-183.9	-3590.5	-3609.8	0.0	3609.8
11	-70.2	-1159.9	-1168.4	0.0	1168.4	11	-183.9	-3513.1	-3532.4	0.0	3532.4

12 -70.2-1125.8-1134.3 0.0 1134.3 12 -183.9-3435.7-3455.0 0.0 3455.0

Incrementos de Carga:
1 2 3 4 5 6

Incremento de Carga 7 :
Flector : 1364.31m.T RED
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp
1	92.9	-15.9	-10.8	0.0 0.0	1	291.7	-44.6	-40.0	0.0 0.0
2	-70.2	-55.0	-71.5	0.0 0.0	2	$$$$$$	-75.8	-74.1	0.0 0.0
3	-70.2	-71.5	-180.2	0.0 0.0	3	$$$$$$	-74.1	-62.8	0.0 0.0
4	-70.2	-180.2	-195.0	0.0 0.0	4	$$$$$$	-62.8	-61.3	0.0 0.0
5	$$$$$$13793.513789.6			0.013793.5	5	$$$$$$11792.911790.0			0.011792.9
6	$$$$$$13807.513803.6			0.013807.5	6	$$$$$$11803.511800.6			0.011803.5
7	$$$$$13821.513817.6			0.013821.5	7	$$$$$$11814.211811.2			0.011814.2
8	$$$$$$13836.113832.2			0.013836.1	8	$$$$$$11825.211822.3			0.011825.2
9	$$$$$$14465.814461.9			0.014465.8	9	$$$$$$12299.712296.8			0.012299.7
10	-70.2-1194.0-1202.5			0.0 1202.5	10	-751.0-2663.6-2670.1			0.0 2670.1
11	-70.2-1159.9-1168.4			0.0 1168.4	11	-751.0-2637.8-2644.3			0.0 2644.3
12	-70.2-1125.8-1134.3			0.0 1134.3	12	-751.0-2612.0-2618.4			0.0 2618.4

Incrementos de Carga:
1 2 3 4 5 6 7

Incremento de Carga 8 :
Flector : 425.07m.T CUASIP
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp
1	92.9	-25.2	-17.1	0.0 0.0	1	212.8	-53.9	-46.3	0.0 0.0
2	-115.4	-62.5	-75.4	0.0 0.0	2	503.0	-83.3	-78.0	0.0 0.0
3	-115.4	-75.4	-160.6	0.0 0.0	3	503.0	-78.0	-43.1	0.0 0.0
4	-115.4	-160.6	-172.2	0.0 0.0	4	503.0	-43.1	-38.4	0.0 0.0
5	$$$$$$13912.013909.0			0.013912.0	5	$$$$$$11911.511909.4			0.011911.5
6	$$$$$$13923.013919.9			0.013923.0	6	$$$$$$11919.111916.9			0.011919.1
7	$$$$$$13934.013930.9			0.013934.0	7	$$$$$$11926.611924.5			0.011926.6
8	$$$$$$13945.413942.4			0.013945.4	8	$$$$$$11934.511932.4			0.011934.5
9	$$$$$$14435.514432.4			0.014435.5	9	$$$$$$12269.412267.3			0.012269.4
10	-115.4-1055.7-1062.3			0.0 1062.3	10	$$$$$$-2525.3-2529.9			0.0 2529.9
11	-115.4-1029.0-1035.6			0.0 1035.6	11	$$$$$$-2506.9-2511.5			0.0 2511.5
12	-115.4-1002.3-1008.9			0.0 1008.9	12	$$$$$$-2488.4-2493.0			0.0 2493.0

Incrementos de Carga:
1 2 3 4 5 6 7 8

Incremento de Carga 9 :
Flector : 526.98m.T FREC
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp
1	92.9	-36.8	-24.9	0.0 0.0	1	173.2	-65.5	-54.2	0.0 0.0
2	-224.4	-71.8	-80.3	0.0 0.0	2	316.0	-92.6	-82.9	0.0 0.0
3	-224.4	-80.3	-136.2	0.0 0.0	3	316.0	-82.9	-18.8	0.0 0.0
4	-224.4	-136.2	-143.8	0.0 0.0	4	316.0	-18.8	-10.0	0.0 0.0
5	$$$$$$14059.014057.0			0.014059.0	5	$$$$$$12058.512057.4			0.012058.5
6	$$$$$$14066.214064.2			0.014066.2	6	$$$$$$12062.312061.2			0.012062.3
7	$$$$$$14073.414071.4			0.014073.4	7	$$$$$$12066.112065.0			0.012066.1
8	$$$$$$14080.914078.9			0.014080.9	8	$$$$$$12070.112069.0			0.012070.1
9	$$$$$$14397.814395.8			0.014397.8	9	$$$$$$12231.712230.7			0.012231.7
10	-224.4 -884.2 -888.5			0.0 888.5	10	$$$$$$-2353.8-2356.1			0.0 2356.1
11	-224.4 -866.6 -871.0			0.0 871.0	11	$$$$$$-2344.5-2346.9			0.0 2346.9
12	-224.4 -849.1 -853.5			0.0 853.5	12	$$$$$$-2335.3-2337.6			0.0 2337.6

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : 1025.79m.T INFREC
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp
1	92.9	-59.4	-40.2	0.0 0.0	1	141.8	-88.1	-69.4	0.0 0.0
2	$$$$$$	-89.9	-89.7	0.0 0.0	2	211.1	-110.6	-92.3	0.0 0.0
3	$$$$$$	-89.7	-88.8	0.0 0.0	3	211.1	-92.3	28.7	0.0 0.0
4	$$$$$$	-88.8	-88.6	0.0 0.0	4	211.1	28.7	45.2	0.0 0.0
5	$$$$$$14345.114345.2			0.014345.2	5	$$$$$$12344.612345.6			0.012345.6
6	$$$$$$14345.014345.0			0.014345.0	6	$$$$$$12341.112342.0			0.012342.0
7	$$$$$$14344.914344.9			0.014344.9	7	$$$$$$12337.512338.5			0.012338.5
8	$$$$$$14344.714344.8			0.014344.8	8	$$$$$$12333.912334.8			0.012334.8
9	$$$$$$14324.514324.6			0.014324.6	9	$$$$$$12158.412159.4			0.012159.4
10	$$$$$$ -550.4 -550.3			0.0 550.4	10	$$$$$$-2020.0-2017.9			0.0 2020.0
11	$$$$$$ -550.7 -550.6			0.0 550.7	11	$$$$$$-2028.6-2026.4			0.0 2028.6
12	$$$$$$ -551.0 -550.9			0.0 551.0	12	$$$$$$-2037.2-2035.0			0.0 2037.2

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10

con el análisis realizado se observa que se tienen unas tensiones a tiempo infinito de valor 45'2 kg/cm²

A este valor se le debe sumar el correspondiente a las pérdidas del preformado (5%) y las del frenado:

Tensión en armaduras: 45'2 kp/cm²

Pérdidas pret: 0'05 x 233'9 = 11'70 kp/cm²

Frenado: $\frac{206}{3'93} \times 1'18 = 6'00$ kg

total: 62'9 kg/cm²

A.4) ESTUDIO DE REDISTRIBUCIONES DE TENSIONES A NIVEL DE SECCIÓN

En este caso se tienen las siguientes tensiones:

	INF CAJÓN	SUP CAJÓN	INF LOSA	SUP LOSA
M=1000mtn	65'6	-25'4	-14'6	-20'6
N=-1000tn CDG	-29'6	-40'5	-23'3	-24

- Acciones de valor variable en el tiempo (redistribuciones y pérdidas de pretensado) se emplean constantes de tipo (2)

	INF CAJÓN	SUP CAJÓN	INF LOSA	SUP LOSA
M=1000mtn	63'2	-24'2	-14'7	-20'9
N=-1000tn CDG	-30'1	-38'9	-23'6	-24'3

Se acompañan los listados de CSEC en los que se han obtenido estos valores

En la obtención de dichas tensiones se han empleado los valores de ctes $\int_1$ y $\int_2$:

LOSA: f_{p1} = FLUENCIA 3 a 35000 días $\quad \int_{n2} = 0'7 \int_{n1}$

CAJÓN: $\int_{n1}$ = FLUENCIA de 28 a 35000 días $\quad f_{n2} = 0'7 \int_{n2}$

LOSA: $\int_{n1} = 2'28 \quad \int_{n2} = 1'59$

CAJÓN: $\int_{n2} = 1'23 \quad \int_{n2} = 0'86$

La sección longitudinal es variable en el tiempo de forma que los esfuerzos sufren variaciones con el tiempo

De esta forma se evalúa dicho efecto mediante el empleo del programa CSEC que emplea los principios de ctes (1) y (2) empleados en el cálculo de ptos mixtos (ver "CONSTRUCCIÓN MIXTA" J. Martínez Calzón)

Para las acciones que actúan sobre la sección cajón y tienen valor cte a tiempo infinito las ctes (1)

	INF CAJÓN	SUP CAJÓN	INF LOSA	SUP LOSA
M=1000 mtn	73'8	-58'3	-13'8	-9'7
N=-1000 tn pr CDG	-81'2	-33	-3'8	-7'0

Este tipo de acciones son PPCF1, PPLF1 y la parte de PPLF2 que entra en sección simple, así como el pretensado

Las acciones que actúan en la sección cajón + losa son de 2 tipos diferentes:

- Acciones de valor cte en el tiempo (CIMENTA) en estas se emplean ctes de tipo 1

CAJON

CCIÓN DEL HORMIGÓN

instrucci E)

a sección de hormigón en m^2	1.529
o de la sección en contacto con la atmósfera (m)	12.148
cia característica del hormigón (en N/mm^2)	55

$\cdot A_c$

u

medio en mm de la sección (mm):	251.729
la humedad relativa (%)	70
ructuras al aire se introducira un valor menor que cien	
ucturas sumergidas se introducirá un valor 100)	

ción

ción entre los instantes t_o y t_t se obtiene siguiendo la siguiente formulación:

$_o$ la edad del hormigón al comienzo de la retracción)

$$\varepsilon_{cs} = \varepsilon_{cs0} \cdot \beta_s(t_t - t_o)$$

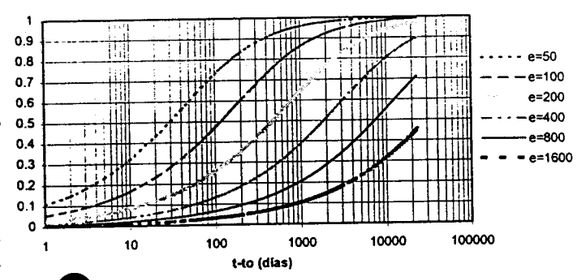
$$\varepsilon_{cs0} = \varepsilon_s \cdot \beta_{HR}$$

$$\varepsilon_s = (570 - 5 \cdot f_{ck}) \cdot 10^{-6}$$

$$\beta_{HR} = -1.55 \cdot \left(1 - \left(\frac{HR}{100}\right)^3\right) \quad \text{para estructuras al aire}$$

$$\beta_{HR} = 0.2 \quad \text{para estructuras sumergidas}$$

$$\beta_s(t_t - t_o) = \sqrt{\frac{t_t - t_o}{0.035 e^2 + (t_t - t_o)}}$$



	1	2	3	4	5
	3	28			
	36000	36000			
	0.971	0.971			
	-1.018	-1.018			
	0.000295	0.000295			
	-0.000300	-0.000300			
	-29.16	**-29.16**			
)*					
)*					

LOSA

RETRACCIÓN DEL HORMIGÓN

(Según la instrucción EHE)

Área de la sección de hormigón en m^2	4.2
Perímetro de la sección en contacto con la atmósfera (m)	28.6
Resistencia característica del hormigón (en N/mm^2)	30

$$e = \frac{2 \cdot A_c}{u}$$

Espesor medio en mm de la sección (mm):	293.706
Valor de la humedad relativa (%)	70
(para estructuras al aire se introducira un valor menor que cien	
para estructuras sumergidas se introducirá un valor 100)	

Formulación

La retracción entre los instantes t_o y t_t se obtiene siguiendo la siguiente formulación:

(siendo t_0 la edad del hormigón al comienzo de la retracción)

$$\varepsilon_{cs} = \varepsilon_{cs0} \cdot \beta_s(t_t - t_o)$$

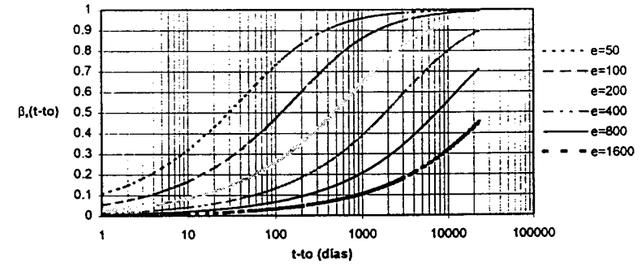
$$\varepsilon_{cs0} = \varepsilon_s \cdot \beta_{HR}$$

$$\varepsilon_s = (570 - 5 \cdot f_{ck}) \cdot 10^{-6}$$

$$\beta_{HR} = -1.55 \cdot \left(1 - \left(\frac{HR}{100}\right)^3\right) \quad \text{para estructuras al aire}$$

$$\beta_{HR} = 0.2 \quad \text{para estructuras sumergidas}$$

$$\beta_s(t_t - t_o) = \sqrt{\frac{t_t - t_o}{0.035 e^2 + (t_t - t_o)}}$$



Caso	1	2	3	4	5
t_0 (días)	3	28			
t_1 (días)	36000	36000			
$\beta_s(t_1-t_0)$	0.961	0.961			
β_{HR}	-1.018	-1.018			
ε_s	0.000420	0.000420			
ε_{cs0}	-0.000428	-0.000428			
$\varepsilon_{cs}(t_1,t_o)$*	**-41.08**	**-41.08**			
t_2 (días)					
$\beta_s(t_1-t_0)$					
β_{HR}					
ε_s					
ε_{cs0}					
$\varepsilon_{cs}(t_2,t_o)$*					
$\varepsilon_{cs}(t_2,t_1)$*					

Losa

FLUENCIA DEL HORMIGÓN

(Según la instrucción EHE)

Área de la sección de hormigón en m^2	4.2
Perimetro de la sección en contacto con la atmósfera (m)	28.6
Resistencia característica del hormigón (en N/mm^2)	30

$$e = \frac{2 \cdot A_c}{u}$$

Espesor medio en mm de la sección:	293.706
Valor de la humedad relativa (%) (para estructuras al aire se introducira un valor menor que cien para estructuras sumergidas se introducirá un valor 100)	70

Tipo de cemento

- ○ Cemento normal
- ◉ Cemento rápido

Formulación

La fluencia entre los instantes t_0 y t, se obtiene siguiendo la siguiente formulación:
(siendo t_0 el instante de aplicación de la carga)

$$\varphi(t,t_0) = \varphi_0 \cdot \beta_c(t - t_0)$$

$$\varphi_0 = \varphi_{HR} \cdot \beta(f_{cm}) \cdot \beta(t_0)$$ Coeficiente básico de fluencia

$$\varphi_{HR} = 1 + \frac{100 - HR}{9.9 \cdot e^{1/3}}$$

$$\beta(f_{cm}) = \frac{16.8}{\sqrt{f_{ck} + 8}}$$

$$\beta(t_0) = \frac{1}{0.1 + t_0^{0.2}}$$

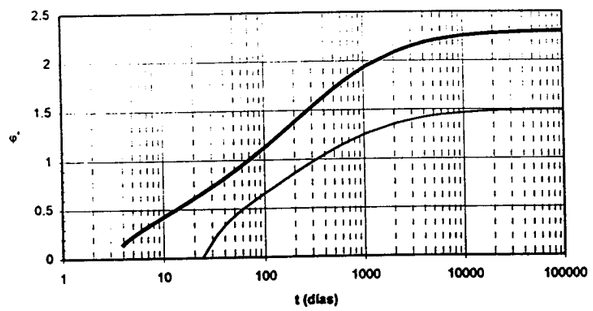
$$\beta_c(t - t_0) = \left[\frac{(t - t_0)}{\beta_H + (t - t_0)}\right]^{n_1}$$ Función que describe el desarrollo de la fluencia con el tiempo

$$\beta_H = 1.5 \cdot e \cdot \left(1 + (0.012 \cdot HR)^4\right) + 250 \le 150$$

Esta formulación es válida para tensiones en el instante t_0 menores que $0.45 \cdot f_{cm}$, para tensiones mayores la no linealidad de la fluencia se ha de evaluar multiplicando el coeficiente básico de fluencia por una expresión que depende de la relación tensión aplicada/resistencia.

La deformación dependiente de la tensión, en el instante t, puede evaluarse con el criterio siguiente:

$$\varepsilon_{cc}(t,t_0) = \sigma(t_0) \cdot \left(\frac{1}{E_{0,t_0}} + \frac{\varphi(t,t_0)}{E_{0,28}}\right)$$



El modelo de obtención del coeficiente de fluencia está referido al módulo de deformación longitudinal tangente, por lo que para obtener el coeficiente fluencia referido al secante se igualan las deformaciones totales y se obtiene:

$$\varphi'(t,t_0) = \left(\frac{1}{E_{0,t_0}} - \frac{1}{E_{t_0}} + \frac{\varphi(t,t_0)}{E_{0,28}}\right) \cdot E_{28}$$

Losa

Caso	1	2	3	4	5
t_0 (días)	3	28	3		
t_t (días)	36000	36000	28		
φ_{HR}	1.455878	1.455878	1.455878		
$\beta(f_{cm})$	2.725320	2.725320	2.725320		
$\beta(t_0)$	0.743091	0.488450	0.743091		
β_H	709.659366	709.659366	709.659366		
$\beta_c(t_t - t_0)$	0.994160	0.994156	0.362707		
φ_0	2.948385	1.938037	2.948385		
$\varphi(t_1, t_0)$	2.931	1.927	1.069		
$\varphi'(t_1, t_0)$	**2.289**	**1.488**	**0.706**		
t_2 (días)					
φ_{HR}					
$\beta(f_{cm})$					
$\beta(t_0)$					
β_H					
$\beta_c(t_t - t_0)$					
φ_0					
$\varphi(t_2, t_0)$					
$\varphi'(t_2, t_0)$					
$\varphi(t_2, t_1)$					
$\varphi'(t_2, t_1)$					

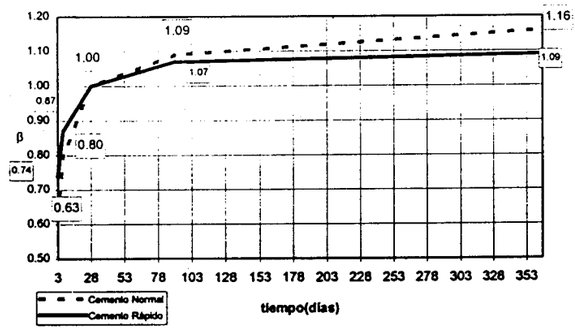
MÓDULO DE DEFORMACIÓN LONGITUDINAL

β	0.74	1.0000	0.7400
Módulo tangente			
$E_{0,28}$ (N/mm^2)	33620	33620	33620
$E_{0,to}$ (N/mm^2)	24879	33620	24879
Módulo secante			
E_{28} (N/mm^2)	28577	28577	28577
E_{to} (N/mm^2)	21147	28577	21147

$$E_{0,28} = 10000 \cdot \sqrt[3]{f_{ck} + 8} \qquad E_{28} = 8500 \cdot \sqrt[3]{f_{ck} + 8}$$

$F_{ct,k}$ (N/mm^2)	2.028
$F_{ct,m}$ (N/mm^2)	2.896
$F_{ct,k\ 0.95}$ (N/mm^2)	3.765

EVOLUCION DEL MODULO DE DEFORMACION LONGITUDINAL



Proyecto:

Seccion:CONS

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	300.0	1.50	285770	2.28	1.59
2(HO)	550.0	1.50	338219	1.23	.86
3(RD)	5100.0	1.15	2100000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) $_{\pi}$(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
F.pura -	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
C.Simple	(0)	5219.0	87.43	52072987.5
	(1)	1930.1	102.83	20710730.3
	(2)	2372.8	100.65	25277296.1
T.Simple	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: CONS

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
F.pura -	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
C.Simple	(0)	5219.0	87.43	52072987.5
	(1)	1930.1	102.83	20710730.3
	(2)	2372.8	100.65	25277296.1
T.Simple	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0

S.Intermedia CAJ

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
F.pura -	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
C.Simple	(0)	2361.3	175.09	18721876.2
	(1)	1058.9	175.09	8395460.2
	(2)	1269.5	175.09	10065524.8
T.Simple	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

** CALCULO ELASTICO **

Título Sección: CONS

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 1000.00m.T C1 CAJON
Tipo de Solicitacion: CP
Seccion Afectada: CAJ

TENSIONES (Kg/cm2):

	ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	100.6	-13.8	-9.7	0.0	0.0
2	175.1	-124.8	-99.0	0.0	0.0	2	142.5	-58.3	-42.7	0.0	0.0
3	175.1	-99.0	71.3	0.0	0.0	3	142.5	-42.7	59.8	0.0	0.0
4	175.1	71.3	94.6	0.0	0.0	4	142.5	59.8	73.8	0.0	0.0

Incrementos de Carga:
1

** CALCULO ELASTICO **

Título Sección: CONS

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Axil : -1000.00Tn. C1 CAJON
Excentricidad: 179.00cm.(respecto a la directriz)
Tipo de Solicitacion: CP
Seccion Afectada: CAJ

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1 $$$$$$	0.0	0.0	0.0	0.0	1 -35.3	-3.8	-7.0	0.0	0.0
2 $$$$$$	-63.3	-64.3	0.0	0.0	2 -144.9	-33.0	-38.7	0.0	0.0
3 $$$$$$	-64.3	-71.0	0.0	0.0	3 -144.9	-38.7	-76.1	0.0	0.0
4 $$$$$$	-71.0	-71.9	0.0	0.0	4 -144.9	-76.1	-81.2	0.0	0.0

Incrementos de Carga:
1

** CALCULO ELASTICO **

Título Sección: CONS

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 1000.00m.T C1 C+LOS
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1 87.4	-22.8	-15.0	0.0	0.0	1 102.8	-20.6	-14.6	0.0	0.0
2 87.4	-17.8	-8.5	0.0	0.0	2 102.8	-25.4	-14.9	0.0	0.0
3 87.4	-8.5	52.8	0.0	0.0	3 102.8	-14.9	54.1	0.0	0.0
4 87.4	52.8	61.1	0.0	0.0	4 102.8	54.1	63.5	0.0	0.0

Incrementos de Carga:
1

** CALCULO ELASTICO **

Título Sección: CONS

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Axil : -1000.00Tn. C1 C+LOS
Excentricidad: 90.50cm.(respecto a la directriz)
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1 $$$$$$	-25.4	-25.6	0.0	0.0	1 973.4	-24.0	-23.3	0.0	0.0
2 $$$$$$	-30.3	-30.6	0.0	0.0	2 973.4	-40.5	-39.3	0.0	0.0
3 $$$$$$	-30.6	-32.5	0.0	0.0	3 973.4	-39.3	-30.7	0.0	0.0
4 $$$$$$	-32.5	-32.7	0.0	0.0	4 973.4	-30.7	-29.6	0.0	0.0

Incrementos de Carga:
1

** CALCULO ELASTICO **

Título Sección: CONS

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 1000.00m.T C2 C+LOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1 $$$$$$	0.0	0.0	0.0	0.0	1 100.6	-20.9	-14.7	0.0	0.0
2 $$$$$$	0.0	0.0	0.0	0.0	2 100.6	-24.2	-13.9	0.0	0.0
3 $$$$$$	0.0	0.0	0.0	0.0	3 100.6	-13.9	53.9	0.0	0.0
4 $$$$$$	0.0	0.0	0.0	0.0	4 100.6	53.9	63.2	0.0	0.0

Incrementos de Carga:
1

** CALCULO ELASTICO **

Título Sección: CONS

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Axil : -1000.00Tn. C2 C+LOS
Excentricidad: 90.50cm.(respecto a la directriz)
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1 $$$$$$	0.0	0.0	0.0	0.0	1 $$$$$$	-24.3	-23.6	0.0	0.0
2 $$$$$$	0.0	0.0	0.0	0.0	2 $$$$$$	-38.9	-37.9	0.0	0.0
3 $$$$$$	0.0	0.0	0.0	0.0	3 $$$$$$	-37.9	-31.0	0.0	0.0
4 $$$$$$	0.0	0.0	0.0	0.0	4 $$$$$$	-31.0	-30.1	0.0	0.0

Incrementos de Carga:
1

B) COMPROBACIÓN DE FISURACIÓN

A continuación se comprueba fisuración y para ello se analizan las siguientes fibras:

- Fibra superior del rajón: En las fases constructivas del tablero se generan tracciones, si bien a tiempo infinito estas tracciones desaparecen casi por completo (la tracción máxima en el rajón a ∞ infinito es de 4'64 kg/cm²)

- Fibra inferior del rajón:

El límite de tracción del hormigón del rajón es de

$$f_{ctm} = 0{,}30 \sqrt[3]{f_{ck}^2} = 0{,}30 \sqrt[3]{60^2} = 45{,}98 \text{ kg/cm}^2$$

Bajo sobrecarga cuasipermanente y considerando los efectos de los cables de pretensado realizados en el apartado anterior se obtienen unas tensiones de tracción pequeñas (del orden de 5 kg/cm²) se debe resaltar que en la combinación de carga cuasipermanente se ha considerado el 20% de la sobrecarga correspondiente al tren IPF (tanto en el baremo de IPF como en EC-1 la contribución del tren en la combinación cuasipermanente es nula)

• Fibra superior de la losa

El Limite de tracción del hormigón de la losa es

$f_{ctm} = C30\sqrt[3]{35^2} > 10 = 32'8$ kp/cm²

las tensiones máximas a tiempo ∞ bajo sobrecarga frecuente son 27 kg/cm²

A tiempo infinito estas tensiones se reducen hasta los 14 kg/cm²

Adicionalmente se deben considerar las fuerzas debidas a rozamiento de teflones y fuerzas horizontales de frenado, Dichas fuerzas se estiman (a falta de datos) en 200 ton/m (se ha tomado el mismo valor que en el viaducto V-2)

Esta fuerza horizontal produce tensiones adicionales a las obtenidas con el programa DIANET

Al igual que en los viaductos anteriores esta solicitación no es condicionante

Así en sobrecarga infrecuente la fuerza de 200/ton supone una tensión de:

$$200/3'893 = 51'4 \text{ ton/m}^2 = 5'14 \text{ kg/cm}^2$$

Esta tensión es totalmente admisible.

Bajo la combinación frecuente se tienen las siguientes tensiones de tracción:

- Fibra inferior cajón. (centro de vano)

$\sigma_{tracción\ inf} = 34'67 + 0'6 \times 5'14 = 34'67 + 3'08 =$

$= 37'8$ kg/cm²

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

- Fibra superior de losa (pila)

$\sigma_{traccion} = 27'75 + 0{,}6 \times 5'4 = 27'75 + 3'08 =$

$= 30'83 \ kg/cm^2$

$< f_{ctm}$ (HP-35)

- Fibra superior del cajón: durante el proceso constructivo se obtienen tracciones en esta fibra en la zona situada a continuación del postesado de la losa; como se visto estas tracciones desaparecen a tiempo infinito, no obstante se realiza un estudio más detallado de esta sección

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

FIBRA SUPERIOR CAJÓN:

Se tienen las siguientes esfuerzos en los nudos 20 y 120 (estos nudos se localizan en los puntos de corte del postesado de la losa)

PPCF1 = 606'93 mton

Pretensado PS = 8 ϕ 0'6" = 165'72 ton

PI = 110 ϕ 0'6" = 2279'2 ton

PPLF2 = 87'93 mton

PPLF3 = -125'15 mton

Tan solo se consideran los esfuerzos correspondientes a las fases de montaje y que son los que producen tracciones en la fibra superior del cajón, también se considera el pretensado en dichos fases, puesto que los esfuerzos positivos (tienden a reducir las tracciones en la fibra superior de la viga)

Proyecto:
V-3 [redacted]TA OLIVA

Seccion:INF1

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	28.0	13.4	270.4	*T	0
8	4	28.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	0.0	16.0	35.0	CT	0
14	3	4.0	20.0	35.0	CT	0
15	3	4.0	20.0	55.0	CT	0

SECCIONES INTERMEDIAS

Num	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 13 14 15
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2781.6	25.55	8695459.9
	(1)	1143.5	47.04	7783084.4
	(2)	1514.6	38.78	8109478.4
F.pura -	(0)	1121.2	245.08	6382708.7
	(1)	539.1	214.75	5461546.3
	(2)	652.5	224.73	5758248.2
C.Simple	(0)	5645.9	89.88	58706054.7
	(1)	1745.9	96.73	19832025.6
	(2)	2450.0	93.88	26878074.3
T.Simple	(0)	245.9	157.28	3877080.4
	(1)	245.9	157.28	3877080.4
	(2)	245.9	157.28	3877080.4

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

**** CALCULO ELASTICO ****

T╒tulo Secci├n: INF1

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 2279.20Tn.
P.relajacion: 5.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: C+P

Incremento de Carga 2 :
Pretensado: 165.76Tn.
P.relajacion: 5.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: C+P

TENSIONES (Kg/cm2):

	ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	24.9	16.9	-3.5	0.0	0.0
2	76.2	70.6	24.8	0.0	0.0	2	35.5	4.9	-22.2	0.0	0.0
3	76.2	24.8	-277.7	0.0	0.0	3	35.5	-22.2	-201.2	0.0	0.0
4	76.2	-277.7	-318.9	0.0	0.0	4	35.5	-201.2	-225.6	0.0	0.0
5	$$$$$$	13187.5	13177.0	0.0	13187.5	5	828.9	9878.4	9854.3	0.0	9878.4
6	$$$$$$	13225.6	13215.0	0.0	13225.6	6	828.9	9964.7	9940.7	0.0	9964.7
7	$$$$$$	13263.6	13253.0	0.0	13263.6	7	828.9	10051.1	10027.1	0.0	10051.1
8	$$$$$$	13303.3	13292.7	0.0	13303.3	8	828.9	10141.1	10117.1	0.0	10141.1
9	$$$$$$	15050.2	15039.6	0.0	15050.2	9	828.9	14107.4	14083.4	0.0	14107.4
10	$$$$$$	0.0	0.0	0.0	0.0	10	24.9	233.5	219.4	0.0	233.5
11	$$$$$$	0.0	0.0	0.0	0.0	11	24.9	69.1	55.0	0.0	69.1
12	$$$$$$	0.0	0.0	0.0	0.0	12	24.9	-2821.0	-2850.4	0.0	2850.4
13	76.2	381.3	366.5	0.0	381.3	13	47.5	262.4	228.8	0.0	262.4
14	76.2	381.3	362.8	0.0	381.3	14	47.5	262.4	220.4	0.0	262.4
15	76.2	196.4	177.9	0.0	196.4	15	47.5	-157.5	-199.5	0.0	199.5

Incrementos de Carga:
1 2

Incremento de Carga 3 :
Flector : 569.71m.T PP+LOSA
Tipo de Solicitacion: CP
Seccion Afectada: C+P

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$	0.0	0.0	0.0	0.0	1	11.0	6.4	-11.0	0.0	0.0
2	33.9	4.3	-28.2	0.0	0.0	2	24.7	-4.1	-27.3	0.0	0.0
3	33.9	-28.2	-242.1	0.0	0.0	3	24.7	-27.3	-180.6	0.0	0.0
4	33.9	-242.1	-271.2	0.0	0.0	4	24.7	-180.6	-201.5	0.0	0.0
5	$$$$$$	13423.4	13416.0	0.013	423.4	5	$$$$$$	10384.2	10365.3	0.010	384.2
6	$$$$$$	13450.3	13442.9	0.013	450.3	6	$$$$$$	10452.1	10433.2	0.010	452.1
7	$$$$$$	13477.2	13469.8	0.013	477.2	7	$$$$$$	10520.1	10501.2	0.010	520.1
8	$$$$$$	13505.3	13497.8	0.013	505.3	8	$$$$$$	10590.8	10571.9	0.010	590.8
9	$$$$$$	14740.6	14733.1	0.014	740.6	9	$$$$$$	13710.0	13691.1	0.013	710.0
10	$$$$$$	0.0	0.0	0.0	0.0	10	11.0	60.1	48.1	0.0	60.1
11	$$$$$$	0.0	0.0	0.0	0.0	11	11.0	-79.6	-91.5	0.0	91.5
12	$$$$$$	0.0	0.0	0.0	0.0	12	11.0	-2532.7	-2557.7	0.0	2557.7
13	33.9	-6.9	-17.4	0.0	17.4	13	20.1	-246.0	-272.5	0.0	272.5
14	33.9	-6.9	-20.0	0.0	20.0	14	20.1	-246.0	-279.1	0.0	279.1
15	33.9	-137.7	-150.8	0.0	150.8	15	20.1	-576.3	-609.3	0.0	609.3

Incrementos de Carga:

1 2 3

Proyecto:
V-3 STA OLIVA

Seccion:INF1

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	28.0	13.4	270.4	*T	0
8	4	28.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	0.0	16.0	35.0	CT	0
14	3	4.0	20.0	35.0	CT	0
15	3	4.0	20.0	55.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 13 14 15
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2781.6	25.55	8695459.9
	(1)	1143.5	47.04	7783084.4
	(2)	1514.6	38.78	8109478.4
F.pura -	(0)	1121.2	245.08	6382708.7
	(1)	539.1	214.75	5461546.3
	(2)	652.5	224.73	5758248.2
C.Simple	(0)	5645.9	89.88	58706054.7
	(1)	1745.9	96.73	19832025.6

	(2)	2450.0	93.88	26878074.3
T.Simple	(0)	245.9	157.28	3877080.4
	(1)	245.9	157.28	3877080.4
	(2)	245.9	157.28	3877080.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

** CALCULO ELASTICO **

Titulo Seccion: INF1

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :

Pretensado: 2279.20Tn.
P.relajacion: 5.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: C+P

Incremento de Carga 2 :

Pretensado: 165.76Tn.
P.relajacion: 5.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: C+P

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	33.5	0.0	0.0	0.0	0.0
2	120.9	0.0	0.0	0.0	0.0	2	62.1	0.0	0.0	0.0	0.0
3	120.9	0.0	-286.0	0.0	0.0	3	62.1	0.0	-198.6	0.0	0.0
4	120.9	-286.0	-342.3	0.0	0.0	4	62.1	-198.6	-226.0	0.0	0.0
5	$$$$$$	13080.7	13066.3	0.0	13080.7	5	748.8	9836.3	9808.3	0.0	9836.3
6	$$$$$$	13132.7	13118.2	0.0	13132.7	6	748.8	9937.0	9909.0	0.0	9937.0
7	$$$$$$	13184.6	13170.2	0.0	13184.6	7	748.8	10037.8	10009.7	0.0	10037.8
8	$$$$$$	13238.8	13224.3	0.0	13238.8	8	748.8	10142.7	10114.7	0.0	10142.7
9	$$$$$$	15624.6	15610.1	0.0	15624.6	9	748.8	14767.5	14739.5	0.0	14767.5
10	$$$$$$	0.0	0.0	0.0	0.0	10	33.5	337.6	323.4	0.0	337.6
11	$$$$$$	0.0	0.0	0.0	0.0	11	33.5	171.7	157.5	0.0	171.7
12	$$$$$$	0.0	0.0	0.0	0.0	12	33.5	-2743.9	-2773.5	0.0	2773.5
13	120.9	1085.3	1065.1	0.0	1085.3	13	78.6	1067.4	1028.2	0.0	1067.4
14	120.9	1085.3	1060.0	0.0	1085.3	14	78.6	1067.4	1018.4	0.0	1067.4
15	120.9	832.7	807.4	0.0	832.7	15	78.6	577.7	528.8	0.0	577.7

Incrementos de Carga:
1 2

Incremento de Carga 3 :

Flector : 569.71m.T PP+LOSA
Tipo de Solicitacion: CP
Seccion Afectada: C+P

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	30.1	0.0	0.0	0.0	0.0
2	34.1	0.0	-28.0	0.0	0.0	2	9.1	-14.6	-35.5	0.0	0.0
3	34.1	-28.0	-242.1	0.0	0.0	3	9.1	-35.5	-173.7	0.0	0.0
4	34.1	-242.1	-271.3	0.0	0.0	4	9.1	-173.7	-192.6	0.0	0.0
5	$$$$$$	13423.2	13415.7	0.0	13423.2	5	$$$$$$	10458.4	10439.0	0.0	10458.4
6	$$$$$$	13450.1	13442.6	0.0	13450.1	6	$$$$$$	10528.0	10508.7	0.0	10528.0
7	$$$$$$	13477.1	13469.6	0.0	13477.1	7	$$$$$$	10597.7	10578.3	0.0	10597.7
8	$$$$$$	13505.1	13497.6	0.0	13505.1	8	$$$$$$	10670.3	10650.9	0.0	10670.3
9	$$$$$$	14741.5	14734.0	0.0	14741.5	9	$$$$$$	13868.9	13849.5	0.0	13868.9
10	$$$$$$	0.0	0.0	0.0	0.0	10	30.1	260.9	248.4	0.0	260.9
11	$$$$$$	0.0	0.0	0.0	0.0	11	30.1	115.5	103.0	0.0	115.5
12	$$$$$$	0.0	0.0	0.0	0.0	12	30.1	-2439.7	-2465.7	0.0	2465.7
13	34.1	-5.8	-16.3	0.0	16.3	13	31.7	-56.5	-83.6	0.0	83.6
14	34.1	-5.8	-18.9	0.0	18.9	14	31.7	-56.5	-90.4	0.0	90.4
15	34.1	-136.7	-149.8	0.0	149.8	15	31.7	-395.2	-429.0	0.0	429.0

Incrementos de Carga:
1 2 3

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

En el cálculo sin fisuración realizado se observa que aparecen unas tracciones de 4 kg/cm² lo que indica a pesar que la anchura de fisura será muy pequeña, se realiza también un estudio considerando fisuración del rajón. Se observa que las diferencias son mínimas entre ambas situaciones

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

FIBRA SUPERIOR LOSA.

Los esfuerzos actuantes son: (NUDO 123)

PPLF2:	-2225'40	mton	Sección C+P
PPLF3:	-652'70	mton	" total
CM	-1817'38	mton	" "
PASEOS: M_2	-159'82	mton	" "
IPF75B: M_2	-1810'87	mton	" "

Preflexado: se considera el postesado de losa:

15x7ϕ0'6": 2072x105 = 2175'6 ton Elos

Se supone una armadura en la losa de ϕ20 a 10 cm.

Se hace un proceso de carga paso a paso.

Similar al de secciones anteriores

Proyecto:
V-3 [redacted]A OLIVA

Seccion:PIL

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	285770	2.60	1.45
2(HO)	600.0	1.50	338219	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	0.0	0.0	0.0	*T	0
7	4	0.0	0.0	0.0	*T	0
8	4	0.0	0.0	0.0	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	4	105.0	13.4	18.0	*T	0
13	1	130.0	25.0	233.0	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9
4	PS	9
5	PI	6 7 8 5
6	PLOS	12

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1946.2	14.04	2510590.3
	(1)	1148.9	20.41	2402833.1
	(2)	1328.7	18.51	2433160.0
F.pura -	(0)	2214.5	191.63	25179764.2
	(1)	1158.7	127.19	15539101.4
	(2)	1369.3	147.24	18476183.7
C.Simple	(0)	6270.2	92.95	67280546.5
	(1)	2181.6	80.15	21750086.1
	(2)	2919.7	85.11	30083460.2
T.Simple	(0)	609.0	29.45	2278045.8
	(1)	609.0	29.45	2278045.8
	(2)	609.0	29.45	2278045.8

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

** CALCULO ELASTICO **

T$_{\Gamma}$tulo Secci$_{\vdash}$n: PIL

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -225.40m.T PPLF2
Tipo de Solicitacion: CP
Seccion Afectada: C+P

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	29.4	0.0	-0.0	0.0	0.0
2	273.4	0.0	0.0	0.0	0.0	2	268.4	0.0	0.0	0.0	0.0
3	273.4	0.0	0.0	0.0	0.0	3	268.4	0.0	0.0	0.0	0.0
4	273.4	0.0	-81.9	0.0	0.0	4	268.4	0.0	-33.1	0.0	0.0
5	273.4	-248.0	-298.1	0.0	298.1	5	267.3	-489.0	-540.4	0.0	540.4
6	273.4	10264.8	10264.8	0.0	10264.8	6	267.3	10293.1	10293.1	0.0	10293.1
7	273.4	10264.8	10264.8	0.0	10264.8	7	267.3	10293.1	10293.1	0.0	10293.1
8	273.4	10264.8	10264.8	0.0	10264.8	8	267.3	10293.1	10293.1	0.0	10293.1
9	273.4	8575.3	8525.2	0.0	8575.3	9	267.3	8560.3	8508.9	0.0	8560.3
10	$$$$$$	0.0	0.0	0.0	0.0	10	29.4	27.4	25.1	0.0	27.4
11	$$$$$$	0.0	0.0	0.0	0.0	11	29.4	11.7	9.4	0.0	11.7
12	$$$$$$	0.0	0.0	0.0	0.0	12	29.4	11.0	9.7	0.0	11.0
13	$$$$$$	0.0	0.0	0.0	0.0	13	29.4	-12.7	-14.2	0.0	0.0

Incrementos de Carga:
1

Incremento de Carga 2 :
Flector : -652.70m.T PPLF3
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	166.3	0.0	0.0	0.0	0.0	1	88.4	0.0	0.0	0.0	0.0
2	266.6	0.0	0.0	0.0	0.0	2	252.8	0.0	0.0	0.0	0.0
3	266.6	0.0	0.0	0.0	0.0	3	252.8	0.0	-11.5	0.0	0.0
4	266.6	0.0	-139.0	0.0	0.0	4	252.8	-11.5	-71.0	0.0	0.0
5	266.6	-539.1	-592.6	0.0	592.6	5	252.0	-1194.9	-1251.8	0.0	1251.8
6	266.6	10690.6	10690.6	0.0	10690.6	6	252.0	10741.0	10741.0	0.0	10741.0
7	266.6	10690.6	10690.6	0.0	10690.6	7	252.0	10741.0	10741.0	0.0	10741.0
8	266.6	10690.6	10690.6	0.0	10690.6	8	252.0	10741.0	10741.0	0.0	10741.0
9	266.6	8885.8	8832.3	0.0	8885.8	9	252.0	8822.7	8765.8	0.0	8822.7
10	166.3	481.8	475.8	0.0	481.8	10	93.7	525.8	514.0	0.0	525.8

11	166.3	440.0	434.0	0.0	440.0	11	93.7	442.8	431.0	0.0	442.8
12	166.3	379.7	376.2	0.0	379.7	12	93.7	384.7	377.9	0.0	384.7
13	166.3	-27.1	-37.3	0.0	0.0	13	88.4	-35.3	-41.4	0.0	0.0

Incrementos de Carga:
1 2

Incremento de Carga 3 :

Flector : -1817.38m.T CM
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	177.0	0.0	0.0	0.0	0.0	1	107.2	0.0	0.0	0.0	0.0
2	254.7	0.0	0.0	0.0	0.0	2	225.6	0.0	0.0	0.0	0.0
3	254.7	0.0	-29.0	0.0	0.0	3	225.6	0.0	-89.5	0.0	0.0
4	254.7	-29.0	-265.3	0.0	0.0	4	225.6	-89.5	-164.0	0.0	0.0
5	254.7	-1179.1	-1241.3	0.0	1241.3	5	225.1	-2922.8	-2993.9	0.0	2993.9
6	254.7	11864.6	11864.6	0.0	11864.6	6	225.1	11981.6	11981.6	0.0	11981.6
7	254.7	11864.6	11864.6	0.0	11864.6	7	225.1	11981.6	11981.6	0.0	11981.6
8	254.7	11864.6	11864.6	0.0	11864.6	8	225.1	11981.6	11981.6	0.0	11981.6
9	254.7	9768.2	9706.1	0.0	9768.2	9	225.1	9586.2	9515.2	0.0	9586.2
10	177.0	1813.6	1792.5	0.0	1813.6	10	109.5	1911.4	1874.8	0.0	1911.4
11	177.0	1666.0	1644.9	0.0	1666.0	11	109.5	1655.2	1618.6	0.0	1655.2
12	177.0	1437.0	1424.9	0.0	1437.0	12	109.5	1434.4	1413.5	0.0	1434.4
13	177.0	-80.4	-116.3	0.0	0.0	13	107.2	-89.5	-107.3	0.0	0.0

Incrementos de Carga:
1 2 3

Incremento de Carga 4 :

Pretensado: 2175.60Tn.
P.relajacion: 5.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PLOS
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	-123.6	-40.7	-50.5	0.0	0.0	1	-68.4	-23.3	-33.6	0.0	0.0
2	252.6	0.0	0.0	0.0	0.0	2	217.3	0.0	0.0	0.0	0.0
3	252.6	0.0	-40.0	0.0	0.0	3	217.3	0.0	-94.3	0.0	0.0
4	252.6	-40.0	-241.0	0.0	0.0	4	217.3	-94.3	-157.0	0.0	0.0
5	252.6	-1084.5	-1137.4	0.0	1137.4	5	216.9	-2830.7	-2890.6	0.0	2890.6
6	252.6	10008.7	10008.7	0.0	10008.7	6	216.9	9722.4	9722.4	0.0	9722.4
7	252.6	10008.7	10008.7	0.0	10008.7	7	216.9	9722.4	9722.4	0.0	9722.4
8	252.6	10008.7	10008.7	0.0	10008.7	8	216.9	9722.4	9722.4	0.0	9722.4
9	252.6	8225.9	8173.0	0.0	8225.9	9	216.9	7704.9	7645.1	0.0	7704.9
10	-123.6	-310.9	-315.8	0.0	315.8	10	-74.4	-675.3	-692.3	0.0	692.3
11	-123.6	-344.8	-349.6	0.0	349.6	11	-74.4	-794.4	-811.4	0.0	811.4
12	$$$$$	14509.1	14506.4	0.0	14509.1	12	$$$$$	13388.9	13379.1	0.0	13388.9
13	-123.6	-117.3	-125.6	0.0	0.0	13	-68.4	-102.8	-111.4	0.0	0.0

Incrementos de Carga:
1 2 3 4

Incremento de Carga 5 :

Flector : -159.82m.T PASEO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	-102.5	-37.6	-48.6	0.0	0.0	1	-53.8	-20.2	-31.5	0.0	0.0
2	251.6	0.0	0.0	0.0	0.0	2	215.1	0.0	0.0	0.0	0.0
3	251.6	0.0	-47.8	0.0	0.0	3	215.1	0.0	-101.3	0.0	0.0
4	251.6	-47.8	-250.0	0.0	0.0	4	215.1	-101.3	-165.1	0.0	0.0
5	251.6	-1131.3	-1184.5	0.0	1184.5	5	216.2	-2872.6	-2932.7	0.0	2932.7
6	251.6	10028.2	10028.2	0.0	10028.2	6	216.2	9741.9	9741.9	0.0	9741.9
7	251.6	10028.2	10028.2	0.0	10028.2	7	216.2	9741.9	9741.9	0.0	9741.9
8	251.6	10028.2	10028.2	0.0	10028.2	8	216.2	9741.9	9741.9	0.0	9741.9
9	251.6	8234.7	8181.5	0.0	8234.7	9	216.2	7714.6	7654.4	0.0	7714.6
10	-102.5	-289.5	-294.9	0.0	294.9	10	-69.7	-653.9	-671.4	0.0	671.4
11	-102.5	-327.2	-332.6	0.0	332.6	11	-69.7	-776.5	-794.0	0.0	794.0
12	$$$$$	14524.4	14521.3	0.0	14524.4	12	$$$$$	13404.4	13394.4	0.0	13404.4
13	-102.5	-123.0	-132.2	0.0	0.0	13	-53.8	-107.9	-117.3	0.0	0.0

Incrementos de Carga:
1 2 3 4 5

Incremento de Carga 6 :

Flector : -1810.87m.T IPF75-B
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

(compresiones)

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	-3.2	-2.5	-26.1	0.0	0.0	1	40.4	0.0	0.0	0.0	0.0
2	241.2	0.0	0.0	0.0	0.0	2	196.5	0.0	0.0	0.0	0.0
3	241.2	0.0	-134.3	0.0	0.0	3	196.5	0.0	-178.9	0.0	0.0
4	241.2	-134.3	-349.9	0.0	0.0	4	196.5	-178.9	-257.5	0.0	0.0
5	241.2	-1649.6	-1706.4	0.0	1706.4	5	210.2	-3349.8	-3413.9	0.0	3413.9
6	241.2	10249.1	10249.1	0.0	10249.1	6	210.2	10083.0	10083.0	0.0	10083.0
7	241.2	10249.1	10249.1	0.0	10249.1	7	210.2	10083.0	10083.0	0.0	10083.0
8	241.2	10249.1	10249.1	0.0	10249.1	8	210.2	10083.0	10083.0	0.0	10083.0
9	241.2	8336.8	8280.1	0.0	8336.8	9	210.2	7924.1	7860.1	0.0	7924.1
10	-3.2	-47.3	-58.8	0.0	58.8	10	-17.4	-273.0	-297.3	0.0	297.3
11	-3.2	-128.1	-139.6	0.0	139.6	11	-17.4	-443.3	-467.7	0.0	467.7
12	$$$$$	14697.7	14691.1	0.0	14697.7	12	$$$$$	13692.9	13679.0	0.0	13692.9
13	-3.2	-185.6	-205.2	0.0	0.0	13	40.4	-161.8	-182.8	0.0	0.0

(compresiones)

Incrementos de Carga:
1 2 3 4 5 6

c) CONTROL DE DEFORMACIONES

DESCENSO VERTICAL

Se comprueba la deflexión vertical debida a las cargas, teniendo en cuenta el coeficiente dinámico, se verifica:

$f < L/2100$ $\forall$ $L \in (30m; 50m)$

$V \in (250 km/h; 350 km/h)$

Vano central ($L = 40'00 m$)

tramo izdo: $-1'02$ cm

tramo dcho: $-1'01$ cm.

$u = (-1'02) \times 1'08 \times 1'20 = 1'322$ cm $\leq \frac{4000}{2100} = 1'91$ cm

(1'08 = coef. impacto; 1'20 = coef. reparto)

OK

Vano lateral

tramo izdo $= -0'90$ cm

tramo dcho $= -0'97$ cm

$u = (-0'97) \times 1'08 \times 1'20 = 1'26$ cm $< \frac{3471}{2100} = 1'63$

OK

Giro en transición entre estribo y tablero:

Nudo 34	Gz +	Gz -	(RAD)
Transizdo:	0'0004	-0'0001	
Trer dcho	0'0010	-0'0002	

En todos los casos son menores que $3'5 \cdot 10^{-3}$ rd

2.2.3.6 COMPROBACIÓN EN ESTADO LÍMITE ÚLTIMO DE AGOTAMIENTO

Se obtienen a continuación las envolventes de rotura con los siguientes coeficientes de seguridad:
(obtenidos para flexión y cortante, no para fatiga)

	γ_{min}	γ_{max}	
cargas permanentes	0'90	1'35	
Pretensado	0'95	1'05	Pretensado
	0'90	1'10	Asfaseado
Redistribuciones	0'90	1'35	
PASEO	0	1'50	
TRENJDF75B	0	1'50 *	
GRADIENTE TÉRMICO	0	1'50	

Cuando se combina tren y gradiente se emplean los siguientes coeficientes de combinación:

- Tren dominante ⇒ Gradiente x 0'6
- Gradiente dominante ⇒ tren x 0'8

* En las combinaciones el trenJDF75B se multiplicará por: 1'30
1'30 = 1'20 x 1'08
↳ tiene en cuenta excentricidad del frén
↳ Coeficiente de impacto

En la comprobación del estado límite último se ha realizado considerando un estado inicial sin pérdidas diferidas de pretensado, ni redistribuciones, y un estado final en el que se incluyen dichas pérdidas diferidas de pretensado y redistribuciones.

Se presentan los listados correspondientes a las combinaciones realizadas

```
9
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret1.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp1.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp2.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret3.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp3.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~csimp4.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_simp","~cpret4.coe"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_comb","spret.esf"
"C:\PROYECTOS\26822 AVE VENDRELL\HIPERESTATICOS\V3\DINTEL\hip_comb","IPF75.esf"
14
"ESFUERZOS"
"ELU.T0.MZ+"," SIN GRADIENTE DOMINANTE"
"MZ"
"+"
0
13
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
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"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
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"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
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"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,1.5,"P",0,"","
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"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.994,"P",0,"",""
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.994,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"ESFUERZOS"
"ELU.T0.MZ+"," CON GRADIENTE DOMINANTE"
"MZ"
"+"
0
13
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
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"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
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""
"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,1.2,"P",0,"","
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"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.5952,"P",0,"",""
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.5952,"P",0,"",""
"GRAD","(GRADIENTE)",0,1.5,"P",0,"",""
"ESFUERZOS"
"ELU.T0.MZ-"," SIN GRADIENTE DOMINANTE"
"MZ"
"-"
0
13
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
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"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
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"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(Envolventedetrendecargasplanogen,rico.MZ-
)",0,1.5,"P",0,"",""
"IPF75BI.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,1.994,"P",0,"",""
"IPF75BD.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,1.994,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"ESFUERZOS"
"ELU.TINF.MZ+"," SIN GRADIENTE DOMINANTE"
"MZ"
"+"
0
15
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
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"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,1.5,"P",0,"","
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"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.994,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",.9,1.35,"P",0,"",""
"REDPRE","(REDISTRIBUCIàN HIP PRET)",.9,1.35,"P",0,"",""
"ESFUERZOS"
"ELU.TINF.MZ+"," CON GRADIENTE DOMINANTE"
"MZ"
"+"
0
15
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
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"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
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"SCUPASEODERE.ENV_TREN_GENERICO.MZ+","(Envolventedetrendecargasplanogen,rico.MZ+)",0,1.2,"P",0,"","
"
"IPF75BI.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.5952,"P",0,"",""
"IPF75BD.MZ+","(Envolventedetrendecargasplanogen'rico.MZ+)",0,1.5952,"P",0,"",""
"GRAD","(GRADIENTE)",0,1.5,"P",0,"",""
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",.9,1.35,"P",0,"",""
"REDPRE","(REDISTRIBUCIàN HIP PRET)",.9,1.35,"P",0,"",""
"ESFUERZOS"
"ELU.TINF.MZ-"," SIN GRADIENTE DOMINANTE"
"MZ"
"-"
0
15
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
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"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
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)",0,1.5,"P",0,"",""
"SCUPASEODERE.ENV_TREN_GENERICO.MZ-","(Envolventedetrendecargasplanogen,rico.MZ-
)",0,1.5,"P",0,"",""
"IPF75BI.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,1.994,"P",0,"",""
"IPF75BD.MZ-","(Envolventedetrendecargasplanogen'rico.MZ-)",0,1.994,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",.9,1.35,"P",0,"",""
"REDPRE","(REDISTRIBUCIàN HIP PRET)",.9,1.35,"P",0,"",""
"ESFUERZOS"
"ELU.T0.VY+"," CON GRADIENTE"
"VY"
"+"
0
17
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"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
```

```
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
"SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+","(Envolventedetrendecargasplanogen,rico.VY+)",0,1.5,"P",0,"",
""
"SCUPASEODERE.ENV_TREN_GENERICO.VY+","(Envolventedetrendecargasplanogen,rico.VY+)",0,1.5,"P",0,"","
"
"IPF75BI.VY+","(Envolventedetrendecargasplanogen'rico.VY+)",0,1.944,"P",0,"",""
"IPF75BD.VY+","(Envolventedetrendecargasplanogen'rico.VY+)",0,1.944,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"ESFUERZOS"
"ELU.T0.VY-"," CON GRADIENTE"
"VY"
"-"
0
17
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
"SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-","(Envolventedetrendecargasplanogen,rico.VY-
)",0,1.5,"P",0,"",""
"SCUPASEODERE.ENV_TREN_GENERICO.VY-","(Envolventedetrendecargasplanogen,rico.VY-
)",0,1.5,"P",0,"",""
"IPF75BI.VY-","(Envolventedetrendecargasplanogen'rico.VY-)",0,1.944,"P",0,"",""
"IPF75BD.VY-","(Envolventedetrendecargasplanogen'rico.VY-)",0,1.944,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"ESFUERZOS"
"ELU.TINF.VY+"," CON GRADIENTE"
"VY"
"+"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
"SCUPASEOIZQUI.ENV_TREN_GENERICO.VY+","(Envolventedetrendecargasplanogen,rico.VY+)",0,1.5,"P",0,"",
""
"SCUPASEODERE.ENV_TREN_GENERICO.VY+","(Envolventedetrendecargasplanogen,rico.VY+)",0,1.5,"P",0,"","
"
"IPF75BI.VY+","(Envolventedetrendecargasplanogen'rico.VY+)",0,1.944,"P",0,"",""
"IPF75BD.VY+","(Envolventedetrendecargasplanogen'rico.VY+)",0,1.944,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",.9,1.35,"P",0,"",""
"REDPRE","(REDISTRIBUCIàN HIP PRET)",.9,1.35,"P",0,"",""
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"",""
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"",""
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.165,"P",0,"",""
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.165,"P",0,"",""
"ESFUERZOS"
"ELU.TINF.VY-"," CON GRADIENTE"
"VY"
"-"
0
23
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
"SCUPASEOIZQUI.ENV_TREN_GENERICO.VY-","(Envolventedetrendecargasplanogen,rico.VY-
)",0,1.5,"P",0,"",""
"SCUPASEODERE.ENV_TREN_GENERICO.VY-","(Envolventedetrendecargasplanogen,rico.VY-
)",0,1.5,"P",0,"",""
"IPF75BI.VY-","(Envolventedetrendecargasplanogen'rico.VY-)",0,1.944,"P",0,"",""
"IPF75BD.VY-","(Envolventedetrendecargasplanogen'rico.VY-)",0,1.944,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",.9,1.35,"P",0,"",""
"REDPRE","(REDISTRIBUCIàN HIP PRET)",.9,1.35,"P",0,"",""
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"",""
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"",""
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.165,"P",0,"",""
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.165,"P",0,"",""
"ESFUERZOS"
"ELU.T0.MX+"," CON GRADIENTE"
"MX"
"+"
0
18
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+","(Envolventedetrendecargasplanogen,rico.MX+)",0,1.5,"P",0,"",
""
"SCUPASEODERE.ENV_TREN_GENERICO.MX+","(Envolventedetrendecargasplanogen,rico.MX+)",0,1.5,"P",0,"","
"
"IPF75BI.MX+","(Envolventedetrendecargasplanogen'rico.MX+)",0,1.944,"P",0,"",""
"IPF75BD.MX+","(Envolventedetrendecargasplanogen'rico.MX-)",0,1.944,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"LTORSION","",0,1.35,"P",0,"",""
"ESFUERZOS"
"ELU.T0.MX-"," CON GRADIENTE"
"MX"
"-"
0
18
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-","(Envolventedetrendecargasplanogen,rico.MX-
)",0,1.5,"P",0,"",""
"SCUPASEODERE.ENV_TREN_GENERICO.MX-","(Envolventedetrendecargasplanogen,rico.MX-
)",0,1.5,"P",0,"",""
"IPF75BI.MX-","(Envolventedetrendecargasplanogen'rico.MX-)",0,1.944,"P",0,"",""
"IPF75BD.MX-","(Envolventedetrendecargasplanogen'rico.MX-)",0,1.944,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"LTORSION","",0,1.35,"P",0,"",""
"ESFUERZOS"
```

```
"ELU.TINF.MX+"," CON GRADIENTE"
"MX"
"+"
0
24
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MX+","(Envolventedetrendecargasplanogen,rico.MX+)",0,1.5,"P",0,"",
""
"SCUPASEODERE.ENV_TREN_GENERICO.MX+","(Envolventedetrendecargasplanogen,rico.MX+)",0,1.5,"P",0,"","
"
"IPF75BI.MX+","(Envolventedetrendecargasplanogen'rico.MX+)",0,1.944,"P",0,"",""
"IPF75BD.MX+","(Envolventedetrendecargasplanogen'rico.MX+)",0,1.944,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",.9,1.35,"P",0,"",""
"REDPRE","(REDISTRIBUCIàN HIP PRET)",.9,1.35,"P",0,"",""
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"",""
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"",""
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.165,"P",0,"",""
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.165,"P",0,"",""
"LTORSION","",0,1.35,"P",0,"",""
"ESFUERZOS"
"ELU.TINF.MX-"," CON GRADIENTE"
"MX"
"-"
0
24
"PPCF1","(PESODELCAJàNENFASE1)",.9,1.35,"P",0,"",""
"PPLF3","(PESOPROPIODELAFASE3)",.9,1.35,"P",0,"",""
"PPLF2","(PESOPROPIODELAFASE2)",.9,1.35,"P",0,"",""
"PRETF1I.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1I.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.ISO.To","(PretensadoIsost tico(t=0))",.95,1.05,"P",0,"",""
"PRETF1D.HIP.To","(PretensadoHiperest tico(t=0))",.95,1.05,"P",0,"",""
"PRETF3I.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3I.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.ISO.To","(PretensadoIsost tico(t=0))",.9,1.1,"P",0,"",""
"PRETF3D.HIP.To","(PretensadoHiperest tico(t=0))",.9,1.1,"P",0,"",""
"CMmax","(CARGAMUERTAMAXIMA)",.612,1.35,"P",0,"",""
"SCUPASEOIZQUI.ENV_TREN_GENERICO.MX-","(Envolventedetrendecargasplanogen,rico.MX-
)",0,1.5,"P",0,"",""
"SCUPASEODERE.ENV_TREN_GENERICO.MX-","(Envolventedetrendecargasplanogen,rico.MX-
)",0,1.5,"P",0,"",""
"IPF75BI.MX-","(Envolventedetrendecargasplanogen'rico.MX-)",0,1.944,"P",0,"",""
"IPF75BD.MX-","(Envolventedetrendecargasplanogen'rico.MX-)",0,1.944,"P",0,"",""
"GRAD","(GRADIENTE)",0,.9,"P",0,"",""
"REDPP","(REDISTRIBUCIàN PESO PROPIO)",.9,1.35,"P",0,"",""
"REDPRE","(REDISTRIBUCIàN HIP PRET)",.9,1.35,"P",0,"",""
"PRETI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"",""
"PRETD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.20475,"P",0,"",""
"POSTI.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.165,"P",0,"",""
"POSTD.ISO.To","(PretensadoIsost tico(t=0))",-.1852,-.165,"P",0,"",""
"LTORSION","",0,1.35,"P",0,"",""
```


CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.ENV

Coef. exc:

Barra	Nudo	X	Mz.To+ (Tm)	Mz.To- (Tm)	Mz.Tinf+ (Tm)	Mz.Tinf+ (Tm)
1	1	0.00	4.11	-3.24	4.11	-3.24
1	2	3.05	1999.91	384.18	2177.24	480.27
2	2	3.05	2000.42	385.26	2177.75	481.35
2	3	6.10	3511.13	619.74	3865.92	812.08
3	3	6.10	3511.57	620.64	3866.37	813.00
3	4	9.15	4533.67	701.96	5065.98	990.70
4	4	9.15	4533.95	702.57	5066.28	991.31
4	5	12.20	5079.26	626.12	5789.24	1011.42
5	5	12.20	5079.48	626.25	5789.45	1011.54
5	6	15.25	5130.70	389.52	6018.36	871.42
6	6	15.25	5130.64	389.38	6018.27	871.27
6	7	18.30	4698.79	-6.51	5764.17	572.07
7	7	18.30	4698.44	-6.76	5763.81	571.81
7	8	21.35	3785.37	-561.21	5028.53	114.12
8	8	21.35	3784.76	-561.57	5027.91	113.76
8	9	24.40	2397.62	-1287.98	3818.55	-515.88
9	9	24.40	2397.40	-1288.92	3818.34	-516.81
9	10	27.45	897.76	-2542.98	2496.51	-1674.05
10	10	27.45	896.18	-2542.57	2494.91	-1673.66
10	11	30.50	-292.98	-4498.28	1483.62	-3532.48
11	11	30.50	-294.02	-4497.63	1482.56	-3531.84
11	12	33.55	-1342.14	-7238.78	612.34	-6176.05
12	10012	33.55	-1342.13	-7238.12	612.35	-6175.39
12	13	37.19	-200.14	-4035.24	1759.63	-2969.37
13	13	37.19	-200.92	-4033.49	1758.84	-2967.63
13	14	40.82	1155.45	-1954.20	3120.56	-885.12
14	14	40.82	1157.63	-1955.56	3122.76	-886.48
14	15	44.46	2819.94	-929.61	4790.47	142.74
15	15	44.46	2820.91	-929.33	4791.44	143.04
15	16	48.10	4138.99	-414.64	6114.95	661.06
16	16	48.10	4139.60	-414.39	6115.56	661.30
16	17	51.73	4822.59	-176.79	6804.01	902.28
17	17	51.73	4822.83	-176.69	6804.25	902.38
17	18	55.37	4815.43	-195.37	6802.36	887.15
18	18	55.37	4815.23	-195.49	6802.16	887.03
18	19	59.01	4117.50	-461.73	6109.93	624.21
19	19	59.01	4116.88	-461.96	6109.29	623.97
19	20	62.64	2789.10	-1010.29	4787.05	79.12
20	20	62.64	2788.13	-1010.55	4786.07	78.84
20	21	66.28	1127.05	-2081.12	3130.55	-988.23
21	21	66.28	1124.87	-2079.72	3128.37	-986.83
21	22	69.91	-257.75	-4175.80	1751.29	-3079.44
22	22	69.91	-257.03	-4177.49	1752.01	-3081.12
22	23	73.55	-1418.32	-7389.80	596.28	-6289.93
23	10023	73.55	-1418.25	-7390.24	596.34	-6290.37
23	24	76.66	-328.83	-4545.31	1502.59	-3545.47
24	24	76.66	-328.19	-4545.43	1503.25	-3545.58
24	25	79.77	908.03	-2519.04	2556.31	-1619.18
25	25	79.77	909.64	-2519.43	2557.92	-1619.57
25	26	82.88	2483.74	-1238.09	3948.86	-438.23
26	26	82.88	2484.00	-1237.11	3949.12	-437.26

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.ENV

Coef. exc:

Barra	Nudo	X	Mz.To+ (Tm)	Mz.To- (Tm)	Mz.Tinf+ (Tm)	Mz.Tinf+ (Tm)
26	27	85.99	3926.79	-493.70	5208.77	206.17
27	27	85.99	3927.53	-493.37	5209.52	206.51
27	28	89.10	4878.76	70.88	5977.59	670.77
28	28	89.10	4879.14	71.19	5977.97	671.08
28	29	92.21	5329.47	470.40	6245.16	970.29
29	29	92.21	5329.54	470.58	6245.24	970.47
29	30	95.32	5277.05	704.16	6009.59	1104.06
30	30	95.32	5276.40	703.87	6008.94	1103.77
30	31	98.43	4712.70	770.71	5262.09	1070.62
31	31	98.43	4712.36	770.09	5261.76	1070.01
31	32	101.54	3649.89	672.22	4016.16	872.16
32	32	101.54	3649.41	671.28	4015.68	871.22
32	33	104.65	2078.30	414.03	2261.43	513.99
33	33	104.65	2077.68	412.85	2260.81	512.81
33	34	107.76	4.27	-3.34	4.27	-3.34
101	101	0.00	3.24	-4.11	3.24	-4.11
101	102	3.05	2148.52	427.54	2326.47	524.55
102	102	3.05	2146.37	428.02	2324.31	525.02
102	103	6.10	3755.45	690.49	4111.22	884.31
103	103	6.10	3753.73	690.90	4109.50	884.72
103	104	9.15	4832.40	786.49	5365.89	1076.99
104	104	9.15	4831.18	786.83	5364.69	1077.34
104	105	12.20	5397.29	713.87	6108.47	1100.96
105	105	12.20	5397.14	714.21	6108.31	1101.29
105	106	15.25	5436.58	470.47	6325.32	954.00
106	106	15.25	5436.09	470.32	6324.82	953.85
106	107	18.30	4964.92	54.78	6031.19	634.70
107	107	18.30	4965.47	54.92	6031.73	634.83
107	108	21.35	3984.19	-533.97	5227.97	142.31
108	108	21.35	3985.05	-533.80	5228.83	142.48
108	109	24.40	2494.23	-1309.94	3915.47	-537.38
109	109	24.40	2495.86	-1310.32	3917.10	-537.74
109	110	27.45	885.26	-2664.16	2483.94	-1795.33
110	110	27.45	885.03	-2662.77	2483.71	-1793.94
110	111	30.50	-373.35	-4810.51	1402.72	-3845.50
111	111	30.50	-373.16	-4809.97	1402.92	-3844.94
111	112	33.55	-1485.56	-7820.02	467.87	-6758.87
112	10112	33.55	-1485.66	-7819.59	467.79	-6758.42
112	113	37.19	-261.32	-4320.85	1697.83	-3255.93
113	113	37.19	-262.48	-4320.35	1696.67	-3255.43
113	114	40.82	1171.89	-2038.87	3136.68	-970.30
114	114	40.82	1172.82	-2041.35	3137.61	-972.78
114	115	44.46	2949.11	-918.42	4919.51	153.75
115	115	44.46	2948.10	-918.66	4918.51	153.51
115	116	48.10	4346.70	-357.20	6322.66	718.50
116	116	48.10	4345.98	-357.35	6321.94	718.34
116	117	51.73	5066.70	-96.71	7048.21	982.50
117	117	51.73	5066.45	-96.80	7047.97	982.41
117	118	55.37	5058.94	-115.74	7045.98	966.93
118	118	55.37	5059.19	-115.67	7046.23	967.00
118	119	59.01	4323.43	-405.73	6315.94	680.35

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.ENV

Coef. exc:

Barra	Nudo	X	Mz.To+ (Tm)	Mz.To- (Tm)	Mz.Tinf+ (Tm)	Mz.Tinf+ (Tm)
119	119	59.01	4324.12	-405.57	6316.63	680.51
119	120	62.64	2915.29	-1001.54	4913.34	88.00
120	120	62.64	2916.25	-1001.37	4914.29	88.17
120	121	66.28	1140.88	-2170.62	3144.43	-1077.66
121	121	66.28	1139.96	-2168.13	3143.51	-1075.17
121	122	69.91	-320.95	-4469.04	1688.09	-3372.68
122	122	69.91	-319.74	-4469.68	1689.30	-3373.31
122	123	73.55	-1563.75	-7980.43	450.81	-6880.65
123	10123	73.55	-1564.00	-7981.56	450.54	-6881.78
123	124	76.66	-406.74	-4862.09	1424.64	-3862.31
124	124	76.66	-407.41	-4862.99	1423.98	-3863.21
124	125	79.77	897.37	-2637.79	2545.63	-1737.95
125	125	79.77	897.63	-2639.24	2545.89	-1739.40
125	126	82.88	2585.75	-1257.17	4050.88	-457.31
126	126	82.88	2584.08	-1256.79	4049.21	-456.92
126	127	85.99	4132.31	-463.27	5414.30	236.62
127	127	85.99	4131.49	-463.45	5413.49	236.45
127	128	89.10	5152.16	135.35	6251.02	735.26
128	128	89.10	5151.64	135.25	6250.49	735.15
128	129	92.21	5642.65	554.51	6558.36	1054.44
129	129	92.21	5642.30	554.28	6558.02	1054.21
129	130	95.32	5601.99	794.68	6334.56	1194.62
130	130	95.32	5602.30	794.44	6334.86	1194.38
130	131	98.43	5018.22	857.43	5567.64	1157.38
131	131	98.43	5019.54	857.14	5568.96	1157.09
131	132	101.54	3898.98	744.54	4265.27	944.51
132	132	101.54	3900.74	744.08	4267.01	944.04
132	133	104.65	2228.32	458.09	2411.47	558.08
133	133	104.65	2230.47	457.58	2413.62	557.57
133	134	107.76	3.34	-4.27	3.34	-4.27
301	101	0.00	40.78	-10.86	37.43	-15.89
301	2001	0.00	38.55	-7.04	35.22	-12.05
302	102	3.05	80.50	-19.31	73.82	-29.33
302	2002	3.05	78.27	-12.68	71.62	-22.65
303	103	6.10	93.60	-27.13	86.94	-37.12
303	2003	6.10	86.61	-17.23	79.97	-27.19
304	104	9.15	109.22	-38.79	102.56	-48.78
304	2004	9.15	98.12	-25.52	91.49	-35.46
305	105	12.20	121.11	-47.20	114.47	-57.16
305	2005	12.20	106.20	-31.75	99.58	-41.69
306	106	15.25	127.70	-51.08	121.07	-61.02
306	2006	15.25	110.81	-34.79	104.19	-44.71
307	107	18.30	128.21	-50.61	121.60	-60.54
307	2007	18.30	111.22	-34.43	104.60	-44.35
308	108	21.35	122.87	-46.14	116.24	-56.07
308	2008	21.35	107.06	-31.09	100.44	-41.01
309	109	24.40	115.13	-43.73	108.93	-53.03
309	2009	24.40	101.23	-28.77	95.03	-38.07
310	110	27.45	98.24	-30.95	91.89	-40.48
310	2010	27.45	89.01	-19.71	82.66	-29.24
311	111	30.50	83.87	-21.22	77.36	-30.98

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.ENV

Coef. exc:

Barra	Nudo	X	Mz.To+ (Tm)	Mz.To- (Tm)	Mz.Tinf+ (Tm)	Mz.Tinf+ (Tm)
311	2011	30.50	78.85	-13.63	72.35	-23.37
312	112	33.55	83.50	-20.22	76.20	-31.17
312	2012	33.55	81.20	-13.66	73.91	-24.59
313	113	37.19	103.67	-29.11	95.87	-40.81
313	2013	37.19	96.51	-18.83	88.72	-30.50
314	114	40.82	126.58	-46.21	118.93	-57.68
314	2014	40.82	113.33	-30.63	105.70	-42.08
315	115	44.46	150.23	-64.49	142.74	-75.72
315	2015	44.46	130.84	-44.70	123.37	-55.92
316	116	48.10	157.98	-67.48	150.04	-79.38
316	2016	48.10	136.37	-47.13	128.43	-59.03
317	117	51.73	165.01	-73.05	157.07	-84.96
317	2017	51.73	141.20	-51.35	133.26	-63.26
318	118	55.37	165.29	-73.11	157.34	-85.03
318	2018	55.37	141.42	-51.37	133.48	-63.28
319	119	59.01	158.58	-67.56	150.62	-79.49
319	2019	59.01	136.91	-47.20	128.96	-59.12
320	120	62.64	151.02	-65.27	143.51	-76.53
320	2020	62.64	131.44	-44.76	123.95	-56.01
321	121	66.28	127.47	-47.17	119.82	-58.66
321	2021	66.28	113.97	-30.73	106.31	-42.22
322	122	69.91	104.71	-29.37	96.89	-41.10
322	2022	69.91	97.22	-19.04	89.40	-30.77
323	123	73.55	84.00	-20.56	76.67	-31.55
323	2023	73.55	81.57	-13.86	74.24	-24.85
324	124	76.66	84.54	-21.60	77.99	-31.43
324	2024	76.66	79.38	-13.90	72.82	-23.73
325	125	79.77	99.48	-31.83	93.08	-41.43
325	2025	79.77	90.03	-20.32	83.63	-29.92
326	126	82.88	117.22	-45.16	110.96	-54.55
326	2026	82.88	102.88	-29.83	96.64	-39.20
327	127	85.99	125.37	-47.82	118.66	-57.87
327	2027	85.99	109.02	-32.29	102.31	-42.35
328	128	89.10	131.05	-52.55	124.35	-62.61
328	2028	89.10	113.48	-35.86	106.77	-45.91
329	129	92.21	130.65	-53.03	123.94	-63.09
329	2029	92.21	113.14	-36.21	106.43	-46.27
330	130	95.32	123.81	-48.98	117.10	-59.04
330	2030	95.32	108.36	-33.01	101.65	-43.07
331	131	98.43	111.39	-40.13	104.69	-50.19
331	2031	98.43	99.75	-26.45	93.04	-36.51
332	132	101.54	94.83	-27.78	88.13	-37.84
332	2032	101.54	87.66	-17.68	80.95	-27.74
333	133	104.65	81.19	-19.73	74.49	-29.79
333	2033	104.65	78.92	-12.93	72.21	-22.99
334	134	107.76	41.76	-11.79	38.40	-16.82
334	2034	107.76	39.12	-7.23	35.76	-12.27
201	2001	0.00	38.55	-7.04	35.22	-12.05
201	1001	0.00	51.85	-4.91	48.63	-9.74
202	2002	3.05	78.27	-12.68	71.62	-22.65
202	1002	3.05	97.34	-9.17	90.88	-18.87

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.ENV

Coef. exc:

Barra	Nudo	X	Mz.To+ (Tm)	Mz.To- (Tm)	Mz.Tinf+ (Tm)	Mz.Tinf+ (Tm)
203	2003	6.10	86.61	-17.23	79.97	-27.19
203	1003	6.10	98.98	-16.02	92.50	-25.74
204	2004	9.15	98.12	-25.52	91.49	-35.46
204	1004	9.15	106.67	-27.11	100.16	-36.87
205	2005	12.20	106.20	-31.75	99.58	-41.69
205	1005	12.20	112.72	-35.10	106.19	-44.88
206	2006	15.25	110.81	-34.79	104.19	-44.71
206	1006	15.25	115.99	-38.51	109.44	-48.34
207	2007	18.30	111.22	-34.43	104.60	-44.35
207	1007	18.30	117.21	-37.82	110.65	-47.66
208	2008	21.35	107.06	-31.09	100.44	-41.01
208	1008	21.35	115.66	-33.20	109.09	-43.05
209	2009	24.40	101.23	-28.77	95.03	-38.07
209	1009	24.40	113.56	-28.81	107.41	-38.04
210	2010	27.45	89.01	-19.71	82.66	-29.24
210	1010	27.45	105.68	-17.47	99.38	-26.92
211	2011	30.50	78.85	-13.63	72.35	-23.37
211	1011	30.50	100.14	-9.69	93.70	-19.35
212	2012	33.55	81.20	-13.66	73.91	-24.59
212	1012	33.55	108.08	-9.51	100.86	-20.33
213	2013	37.19	96.51	-18.83	88.72	-30.50
213	1013	37.19	121.57	-14.15	113.85	-25.73
214	2014	40.82	113.33	-30.63	105.70	-42.08
214	1014	40.82	131.97	-28.63	124.39	-40.00
215	2015	44.46	130.84	-44.70	123.37	-55.92
215	1015	44.46	144.00	-45.86	136.56	-57.01
216	2016	48.10	136.37	-47.13	128.43	-59.03
216	1016	48.10	145.44	-50.75	137.54	-62.60
217	2017	51.73	141.20	-51.35	133.26	-63.26
217	1017	51.73	147.51	-56.15	139.59	-68.02
218	2018	55.37	141.42	-51.37	133.48	-63.28
218	1018	55.37	147.85	-56.19	139.92	-68.08
219	2019	59.01	136.91	-47.20	128.96	-59.12
219	1019	59.01	146.07	-50.78	138.14	-62.67
220	2020	62.64	131.44	-44.76	123.95	-56.01
220	1020	62.64	144.76	-45.83	137.28	-57.07
221	2021	66.28	113.97	-30.73	106.31	-42.22
221	1021	66.28	132.91	-28.64	125.26	-40.12
222	2022	69.91	97.22	-19.04	89.40	-30.77
222	1022	69.91	122.51	-14.23	114.70	-25.94
223	2023	73.55	81.57	-13.86	74.24	-24.85
223	1023	73.55	109.04	-9.61	101.72	-20.59
224	2024	76.66	79.38	-13.90	72.82	-23.73
224	1024	76.66	100.99	-9.87	94.44	-19.69
225	2025	79.77	90.03	-20.32	83.63	-29.92
225	1025	79.77	106.80	-18.09	100.40	-27.68
226	2026	82.88	102.88	-29.83	96.64	-39.20
226	1026	82.88	115.02	-30.06	108.77	-39.43
227	2027	85.99	109.02	-32.29	102.31	-42.35
227	1027	85.99	117.30	-34.66	110.60	-44.71
228	2028	89.10	113.48	-35.86	106.77	-45.91

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.ENV

Coef. exc:

Barra	Nudo	X	Mz.To+ (Tm)	Mz.To- (Tm)	Mz.Tinf+ (Tm)	Mz.Tinf+ (Tm)
228	1028	89.10	119.00	-39.54	112.29	-49.60
229	2029	92.21	113.14	-36.21	106.43	-46.27
229	1029	92.21	117.77	-40.31	111.06	-50.37
230	2030	95.32	108.36	-33.01	101.65	-43.07
230	1030	95.32	114.47	-36.68	107.77	-46.74
231	2031	98.43	99.75	-26.45	93.04	-36.51
231	1031	98.43	108.11	-28.25	101.40	-38.31
232	2032	101.54	87.66	-17.68	80.95	-27.74
232	1032	101.54	100.09	-16.50	93.39	-26.56
233	2033	104.65	78.92	-12.93	72.21	-22.99
233	1033	104.65	98.52	-9.32	91.81	-19.38
234	2034	107.76	39.12	-7.23	35.76	-12.27
234	1034	107.76	52.72	-5.00	49.36	-10.03
401	1001	0.00	51.85	-4.91	48.63	-9.74
401	1	0.00	57.01	-6.75	53.81	-11.55
402	1002	3.05	97.34	-9.17	90.88	-18.87
402	2	3.05	105.29	-13.95	98.85	-23.60
403	1003	6.10	98.99	-16.01	92.51	-25.73
403	3	6.10	109.06	-24.53	102.60	-34.21
404	1004	9.15	106.67	-27.11	100.16	-36.87
404	4	9.15	119.67	-39.73	113.19	-49.45
405	1005	12.20	112.72	-35.10	106.19	-44.88
405	5	12.20	127.73	-50.31	121.22	-60.07
406	1006	15.25	115.99	-38.51	109.44	-48.34
406	6	15.25	133.21	-55.07	126.68	-64.87
407	1007	18.30	117.21	-37.82	110.65	-47.66
407	7	18.30	135.12	-54.06	128.56	-63.90
408	1008	21.35	115.66	-33.20	109.09	-43.05
408	8	21.35	133.13	-47.74	126.57	-57.59
409	1009	24.40	113.56	-28.81	107.41	-38.04
409	9	24.40	130.42	-41.59	124.27	-50.81
410	1010	27.45	105.68	-17.47	99.38	-26.92
410	10	27.45	119.24	-26.00	112.95	-35.43
411	1011	30.50	100.14	-9.69	93.70	-19.35
411	11	30.50	110.75	-15.06	104.33	-24.70
412	1012	33.55	108.08	-9.51	100.86	-20.33
412	12	33.55	118.00	-13.09	110.79	-23.91
413	1013	37.19	121.57	-14.15	113.85	-25.73
413	13	37.19	134.94	-21.88	127.24	-33.44
414	1014	40.82	131.97	-28.63	124.39	-40.00
414	14	40.82	149.95	-41.04	142.38	-52.40
415	1015	44.46	144.00	-45.86	136.56	-57.01
415	15	44.46	166.49	-64.09	159.06	-75.23
416	1016	48.10	145.44	-50.75	137.54	-62.60
416	16	48.10	168.27	-70.92	160.37	-82.76
417	1017	51.73	147.51	-56.15	139.59	-68.02
417	17	51.73	171.57	-78.31	163.66	-90.17
418	1018	55.37	147.85	-56.19	139.92	-68.08
418	18	55.37	171.89	-78.33	163.97	-90.21
419	1019	59.01	146.07	-50.78	138.14	-62.67
419	19	59.01	169.15	-70.96	161.22	-82.86

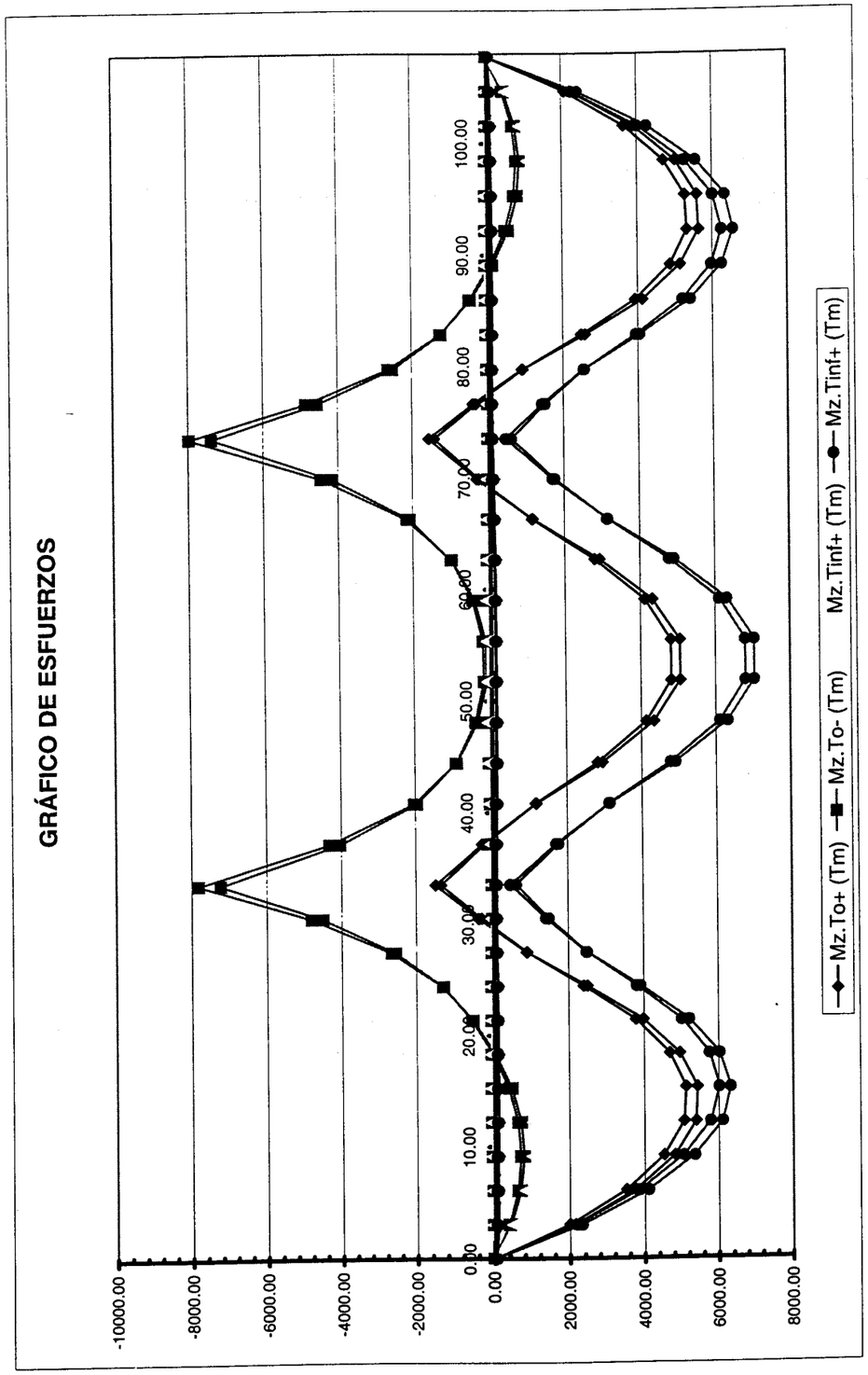
CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.ENV

Coef. exc:

Barra	Nudo	X	Mz.To+ (Tm)	Mz.To- (Tm)	Mz.Tinf+ (Tm)	Mz.Tinf+ (Tm)
420	1020	62.64	144.76	-45.83	137.28	-57.07
420	20	62.64	167.53	-64.06	160.04	-75.30
421	1021	66.28	132.91	-28.64	125.26	-40.12
421	21	66.28	151.29	-41.01	143.64	-52.48
422	1022	69.91	122.51	-14.23	114.70	-25.94
422	22	69.91	136.41	-21.97	128.60	-33.69
423	1023	73.55	109.04	-9.61	101.72	-20.59
423	23	73.55	119.12	-13.22	111.80	-24.20
424	1024	76.66	100.99	-9.87	94.44	-19.69
424	24	76.66	111.80	-15.35	105.25	-25.17
425	1025	79.77	106.80	-18.09	100.40	-27.68
425	25	79.77	120.57	-26.79	114.18	-36.38
426	1026	82.88	115.02	-30.06	108.77	-39.43
426	26	82.88	132.27	-43.20	126.01	-52.58
427	1027	85.99	117.30	-34.66	110.60	-44.71
427	27	85.99	135.24	-49.72	128.54	-59.78
428	1028	89.10	119.00	-39.54	112.29	-49.60
428	28	89.10	137.43	-56.40	130.73	-66.46
429	1029	92.21	117.77	-40.31	111.06	-50.37
429	29	92.21	135.49	-57.49	128.79	-67.55
430	1030	95.32	114.47	-36.68	107.77	-46.74
430	30	95.32	129.89	-52.52	123.19	-62.58
431	1031	98.43	108.11	-28.25	101.40	-38.31
431	31	98.43	121.47	-41.34	114.77	-51.40
432	1032	101.54	100.09	-16.50	93.39	-26.56
432	32	101.54	110.35	-25.20	103.65	-35.26
433	1033	104.65	98.52	-9.32	91.81	-19.38
433	33	104.65	106.66	-14.21	99.95	-24.27
434	1034	107.76	52.72	-5.00	49.36	-10.03
434	34	107.76	58.21	-6.90	54.86	-11.93

Programa DINTEL PACADAR S.A.
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V-3 STA OLIVA

Barra	Nudo	X	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)
1	1	0.00	-566.91	29.90	-238.42	-53.69	-598.41	65.00
1	2	3.05	-309.32	22.58	-318.50	-171.86	-340.83	57.68
2	2	3.05	-455.08	112.92	-216.92	-151.38	-486.64	138.36
2	3	6.10	-269.52	102.71	-190.62	-222.86	-301.09	128.14
3	3	6.10	-316.56	182.71	-150.04	-197.38	-348.18	198.47
3	4	9.15	-162.88	166.28	-92.38	-260.23	-194.47	182.05
4	4	9.15	-185.95	246.06	-67.71	-234.24	-217.60	252.11
4	5	12.20	-63.62	223.82	25.93	-290.31	-95.27	229.85
5	5	12.20	-70.48	306.14	28.92	-273.29	-106.45	303.65
5	6	15.25	28.79	281.79	145.51	-335.13	-7.19	279.93
6	6	15.25	40.98	373.96	131.63	-330.45	4.98	365.57
6	7	18.30	109.37	344.62	270.55	-381.00	73.38	336.86
7	7	18.30	99.57	433.39	278.25	-371.33	63.57	419.08
7	8	21.35	187.12	397.94	399.20	-408.26	151.11	384.25
8	8	21.35	177.62	481.35	398.95	-392.11	141.60	461.10
8	9	24.40	261.19	442.94	530.22	-434.08	225.17	423.33
9	9	24.40	249.82	523.93	537.73	-412.29	213.79	498.18
9	10	27.45	329.22	483.85	665.49	-453.09	293.20	458.73
10	10	27.45	316.17	558.31	673.42	-420.10	280.14	526.90
10	11	30.50	391.10	522.25	804.87	-464.29	355.08	491.47
11	11	30.50	532.71	592.05	657.10	-422.57	496.67	554.84
11	12	33.55	449.68	564.70	946.65	-463.09	413.63	528.12
12	10012	33.55	-869.73	529.80	-463.95	-530.11	-870.59	580.11
12	13	37.19	-519.04	417.94	-519.00	-638.81	-519.90	469.38
13	13	37.19	-677.55	475.12	-367.01	-567.29	-678.41	514.99
13	14	40.82	-423.71	442.99	-385.49	-617.59	-424.57	483.99
14	14	40.82	-564.49	489.83	-284.35	-543.31	-565.39	519.48
14	15	44.46	-390.35	457.00	-191.67	-594.47	-391.26	487.78
15	15	44.46	-406.08	491.35	-199.82	-510.71	-407.01	510.98
15	16	48.10	-262.25	455.07	-99.47	-559.31	-263.18	475.85
16	16	48.10	-254.34	492.68	-108.00	-479.64	-255.27	501.60
16	17	51.73	-100.18	452.09	-17.34	-523.97	-101.13	462.15
17	17	51.73	-107.83	500.09	-8.96	-451.29	-108.82	498.89
17	18	55.37	14.52	456.76	114.32	-493.96	13.53	456.31
18	18	55.37	24.59	531.30	104.70	-447.81	23.60	522.93
18	19	59.01	113.80	486.14	260.39	-487.74	112.81	478.51
19	19	59.01	153.27	567.03	219.93	-450.82	151.75	551.51
19	20	62.64	205.71	517.68	411.98	-486.67	204.19	502.92
20	20	62.64	276.73	602.81	316.89	-452.61	275.74	580.53
20	21	66.28	290.32	550.77	570.27	-485.17	289.33	529.25
21	21	66.28	392.94	626.81	428.20	-439.39	391.42	597.64
21	22	69.91	372.97	575.41	683.57	-470.57	371.44	547.00
22	22	69.91	526.28	648.94	523.58	-414.59	524.77	612.73
22	23	73.55	469.60	600.99	875.42	-450.43	468.08	565.53
23	10023	73.55	-963.85	548.47	-456.51	-500.96	-931.70	601.37
23	24	76.66	-823.42	430.03	-385.59	-589.96	-791.27	483.90
24	24	76.66	-818.69	473.25	-396.57	-520.88	-786.54	517.31
24	25	79.77	-684.72	428.64	-320.21	-557.48	-652.56	473.66
25	25	79.77	-676.78	461.84	-333.28	-482.81	-644.62	497.27
25	26	82.88	-546.51	420.78	-252.49	-523.61	-514.37	457.16
26	26	82.88	-538.84	442.21	-263.98	-442.09	-506.69	469.25
26	27	85.99	-405.27	400.19	-178.92	-481.27	-373.12	428.19
27	27	85.99	-405.04	415.76	-188.68	-397.33	-372.90	433.70
27	28	89.10	-281.87	378.47	-99.65	-433.51	-249.72	397.38
28	28	89.10	-273.84	387.34	-109.65	-344.06	-219.22	396.21
28	29	92.21	-154.53	336.06	-17.84	-373.83	-99.90	345.91
29	29	92.21	-147.62	340.83	-26.08	-281.88	-88.73	340.68
29	30	95.32	-29.47	278.00	75.40	-306.52	25.15	278.74
30	30	95.32	-24.39	295.05	66.73	-224.14	34.51	288.84
30	31	98.43	69.75	238.35	191.72	-246.69	128.65	232.78
31	31	98.43	93.84	264.91	170.38	-167.09	152.74	252.65
31	32	101.54	152.63	200.83	327.33	-183.83	211.53	189.20
32	32	101.54	196.03	226.85	276.10	-103.62	254.92	208.51
32	33	104.65	222.32	154.29	465.60	-114.08	281.20	136.59
33	33	104.65	326.20	175.27	317.74	-23.16	385.09	150.86
33	34	107.76	244.69	54.74	580.36	-30.53	303.59	30.99
101	101	0.00	-366.43	57.77	-499.65	-13.92	-402.48	34.52
101	102	3.05	-411.17	164.44	-272.96	-14.58	-447.23	141.18
102	102	3.05	-337.05	150.56	-392.98	-79.00	-373.08	133.98

V-3 STA OLIVA

Barra	Nudo	X	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)
102	103	6.10	-216.64	209.82	-285.52	-78.41	-252.67	192.61
103	103	6.10	-221.20	190.47	-276.89	-144.54	-257.20	179.92
103	104	9.15	-98.96	242.45	-175.75	-138.43	-134.95	231.27
104	104	9.15	-68.86	219.06	-200.25	-210.15	-104.83	214.54
104	105	12.20	29.61	262.90	-70.17	-197.41	-6.36	257.75
105	105	12.20	35.02	246.53	-77.38	-274.58	3.39	248.76
105	106	15.25	159.26	292.69	26.70	-256.93	127.61	293.97
106	106	15.25	141.75	289.27	44.02	-345.74	110.13	300.49
106	107	18.30	237.37	322.92	167.65	-320.89	205.78	333.20
107	107	18.30	250.38	316.47	154.87	-405.54	218.79	336.70
107	108	21.35	350.12	337.70	275.58	-374.18	318.51	356.98
108	108	21.35	362.26	330.39	257.49	-452.90	330.68	359.60
108	109	24.40	473.19	354.79	373.85	-418.67	441.61	383.06
109	109	24.40	496.04	347.95	353.83	-493.45	464.48	385.54
109	110	27.45	603.41	372.06	465.63	-457.86	571.86	408.70
110	110	27.45	612.16	359.40	480.85	-522.81	580.63	405.57
110	111	30.50	723.62	387.50	558.10	-495.09	692.08	432.72
111	111	30.50	730.37	368.34	556.68	-550.33	698.84	423.34
111	112	33.55	847.75	395.40	657.48	-529.89	816.22	449.45
112	10112	33.55	-601.76	484.82	-780.65	-471.32	-602.80	450.83
112	113	37.19	-672.75	582.68	-462.07	-374.96	-673.79	547.93
113	113	37.19	-638.27	527.13	-489.28	-404.61	-639.29	500.18
113	114	40.82	-509.46	570.15	-369.22	-388.12	-510.48	542.45
114	114	40.82	-426.87	505.61	-445.79	-410.60	-427.88	485.56
114	115	44.46	-295.48	552.33	-330.96	-395.09	-296.50	531.53
115	115	44.46	-298.86	478.55	-347.67	-416.21	-299.87	465.24
115	116	48.10	-159.13	522.28	-210.15	-397.25	-160.14	508.22
116	116	48.10	-165.86	447.42	-218.88	-429.96	-166.85	441.30
116	117	51.73	-18.40	483.85	-105.61	-405.33	-19.40	476.98
117	117	51.73	-7.48	415.54	-116.34	-450.99	-8.45	417.15
117	118	55.37	122.91	446.42	13.07	-419.93	121.95	446.90
118	118	55.37	110.33	402.11	25.72	-489.43	109.38	414.50
118	119	59.01	223.51	426.73	173.42	-452.85	222.56	437.98
119	119	59.01	214.83	394.33	166.58	-528.26	213.87	417.50
119	120	62.64	352.03	413.24	306.68	-484.11	351.08	435.29
120	120	62.64	335.62	392.40	303.10	-558.60	334.68	425.72
120	121	66.28	450.40	407.85	434.97	-511.19	449.45	440.04
121	121	66.28	374.12	385.84	517.32	-576.13	373.18	429.50
121	122	69.91	494.12	402.21	646.21	-532.85	493.17	444.76
122	122	69.91	481.66	373.67	666.14	-589.42	480.72	427.95
122	123	73.55	801.96	395.06	593.36	-553.28	801.02	448.21
123	10123	73.55	-715.09	468.73	-815.08	-476.84	-678.68	433.42
123	124	76.66	-612.30	551.50	-694.57	-373.07	-575.90	515.55
124	124	76.66	-566.98	495.73	-734.52	-391.78	-530.58	466.33
124	125	79.77	-487.69	524.36	-620.92	-363.62	-451.28	494.31
125	125	79.77	-472.38	458.62	-612.00	-376.33	-435.97	434.97
125	126	82.88	-358.59	494.93	-502.54	-352.28	-322.18	470.64
126	126	82.88	-378.48	419.41	-479.80	-359.01	-342.07	401.36
126	127	85.99	-260.01	454.39	-367.02	-334.88	-223.60	435.71
127	127	85.99	-283.06	374.97	-342.23	-342.25	-246.64	363.00
127	128	89.10	-160.23	406.99	-248.42	-320.88	-123.83	394.36
128	128	89.10	-168.30	321.21	-240.23	-327.12	-131.89	315.29
128	129	92.21	-42.36	346.75	-142.80	-293.36	-5.95	340.20
129	129	92.21	-25.42	257.43	-160.06	-297.25	6.71	257.63
129	130	95.32	80.95	275.48	-34.13	-250.60	117.37	274.99
130	130	95.32	73.00	197.59	-28.28	-267.31	105.16	206.91
130	131	98.43	205.83	210.51	70.80	-223.02	237.98	218.87
131	131	98.43	180.31	138.61	100.71	-247.23	212.47	157.02
131	132	101.54	283.17	144.80	225.89	-194.22	315.34	162.26
132	132	101.54	291.95	78.43	223.58	-213.98	324.11	105.96
132	133	104.65	401.25	79.03	344.68	-153.97	433.40	105.58
133	133	104.65	280.76	15.03	420.08	-168.24	312.90	51.65
133	134	107.76	386.28	14.32	500.58	-59.60	418.44	49.97

V-3 STA OLIVA

Barra	Nudo	X	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)
1	1	0.00	-274.28	-30.29	-598.41	65.00	-238.42	-53.69
1	2	3.05	-354.36	-148.46	-340.83	57.68	-318.50	-171.86
2	2	3.05	-252.82	-134.42	-486.64	138.36	-216.92	-151.38
2	3	6.10	-226.52	-205.91	-301.09	128.14	-190.62	-222.86
3	3	6.10	-185.98	-186.88	-348.18	198.47	-150.04	-197.38
3	4	9.15	-128.30	-249.71	-194.47	182.05	-92.38	-260.23
4	4	9.15	-103.67	-230.21	-217.60	252.11	-67.71	-234.24
4	5	12.20	-10.03	-286.29	-95.27	229.85	25.93	-290.31
5	5	12.20	-2.75	-277.01	-70.48	306.14	-2.75	-277.01
5	6	15.25	113.82	-337.91	28.79	281.79	113.82	-337.91
6	6	15.25	99.91	-343.03	40.98	373.96	99.91	-343.03
6	7	18.30	238.85	-392.64	109.37	344.62	238.85	-392.64
7	7	18.30	246.53	-392.79	99.57	433.39	246.53	-392.79
7	8	21.35	367.47	-428.79	187.12	397.94	367.47	-428.79
8	8	21.35	367.21	-422.49	177.62	481.35	367.21	-422.49
8	9	24.40	498.48	-463.50	261.19	442.94	498.48	-463.50
9	9	24.40	505.97	-450.91	249.82	523.93	505.97	-450.91
9	10	27.45	633.74	-490.77	329.22	483.85	633.74	-490.77
10	10	27.45	641.66	-467.22	316.17	558.31	641.66	-467.22
10	11	30.50	773.12	-510.46	391.10	522.25	773.12	-510.46
11	11	30.50	625.32	-478.38	532.71	592.05	625.32	-478.38
11	12	33.55	914.86	-517.97	449.68	564.70	914.86	-517.97
12	10012	33.55	-464.88	-496.58	-870.59	580.11	-463.95	-530.11
12	13	37.19	-519.93	-604.52	-519.90	469.38	-519.00	-638.81
13	13	37.19	-367.94	-540.71	-678.41	514.99	-367.01	-567.29
13	14	40.82	-386.42	-590.26	-424.57	483.99	-385.49	-617.59
14	14	40.82	-285.31	-523.54	-565.39	519.48	-284.35	-543.31
14	15	44.46	-192.63	-573.95	-391.26	487.78	-191.67	-594.47
15	15	44.46	-200.79	-497.62	-407.01	510.98	-199.82	-510.71
15	16	48.10	-100.44	-545.46	-263.18	475.85	-99.47	-559.31
16	16	48.10	-108.97	-473.69	-255.27	501.60	-108.00	-479.64
16	17	51.73	-18.32	-517.27	-101.13	462.15	-17.34	-523.97
17	17	51.73	-9.92	-453.08	-107.83	500.09	-9.92	-453.08
17	18	55.37	113.37	-494.63	14.52	456.76	113.37	-494.63
18	18	55.37	103.75	-460.36	24.59	531.30	103.75	-460.36
18	19	59.01	259.44	-499.18	113.80	486.14	259.44	-499.18
19	19	59.01	218.97	-474.12	153.27	567.03	218.97	-474.12
19	20	62.64	411.02	-508.84	205.71	517.68	411.02	-508.84
20	20	62.64	315.94	-486.03	276.73	602.81	315.94	-486.03
20	21	66.28	569.32	-517.46	290.32	550.77	569.32	-517.46
21	21	66.28	427.25	-483.15	392.94	626.81	427.25	-483.15
21	22	69.91	682.60	-513.19	372.97	575.41	682.60	-513.19
22	22	69.91	522.62	-468.93	526.28	648.94	522.62	-468.93
22	23	73.55	874.46	-503.64	469.60	600.99	874.46	-503.64
23	10023	73.55	-397.63	-465.71	-931.70	601.37	-456.51	-500.96
23	24	76.66	-326.71	-554.06	-791.27	483.90	-385.59	-589.96
24	24	76.66	-360.15	-491.50	-786.54	517.31	-396.57	-520.88
24	25	79.77	-283.79	-527.47	-652.56	473.66	-320.21	-557.48
25	25	79.77	-274.38	-459.20	-644.62	497.27	-333.28	-482.81
25	26	82.88	-193.60	-499.36	-514.37	457.16	-252.49	-523.61
26	26	82.88	-227.56	-424.07	-506.69	469.25	-263.98	-442.09
26	27	85.99	-142.51	-462.61	-373.12	428.19	-178.92	-481.27
27	27	85.99	-152.26	-385.37	-372.90	433.70	-188.68	-397.33
27	28	89.10	-63.23	-420.90	-249.72	397.38	-99.65	-433.51
28	28	89.10	-73.24	-338.15	-219.22	396.21	-109.65	-344.06
28	29	92.21	18.58	-367.27	-99.90	345.91	-17.84	-373.83
29	29	92.21	6.07	-282.11	-147.62	340.83	6.07	-282.11
29	30	95.32	111.82	-306.02	25.15	278.74	75.40	-306.52
30	30	95.32	98.89	-233.46	-24.39	295.05	98.89	-233.46
30	31	98.43	223.88	-255.05	69.75	238.35	223.88	-255.05
31	31	98.43	202.54	-185.49	93.84	264.91	202.54	-185.49
31	32	101.54	359.48	-201.29	152.63	200.83	359.48	-201.29
32	32	101.54	308.25	-131.13	196.03	226.85	308.25	-131.13
32	33	104.65	497.73	-140.64	222.32	154.29	497.73	-140.64
33	33	104.65	349.88	-59.77	326.20	175.27	349.88	-59.77
33	34	107.76	612.52	-66.17	244.69	54.74	612.52	-66.17
101	101	0.00	-531.45	-48.80	-366.43	57.77	-531.45	-48.80
101	102	3.05	-304.77	-49.46	-411.17	164.44	-304.77	-49.46
102	102	3.05	-424.74	-103.87	-337.05	150.56	-424.74	-103.87

V-3 STA OLIVA

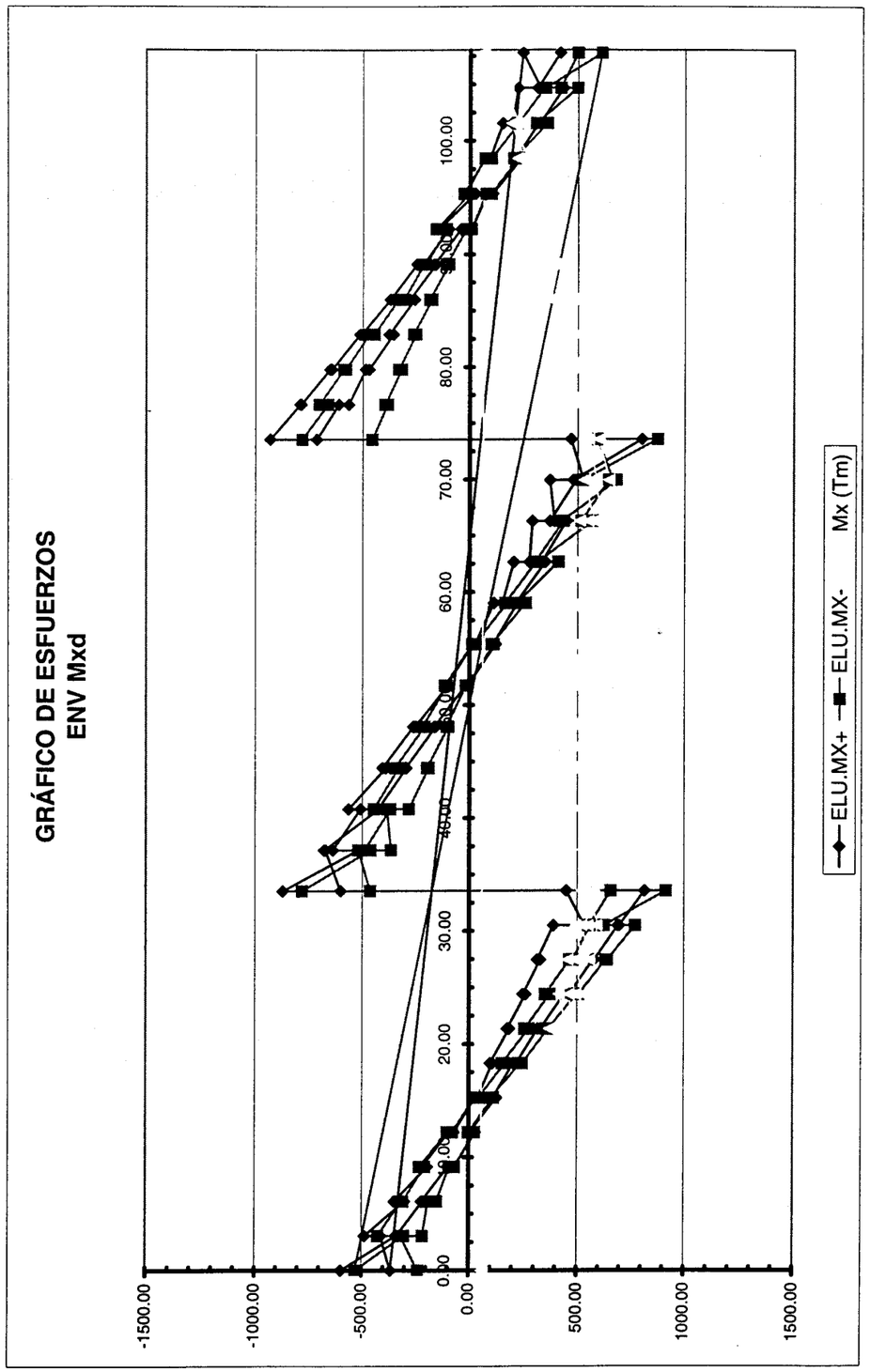
Barra	Nudo	X	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)
102	103	6.10	-317.28	-104.24	-216.64	209.82	-317.28	-104.24
103	103	6.10	-308.60	-160.36	-221.20	190.47	-308.60	-160.36
103	104	9.15	-207.44	-155.20	-98.96	242.45	-207.44	-155.20
104	104	9.15	-231.91	-216.92	-68.86	219.06	-231.91	-216.92
104	105	12.20	-101.84	-205.14	29.61	262.90	-101.84	-205.14
105	105	12.20	-113.31	-273.09	3.39	248.76	-77.38	-274.58
105	106	15.25	-9.25	-256.08	127.61	293.97	26.70	-256.93
106	106	15.25	8.08	-338.26	110.13	300.49	44.02	-345.74
106	107	18.30	131.73	-314.03	205.78	333.20	167.65	-320.89
107	107	18.30	118.95	-392.06	218.79	336.70	154.87	-405.54
107	108	21.35	239.65	-361.33	318.51	356.98	275.58	-374.18
108	108	21.35	221.58	-433.42	330.68	359.60	257.49	-452.90
108	109	24.40	337.94	-399.82	441.61	383.06	373.85	-418.67
109	109	24.40	317.93	-468.40	464.48	385.54	353.83	-493.45
109	110	27.45	429.74	-433.43	571.86	408.70	465.63	-457.86
110	110	27.45	444.98	-492.03	580.63	405.57	480.85	-522.81
110	111	30.50	522.22	-464.94	692.08	432.72	558.10	-495.09
111	111	30.50	520.80	-513.66	698.84	423.34	556.68	-550.33
111	112	33.55	621.61	-493.85	816.22	449.45	657.48	-529.89
112	10112	33.55	-781.67	-522.31	-601.76	484.82	-781.67	-522.31
112	113	37.19	-463.09	-427.08	-672.75	582.68	-463.09	-427.08
113	113	37.19	-490.28	-445.03	-638.27	527.13	-490.28	-445.03
113	114	40.82	-370.22	-429.66	-509.46	570.15	-370.22	-429.66
114	114	40.82	-446.77	-440.68	-426.87	505.61	-446.77	-440.68
114	115	44.46	-331.95	-426.29	-295.48	552.33	-331.95	-426.29
115	115	44.46	-348.65	-436.18	-298.86	478.55	-348.65	-436.18
115	116	48.10	-211.13	-418.34	-159.13	522.28	-211.13	-418.34
116	116	48.10	-219.84	-439.14	-165.86	447.42	-219.84	-439.14
116	117	51.73	-106.58	-415.63	-18.40	483.85	-106.58	-415.63
117	117	51.73	-117.33	-449.92	-8.45	417.15	-116.34	-450.99
117	118	55.37	12.07	-419.61	121.95	446.90	13.07	-419.93
118	118	55.37	24.20	-481.19	109.38	414.50	25.72	-489.43
118	119	59.01	171.90	-445.36	222.56	437.98	173.42	-452.85
119	119	59.01	165.06	-512.83	213.87	417.50	166.58	-528.26
119	120	62.64	305.16	-469.42	351.08	435.29	306.68	-484.11
120	120	62.64	302.12	-536.39	334.68	425.72	303.10	-558.60
120	121	66.28	433.99	-489.73	449.45	440.04	434.97	-511.19
121	121	66.28	515.81	-547.03	373.18	429.50	517.32	-576.13
121	122	69.91	644.69	-504.49	493.17	444.76	646.21	-532.85
122	122	69.91	664.63	-553.24	480.72	427.95	666.14	-589.42
122	123	73.55	591.86	-517.85	801.02	448.21	593.36	-553.28
123	10123	73.55	-782.95	-529.80	-715.09	468.73	-782.95	-529.80
123	124	76.66	-662.44	-426.99	-612.30	551.50	-662.44	-426.99
124	124	76.66	-702.39	-435.88	-566.98	495.73	-702.39	-435.88
124	125	79.77	-588.78	-408.68	-487.69	524.36	-588.78	-408.68
125	125	79.77	-579.85	-411.80	-472.38	458.62	-579.85	-411.80
125	126	82.88	-470.40	-388.72	-358.59	494.93	-470.40	-388.72
126	126	82.88	-447.65	-386.08	-378.48	419.41	-447.65	-386.08
126	127	85.99	-334.88	-362.91	-260.01	454.39	-334.88	-362.91
127	127	85.99	-310.08	-360.22	-283.06	374.97	-310.08	-360.22
127	128	89.10	-216.28	-339.82	-160.23	406.99	-216.28	-339.82
128	128	89.10	-208.09	-336.00	-168.30	321.21	-208.09	-336.00
128	129	92.21	-110.66	-303.18	-42.36	346.75	-110.66	-303.18
129	129	92.21	-123.65	-297.11	6.71	257.63	-160.06	-297.25
129	130	95.32	-1.99	-251.34	80.95	275.48	-1.99	-251.34
130	130	95.32	8.14	-261.10	105.16	206.91	-28.28	-267.31
130	131	98.43	107.22	-217.45	237.98	218.87	70.80	-223.02
131	131	98.43	137.13	-234.95	212.47	157.02	100.71	-247.23
131	132	101.54	262.32	-182.58	315.34	162.26	225.89	-194.22
132	132	101.54	260.00	-195.62	324.11	105.96	223.58	-213.98
132	133	104.65	381.09	-136.27	433.40	105.58	344.68	-153.97
133	133	104.65	456.49	-143.83	312.90	51.65	420.08	-168.24
133	134	107.76	537.01	-35.83	418.44	49.97	500.58	-59.60

Programa DINTEL PACADAR S.A. 30/11/02

Barra

GRÁFICO DE ESFUERZOS

ENV Mxd



rotura.esf.xls

V-3 STA OLIVA

Barra	Nudo	X	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)
1	1	0.00	-153.02	-12.03	-732.44	-13.40	-184.52	23.07
1	2	3.05	-92.89	-77.64	-581.44	-12.13	-124.41	-42.54
2	2	3.05	-98.51	-37.01	-580.62	44.00	-130.08	-11.58
2	3	6.10	-32.36	-88.19	-437.39	30.14	-63.93	-62.76
3	3	6.10	-37.01	-41.55	-435.43	73.38	-68.64	-25.79
3	4	9.15	35.06	-88.63	-299.14	54.64	3.46	-72.86
4	4	9.15	29.86	-43.96	-295.07	95.85	-1.79	-37.91
4	5	12.20	107.98	-124.99	-165.20	71.06	76.33	-118.96
5	5	12.20	101.64	-58.93	-159.21	125.11	69.96	-62.66
5	6	15.25	224.37	-143.97	-62.62	92.53	192.68	-146.75
6	6	15.25	221.02	-124.74	-63.24	179.86	189.30	-137.32
6	7	18.30	348.82	-167.19	21.51	142.44	317.12	-178.83
7	7	18.30	354.86	-167.60	13.19	199.42	323.14	-189.06
7	8	21.35	489.77	-196.05	92.04	155.46	458.04	-216.59
8	8	21.35	495.60	-157.25	83.21	187.84	463.86	-187.62
8	9	24.40	634.54	-191.60	154.68	126.38	602.80	-221.02
9	9	24.40	639.73	-211.95	145.57	172.16	607.97	-250.58
9	10	27.45	782.90	-246.48	210.28	13.91	751.16	-284.16
10	10	27.45	788.12	-255.07	203.00	195.08	756.37	-302.19
10	11	30.50	935.69	-288.61	254.01	27.92	903.94	-334.78
11	11	30.50	939.50	-232.83	248.50	203.17	907.71	-288.64
11	12	33.55	1092.99	-264.21	295.42	206.50	1061.21	-319.08
12	10012	33.55	-266.13	-125.41	-1088.53	136.67	-266.99	-75.11
12	13	37.19	-196.47	-176.04	-906.37	94.62	-197.33	-124.61
13	13	37.19	-207.13	-126.14	-902.62	160.14	-207.99	-86.27
13	14	40.82	-131.86	-174.96	-727.81	125.65	-132.72	-133.96
14	14	40.82	-144.10	-53.24	-720.66	113.40	-145.00	-23.59
14	15	44.46	-62.92	-103.43	-552.05	81.88	-63.83	-72.65
15	15	44.46	-74.80	64.86	-543.38	18.48	-75.72	84.49
15	16	48.10	11.74	16.79	-380.60	-14.54	10.81	37.56
16	16	48.10	1.94	77.44	-372.35	26.04	1.01	86.36
16	17	51.73	97.97	-29.24	-214.96	-12.15	97.03	-19.18
17	17	51.73	89.38	16.32	-212.26	33.71	88.43	14.53
17	18	55.37	219.27	-28.31	-84.47	-11.55	218.31	-28.98
18	18	55.37	221.47	17.81	-92.82	33.61	220.52	5.26
18	19	59.01	378.75	-20.38	3.57	-73.34	377.80	-31.81
19	19	59.01	386.97	20.46	-6.31	-12.77	386.01	-2.83
19	20	62.64	549.69	-12.51	80.32	-60.84	548.74	-34.69
20	20	62.64	558.20	-78.71	68.46	110.82	557.25	-112.13
20	21	66.28	726.78	-110.19	149.67	60.56	725.82	-142.48
21	21	66.28	734.13	-123.66	137.18	184.09	733.17	-167.42
21	22	69.91	908.83	-157.99	212.49	135.18	907.86	-200.61
22	22	69.91	912.81	-92.84	201.45	186.71	911.85	-147.17
22	23	73.55	1094.91	-134.76	270.57	185.22	1093.95	-187.97
23	10023	73.55	-301.02	-204.91	-1111.33	271.64	-242.13	-169.65
23	24	76.66	-253.17	-201.51	-954.06	239.09	-194.28	-165.61
24	24	76.66	-258.79	-27.58	-950.16	295.51	-199.90	1.79
24	25	79.77	-207.39	-194.63	-799.75	261.83	-148.49	-164.62
25	25	79.77	-214.18	-13.34	-794.23	253.46	-155.29	10.27
25	26	82.88	-148.71	-170.96	-648.40	217.40	-89.83	-146.71
26	26	82.88	-158.07	-124.62	-642.72	196.98	-99.18	-106.60
26	27	85.99	-85.20	-186.91	-501.18	162.65	-26.31	-168.24
27	27	85.99	-94.67	-152.60	-494.98	201.04	-35.78	-140.64
27	28	89.10	-14.52	-197.49	-357.57	172.45	44.37	-184.89
28	28	89.10	-23.00	-141.02	-351.07	171.48	35.89	-135.10
28	29	92.21	63.23	-179.38	-220.85	128.79	122.12	-172.81
29	29	92.21	62.78	-90.26	-224.01	146.26	121.67	-90.41
29	30	95.32	161.52	-123.29	-99.69	60.82	220.40	-122.79
30	30	95.32	167.78	-68.93	-106.06	126.34	226.68	-75.14
30	31	98.43	299.93	-94.19	-26.44	44.86	358.83	-99.76
31	31	98.43	304.30	-53.22	-31.75	90.03	363.20	-65.48
31	32	101.54	442.98	-72.25	41.84	42.04	501.88	-83.88
32	32	101.54	445.01	-28.69	37.18	88.89	503.90	-47.03
32	33	104.65	590.76	-42.79	104.74	36.69	649.64	-60.48
33	33	104.65	591.59	14.04	98.96	77.75	650.48	-10.36
33	34	107.76	746.32	15.20	160.27	10.89	805.22	-8.55
101	101	0.00	-168.57	17.35	-786.01	31.03	-200.37	-17.54
101	102	3.05	-106.19	69.99	-625.26	23.60	-138.00	35.10
102	102	3.05	-109.05	37.45	-617.31	-9.68	-140.81	12.58

V-3 STA OLIVA

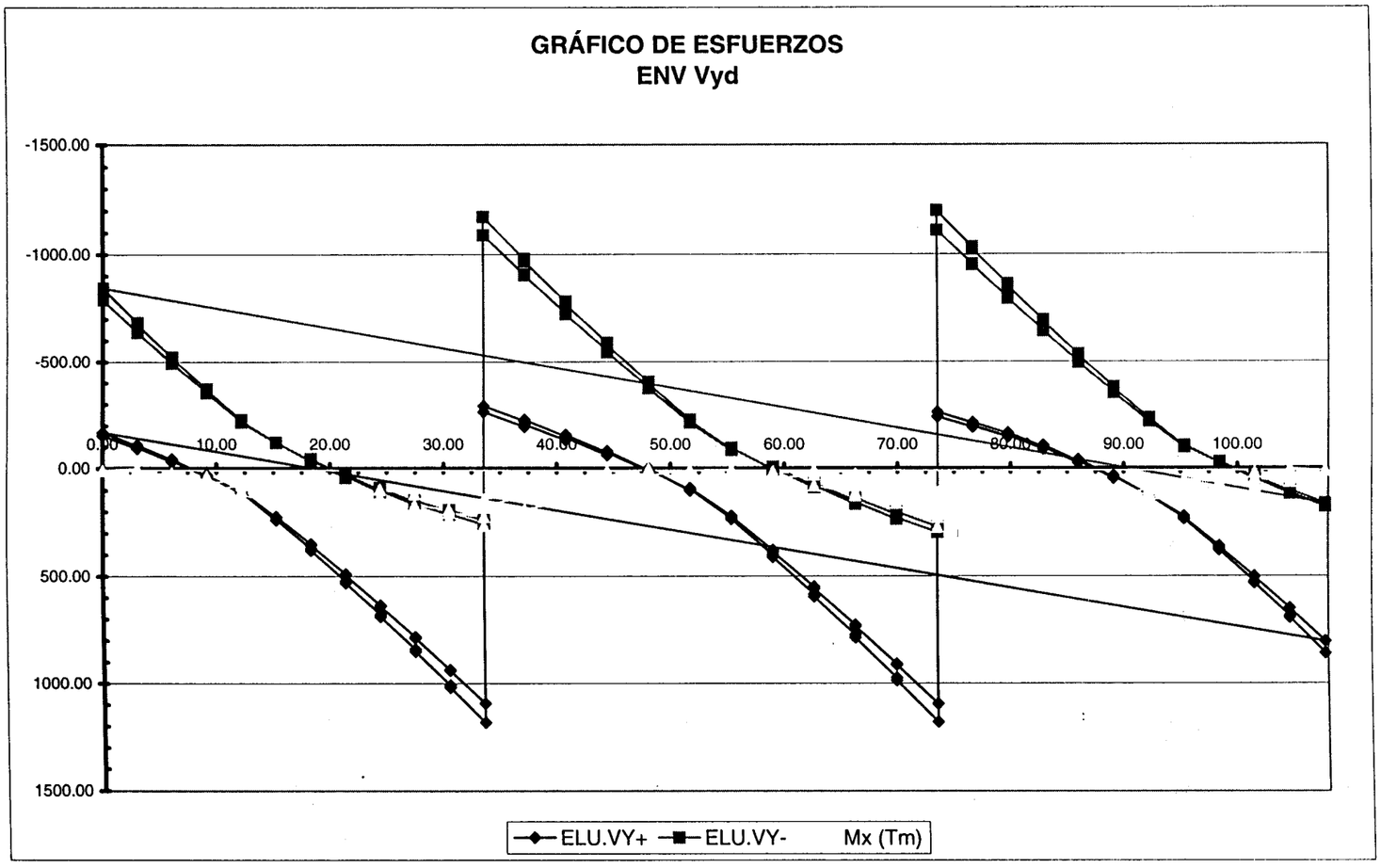
Barra	Nudo	X	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)
102	103	6.10	-39.96	76.87	-465.23	-3.33	-71.72	51.05
103	103	6.10	-42.81	37.30	-458.97	-34.49	-74.53	21.47
103	104	9.15	32.76	73.33	-314.49	-24.11	1.07	56.56
104	104	9.15	29.15	34.55	-308.63	-61.07	-2.51	27.78
104	105	12.20	111.24	97.87	-171.09	-45.03	79.58	90.15
105	105	12.20	106.64	47.07	-165.01	-101.69	75.02	49.30
105	106	15.25	236.98	109.34	-63.64	-75.82	205.33	110.62
106	106	15.25	235.35	94.44	-64.64	-163.61	203.73	105.66
106	107	18.30	370.95	121.99	24.25	-132.65	339.36	132.28
107	107	18.30	379.25	126.28	16.16	-185.24	347.66	146.50
107	108	21.35	522.26	141.31	98.88	-147.71	490.66	160.59
108	108	21.35	531.25	109.31	90.16	-170.45	499.67	138.52
108	109	24.40	678.69	128.88	164.56	-119.57	647.11	157.14
109	109	24.40	688.37	95.60	156.58	-153.04	656.80	133.18
109	110	27.45	840.42	115.72	221.97	-21.38	808.87	152.36
110	110	27.45	850.74	168.45	218.99	-152.03	819.21	214.62
110	111	30.50	1007.62	188.19	269.02	-33.96	976.08	233.41
111	111	30.50	1018.79	202.56	266.93	-37.12	987.26	257.56
111	112	33.55	1181.97	221.95	316.13	-42.30	1150.44	276.00
112	10112	33.55	-292.41	170.56	-1172.75	-106.46	-293.44	119.57
112	113	37.19	-223.09	164.61	-979.21	-79.76	-224.12	112.49
113	113	37.19	-229.21	80.28	-966.60	-69.05	-230.21	39.86
113	114	40.82	-150.64	119.65	-781.02	-48.60	-151.64	78.11
114	114	40.82	-158.82	19.43	-767.78	-26.01	-159.80	-10.65
114	115	44.46	-73.79	60.52	-588.94	-9.03	-74.78	29.32
115	115	44.46	-82.46	-57.24	-576.98	24.04	-83.44	-77.21
115	116	48.10	8.37	-18.33	-404.49	42.48	7.39	-39.42
116	116	48.10	-0.02	-77.16	-393.91	11.51	-0.98	-86.34
116	117	51.73	100.91	10.24	-227.26	35.50	99.94	-0.06
117	117	51.73	93.51	-27.09	-223.52	-9.36	92.54	-25.48
117	118	55.37	230.64	5.52	-88.53	23.39	229.67	6.00
118	118	55.37	234.00	-39.38	-95.66	-13.59	233.04	-26.99
118	119	59.01	400.52	-15.38	5.60	74.06	399.56	-4.12
119	119	59.01	411.22	-46.37	-2.91	15.28	410.26	-23.20
119	120	62.64	583.65	-27.98	87.99	54.19	582.70	-5.92
120	120	62.64	595.67	7.12	79.40	-65.53	594.73	40.43
120	121	66.28	774.47	24.05	164.44	-24.42	773.53	56.24
121	121	66.28	787.90	48.20	156.12	-126.78	786.96	91.86
121	122	69.91	973.44	68.56	234.73	-87.31	972.49	111.10
122	122	69.91	986.41	81.40	228.39	-173.06	985.47	135.67
122	123	73.55	1179.93	108.00	296.18	-177.14	1178.99	161.16
123	10123	73.55	-321.89	43.16	-1200.87	-224.84	-263.02	7.85
123	124	76.66	-271.73	37.87	-1033.68	-204.64	-212.85	1.93
124	124	76.66	-273.85	34.62	-1022.24	-188.51	-214.97	5.21
124	125	79.77	-223.46	153.08	-862.33	-168.90	-164.57	123.04
125	125	79.77	-225.89	21.76	-851.53	-116.37	-167.01	-1.88
125	126	82.88	-159.72	153.08	-696.66	-95.02	-100.83	128.79
126	126	82.88	-167.97	118.88	-686.78	-129.83	-109.08	100.84
126	127	85.99	-92.05	170.60	-536.55	-110.54	-33.16	151.92
127	127	85.99	-101.33	128.34	-527.47	-142.79	-42.45	116.36
127	128	89.10	-17.25	166.72	-381.80	-127.88	41.63	154.10
128	128	89.10	-25.74	131.13	-373.20	-123.17	33.15	125.21
128	129	92.21	64.75	162.93	-234.99	-95.66	123.64	156.38
129	129	92.21	63.79	75.74	-236.70	-110.27	122.66	75.88
129	130	95.32	167.40	102.19	-104.67	-48.02	226.29	101.69
130	130	95.32	173.55	42.51	-109.44	-98.63	232.45	48.72
130	131	98.43	313.51	58.87	-25.74	-34.98	372.41	64.44
131	131	98.43	319.52	21.68	-29.51	-74.37	378.42	33.96
131	132	101.54	466.56	32.16	47.64	-37.63	525.47	43.79
132	132	101.54	472.86	0.74	44.76	-77.50	531.75	19.10
132	133	104.65	627.62	7.13	115.31	-37.29	686.51	24.84
133	133	104.65	635.82	-26.13	112.39	-70.07	694.71	-1.71
133	134	107.76	800.55	-33.60	175.98	-16.40	859.45	-9.84

V-3 STA OLIVA

Barra	Nudo	X	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)
1	1	0.00	-790.58	10.00	-153.02	-12.03	-790.58	10.00
1	2	3.05	-639.59	11.27	-92.89	-77.64	-639.59	11.27
2	2	3.05	-638.80	60.95	-98.51	-37.01	-638.80	60.95
2	3	6.10	-495.58	47.10	-32.36	-88.19	-495.58	47.10
3	3	6.10	-493.65	83.89	-37.01	-41.55	-493.65	83.89
3	4	9.15	-357.35	65.15	35.06	-88.63	-357.35	65.15
4	4	9.15	-353.31	99.89	29.86	-43.96	-353.31	99.89
4	5	12.20	-223.44	75.08	107.98	-124.99	-223.44	75.08
5	5	12.20	-217.46	122.62	101.64	-58.93	-217.46	122.62
5	6	15.25	-120.89	90.68	224.37	-143.97	-120.89	90.68
6	6	15.25	-121.52	171.47	221.02	-124.74	-121.52	171.47
6	7	18.30	-36.76	134.69	348.82	-167.19	-36.76	134.69
7	7	18.30	-45.10	185.11	354.86	-167.60	-45.10	185.11
7	8	21.35	33.74	141.77	489.77	-196.05	33.74	141.77
8	8	21.35	24.91	167.59	495.60	-157.25	24.91	167.59
8	9	24.40	96.38	106.77	634.54	-191.60	96.38	106.77
9	9	24.40	87.26	146.41	639.73	-211.95	87.26	146.41
9	10	27.45	151.97	-11.21	782.90	-246.48	151.97	-11.21
10	10	27.45	144.69	163.67	788.12	-255.07	144.69	163.67
10	11	30.50	195.70	-2.86	935.69	-288.61	195.70	-2.86
11	11	30.50	190.17	165.96	939.50	-232.83	190.17	165.96
11	12	33.55	237.09	169.91	1092.99	-264.21	237.09	169.91
12	10012	33.55	-1089.98	170.20	-266.13	-125.41	-1089.98	170.20
12	13	37.19	-907.82	128.91	-196.47	-176.04	-907.82	128.91
13	13	37.19	-904.07	186.71	-207.13	-126.14	-904.07	186.71
13	14	40.82	-729.27	152.98	-131.86	-174.96	-729.27	152.98
14	14	40.82	-722.15	133.16	-144.10	-53.24	-722.15	133.16
14	15	44.46	-553.55	102.40	-62.92	-103.43	-553.55	102.40
15	15	44.46	-544.89	31.57	-74.80	64.86	-544.89	31.57
15	16	48.10	-382.10	-0.69	11.74	16.79	-382.10	-0.69
16	16	48.10	-373.85	31.99	1.94	77.44	-373.85	31.99
16	17	51.73	-216.47	-5.45	97.97	-29.24	-216.47	-5.45
17	17	51.73	-213.78	32.51	89.38	16.32	-213.78	32.51
17	18	55.37	-85.99	-12.00	219.27	-28.31	-85.99	-12.00
18	18	55.37	-94.34	25.24	221.47	17.81	-94.34	25.24
18	19	59.01	2.05	-80.96	378.75	-20.38	2.05	-80.96
19	19	59.01	-7.83	-28.29	386.97	20.46	-7.83	-28.29
19	20	62.64	78.80	-75.61	549.69	-12.51	78.80	-75.61
20	20	62.64	66.94	88.54	558.20	-78.71	66.94	88.54
20	21	66.28	148.15	39.03	726.78	-110.19	148.15	39.03
21	21	66.28	135.66	154.92	734.13	-123.66	135.66	154.92
21	22	69.91	210.96	106.77	908.83	-157.99	210.96	106.77
22	22	69.91	199.93	150.50	912.81	-92.84	199.93	150.50
22	23	73.55	269.05	149.76	1094.91	-134.76	269.05	149.76
23	10023	73.55	-1079.19	324.54	-242.13	-169.65	-1111.33	271.64
23	24	76.66	-921.91	292.96	-194.28	-165.61	-954.06	239.09
24	24	76.66	-918.01	339.57	-199.90	1.79	-950.16	295.51
24	25	79.77	-767.59	306.85	-148.49	-164.62	-799.75	261.83
25	25	79.77	-762.07	288.89	-155.29	10.27	-794.23	253.46
25	26	82.88	-616.25	253.79	-89.83	-146.71	-648.40	217.40
26	26	82.88	-610.57	224.02	-99.18	-106.60	-642.72	196.98
26	27	85.99	-469.04	190.65	-26.31	-168.24	-501.18	162.65
27	27	85.99	-462.83	218.98	-35.78	-140.64	-494.98	201.04
27	28	89.10	-325.43	191.37	44.37	-184.89	-357.57	172.45
28	28	89.10	-318.92	180.34	35.89	-135.10	-351.07	171.48
28	29	92.21	-188.70	138.63	122.12	-172.81	-220.85	128.79
29	29	92.21	-191.86	146.02	121.67	-90.41	-224.01	146.26
29	30	95.32	-67.54	61.56	220.40	-122.79	-99.69	60.82
30	30	95.32	-73.91	117.02	226.68	-75.14	-106.06	126.34
30	31	98.43	5.72	36.50	358.83	-99.76	-26.44	44.86
31	31	98.43	0.41	71.63	363.20	-65.48	-31.75	90.03
31	32	101.54	74.00	24.58	501.88	-83.88	41.84	42.04
32	32	101.54	69.33	61.37	503.90	-47.03	37.18	88.89
32	33	104.65	136.87	10.13	649.64	-60.48	104.74	36.69
33	33	104.65	131.10	41.13	650.48	-10.36	98.96	77.75
33	34	107.76	192.43	-24.76	805.22	-8.55	160.27	10.89
101	101	0.00	-844.34	7.77	-168.57	17.35	-844.34	7.77
101	102	3.05	-683.61	0.35	-106.19	69.99	-683.61	0.35
102	102	3.05	-675.62	-26.26	-109.05	37.45	-675.62	-26.26

V-3 STA OLIVA

Barra	Nudo	X	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)	Vy (T)	Mx (Tm)
102	103	6.10	-523.54	-20.55	-39.96	76.87	-523.54	-20.55
103	103	6.10	-517.26	-45.03	-42.81	37.30	-517.26	-45.03
103	104	9.15	-372.76	-35.29	32.76	73.33	-372.76	-35.29
104	104	9.15	-366.88	-65.58	29.15	34.55	-366.88	-65.58
104	105	12.20	-229.34	-50.18	111.24	97.87	-229.34	-50.18
105	105	12.20	-223.23	-100.21	106.64	47.07	-223.23	-100.21
105	106	15.25	-121.88	-74.97	236.98	109.34	-121.88	-74.97
106	106	15.25	-122.87	-156.13	235.35	94.44	-122.87	-156.13
106	107	18.30	-33.95	-125.79	370.95	121.99	-33.95	-125.79
107	107	18.30	-42.04	-171.76	379.25	126.28	-42.04	-171.76
107	108	21.35	40.67	-134.86	522.26	141.31	40.67	-134.86
108	108	21.35	31.96	-150.98	531.25	109.31	31.96	-150.98
108	109	24.40	106.37	-100.73	678.69	128.88	106.37	-100.73
109	109	24.40	98.39	-127.98	688.37	95.60	98.39	-127.98
109	110	27.45	163.80	3.05	840.42	115.72	163.80	3.05
110	110	27.45	160.83	-121.25	850.74	168.45	160.83	-121.25
110	111	30.50	210.85	-3.81	1007.62	188.19	210.85	-3.81
111	111	30.50	208.77	-0.45	1018.79	202.56	208.77	-0.45
111	112	33.55	257.97	-6.26	1181.97	221.95	257.97	-6.26
112	10112	33.55	-1174.32	-140.46	-292.41	170.56	-1174.32	-140.46
112	113	37.19	-980.77	-114.51	-223.09	164.61	-980.77	-114.51
113	113	37.19	-968.14	-96.00	-229.21	80.28	-968.14	-96.00
113	114	40.82	-782.56	-76.30	-150.64	119.65	-782.56	-76.30
114	114	40.82	-769.32	-46.06	-158.82	19.43	-769.32	-46.06
114	115	44.46	-590.49	-29.83	-73.79	60.52	-590.49	-29.83
115	115	44.46	-578.52	10.73	-82.46	-57.24	-578.52	10.73
115	116	48.10	-406.03	28.42	8.37	-18.33	-406.03	28.42
116	116	48.10	-395.42	5.39	-0.02	-77.16	-395.42	5.39
116	117	51.73	-228.79	28.63	100.91	10.24	-228.79	28.63
117	117	51.73	-225.05	-8.29	93.51	-27.09	-225.05	-8.29
117	118	55.37	-90.06	23.71	230.64	5.52	-90.06	23.71
118	118	55.37	-97.18	-5.34	234.00	-39.38	-97.18	-5.34
118	119	59.01	4.08	81.54	400.52	-15.38	4.08	81.54
119	119	59.01	-4.43	30.71	411.22	-46.37	-4.43	30.71
119	120	62.64	86.47	68.88	583.65	-27.98	86.47	68.88
120	120	62.64	77.88	-43.32	595.67	7.12	77.88	-43.32
120	121	66.28	162.93	-2.96	774.47	24.05	162.93	-2.96
121	121	66.28	154.60	-97.68	787.90	48.20	154.60	-97.68
121	122	69.91	233.21	-58.96	973.44	68.56	233.21	-58.96
122	122	69.91	226.88	-136.89	986.41	81.40	226.88	-136.89
122	123	73.55	294.67	-141.71	1179.93	108.00	294.67	-141.71
123	10123	73.55	-1168.73	-277.81	-263.02	7.85	-1200.87	-224.84
123	124	76.66	-1001.54	-258.55	-212.85	1.93	-1033.68	-204.64
124	124	76.66	-990.11	-232.62	-214.97	5.21	-1022.24	-188.51
124	125	79.77	-830.19	-213.97	-164.57	123.04	-862.33	-168.90
125	125	79.77	-819.38	-151.84	-167.01	-1.88	-851.53	-116.37
125	126	82.88	-664.51	-131.45	-100.83	128.79	-696.66	-95.02
126	126	82.88	-654.63	-156.90	-109.08	100.84	-686.78	-129.83
126	127	85.99	-504.41	-138.56	-33.16	151.92	-536.55	-110.54
127	127	85.99	-495.33	-160.76	-42.45	116.36	-527.47	-142.79
127	128	89.10	-349.67	-146.83	41.63	154.10	-381.80	-127.88
128	128	89.10	-341.05	-132.06	33.15	125.21	-373.20	-123.17
128	129	92.21	-202.85	-105.49	123.64	156.38	-234.99	-95.66
129	129	92.21	-204.57	-110.07	122.66	75.88	-236.70	-110.27
129	130	95.32	-72.52	-48.76	226.29	101.69	-104.67	-48.02
130	130	95.32	-77.28	-89.32	232.45	48.72	-109.44	-98.63
130	131	98.43	6.41	-26.62	372.41	64.44	-25.74	-34.98
131	131	98.43	2.64	-55.95	378.42	33.96	-29.51	-74.37
131	132	101.54	79.81	-20.17	525.47	43.79	47.64	-37.63
132	132	101.54	76.92	-49.98	531.75	19.10	44.76	-77.50
132	133	104.65	147.45	-10.74	686.51	24.84	115.31	-37.29
133	133	104.65	144.53	-33.44	694.71	-1.71	112.39	-70.07
133	134	107.76	208.14	19.25	859.45	-9.84	175.98	-16.40



PACADAR | ESTUDIO: | OBRA: | FECHA:

HOJA:

2.2.3.6.A) FLEXOCOMPRESION

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

A continuación se recogen las envolventes de rotura correspondientes tanto a las fases constructivas como a l puente terminado; para realizar dichas envolventes se han asignado secciones en función de las armaduras obtenidos en el calculo longitudinal realizado en los apartados anteriores; con esto se han obtenido los momentos últimos, tanto de las secciones simples (cajón) como de las completas (cajón + losa) Los reflexivos empleados se disponen siguiendo el criterio gral aplicado en los viaductos V-1 y V-2

CÁLCULO EN ROTURA

SECCIONES ASIGNADAS

Barra	Nudo	X	SECCION
1	1	0.00	A
1	2	3.05	A
2	2	3.05	B
2	3	6.10	B
3	3	6.10	C
3	4	9.15	C
4	4	9.15	D
4	5	12.20	D
5	5	12.20	D
5	6	15.25	D
6	6	15.25	D
6	7	18.30	D
7	7	18.30	D
7	8	21.35	D
8	8	21.35	D
8	9	24.40	D
9	9	24.40	E
9	10	27.45	E
10	10	27.45	F
10	11	30.50	F
11	11	30.50	G
11	12	33.55	Z
12	10012	33.55	Z
12	13	37.19	H
13	13	37.19	I
13	14	40.82	I
14	14	40.82	J
14	15	44.46	J
15	15	44.46	K
15	16	48.10	K
16	16	48.10	K
16	17	51.73	K
17	17	51.73	K
17	18	55.37	K
18	18	55.37	K
18	19	59.01	K
19	19	59.01	K
19	20	62.64	K
20	20	62.64	J
20	21	66.28	J
21	21	66.28	I
21	22	69.91	I
22	22	69.91	H
22	23	73.55	Z
23	10023	73.55	Z
23	24	76.66	G
24	24	76.66	F
24	25	79.77	F
25	25	79.77	M
25	26	82.88	M
26	26	82.88	N
26	27	85.99	N
27	27	85.99	N
27	28	89.10	N

CÁLCULO EN ROTURA

SECCIONES ASIGNADAS

Barra	Nudo	X	SECCION
28	28	89.10	N
28	29	92.21	N
29	29	92.21	N
29	30	95.32	N
30	30	95.32	N
30	31	98.43	N
31	31	98.43	O
31	32	101.54	O
32	32	101.54	B
32	33	104.65	B
33	33	104.65	A
33	34	107.76	A
101	101	0.00	A
101	102	3.05	A
102	102	3.05	B
102	103	6.10	B
103	103	6.10	C
103	104	9.15	C
104	104	9.15	D
104	105	12.20	D
105	105	12.20	D
105	106	15.25	D
106	106	15.25	D
106	107	18.30	D
107	107	18.30	D
107	108	21.35	D
108	108	21.35	D
108	109	24.40	D
109	109	24.40	E
109	110	27.45	E
110	110	27.45	F
110	111	30.50	F
111	111	30.50	G
111	112	33.55	Z
112	10112	33.55	Z
112	113	37.19	H
113	113	37.19	I
113	114	40.82	I
114	114	40.82	J
114	115	44.46	J
115	115	44.46	K
115	116	48.10	K
116	116	48.10	K
116	117	51.73	K
117	117	51.73	K
117	118	55.37	K
118	118	55.37	K
118	119	59.01	K
119	119	59.01	K
119	120	62.64	K
120	120	62.64	J
120	121	66.28	J
121	121	66.28	I
121	122	69.91	I
122	122	69.91	H

CÁLCULO EN ROTURA

SECCIONES ASIGNADAS

Barra	Nudo	X	SECCION
122	123	73.55	Z
123	10123	73.55	Z
123	124	76.66	G
124	124	76.66	F
124	125	79.77	F
125	125	79.77	M
125	126	82.88	M
126	126	82.88	N
126	127	85.99	N
127	127	85.99	N
127	128	89.10	N
128	128	89.10	N
128	129	92.21	N
129	129	92.21	N
129	130	95.32	N
130	130	95.32	N
130	131	98.43	N
131	131	98.43	O
131	132	101.54	O
132	132	101.54	B
132	133	104.65	B
133	133	104.65	A
133	134	107.76	A

SECCIONES EN ROTURA

SECCION	PR INF1	PR INF2	PR INF3	PR INF4	PR TOTAL	PRET SUP	POST LOSA	ARM LOSA
A	26				26	8	-	Φ12 a 20cm
B	26	26			52	8	-	Φ12 a 20cm
C	26	26	18		70	8	-	Φ12 a 20cm
D	26	26	18	18	88	8	-	Φ12 a 20cm
E	26	26	18		70	8	56	Φ20 a 10cm
F	26	26			52	8	105	Φ20 a 10cm
G	26				26	8	105	Φ20 a 10cm
H	28				28	8	105	Φ20 a 10cm
I	28	26			54	8	105	Φ20 a 10cm
J	28	26	28		82	8	49	Φ20 a 10cm
K	28	26	28	28	110	8	-	Φ12 a 20cm
L	28	26	28		82	8	56	Φ20 a 10cm
M	26	26	20		72	8	49	Φ20 a 10cm
N	26	26	20	20	92	8	-	Φ12 a 20cm
O	26	26	20		72	8	-	Φ12 a 20cm

VTO STA OLIVA
TRAMO V-3
AVE VENDRELL

MOMENTOS ÚLTIMOS DE LAS SECCIONES

	CAJON		SECCION TOTAL	
SECCION	Mu+	Mu-	Mu+	Mu-
A	1445.7	-401.8	1733.5	-1298.7
B	2639.6	-379.4	3292.5	-1268.3
C	3190.8	-372.8	4338.8	-1252.7
D	3628.7	-374.3	5354.0	-1241.4
E	3190.8	-372.8	4318.2	-4775.1
F	2639.5	-379.4	3250.3	-5659.9
G	1445.7	-401.8	1723.1	-6270.3
H	1549.4	-399.1	1843.2	-6223.3
I	2709.0	-376.0	3370.1	-5612.9
J	3516.6	-362.8	5017.5	-4428.7
K	3947.0	-355.0	6608.4	-1205.5
L	3516.6	-362.8	5012.6	-4526.7
M	3247.1	-371.8	4437.8	-4603.1
N	3694.8	-372.2	5581.3	-1236.1
O	3247.1	-371.8	4454.5	-1250.5
Z			1915.5	-9635.9

NOTAS: Los momentos últimos de las secciones se expresan en m·ton

En la seccion F no se ha considerado la contribución del postesado en la union ni de pretensado de viga, para la obtención de los momentos últimos negativos en las fases de cajón sección total.

Proyecto:
V-3 [redacted]TA OLIVA

Seccion:SECA

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	[redacted] 1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	0.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	3	0.0	20.0	265.0	CT	0

SECCIONES INTERMEDIAS

Num	Codigo	Componentes
1 [redacted]	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1507.2	13.93	2597415.0
	(1)	801.5	24.55	2453361.6
	(2)	967.8	20.82	2502998.2
F.pura -	(0)	985.1	247.55	5309015.9
	(1)	422.6	211.82	4427155.8
	(2)	531.2	224.69	4739995.4
C.Simple	(0)	5524.5	86.91	55425817.6
	(1)	1624.5	87.15	16670436.8
	(2)	2328.6	87.05	23667125.2
T.Simple	(0)	124.5	91.33	1762223.3
	(1)	124.5	91.33	1762223.3
	(2)	124.5	91.33	1762223.3

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECA

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 651.05Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1445.7 Xu(cm.): 68.6

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00184 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -401.8 Xu(cm.): 266.2

Nu(Tn.): .2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00101 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 727.7 aplicado en Yo(cm)= 226.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECA

*** PRESOLICITACIONES ELASTICAS**

Analisis SIN FISURACION

Pretensado: 651.05Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1733.5 Xu(cm.): 17.7

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00066 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1298.7 Xu(cm.): 258.1

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00125 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9520.9 aplicado en Yo(cm)= 99.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1078.8 aplicado en Yo(cm)= 156.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 VENDRELL

Seccion:SECB

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\pi 1$	$J_\pi 2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	3	0.0	20.0	265.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1997.3	18.55	4698277.1
	(1)	995.0	32.93	4355852.5
	(2)	1281.7	27.79	4474446.3
F.pura -	(0)	1011.1	248.42	5333264.5
	(1)	446.4	216.26	4546287.1
	(2)	555.5	227.55	4817147.9
C.Simple	(0)	5555.7	87.97	56533376.5
	(1)	1655.7	90.71	17760436.6
	(2)	2359.8	89.55	24764587.8

T.Simple	(0)	155.7	128.31	2611672.2
	(1)	155.7	128.31	2611672.2
	(2)	155.7	128.31	2611672.2

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECB

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1148.92Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2639.6 Xu(cm.): 100.9

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00866
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -379.4 Xu(cm.): 262.2

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00138 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1268.9 aplicado en Yo(cm)= 247.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECB

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1148.92Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3292.5 Xu(cm.): 23.8

Nu(Tn.): .2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00091 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1268.3 Xu(cm.): 253.2

Nu(Tn.): -.6 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00165 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9520.9 aplicado en Yo(cm)= 99.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1620.0 aplicado en Yo(cm)= 196.6

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 [redacted] TA OLIVA

Seccion:SECC

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	[redacted] 1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	18.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	3	0.0	20.0	265.0	CT	0

SECCIONES INTERMEDIAS

Num	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2271.3	21.10	6061185.2
	(1)	1037.3	37.94	5554735.7
	(2)	1402.6	31.63	5732154.1
F.pura -	(0)	1029.9	248.90	5344110.7
	(1)	463.8	218.80	4608167.4
	(2)	573.1	229.18	4856519.9
C.Simple	(0)	5577.3	88.68	57254581.2
	(1)	1677.3	93.03	18453898.9
	(2)	2381.4	91.19	25469741.0
T.Simple	(0)	177.3	145.70	2998200.3
	(1)	177.3	145.70	2998200.3
	(2)	177.3	145.70	2998200.3

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECC

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1493.60Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3190.8 Xu(cm.): 129.9

Nu(Tn.): .5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00489
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -372.8 Xu(cm.): 258.9

Nu(Tn.): -.2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00167 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1643.5 aplicado en Yo(cm)= 252.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECC

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1493.60Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 4338.8 Xu(cm.): 27.3

Nu(Tn.): .1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00106 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1252.7 Xu(cm.): 248.4

Nu(Tn.): -.4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00199 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9520.9 aplicado en Yo(cm)= 99.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1994.6 aplicado en Yo(cm)= 210.6

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 SAT OLIVA

Seccion:SECD

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jπ1	Jπ2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	18.0	13.4	270.4	*T	0
8	4	18.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	3	0.0	20.0	265.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2511.5	23.30	7345369.5
	(1)	1077.9	42.55	6655896.0
	(2)	1445.6	35.16	6901196.9
F.pura -	(0)	1049.4	249.25	5350350.7
	(1)	481.9	220.91	4654274.9
	(2)	591.5	230.52	4884837.1
C.Simple	(0)	5598.9	89.36	57931523.1
	(1)	1698.9	95.23	19092303.5
	(2)	2403.0	92.76	26124257.1

T.Simple	(0)	198.9	158.77	3277126.5
	(1)	198.9	158.77	3277126.5
	(2)	198.9	158.77	3277126.5

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECD

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1838.27Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3628.7 Xu(cm.): 156.3

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00291
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -374.3 Xu(cm.): 254.4

Nu(Tn.): -.3 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00201 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2018.2 aplicado en Yo(cm)= 255.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECD

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1838.27Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 5354.0 Xu(cm.): 30.4

Nu(Tn.): -.4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00120 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1241.4 Xu(cm.): 242.1

Nu(Tn.): -.4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00241 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9520.9 aplicado en Yo(cm)= 99.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2369.3 aplicado en Yo(cm)= 219.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECE

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	18.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	20.0	5.0	CT	0
11	3	35.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	56.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2411.3	20.41	6080488.4
	(1)	1227.9	33.75	5668924.2
	(2)	1568.8	29.21	5801634.8
F.pura -	(0)	1454.5	212.47	15082942.9
	(1)	769.8	159.44	10820821.6
	(2)	910.1	176.03	12127691.6
C.Simple	(0)	5785.2	85.96	58408280.1
	(1)	1885.2	84.21	19644459.6
	(2)	2589.3	84.92	26644548.8

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2565.92Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformación Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 4318.2 Xu(cm.): 29.3

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00129 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -4775.1 Xu(cm.): 130.9

Nu(Tn.): .2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00247
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -10145.1 aplicado en Yo(cm)= 94.0

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 3784.4 aplicado en Yo(cm)= 117.1

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECF

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat. Num	B(cm)	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	20.0	5.0	CT	0
11	3	35.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	105.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2197.7	17.89	4712606.8
	(1)	1212.7	28.66	4446568.2
	(2)	1441.2	25.15	4529751.8
F.pura -	(0)	1542.7	203.89	17243414.2
	(1)	829.3	145.95	11668612.5
	(2)	976.7	163.92	13359675.7
C.Simple	(0)	5822.4	84.53	57972265.0
	(1)	1922.4	79.92	19155983.1
	(2)	2626.5	81.77	26177040.8

T.Simple	(0)	422.4	55.47	3926517.4
	(1)	422.4	55.47	3926517.4
	(2)	422.4	55.47	3926517.4

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

TÍtulo Secci├n: SECF

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 3159.53Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2639.5 Xu(cm.): 97.9

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00866
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -379.4 Xu(cm.): 261.2

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00138 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1268.9 aplicado en Yo(cm)= 247.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

TÍtulo Secci├n: SECF

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 3159.53Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3250.3 Xu(cm.): 29.3

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00141 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -5659.9 Xu(cm.): 102.4

Nu(Tn.): -.6 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00155
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -10145.1 aplicado en Yo(cm)= 94.0

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 4429.6 aplicado en Yo(cm)= 80.0

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3[redacted]TA OLIVA

Seccion:SECG

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jπ1	Jπ2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	0.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	20.0	5.0	CT	0
11	3	35.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	105.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1759.5	13.79	2604608.4
	(1)	985.2	21.54	2487002.2
	(2)	1163.7	19.07	2522808.7
F.pura -	(0)	1520.3	202.41	17078466.6
	(1)	806.5	140.90	11121579.9
	(2)	954.4	160.24	12955843.4
C.Simple	(0)	5791.2	83.50	56824124.9
	(1)	1891.2	76.69	17938525.1
	(2)	2595.3	79.44	24987668.6
T.Simple	(0)	391.2	37.90	2290453.9
	(1)	391.2	37.90	2290453.9
	(2)	391.2	37.90	2290453.9

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Tπtulo Seccißn: SECG

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2661.66Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1445.7 Xu(cm.): 64.7

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00184 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -401.8 Xu(cm.): 265.0

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00101 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 727.7 aplicado en Yo(cm)= 226.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Tπtulo Seccißn: SECG

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2661.66Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1723.1 Xu(cm.): 25.0

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00123 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -6270.3 Xu(cm.): 109.1

Nu(Tn.): -.7 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00184
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -10145.1 aplicado en Yo(cm)= 94.0

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 3888.4 aplicado en Yo(cm)= 52.7

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 SAT OLIVA

Seccion:SECH

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	0.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	20.0	5.0	CT	0
11	3	35.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	105.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1797.7	14.15	2775289.2
	(1)	1004.8	22.17	2647734.3
	(2)	1187.7	19.60	2686685.6
F.pura -	(0)	1522.0	202.53	17093140.0
	(1)	808.2	141.31	11168317.9
	(2)	956.1	160.54	12990557.5
C.Simple	(0)	5793.6	83.59	56917367.1
	(1)	1893.6	76.95	18038237.5
	(2)	2597.7	79.62	25084749.0

T.Simple	(0)	393.6	39.38	2431015.1
	(1)	393.6	39.38	2431015.1
	(2)	393.6	39.38	2431015.1

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECH

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2699.96Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1549.4 Xu(cm.): 66.5

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00194 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -399.1 Xu(cm.): 264.7

Nu(Tn.): .4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00104 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 769.4 aplicado en Yo(cm)= 229.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECH

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2699.96Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1843.2 Xu(cm.): 25.3

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00124 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -6223.3 Xu(cm.): 108.7

Nu(Tn.): -.1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00181
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -10145.1 aplicado en Yo(cm)= 94.0

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 3930.1 aplicado en Yo(cm)= 55.2

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 [redacted]TA OLIVA

Seccion:SECI

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	20.0	5.0	CT	0
11	3	35.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	105.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2228.4	18.17	4878128.6
	(1)	1228.7	29.16	4598659.2
	(2)	1460.7	25.57	4686163.8
F.pura -	(0)	1544.4	204.01	17257537.8
	(1)	831.1	146.34	11712036.8
	(2)	978.4	164.20	13392304.6
C.Simple	(0)	5824.8	84.62	58064535.1
	(1)	1924.8	80.17	19252562.6
	(2)	2628.9	81.95	26271884.3
T.Simple	(0)	424.8	56.75	4047519.2
	(1)	424.8	56.75	4047519.2
	(2)	424.8	56.75	4047519.2

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECI

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 3197.83Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2709.0 Xu(cm.): 101.1

Nu(Tn.): -.1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00809
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -376.0 Xu(cm.): 260.9

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00141 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1310.5 aplicado en Yo(cm)= 248.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECI

*** PRESOLICITACIONES ELASTICAS**

Analisis SIN FISURACION

Pretensado: 3197.83Tn.

(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS

Def. Ultima Acero Estructural(COMPRESION)(%): 2.50

Def. Ultima Acero Estructural(TRACCION)(%): 2.50

Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon

Deformacion Ultima Hormigon(TRACCION)(%): 1.00

Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3370.1 Xu(cm.): 29.6

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00143 Etmx= .01000

Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -5612.9 Xu(cm.): 101.9

Nu(Tn.): -.5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00153

Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -10145.1 aplicado en Yo(cm)= 94.0

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 4471.2 aplicado en Yo(cm)= 81.9

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0

S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECJ

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\pi 1$	$J_\pi 2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	28.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	20.0	5.0	CT	0
11	3	35.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	49.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2564.6	21.90	6990784.6
	(1)	1245.9	36.67	6476631.4
	(2)	1615.7	31.48	6644552.0
F.pura -	(0)	1450.1	214.21	14795599.9
	(1)	769.7	163.15	10814058.0
	(2)	908.7	179.06	12029825.1
C.Simple	(0)	5791.2	86.53	58863352.1
	(1)	1891.2	85.96	20107198.5
	(2)	2595.3	86.19	27104194.7

T.Simple	(0)	391.2	82.72	5196151.6
	(1)	391.2	82.72	5196151.6
	(2)	391.2	82.72	5196151.6

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECJ

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2661.66Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3516.6 Xu(cm.): 146.8

Nu(Tn.): .4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00343
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -362.8 Xu(cm.): 255.8

Nu(Tn.): -.7 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00188 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1893.3 aplicado en Yo(cm)= 255.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECJ

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2661.66Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 5017.5 Xu(cm.): 30.8

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00134 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -4428.7 Xu(cm.): 132.7

Nu(Tn.): .5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00249
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -10145.1 aplicado en Yo(cm)= 94.0

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 3888.4 aplicado en Yo(cm)= 131.0

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 [redacted]TA OLIVA

Seccion:SECK

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	28.0	13.4	270.4	*T	0
8	4	28.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	3	0.0	20.0	265.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2780.7	25.74	8931836.8
	(1)	1126.5	47.92	7985596.9
	(2)	1497.3	39.33	8327391.0
F.pura -	(0)	1072.8	249.75	5361557.9
	(1)	504.1	223.45	4714236.0
	(2)	613.8	232.20	4924020.5
C.Simple	(0)	5625.3	90.21	58786072.1
	(1)	1725.3	97.90	19883647.6
	(2)	2429.4	94.69	26941803.9
T.Simple	(0)	225.3	171.76	3564182.3
	(1)	225.3	171.76	3564182.3
	(2)	225.3	171.76	3564182.3

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci├n: SECK

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2259.54Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3947.0 Xu(cm.): 176.2

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00181
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -355.0 Xu(cm.): 247.8

Nu(Tn.): -.3 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00250 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2476.1 aplicado en Yo(cm)= 258.0

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci├n: SECK

*** PRESOLICITACIONES ELASTICAS**

Analisis SIN FISURACION

Pretensado: 2259.54Tn.

(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[Π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 6608.4 Xu(cm.): 34.1

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00138 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1205.5 Xu(cm.): 233.6

Nu(Tn.): -.4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00297 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9520.9 aplicado en Yo(cm)= 99.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2827.2 aplicado en Yo(cm)= 227.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECL

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\Pi}1$	$J_{\Pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) Π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	28.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	20.0	5.0	CT	0
11	3	35.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	56.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2570.0	21.87	6991498.7
	(1)	1253.7	36.51	6481438.1
	(2)	1623.5	31.39	6647511.7
F.pura -	(0)	1465.4	213.06	15134797.7
	(1)	780.8	161.53	11002187.5
	(2)	920.8	177.54	12260229.3
C.Simple	(0)	5799.6	86.42	58909108.2
	(1)	1899.6	85.64	20152117.8
	(2)	2603.7	85.95	27149449.9

T.Simple	(0)	399.6	81.25	5236501.2
	(1)	399.6	81.25	5236501.2
	(2)	399.6	81.25	5236501.2

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECL

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2795.71Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Deformacion Ultima Acero Estructural(COMPRESION)(%): 2.50
Deformacion Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[Π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3516.6 Xu(cm.): 146.5

Nu(Tn.): .4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00343
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -362.8 Xu(cm.): 255.7

Nu(Tn.): -.7 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00188 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1893.3 aplicado en Yo(cm)= 255.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECL

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2795.71Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[Π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 5012.6 Xu(cm.): 31.2

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00138 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -4526.7 Xu(cm.): 126.3

Nu(Tn.): .8 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00225
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -10145.1 aplicado en Yo(cm)= 94.0

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 4034.1 aplicado en Yo(cm)= 126.7

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 [illegible]TA OLIVA

Seccion:SECM

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	20.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	20.0	5.0	CT	0
11	3	35.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	49.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2432.7	20.69	6230561.6
	(1)	1224.4	34.36	5799876.3
	(2)	1581.3	29.67	5939365.1
F.pura -	(0)	1441.0	213.72	14753631.4
	(1)	760.6	161.41	10666837.6
	(2)	899.8	177.81	11922384.7
C.Simple	(0)	5779.2	86.14	58445189.1
	(1)	1879.2	84.77	19684670.6
	(2)	2583.3	85.32	26683430.7
T.Simple	(0)	379.2	76.70	4747885.2
	(1)	379.2	76.70	4747885.2
	(2)	379.2	76.70	4747885.2

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci├n: SECM

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2470.18Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3247.1 Xu(cm.): 131.5

Nu(Tn.): .4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00461
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -371.8 Xu(cm.): 258.0

Nu(Tn.): -.5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00171 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1685.2 aplicado en Yo(cm)= 253.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci├n: SECM

*** PRESOLICITACIONES ELASTICAS**

Analisis SIN FISURACION

Pretensado: 2470.18Tn.

(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS

Def. Ultima Acero Estructural(COMPRESION)(%): 2.50

Def. Ultima Acero Estructural(TRACCION)(%): 2.50

Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon

Deformacion Ultima Hormigon(TRACCION)(%): 1.00

Coeficiente Ideal Fluencia[Π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 4437.8 Xu(cm.): 29.2

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00127 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -4603.1 Xu(cm.): 138.8

Nu(Tn.): .7 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00277
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -10145.1 aplicado en Yo(cm)= 94.0

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 3680.3 aplicado en Yo(cm)= 122.9

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECN

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\Pi}1$	$J_{\Pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) Π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	20.0	13.4	270.4	*T	0
8	4	20.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	3	0.0	20.0	265.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2562.4	23.76	7633555.4
	(1)	1086.8	43.55	6900004.8
	(2)	1455.1	35.93	7161820.8
F.pura -	(0)	1053.6	249.34	5352164.2
	(1)	486.0	221.38	4665099.2
	(2)	595.5	230.83	4891757.4
C.Simple	(0)	5603.7	89.52	58085542.5
	(1)	1703.7	95.72	19236120.9
	(2)	2407.8	93.11	26272320.8

T.Simple (0) 203.7 161.36 3333650.6
(1) 203.7 161.36 3333650.6
(2) 203.7 161.36 3333650.6

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECN

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1914.87Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3694.8 Xu(cm.): 160.4

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00267
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -372.2 Xu(cm.): 253.3

Nu(Tn.): -.5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00209 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2101.4 aplicado en Yo(cm)= 255.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECN

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1914.87Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 5581.3 Xu(cm.): 31.0

Nu(Tn.): -.2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00123 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1236.1 Xu(cm.): 240.5

Nu(Tn.): -.5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00251 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9520.9 aplicado en Yo(cm)= 99.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2452.5 aplicado en Yo(cm)= 221.0

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECO

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	20.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	0.0	25.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	3	0.0	20.0	265.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2299.8	21.36	6210967.2
	(1)	1041.9	38.47	5684852.1
	(2)	1407.5	32.04	5869488.2
F.pura -	(0)	1032.0	248.95	5345287.9
	(1)	465.8	219.07	4614690.1
	(2)	575.1	229.36	4860712.6
C.Simple	(0)	5579.7	88.76	57334370.5
	(1)	1679.7	93.29	18529849.6
	(2)	2383.8	91.37	25547302.7
T.Simple	(0)	179.7	147.37	3035412.2
	(1)	179.7	147.37	3035412.2
	(2)	179.7	147.37	3035412.2

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECO

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1531.89Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3247.1 Xu(cm.): 133.0

Nu(Tn.): .6 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00461
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -371.8 Xu(cm.): 258.4

Nu(Tn.): -.8 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00171 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1685.2 aplicado en Yo(cm)= 253.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECO

*** PRESOLICITACIONES ELASTICAS**

Analisis SIN FISURACION

Pretensado: 1531.89Tn.

(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS

Def. Ultima Acero Estructural(COMPRESION)(%): 2.50

Def. Ultima Acero Estructural(TRACCION)(%): 2.50

Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon

Deformacion Ultima Hormigon(TRACCION)(%): 1.00

Coeficiente Ideal Fluencia[Π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 4454.5 Xu(cm.): 27.6

Nu(Tn.): .1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00108 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1250.5 Xu(cm.): 247.8

Nu(Tn.): -.5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00204 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9520.9 aplicado en Yo(cm)= 99.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2036.3 aplicado en Yo(cm)= 211.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECZ

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\Pi 1$	$J_\Pi 2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) Π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	0.0	0.0	0.0	*T	0
7	4	0.0	0.0	0.0	*T	0
8	4	0.0	0.0	0.0	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	4	105.0	13.4	18.0	*T	0
13	2	130.0	64.8	193.2	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1982.7	13.84	2514207.5
	(1)	1166.2	20.21	2405939.7
	(2)	1350.6	18.31	2436560.7
F.pura -	(0)	3004.0	199.79	25905378.2
	(1)	1404.8	144.57	17412545.4
	(2)	1732.8	163.31	20114193.3
C.Simple	(0)	7400.8	108.19	81855693.0
	(1)	2495.6	94.31	26629010.9
	(2)	3381.1	99.79	36754899.8

T.Simple	(0)	609.0	29.45	2278045.8
	(1)	609.0	29.45	2278045.8
	(2)	609.0	29.45	2278045.8

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

T┌tulo Secci├n: SECZ

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2699.96Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1915.5 Xu(cm.): 23.9

Nu(Tn.): .8 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00116 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -9861.8 Xu(cm.): 187.2

Nu(Tn.): -.5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00632
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -13964.4 aplicado en Yo(cm)= 115.1

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 4885.3 aplicado en Yo(cm)= 48.6

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF1
ENV FASE 1

Coef. exc:

					0					
Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
1	1	0.00	A	C	1445.70	0.00	0.00	-401.80	0.00	0.00
1	2	3.05	A	C	1445.70	240.17	3.05	-401.80	160.11	3.05
2	2	3.05	B	C	2639.60	240.17	3.05	-379.40	160.11	3.05
2	3	6.10	B	C	2639.60	432.32	6.10	-379.40	288.20	6.10
3	3	6.10	C	C	3190.80	432.32	6.10	-372.80	288.20	6.10
3	4	9.15	C	C	3190.80	576.42	9.15	-372.80	384.27	9.15
4	4	9.15	D	C	3628.70	576.42	9.15	-374.30	384.27	9.15
4	5	12.20	D	C	3628.70	672.48	12.20	-374.30	448.30	12.20
5	5	12.20	D	C	3628.70	672.48	12.20	-374.30	448.30	12.20
5	6	15.25	D	C	3628.70	720.52	15.25	-374.30	480.33	15.25
6	6	15.25	D	C	3628.70	720.52	15.25	-374.30	480.33	15.25
6	7	18.30	D	C	3628.70	720.52	18.30	-374.30	480.33	18.30
7	7	18.30	D	C	3628.70	720.52	18.30	-374.30	480.33	18.30
7	8	21.35	D	C	3628.70	672.48	21.35	-374.30	448.30	21.35
8	8	21.35	D	C	3628.70	672.48	21.35	-374.30	448.30	21.35
8	9	24.40	D	C	3628.70	576.41	24.40	-374.30	384.26	24.40
9	9	24.40	E	C	3190.80	576.41	24.40	-372.80	384.26	24.40
9	10	27.45	E	C	3190.80	432.31	27.45	-372.80	288.19	27.45
10	10	27.45	F	C	2639.50	432.31	27.45	-379.40	288.19	27.45
10	11	30.50	F	C	2639.50	240.18	30.50	-379.40	160.12	30.50
11	11	30.50	G	C	1445.70	240.18	30.50	-401.80	160.12	30.50
11	12	33.55	G	C	1445.70	0.00	33.55	-401.80	0.00	33.55
12	10012	33.55	H	C	1549.40	0.00	33.55	-399.10	0.00	33.55
12	13	37.19	H	C	1549.40	341.41	37.19	-399.10	227.61	37.19
13	13	37.19	I	C	2709.00	341.41	37.19	-376.00	227.61	37.19
13	14	40.82	I	C	2709.00	614.53	40.82	-376.00	409.69	40.82
14	14	40.82	J	C	3516.60	614.53	40.82	-362.80	409.69	40.82
14	15	44.46	J	C	3516.60	819.38	44.46	-362.80	546.26	44.46
15	15	44.46	K	C	3947.00	819.38	44.46	-355.00	546.26	44.46
15	16	48.10	K	C	3947.00	955.93	48.10	-355.00	637.29	48.10
16	16	48.10	K	C	3947.00	955.93	48.10	-355.00	637.29	48.10
16	17	51.73	K	C	3947.00	1024.22	51.73	-355.00	682.81	51.73
17	17	51.73	K	C	3947.00	1024.22	51.73	-355.00	682.81	51.73
17	18	55.37	K	C	3947.00	1024.23	55.37	-355.00	682.82	55.37
18	18	55.37	K	C	3947.00	1024.23	55.37	-355.00	682.82	55.37
18	19	59.01	K	C	3947.00	955.95	59.01	-355.00	637.31	59.01
19	19	59.01	K	C	3947.00	955.95	59.01	-355.00	637.31	59.01
19	20	62.64	K	C	3947.00	819.39	62.64	-355.00	546.27	62.64
20	20	62.64	J	C	3516.60	819.39	62.64	-362.80	546.27	62.64
20	21	66.28	J	C	3516.60	614.54	66.28	-362.80	409.70	66.28
21	21	66.28	I	C	2709.00	614.54	66.28	-376.00	409.70	66.28
21	22	69.91	I	C	2709.00	341.41	69.91	-376.00	227.61	69.91
22	22	69.91	H	C	1549.40	341.41	69.91	-399.10	227.61	69.91
22	23	73.55	H	C	1549.40	0.00	73.55	-399.10	0.00	73.55
23	10023	73.55	G	C	1445.70	0.00	73.55	-401.80	0.00	73.55
23	24	76.66	G	C	1445.70	249.73	76.66	-401.80	166.49	76.66
24	24	76.66	F	C	2639.50	249.73	76.66	-379.40	166.49	76.66
24	25	79.77	F	C	2639.50	449.52	79.77	-379.40	299.68	79.77
25	25	79.77	M	C	3247.10	449.52	79.77	-371.80	299.68	79.77
25	26	82.88	M	C	3247.10	599.34	82.88	-371.80	399.57	82.88
26	26	82.88	N	C	3694.80	599.34	82.88	-372.20	399.57	82.88
26	27	85.99	N	C	3694.80	699.23	85.99	-372.20	466.16	85.99
27	27	85.99	N	C	3694.80	699.23	85.99	-372.20	466.16	85.99
27	28	89.10	N	C	3694.80	749.18	89.10	-372.20	499.46	89.10
28	28	89.10	N	C	3694.80	749.18	89.10	-372.20	499.46	89.10
28	29	92.21	N	C	3694.80	749.17	92.21	-372.20	499.45	92.21
29	29	92.21	N	C	3694.80	749.17	92.21	-372.20	499.45	92.21
29	30	95.32	N	C	3694.80	699.23	95.32	-372.20	466.16	95.32
30	30	95.32	N	C	3694.80	699.23	95.32	-372.20	466.16	95.32
30	31	98.43	N	C	3694.80	599.34	98.43	-372.20	399.56	98.43
31	31	98.43	O	C	3247.10	599.34	98.43	-371.80	399.56	98.43
31	32	101.54	O	C	3247.10	449.51	101.54	-371.80	299.67	101.54

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF1
ENV FASE 1

Coef. exc:

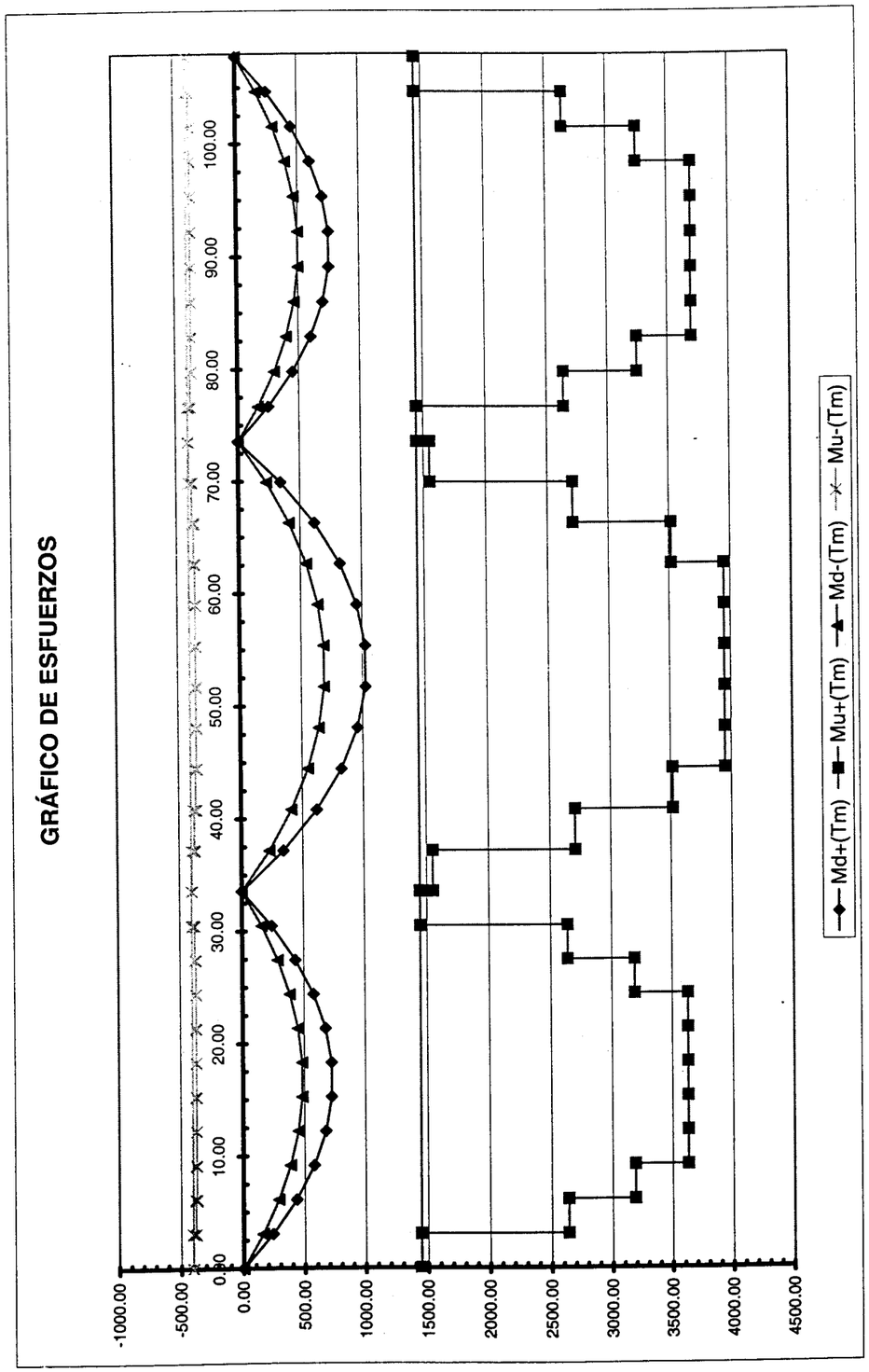
					0					
Barra	**Nudo**	**X**	**Seccion**	**Estado**	**Mu+(Tm)**	**Md+(Tm)**	**X+(m)**	**Mu-(Tm)**	**Md-(Tm)**	**X-(m)**
32	32	101.54	B	C	2639.60	449.51	101.54	-379.40	299.67	101.54
32	33	104.65	B	C	2639.60	249.72	104.65	-379.40	166.48	104.65
33	33	104.65	A	C	1445.70	249.72	104.65	-401.80	166.48	104.65
33	34	107.76	A	C	1445.70	0.00	107.76	-401.80	0.00	107.76
101	101	0.00	A	C	1445.70	0.00	0.00	-401.80	0.00	0.00
101	102	3.05	A	C	1445.70	240.17	3.05	-401.80	160.11	3.05
102	102	3.05	B	C	2639.60	240.17	3.05	-379.40	160.11	3.05
102	103	6.10	B	C	2639.60	432.32	6.10	-379.40	288.20	6.10
103	103	6.10	C	C	3190.80	432.32	6.10	-372.80	288.20	6.10
103	104	9.15	C	C	3190.80	576.42	9.15	-372.80	384.27	9.15
104	104	9.15	D	C	3628.70	576.42	9.15	-374.30	384.27	9.15
104	105	12.20	D	C	3628.70	672.48	12.20	-374.30	448.30	12.20
105	105	12.20	D	C	3628.70	672.48	12.20	-374.30	448.30	12.20
105	106	15.25	D	C	3628.70	720.52	15.25	-374.30	480.33	15.25
106	106	15.25	D	C	3628.70	720.52	15.25	-374.30	480.33	15.25
106	107	18.30	D	C	3628.70	720.52	18.30	-374.30	480.33	18.30
107	107	18.30	D	C	3628.70	720.52	18.30	-374.30	480.33	18.30
107	108	21.35	D	C	3628.70	672.48	21.35	-374.30	448.30	21.35
108	108	21.35	D	C	3628.70	672.48	21.35	-374.30	448.30	21.35
108	109	24.40	D	C	3628.70	576.41	24.40	-374.30	384.26	24.40
109	109	24.40	E	C	3190.80	576.41	24.40	-372.80	384.26	24.40
109	110	27.45	E	C	3190.80	432.31	27.45	-372.80	288.19	27.45
110	110	27.45	F	C	2639.50	432.31	27.45	-379.40	288.19	27.45
110	111	30.50	F	C	2639.50	240.18	30.50	-379.40	160.12	30.50
111	111	30.50	G	C	1445.70	240.18	30.50	-401.80	160.12	30.50
111	112	33.55	G	C	1445.70	0.00	33.55	-401.80	0.00	33.55
112	10112	33.55	H	C	1549.40	0.00	33.55	-399.10	0.00	33.55
112	113	37.19	H	C	1549.40	341.41	37.19	-399.10	227.61	37.19
113	113	37.19	I	C	2709.00	341.41	37.19	-376.00	227.61	37.19
113	114	40.82	I	C	2709.00	614.53	40.82	-376.00	409.69	40.82
114	114	40.82	J	C	3516.60	614.53	40.82	-362.80	409.69	40.82
114	115	44.46	J	C	3516.60	819.38	44.46	-362.80	546.26	44.46
115	115	44.46	K	C	3947.00	819.38	44.46	-355.00	546.26	44.46
115	116	48.10	K	C	3947.00	955.93	48.10	-355.00	637.29	48.10
116	116	48.10	K	C	3947.00	955.93	48.10	-355.00	637.29	48.10
116	117	51.73	K	C	3947.00	1024.22	51.73	-355.00	682.81	51.73
117	117	51.73	K	C	3947.00	1024.22	51.73	-355.00	682.81	51.73
117	118	55.37	K	C	3947.00	1024.23	55.37	-355.00	682.82	55.37
118	118	55.37	K	C	3947.00	1024.23	55.37	-355.00	682.82	55.37
118	119	59.01	K	C	3947.00	955.95	59.01	-355.00	637.31	59.01
119	119	59.01	K	C	3947.00	955.95	59.01	-355.00	637.31	59.01
119	120	62.64	K	C	3947.00	819.39	62.64	-355.00	546.27	62.64
120	120	62.64	J	C	3516.60	819.39	62.64	-362.80	546.27	62.64
120	121	66.28	J	C	3516.60	614.54	66.28	-362.80	409.70	66.28
121	121	66.28	I	C	2709.00	614.54	66.28	-376.00	409.70	66.28
121	122	69.91	I	C	2709.00	341.41	69.91	-376.00	227.61	69.91
122	122	69.91	H	C	1549.40	341.41	69.91	-399.10	227.61	69.91
122	123	73.55	H	C	1549.40	0.00	73.55	-399.10	0.00	73.55
123	10123	73.55	G	C	1445.70	0.00	73.55	-401.80	0.00	73.55
123	124	76.66	G	C	1445.70	249.73	76.66	-401.80	166.49	76.66
124	124	76.66	F	C	2639.50	249.73	76.66	-379.40	166.49	76.66
124	125	79.77	F	C	2639.50	449.52	79.77	-379.40	299.68	79.77
125	125	79.77	M	C	3247.10	449.52	79.77	-371.80	299.68	79.77
125	126	82.88	M	C	3247.10	599.34	82.88	-371.80	399.57	82.88
126	126	82.88	N	C	3694.80	599.34	82.88	-372.20	399.57	82.88
126	127	85.99	N	C	3694.80	699.23	85.99	-372.20	466.16	85.99
127	127	85.99	N	C	3694.80	699.23	85.99	-372.20	466.16	85.99
127	128	89.10	N	C	3694.80	749.18	89.10	-372.20	499.46	89.10
128	128	89.10	N	C	3694.80	749.18	89.10	-372.20	499.46	89.10
128	129	92.21	N	C	3694.80	749.17	92.21	-372.20	499.45	92.21
129	129	92.21	N	C	3694.80	749.17	92.21	-372.20	499.45	92.21
129	130	95.32	N	C	3694.80	699.23	95.32	-372.20	466.16	95.32

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF1
ENV FASE 1

Coef. exc:

					0					
Barra	**Nudo**	**X**	**Seccion**	**Estado**	**Mu+(Tm)**	**Md+(Tm)**	**X+(m)**	**Mu-(Tm)**	**Md-(Tm)**	**X-(m)**
130	130	95.32	N	C	3694.80	699.23	95.32	-372.20	466.16	95.32
130	131	98.43	N	C	3694.80	599.34	98.43	-372.20	399.56	98.43
131	131	98.43	O	C	3247.10	599.34	98.43	-371.80	399.56	98.43
131	132	101.54	O	C	3247.10	449.51	101.54	-371.80	299.67	101.54
132	132	101.54	B	C	2639.60	449.51	101.54	-379.40	299.67	101.54
132	133	104.65	B	C	2639.60	249.72	104.65	-379.40	166.48	104.65
133	133	104.65	A	C	1445.70	249.72	104.65	-401.80	166.48	104.65
133	134	107.76	A	C	1445.70	0.00	107.76	-401.80	0.00	107.76



CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF2
ENV FASE 2

Coef. exc:

Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
					0					
1	1	0.00	A	C	1445.70	0.00	0.00	-401.80	0.00	0.00
1	2	3.05	A	C	1445.70	259.58	3.05	-401.80	159.84	3.05
2	2	3.05	B	C	2639.60	259.58	3.05	-379.40	159.84	3.05
2	3	6.10	B	C	2639.60	471.12	6.10	-379.40	287.66	6.10
3	3	6.10	C	C	3190.80	471.12	6.10	-372.80	287.66	6.10
3	4	9.15	C	C	3190.80	634.63	9.15	-372.80	383.45	9.15
4	4	9.15	D	C	3628.70	634.63	9.15	-374.30	383.45	9.15
4	5	12.20	D	C	3628.70	750.08	12.20	-374.30	447.21	12.20
5	5	12.20	D	C	3628.70	750.08	12.20	-374.30	447.21	12.20
5	6	15.25	D	C	3628.70	817.54	15.25	-374.30	478.97	15.25
6	6	15.25	D	C	3628.70	817.54	15.25	-374.30	478.97	15.25
6	7	18.30	D	C	3628.70	836.95	18.30	-374.30	478.70	18.30
7	7	18.30	D	C	3628.70	836.95	18.30	-374.30	478.70	18.30
7	8	21.35	D	C	3628.70	808.28	21.35	-374.30	446.39	21.35
8	8	21.35	D	C	3628.70	808.28	21.35	-374.30	446.39	21.35
8	9	24.40	D	C	3628.70	731.63	24.40	-374.30	382.07	24.40
9	9	24.40	E	C	3190.80	731.63	24.40	-372.80	382.07	24.40
9	10	27.45	E	C	3190.80	584.96	27.45	-372.80	252.77	27.45
10	10	27.45	F	C	2639.50	584.96	27.45	-379.40	252.77	27.45
10	11	30.50	F	C	2639.50	346.29	30.50	-379.40	25.52	30.50
11	11	30.50	G	C	1445.70	346.29	30.50	-401.80	25.52	30.50
11	12	33.55	G	C	1445.70	15.64	33.55	-401.80	-299.69	33.55
12	10012	33.55	H	C	1549.40	15.64	33.55	-399.10	-299.69	33.55
12	13	37.19	H	C	1549.40	513.03	37.19	-399.10	161.80	37.19
13	13	37.19	I	C	2709.00	513.03	37.19	-376.00	161.80	37.19
13	14	40.82	I	C	2709.00	904.45	40.82	-376.00	459.26	40.82
14	14	40.82	J	C	3516.60	904.45	40.82	-362.80	459.26	40.82
14	15	44.46	J	C	3516.60	1155.80	44.46	-362.80	626.79	44.46
15	15	44.46	K	C	3947.00	1155.80	44.46	-355.00	626.79	44.46
15	16	48.10	K	C	3947.00	1292.00	48.10	-355.00	717.54	48.10
16	16	48.10	K	C	3947.00	1292.00	48.10	-355.00	717.54	48.10
16	17	51.73	K	C	3947.00	1359.94	51.73	-355.00	762.79	51.73
17	17	51.73	K	C	3947.00	1359.94	51.73	-355.00	762.79	51.73
17	18	55.37	K	C	3947.00	1359.59	55.37	-355.00	762.52	55.37
18	18	55.37	K	C	3947.00	1359.59	55.37	-355.00	762.52	55.37
18	19	59.01	K	C	3947.00	1290.96	59.01	-355.00	716.73	59.01
19	19	59.01	K	C	3947.00	1290.96	59.01	-355.00	716.73	59.01
19	20	62.64	K	C	3947.00	1154.03	62.64	-355.00	625.40	62.64
20	20	62.64	J	C	3516.60	1154.03	62.64	-362.80	625.40	62.64
20	21	66.28	J	C	3516.60	901.98	66.28	-362.80	457.32	66.28
21	21	66.28	I	C	2709.00	901.98	66.28	-376.00	457.32	66.28
21	22	69.91	I	C	2709.00	511.11	69.91	-376.00	158.05	69.91
22	22	69.91	H	C	1549.40	511.11	69.91	-399.10	158.05	69.91
22	23	73.55	H	C	1549.40	13.29	73.55	-399.10	-304.29	73.55
23	10023	73.55	G	C	1445.70	13.29	73.55	-401.80	-304.29	73.55
23	24	76.66	G	C	1445.70	357.38	76.66	-401.80	33.21	76.66
24	24	76.66	F	C	2639.50	357.38	76.66	-379.40	33.21	76.66
24	25	79.77	F	C	2639.50	605.80	79.77	-379.40	268.84	79.77
25	25	79.77	M	C	3247.10	605.80	79.77	-371.80	268.84	79.77
25	26	82.88	M	C	3247.10	759.59	82.88	-371.80	401.60	82.88
26	26	82.88	N	C	3694.80	759.59	82.88	-372.20	401.60	82.88
26	27	85.99	N	C	3694.80	839.45	85.99	-372.20	467.94	85.99
27	27	85.99	N	C	3694.80	839.45	85.99	-372.20	467.94	85.99
27	28	89.10	N	C	3694.80	869.37	89.10	-372.20	500.99	89.10
28	28	89.10	N	C	3694.80	869.37	89.10	-372.20	500.99	89.10
28	29	92.21	N	C	3694.80	849.32	92.21	-372.20	500.72	92.21
29	29	92.21	N	C	3694.80	849.32	92.21	-372.20	500.72	92.21
29	30	95.32	N	C	3694.80	779.36	95.32	-372.20	467.17	95.32
30	30	95.32	N	C	3694.80	779.36	95.32	-372.20	467.17	95.32
30	31	98.43	N	C	3694.80	659.44	98.43	-372.20	400.33	98.43
31	31	98.43	O	C	3247.10	659.44	98.43	-371.80	400.33	98.43
31	32	101.54	O	C	3247.10	489.58	101.54	-371.80	300.19	101.54

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF2
ENV FASE 2

Coef. exc:

0

Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
32	32	101.54	B	C	2639.60	489.58	101.54	-379.40	300.19	101.54
32	33	104.65	B	C	2639.60	269.75	104.65	-379.40	166.73	104.65
33	33	104.65	A	C	1445.70	269.75	104.65	-401.80	166.73	104.65
33	34	107.76	A	C	1445.70	0.00	107.76	-401.80	0.00	107.76
101	101	0.00	A	C	1445.70	0.00	0.00	-401.80	0.00	0.00
101	102	3.05	A	C	1445.70	259.58	3.05	-401.80	159.84	3.05
102	102	3.05	B	C	2639.60	259.58	3.05	-379.40	159.84	3.05
102	103	6.10	B	C	2639.60	471.12	6.10	-379.40	287.66	6.10
103	103	6.10	C	C	3190.80	471.12	6.10	-372.80	287.66	6.10
103	104	9.15	C	C	3190.80	634.63	9.15	-372.80	383.45	9.15
104	104	9.15	D	C	3628.70	634.63	9.15	-374.30	383.45	9.15
104	105	12.20	D	C	3628.70	750.08	12.20	-374.30	447.21	12.20
105	105	12.20	D	C	3628.70	750.08	12.20	-374.30	447.21	12.20
05	106	15.25	D	C	3628.70	817.54	15.25	-374.30	478.97	15.25
106	106	15.25	D	C	3628.70	817.54	15.25	-374.30	478.97	15.25
106	107	18.30	D	C	3628.70	836.95	18.30	-374.30	478.70	18.30
107	107	18.30	D	C	3628.70	836.95	18.30	-374.30	478.70	18.30
107	108	21.35	D	C	3628.70	808.28	21.35	-374.30	446.39	21.35
108	108	21.35	D	C	3628.70	808.28	21.35	-374.30	446.39	21.35
108	109	24.40	D	C	3628.70	731.63	24.40	-374.30	382.07	24.40
109	109	24.40	E	C	3190.80	731.63	24.40	-372.80	382.07	24.40
109	110	27.45	E	C	3190.80	584.96	27.45	-372.80	252.77	27.45
110	110	27.45	F	C	2639.50	584.96	27.45	-379.40	252.77	27.45
110	111	30.50	F	C	2639.50	346.29	30.50	-379.40	25.52	30.50
111	111	30.50	G	C	1445.70	346.29	30.50	-401.80	25.52	30.50
111	112	33.55	G	C	1445.70	15.64	33.55	-401.80	-299.69	33.55
112	10112	33.55	H	C	1549.40	15.64	33.55	-399.10	-299.69	33.55
112	113	37.19	H	C	1549.40	513.03	37.19	-399.10	161.80	37.19
113	113	37.19	I	C	2709.00	513.03	37.19	-376.00	161.80	37.19
113	114	40.82	I	C	2709.00	904.45	40.82	-376.00	459.26	40.82
114	114	40.82	J	C	3516.60	904.45	40.82	-362.80	459.26	40.82
114	115	44.46	J	C	3516.60	1155.80	44.46	-362.80	626.79	44.46
115	115	44.46	K	C	3947.00	1155.80	44.46	-355.00	626.79	44.46
115	116	48.10	K	C	3947.00	1292.00	48.10	-355.00	717.54	48.10
16	116	48.10	K	C	3947.00	1292.00	48.10	-355.00	717.54	48.10
16	117	51.73	K	C	3947.00	1359.94	51.73	-355.00	762.79	51.73
117	117	51.73	K	C	3947.00	1359.94	51.73	-355.00	762.79	51.73
117	118	55.37	K	C	3947.00	1359.59	55.37	-355.00	762.52	55.37
118	118	55.37	K	C	3947.00	1359.59	55.37	-355.00	762.52	55.37
118	119	59.01	K	C	3947.00	1290.96	59.01	-355.00	716.73	59.01
119	119	59.01	K	C	3947.00	1290.96	59.01	-355.00	716.73	59.01
119	120	62.64	K	C	3947.00	1154.03	62.64	-355.00	625.40	62.64
120	120	62.64	J	C	3516.60	1154.03	62.64	-362.80	625.40	62.64
120	121	66.28	J	C	3516.60	901.98	66.28	-362.80	457.32	66.28
121	121	66.28	I	C	2709.00	901.98	66.28	-376.00	457.32	66.28
121	122	69.91	I	C	2709.00	511.11	69.91	-376.00	158.05	69.91
122	122	69.91	H	C	1549.40	511.11	69.91	-399.10	158.05	69.91
122	123	73.55	H	C	1549.40	13.29	73.55	-399.10	-304.29	73.55
123	10123	73.55	G	C	1445.70	13.29	73.55	-401.80	-304.29	73.55
123	124	76.66	G	C	1445.70	357.38	76.66	-401.80	33.21	76.66
124	124	76.66	F	C	2639.50	357.38	76.66	-379.40	33.21	76.66
124	125	79.77	F	C	2639.50	605.80	79.77	-379.40	268.84	79.77
125	125	79.77	M	C	3247.10	605.80	79.77	-371.80	268.84	79.77
125	126	82.88	M	C	3247.10	759.59	82.88	-371.80	401.60	82.88
126	126	82.88	N	C	3694.80	759.59	82.88	-372.20	401.60	82.88
126	127	85.99	N	C	3694.80	839.45	85.99	-372.20	467.94	85.99
27	127	85.99	N	C	3694.80	839.45	85.99	-372.20	467.94	85.99
127	128	89.10	N	C	3694.80	869.37	89.10	-372.20	500.99	89.10
128	128	89.10	N	C	3694.80	869.37	89.10	-372.20	500.99	89.10
128	129	92.21	N	C	3694.80	849.32	92.21	-372.20	500.72	92.21
129	129	92.21	N	C	3694.80	849.32	92.21	-372.20	500.72	92.21
129	130	95.32	N	C	3694.80	779.36	95.32	-372.20	467.17	95.32

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF2
ENV FASE 2

Coef. exc:

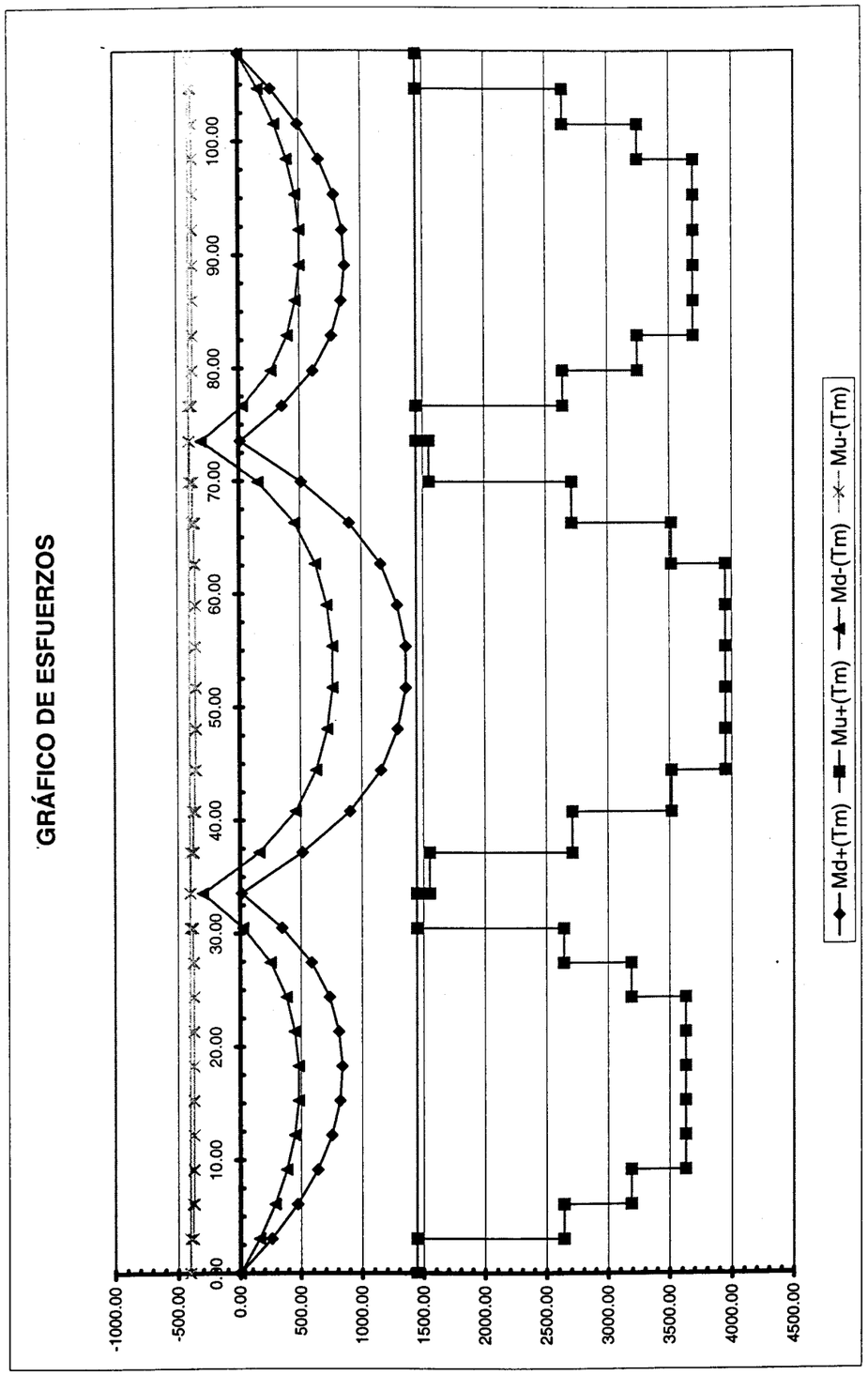
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Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
130	130	95.32	N	C	3694.80	779.36	95.32	-372.20	467.17	95.32
130	131	98.43	N	C	3694.80	659.44	98.43	-372.20	400.33	98.43
131	131	98.43	O	C	3247.10	659.44	98.43	-371.80	400.33	98.43
131	132	101.54	O	C	3247.10	489.58	101.54	-371.80	300.19	101.54
132	132	101.54	B	C	2639.60	489.58	101.54	-379.40	300.19	101.54
132	133	104.65	B	C	2639.60	269.75	104.65	-379.40	166.73	104.65
133	133	104.65	A	C	1445.70	269.75	104.65	-401.80	166.73	104.65
133	134	107.76	A	C	1445.70	0.00	107.76	-401.80	0.00	107.76

30/11/02

Programa DINTEL PACADAR S.A.
ELU.CONSF2

GRÁFICO DE ESFUERZOS



ROTCONS.esf

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF3A
ENV FASE 3A

Coef. exc:

0

Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
1	1	0.00	A	C	1445.70	0.00	0.00	-401.80	0.00	0.00
1	2	3.05	A	C	1445.70	225.35	3.05	-401.80	116.67	3.05
2	2	3.05	B	C	2639.60	225.35	3.05	-379.40	116.67	3.05
2	3	6.10	B	C	2639.60	402.64	6.10	-379.40	201.31	6.10
3	3	6.10	C	C	3190.80	402.64	6.10	-372.80	201.31	6.10
3	4	9.15	C	C	3190.80	531.91	9.15	-372.80	253.92	9.15
4	4	9.15	D	C	3628.70	531.91	9.15	-374.30	253.92	9.15
4	5	12.20	D	C	3628.70	613.12	12.20	-374.30	274.51	12.20
5	5	12.20	D	C	3628.70	613.12	12.20	-374.30	274.51	12.20
5	6	15.25	D	C	3628.70	646.34	15.25	-374.30	263.10	15.25
6	6	15.25	D	C	3628.70	646.34	15.25	-374.30	263.10	15.25
6	7	18.30	D	C	3628.70	631.51	18.30	-374.30	219.65	18.30
7	7	18.30	D	C	3628.70	631.51	18.30	-374.30	219.65	18.30
7	8	21.35	D	C	3628.70	568.61	21.35	-374.30	144.16	21.35
8	8	21.35	D	C	3628.70	568.61	21.35	-374.30	144.16	21.35
8	9	24.40	D	C	3628.70	457.72	24.40	-374.30	36.68	24.40
9	9	24.40	E	T	4318.20	458.30	24.40	-4775.10	36.10	24.40
9	10	27.45	E	T	4318.20	281.01	27.45	-4775.10	-139.98	27.45
10	10	27.45	F	T	3250.30	281.49	27.45	-5659.90	-140.47	27.45
10	11	30.50	F	T	3250.30	13.73	30.50	-5659.90	-416.04	30.50
11	11	30.50	G	T	1723.10	13.95	30.50	-6270.30	-416.25	30.50
11	12	33.55	G	T	1723.10	-345.55	33.55	-6270.30	-790.02	33.55
12	10012	33.55	H	T	1843.20	-345.56	33.55	-6223.30	-790.00	33.55
12	13	37.19	H	T	1843.20	140.34	37.19	-6223.30	-317.26	37.19
13	13	37.19	I	T	3370.10	140.00	37.19	-5612.90	-316.89	37.19
13	14	40.82	I	T	3370.10	521.08	40.82	-5612.90	-9.31	40.82
14	14	40.82	J	T	5017.50	521.08	40.82	-4428.70	-9.31	40.82
14	15	44.46	J	T	5017.50	772.34	44.46	-4428.70	158.11	44.46
15	15	44.46	K	C	3947.00	772.34	44.46	-355.00	158.11	44.46
15	16	48.10	K	C	3947.00	908.44	48.10	-355.00	248.76	48.10
16	16	48.10	K	C	3947.00	908.44	48.10	-355.00	248.76	48.10
16	17	51.73	K	C	3947.00	976.29	51.73	-355.00	293.89	51.73
17	17	51.73	K	C	3947.00	976.29	51.73	-355.00	293.89	51.73
17	18	55.37	K	C	3947.00	975.85	55.37	-355.00	293.50	55.37
18	18	55.37	K	C	3947.00	975.85	55.37	-355.00	293.50	55.37
18	19	59.01	K	C	3947.00	907.13	59.01	-355.00	247.61	59.01
19	19	59.01	K	C	3947.00	907.13	59.01	-355.00	247.61	59.01
19	20	62.64	K	C	3947.00	770.11	62.64	-355.00	156.16	62.64
20	20	62.64	J	T	5017.50	770.11	62.64	-4428.70	156.16	62.64
20	21	66.28	J	T	5017.50	517.96	66.28	-4428.70	-12.04	66.28
21	21	66.28	I	T	3370.10	518.02	66.28	-5612.90	-12.08	66.28
21	22	69.91	I	T	3370.10	137.83	69.91	-5612.90	-322.26	69.91
22	22	69.91	H	T	1843.20	138.18	69.91	-6223.30	-322.60	69.91
22	23	73.55	H	T	1843.20	-348.45	73.55	-6223.30	-796.33	73.55
23	10023	73.55	G	T	1723.10	-348.44	73.55	-6270.30	-796.34	73.55
23	24	76.66	G	T	1723.10	24.17	76.66	-6270.30	-409.75	76.66
24	24	76.66	F	T	3250.30	23.94	76.66	-5659.90	-409.51	76.66
24	25	79.77	F	T	3250.30	301.17	79.77	-5659.90	-125.09	79.77
25	25	79.77	M	T	4437.80	300.68	79.77	-4603.10	-124.58	79.77
25	26	82.88	M	T	4437.80	484.97	82.88	-4603.10	55.30	82.88
26	26	82.88	N	C	3694.80	484.39	82.88	-372.20	55.88	82.88
26	27	85.99	N	C	3694.80	598.64	85.99	-372.20	165.42	85.99
27	27	85.99	N	C	3694.80	598.64	85.99	-372.20	165.42	85.99
27	28	89.10	N	C	3694.80	662.97	89.10	-372.20	241.69	89.10
28	28	89.10	N	C	3694.80	662.97	89.10	-372.20	241.69	89.10
28	29	92.21	N	C	3694.80	677.32	92.21	-372.20	284.64	92.21
29	29	92.21	N	C	3694.80	677.32	92.21	-372.20	284.64	92.21
29	30	95.32	N	C	3694.80	641.76	95.32	-372.20	294.31	95.32
30	30	95.32	N	C	3694.80	641.76	95.32	-372.20	294.31	95.32
30	31	98.43	N	C	3694.80	556.23	98.43	-372.20	270.68	98.43
31	31	98.43	O	C	3247.10	556.23	98.43	-371.80	270.68	98.43
31	32	101.54	O	C	3247.10	420.77	101.54	-371.80	213.75	101.54

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF3A
ENV FASE 3A

Coef. exc:

0

Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
32	32	101.54	B	C	2639.60	420.77	101.54	-379.40	213.75	101.54
32	33	104.65	B	C	2639.60	235.35	104.65	-379.40	123.52	104.65
33	33	104.65	A	C	1445.70	235.35	104.65	-401.80	123.52	104.65
33	34	107.76	A	C	1445.70	0.00	107.76	-401.80	0.00	107.76
101	101	0.00	A	C	1445.70	0.00	0.00	-401.80	0.00	0.00
101	102	3.05	A	C	1445.70	225.35	3.05	-401.80	116.67	3.05
102	102	3.05	B	C	2639.60	225.35	3.05	-379.40	116.67	3.05
102	103	6.10	B	C	2639.60	402.65	6.10	-379.40	201.32	6.10
103	103	6.10	C	C	3190.80	402.65	6.10	-372.80	201.32	6.10
103	104	9.15	C	C	3190.80	531.91	9.15	-372.80	253.92	9.15
104	104	9.15	D	C	3628.70	531.91	9.15	-374.30	253.92	9.15
104	105	12.20	D	C	3628.70	613.12	12.20	-374.30	274.51	12.20
105	105	12.20	D	C	3628.70	613.12	12.20	-374.30	274.51	12.20
105	106	15.25	D	C	3628.70	646.34	15.25	-374.30	263.10	15.25
106	106	15.25	D	C	3628.70	646.34	15.25	-374.30	263.10	15.25
106	107	18.30	D	C	3628.70	631.51	18.30	-374.30	219.65	18.30
107	107	18.30	D	C	3628.70	631.51	18.30	-374.30	219.65	18.30
107	108	21.35	D	C	3628.70	568.61	21.35	-374.30	144.16	21.35
108	108	21.35	D	C	3628.70	568.61	21.35	-374.30	144.16	21.35
108	109	24.40	D	C	3628.70	457.72	24.40	-374.30	36.68	24.40
109	109	24.40	E	T	4318.20	458.30	24.40	-4775.10	36.10	24.40
109	110	27.45	E	T	4318.20	281.00	27.45	-4775.10	-139.99	27.45
110	110	27.45	F	T	3250.30	281.48	27.45	-5659.90	-140.48	27.45
110	111	30.50	F	T	3250.30	13.73	30.50	-5659.90	-416.04	30.50
111	111	30.50	G	T	1723.10	13.94	30.50	-6270.30	-416.26	30.50
111	112	33.55	G	T	1723.10	-345.56	33.55	-6270.30	-790.03	33.55
112	10112	33.55	H	T	1843.20	-345.57	33.55	-6223.30	-790.01	33.55
112	113	37.19	H	T	1843.20	140.34	37.19	-6223.30	-317.26	37.19
113	113	37.19	I	T	3370.10	139.99	37.19	-5612.90	-316.91	37.19
113	114	40.82	I	T	3370.10	521.08	40.82	-5612.90	-9.31	40.82
114	114	40.82	J	T	5017.50	521.08	40.82	-4428.70	-9.31	40.82
114	115	44.46	J	T	5017.50	772.34	44.46	-4428.70	158.11	44.46
115	115	44.46	K	C	3947.00	772.34	44.46	-355.00	158.11	44.46
115	116	48.10	K	C	3947.00	908.44	48.10	-355.00	248.76	48.10
116	116	48.10	K	C	3947.00	908.44	48.10	-355.00	248.76	48.10
116	117	51.73	K	C	3947.00	976.29	51.73	-355.00	293.89	51.73
117	117	51.73	K	C	3947.00	976.29	51.73	-355.00	293.89	51.73
117	118	55.37	K	C	3947.00	975.85	55.37	-355.00	293.51	55.37
118	118	55.37	K	C	3947.00	975.85	55.37	-355.00	293.51	55.37
118	119	59.01	K	C	3947.00	907.13	59.01	-355.00	247.61	59.01
119	119	59.01	K	C	3947.00	907.13	59.01	-355.00	247.61	59.01
119	120	62.64	K	C	3947.00	770.11	62.64	-355.00	156.16	62.64
120	120	62.64	J	T	5017.50	770.10	62.64	-4428.70	156.15	62.64
120	121	66.28	J	T	5017.50	517.96	66.28	-4428.70	-12.04	66.28
121	121	66.28	I	T	3370.10	518.01	66.28	-5612.90	-12.09	66.28
121	122	69.91	I	T	3370.10	137.83	69.91	-5612.90	-322.26	69.91
122	122	69.91	H	T	1843.20	138.18	69.91	-6223.30	-322.60	69.91
122	123	73.55	H	T	1843.20	-348.46	73.55	-6223.30	-796.34	73.55
123	10123	73.55	G	T	1723.10	-348.45	73.55	-6270.30	-796.35	73.55
123	124	76.66	G	T	1723.10	24.17	76.66	-6270.30	-409.75	76.66
124	124	76.66	F	T	3250.30	23.93	76.66	-5659.90	-409.53	76.66
124	125	79.77	F	T	3250.30	301.17	79.77	-5659.90	-125.09	79.77
125	125	79.77	M	T	4437.80	300.67	79.77	-4603.10	-124.59	79.77
125	126	82.88	M	T	4437.80	484.97	82.88	-4603.10	55.30	82.88
126	126	82.88	N	C	3694.80	484.39	82.88	-372.20	55.88	82.88
126	127	85.99	N	C	3694.80	598.64	85.99	-372.20	165.42	85.99
127	127	85.99	N	C	3694.80	598.64	85.99	-372.20	165.42	85.99
127	128	89.10	N	C	3694.80	662.97	89.10	-372.20	241.69	89.10
128	128	89.10	N	C	3694.80	662.97	89.10	-372.20	241.69	89.10
128	129	92.21	N	C	3694.80	677.32	92.21	-372.20	284.64	92.21
129	129	92.21	N	C	3694.80	677.32	92.21	-372.20	284.64	92.21
129	130	95.32	N	C	3694.80	641.76	95.32	-372.20	294.31	95.32

ROTCONS.esf Programa DINTEL PACADAR S.A. 30/11/02
ELU.CONSF3A

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF3A
ENV FASE 3A

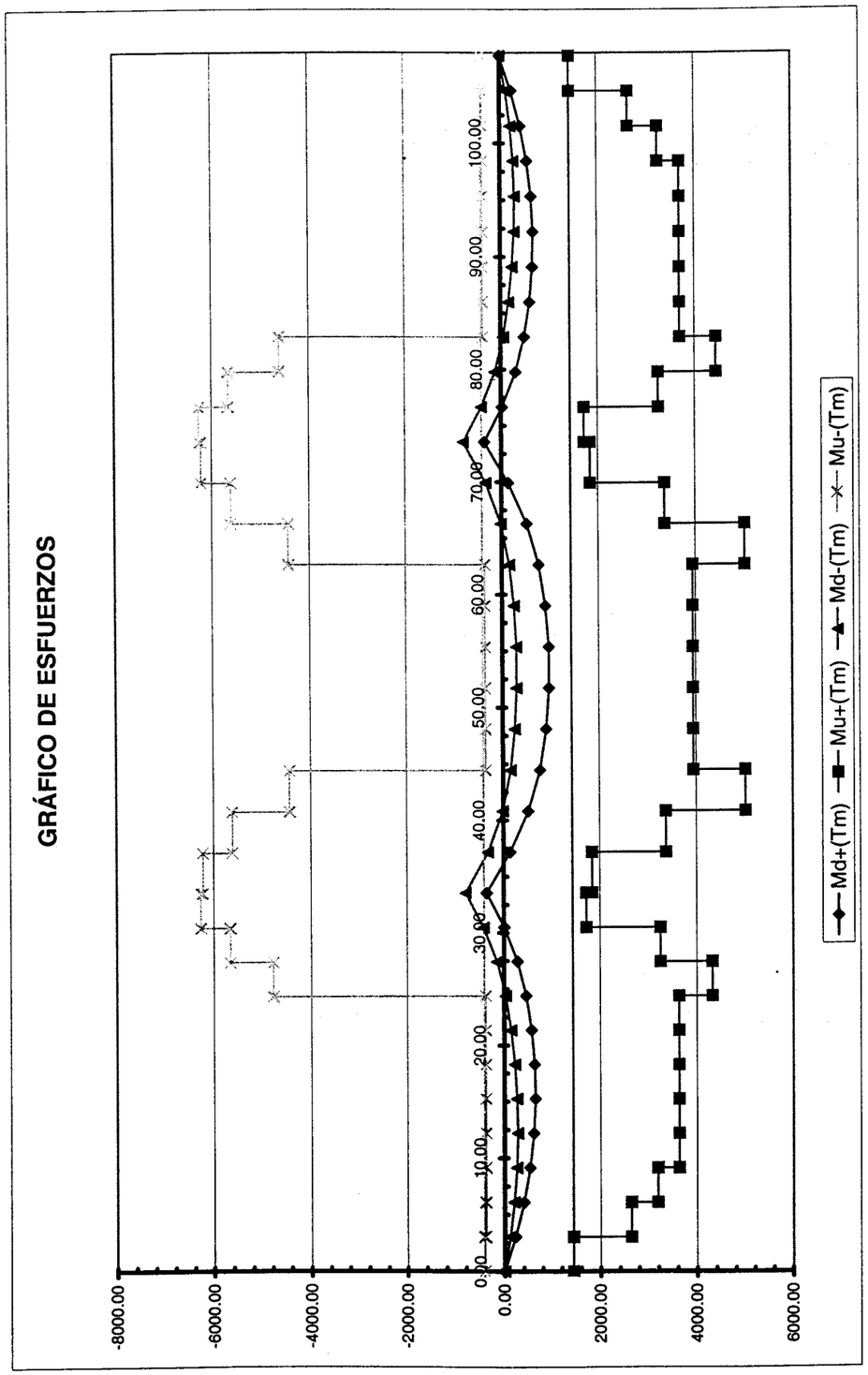
Coef. exc:

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Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
130	130	95.32	N	C	3694.80	641.76	95.32	-372.20	294.31	95.32
130	131	98.43	N	C	3694.80	556.23	98.43	-372.20	270.68	98.43
131	131	98.43	O	C	3247.10	556.23	98.43	-371.80	270.68	98.43
131	132	101.54	O	C	3247.10	420.78	101.54	-371.80	213.76	101.54
132	132	101.54	B	C	2639.60	420.78	101.54	-379.40	213.76	101.54
132	133	104.65	B	C	2639.60	235.35	104.65	-379.40	123.52	104.65
133	133	104.65	A	C	1445.70	235.35	104.65	-401.80	123.52	104.65
133	134	107.76	A	C	1445.70	0.00	107.76	-401.80	0.00	107.76

30/11/02

Programa DINTEL PACADAR S.A.
ELU.CONSF3A



ROTCONS_.xls

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF3B
ENV FASE 3B

Coef. exc:

0

Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
1	1	0.00	A	C	1445.70	0.00	0.00	-401.80	0.00	0.00
1	2	3.05	A	C	1445.70	460.90	3.05	-401.80	267.12	3.05
2	2	3.05	B	C	2639.60	460.90	3.05	-379.40	267.12	3.05
2	3	6.10	B	C	2639.60	807.82	6.10	-379.40	458.26	6.10
3	3	6.10	C	C	3190.80	807.82	6.10	-372.80	458.26	6.10
3	4	9.15	C	C	3190.80	1040.79	9.15	-372.80	573.42	9.15
4	4	9.15	D	C	3628.70	1040.79	9.15	-374.30	573.42	9.15
4	5	12.20	D	C	3628.70	1159.76	12.20	-374.30	612.59	12.20
5	5	12.20	D	C	3628.70	1159.76	12.20	-374.30	612.59	12.20
5	6	15.25	D	C	3628.70	1164.81	15.25	-374.30	575.82	15.25
6	6	15.25	D	C	3628.70	1164.81	15.25	-374.30	575.82	15.25
6	7	18.30	D	C	3628.70	1055.87	18.30	-374.30	463.06	18.30
7	7	18.30	D	C	3628.70	1055.87	18.30	-374.30	463.06	18.30
7	8	21.35	D	C	3628.70	832.94	21.35	-374.30	274.29	21.35
8	8	21.35	D	C	3628.70	832.94	21.35	-374.30	274.29	21.35
8	9	24.40	D	C	3628.70	509.63	24.40	-374.30	-3.97	24.40
9	9	24.40	E	T	4318.20	510.21	24.40	-4775.10	-4.55	24.40
9	10	27.45	E	T	4318.20	163.59	27.45	-4775.10	-449.43	27.45
10	10	27.45	F	T	3250.30	164.07	27.45	-5659.90	-449.91	27.45
10	11	30.50	F	T	3250.30	-273.02	30.50	-5659.90	-994.29	30.50
11	11	30.50	G	T	1723.10	-272.80	30.50	-6270.30	-994.51	30.50
11	12	33.55	G	T	1723.10	-801.63	33.55	-6270.30	-1637.09	33.55
12	10012	33.55	H	T	1843.20	-801.65	33.55	-6223.30	-1637.07	33.55
12	13	37.19	H	T	1843.20	-161.53	37.19	-6223.30	-933.13	37.19
13	13	37.19	I	T	3370.10	-161.88	37.19	-5612.90	-932.76	37.19
13	14	40.82	I	T	3370.10	373.40	40.82	-5612.90	-393.97	40.82
14	14	40.82	J	T	5017.50	373.40	40.82	-4428.70	-393.97	40.82
14	15	44.46	J	T	5017.50	778.88	44.46	-4428.70	4.64	44.46
15	15	44.46	K	C	3947.00	778.88	44.46	-355.00	4.64	44.46
15	16	48.10	K	C	3947.00	1048.25	48.10	-355.00	269.34	48.10
16	16	48.10	K	C	3947.00	1048.25	48.10	-355.00	269.34	48.10
16	17	51.73	K	C	3947.00	1206.78	51.73	-355.00	374.89	51.73
17	17	51.73	K	C	3947.00	1206.78	51.73	-355.00	374.89	51.73
17	18	55.37	K	C	3947.00	1203.31	55.37	-355.00	372.43	55.37
18	18	55.37	K	C	3947.00	1203.31	55.37	-355.00	372.43	55.37
18	19	59.01	K	C	3947.00	1037.88	59.01	-355.00	262.00	59.01
19	19	59.01	K	C	3947.00	1037.88	59.01	-355.00	262.00	59.01
19	20	62.64	K	C	3947.00	766.71	62.64	-355.00	-12.79	62.64
20	20	62.64	J	T	5017.50	766.71	62.64	-4428.70	-12.79	62.64
20	21	66.28	J	T	5017.50	356.35	66.28	-4428.70	-418.39	66.28
21	21	66.28	I	T	3370.10	356.41	66.28	-5612.90	-418.43	66.28
21	22	69.91	I	T	3370.10	-181.97	69.91	-5612.90	-966.01	69.91
22	22	69.91	H	T	1843.20	-181.63	69.91	-6223.30	-966.35	69.91
22	23	73.55	H	T	1843.20	-826.44	73.55	-6223.30	-1677.47	73.55
23	10023	73.55	G	T	1723.10	-826.43	73.55	-6270.30	-1677.48	73.55
23	24	76.66	G	T	1723.10	-277.43	76.66	-6270.30	-1011.36	76.66
24	24	76.66	F	T	3250.30	-277.66	76.66	-5659.90	-1011.13	76.66
24	25	79.77	F	T	3250.30	175.97	79.77	-5659.90	-447.19	79.77
25	25	79.77	M	T	4437.80	175.48	79.77	-4603.10	-446.67	79.77
25	26	82.88	M	T	4437.80	536.18	82.88	-4603.10	12.73	82.88
26	26	82.88	N	C	3694.80	535.61	82.88	-372.20	13.31	82.88
26	27	85.99	N	C	3694.80	870.96	85.99	-372.20	300.54	85.99
27	27	85.99	N	C	3694.80	870.96	85.99	-372.20	300.54	85.99
27	28	89.10	N	C	3694.80	1102.03	89.10	-372.20	494.61	89.10
28	28	89.10	N	C	3694.80	1102.03	89.10	-372.20	494.61	89.10
28	29	92.21	N	C	3694.80	1214.58	92.21	-372.20	609.65	92.21
29	29	92.21	N	C	3694.80	1214.58	92.21	-372.20	609.65	92.21
29	30	95.32	N	C	3694.80	1208.69	95.32	-372.20	645.73	95.32
30	30	95.32	N	C	3694.80	1208.69	95.32	-372.20	645.73	95.32
30	31	98.43	N	C	3694.80	1084.26	98.43	-372.20	602.79	98.43
31	31	98.43	O	C	3247.10	1084.26	98.43	-371.80	602.79	98.43
31	32	101.54	O	C	3247.10	841.33	101.54	-371.80	480.86	101.54

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF3B
ENV FASE 3B

Coef. exc:

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Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
32	32	101.54	B	C	2639.60	841.33	101.54	-379.40	480.86	101.54
32	33	104.65	B	C	2639.60	479.91	104.65	-379.40	279.93	104.65
33	33	104.65	A	C	1445.70	479.91	104.65	-401.80	279.93	104.65
33	34	107.76	A	C	1445.70	0.00	107.76	-401.80	0.00	107.76
101	101	0.00	A	C	1445.70	0.00	0.00	-401.80	0.00	0.00
101	102	3.05	A	C	1445.70	460.90	3.05	-401.80	267.12	3.05
102	102	3.05	B	C	2639.60	460.90	3.05	-379.40	267.12	3.05
102	103	6.10	B	C	2639.60	807.83	6.10	-379.40	458.27	6.10
103	103	6.10	C	C	3190.80	807.83	6.10	-372.80	458.27	6.10
103	104	9.15	C	C	3190.80	1040.79	9.15	-372.80	573.42	9.15
104	104	9.15	D	C	3628.70	1040.79	9.15	-374.30	573.42	9.15
104	105	12.20	D	C	3628.70	1159.76	12.20	-374.30	612.59	12.20
105	105	12.20	D	C	3628.70	1159.76	12.20	-374.30	612.59	12.20
105	106	15.25	D	C	3628.70	1164.81	15.25	-374.30	575.82	15.25
106	106	15.25	D	C	3628.70	1164.81	15.25	-374.30	575.82	15.25
106	107	18.30	D	C	3628.70	1055.87	18.30	-374.30	463.06	18.30
107	107	18.30	D	C	3628.70	1055.87	18.30	-374.30	463.06	18.30
107	108	21.35	D	C	3628.70	832.94	21.35	-374.30	274.29	21.35
108	108	21.35	D	C	3628.70	832.94	21.35	-374.30	274.29	21.35
108	109	24.40	D	C	3628.70	509.63	24.40	-374.30	-3.97	24.40
109	109	24.40	E	T	4318.20	510.21	24.40	-4775.10	-4.55	24.40
109	110	27.45	E	T	4318.20	163.58	27.45	-4775.10	-449.44	27.45
110	110	27.45	F	T	3250.30	164.06	27.45	-5659.90	-449.92	27.45
110	111	30.50	F	T	3250.30	-273.02	30.50	-5659.90	-994.29	30.50
111	111	30.50	G	T	1723.10	-272.81	30.50	-6270.30	-994.52	30.50
111	112	33.55	G	T	1723.10	-801.64	33.55	-6270.30	-1637.10	33.55
112	10112	33.55	H	T	1843.20	-801.66	33.55	-6223.30	-1637.09	33.55
112	113	37.19	H	T	1843.20	-161.53	37.19	-6223.30	-933.13	37.19
113	113	37.19	I	T	3370.10	-161.88	37.19	-5612.90	-932.78	37.19
113	114	40.82	I	T	3370.10	373.40	40.82	-5612.90	-393.97	40.82
114	114	40.82	J	T	5017.50	373.40	40.82	-4428.70	-393.97	40.82
114	115	44.46	J	T	5017.50	778.88	44.46	-4428.70	4.64	44.46
115	115	44.46	K	C	3947.00	778.88	44.46	-355.00	4.64	44.46
115	116	48.10	K	C	3947.00	1048.25	48.10	-355.00	269.34	48.10
116	116	48.10	K	C	3947.00	1048.25	48.10	-355.00	269.34	48.10
116	117	51.73	K	C	3947.00	1206.78	51.73	-355.00	374.89	51.73
117	117	51.73	K	C	3947.00	1206.78	51.73	-355.00	374.89	51.73
117	118	55.37	K	C	3947.00	1203.32	55.37	-355.00	372.44	55.37
118	118	55.37	K	C	3947.00	1203.32	55.37	-355.00	372.44	55.37
118	119	59.01	K	C	3947.00	1037.88	59.01	-355.00	262.00	59.01
119	119	59.01	K	C	3947.00	1037.88	59.01	-355.00	262.00	59.01
119	120	62.64	K	C	3947.00	766.71	62.64	-355.00	-12.79	62.64
120	120	62.64	J	T	5017.50	766.70	62.64	-4428.70	-12.80	62.64
120	121	66.28	J	T	5017.50	356.35	66.28	-4428.70	-418.39	66.28
121	121	66.28	I	T	3370.10	356.40	66.28	-5612.90	-418.44	66.28
121	122	69.91	I	T	3370.10	-181.97	69.91	-5612.90	-966.01	69.91
122	122	69.91	H	T	1843.20	-181.63	69.91	-6223.30	-966.35	69.91
122	123	73.55	H	T	1843.20	-826.45	73.55	-6223.30	-1677.49	73.55
123	10123	73.55	G	T	1723.10	-826.44	73.55	-6270.30	-1677.49	73.55
123	124	76.66	G	T	1723.10	-277.43	76.66	-6270.30	-1011.36	76.66
124	124	76.66	F	T	3250.30	-277.67	76.66	-5659.90	-1011.14	76.66
124	125	79.77	F	T	3250.30	175.97	79.77	-5659.90	-447.19	79.77
125	125	79.77	M	T	4437.80	175.47	79.77	-4603.10	-446.69	79.77
125	126	82.88	M	T	4437.80	536.18	82.88	-4603.10	12.73	82.88
126	126	82.88	N	C	3694.80	535.61	82.88	-372.20	13.31	82.88
126	127	85.99	N	C	3694.80	870.96	85.99	-372.20	300.54	85.99
127	127	85.99	N	C	3694.80	870.96	85.99	-372.20	300.54	85.99
127	128	89.10	N	C	3694.80	1102.05	89.10	-372.20	494.61	89.10
128	128	89.10	N	C	3694.80	1102.05	89.10	-372.20	494.61	89.10
128	129	92.21	N	C	3694.80	1214.58	92.21	-372.20	609.65	92.21
129	129	92.21	N	C	3694.80	1214.58	92.21	-372.20	609.65	92.21
129	130	95.32	N	C	3694.80	1208.67	95.32	-372.20	645.73	95.32

ROTCONS.esf Programa DINTEL PACADAR S.A. 30/11/02
ELU.CONSF3B

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.CONSF3B
ENV FASE 3B

Coef. exc:

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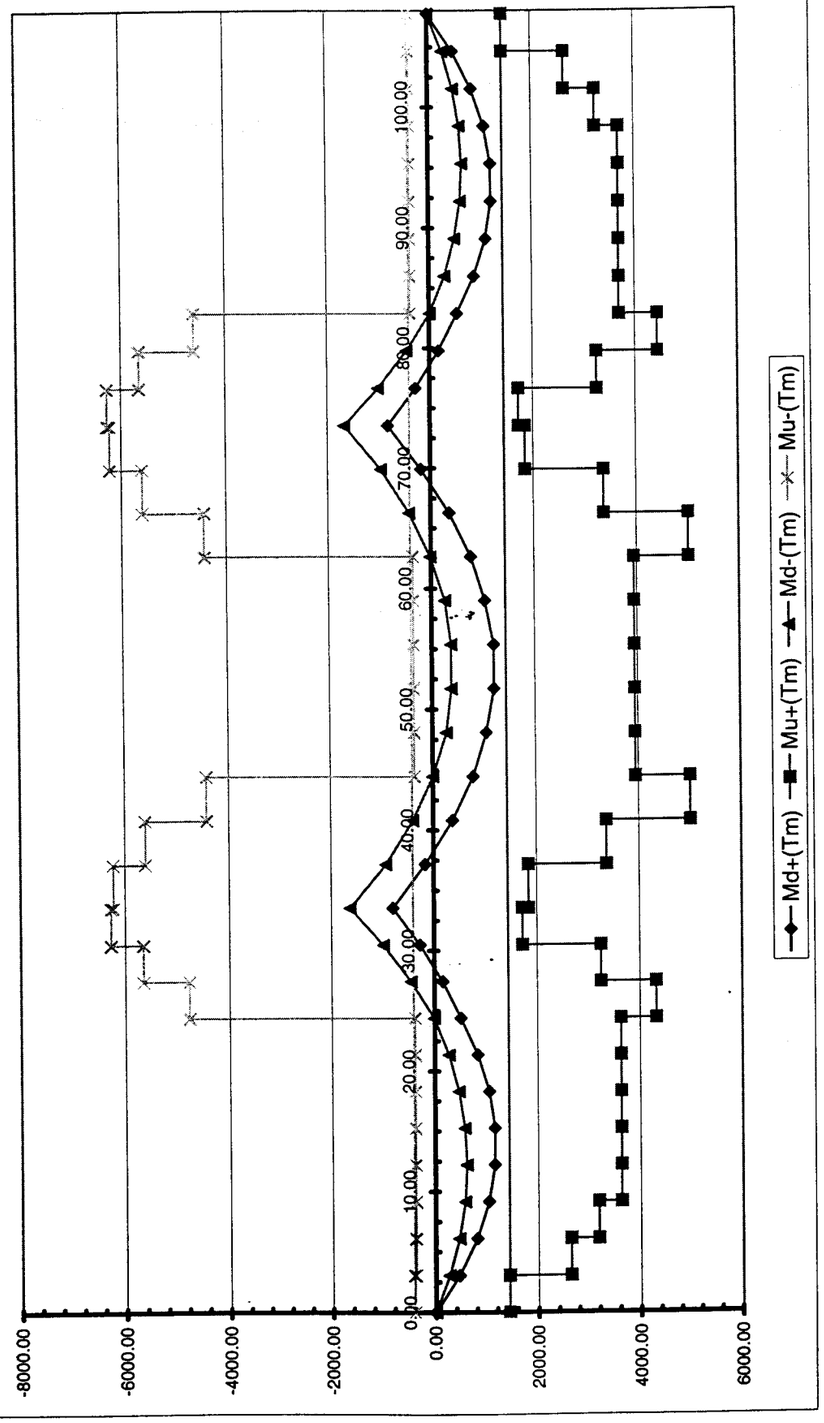
Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
130	130	95.32	N	C	3694.80	1208.67	95.32	-372.20	645.73	95.32
130	131	98.43	N	C	3694.80	1084.25	98.43	-372.20	602.79	98.43
131	131	98.43	O	C	3247.10	1084.25	98.43	-371.80	602.79	98.43
131	132	101.54	O	C	3247.10	841.35	101.54	-371.80	480.87	101.54
132	132	101.54	B	C	2639.60	841.35	101.54	-379.40	480.87	101.54
132	133	104.65	B	C	2639.60	479.90	104.65	-379.40	279.92	104.65
133	133	104.65	A	C	1445.70	479.90	104.65	-401.80	279.92	104.65
133	134	107.76	A	C	1445.70	0.00	107.76	-401.80	0.00	107.76

30/11/0

Programa DINTEL PACADAR S.A.
ELU.CONSF3B

ROTCONS...xls

GRÁFICO DE ESFUERZOS



PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

De las evaluantes de rotura en fases constructivas se observa que En todos los puntos se verifican las condiciones de seguridad. de forma que se cumple

$$|M_u| > |M_d|$$

Conforme a esto no se necesita la adición de ningún refuerzo para estas fases

A continuación se procede de forma análoga con la estructura terminada, tanto a tiempo ∞ como a tiempo inicial

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.STR COMPLETA SIN REFUERZO

Coef. exc:

0

Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
1	1	0.00	A	T	1733.50	4.11	0.00	-1298.70	-3.24	0.00
1	2	3.05	A	T	1733.50	2177.24	3.05	-1298.70	384.18	3.05
2	2	3.05	B	T	3292.50	2177.75	3.05	-1268.30	385.26	3.05
2	3	6.10	B	T	3292.50	3865.92	6.10	-1268.30	619.74	6.10
3	3	6.10	C	T	4338.80	3866.37	6.10	-1252.70	620.64	6.10
3	4	9.15	C	T	4338.80	5065.98	9.15	-1252.70	701.96	9.15
4	4	9.15	D	T	5354.00	5066.28	9.15	-1241.40	702.57	9.15
4	5	12.20	D	T	5354.00	5789.24	12.20	-1241.40	626.12	12.20
5	5	12.20	D	T	5354.00	5789.45	12.20	-1241.40	626.25	12.20
5	6	15.25	D	T	5354.00	6018.36	15.25	-1241.40	389.52	15.25
6	6	15.25	D	T	5354.00	6018.27	15.25	-1241.40	389.38	15.25
6	7	18.30	D	T	5354.00	5764.17	18.30	-1241.40	-6.51	18.30
7	7	18.30	D	T	5354.00	5763.81	18.30	-1241.40	-6.76	18.30
7	8	21.35	D	T	5354.00	5028.53	21.35	-1241.40	-561.21	21.35
8	8	21.35	D	T	5354.00	5027.91	21.35	-1241.40	-561.57	21.35
8	9	24.40	D	T	5354.00	3818.55	24.40	-1241.40	-1287.98	24.40
9	9	24.40	E	T	4318.20	3818.34	24.40	-4775.10	-1288.92	24.40
9	10	27.45	E	T	4318.20	2496.51	27.45	-4775.10	-2542.98	27.45
10	10	27.45	F	T	3250.30	2494.91	27.45	-5659.90	-2542.57	27.45
10	11	30.50	F	T	3250.30	1483.62	30.50	-5659.90	-4498.28	30.50
11	11	30.50	G	T	1723.10	1482.56	30.50	-6270.30	-4497.63	30.50
11	12	33.55	Z	T	1915.50	612.34	33.55	-9635.90	-7238.78	33.55
12	10012	33.55	Z	T	1915.50	612.35	33.55	-9635.90	-7238.12	33.55
12	13	37.19	H	T	1843.20	1759.63	37.19	-6223.30	-4035.24	37.19
13	13	37.19	I	T	3370.10	1758.84	37.19	-5612.90	-4033.49	37.19
13	14	40.82	I	T	3370.10	3120.56	40.82	-5612.90	-1954.20	40.82
14	14	40.82	J	T	5017.50	3122.76	40.82	-4428.70	-1955.56	40.82
14	15	44.46	J	T	5017.50	4790.47	44.46	-4428.70	-929.61	44.46
15	15	44.46	K	T	6608.40	4791.44	44.46	-1205.50	-929.33	44.46
15	16	48.10	K	T	6608.40	6114.95	48.10	-1205.50	-414.64	48.10
16	16	48.10	K	T	6608.40	6115.56	48.10	-1205.50	-414.39	48.10
16	17	51.73	K	T	6608.40	6804.01	51.73	-1205.50	-176.79	51.73
17	17	51.73	K	T	6608.40	6804.25	51.73	-1205.50	-176.69	51.73
17	18	55.37	K	T	6608.40	6802.36	55.37	-1205.50	-195.37	55.37
18	18	55.37	K	T	6608.40	6802.16	55.37	-1205.50	-195.49	55.37
18	19	59.01	K	T	6608.40	6109.93	59.01	-1205.50	-461.73	59.01
19	19	59.01	K	T	6608.40	6109.29	59.01	-1205.50	-461.96	59.01
19	20	62.64	K	T	6608.40	4787.05	62.64	-1205.50	-1010.29	62.64
20	20	62.64	J	T	5017.50	4786.07	62.64	-4428.70	-1010.55	62.64
20	21	66.28	J	T	5017.50	3130.55	66.28	-4428.70	-2081.12	66.28
21	21	66.28	I	T	3370.10	3128.37	66.28	-5612.90	-2079.72	66.28
21	22	69.91	I	T	3370.10	1751.29	69.91	-5612.90	-4175.80	69.91
22	22	69.91	H	T	1843.20	1752.01	69.91	-6223.30	-4177.49	69.91
22	23	73.55	Z	T	1915.50	596.28	73.55	-9635.90	-7389.80	73.55
23	10023	73.55	Z	T	1915.50	596.34	73.55	-9635.90	-7390.24	73.55
23	24	76.66	G	T	1723.10	1502.59	76.66	-6270.30	-4545.31	76.66
24	24	76.66	F	T	3250.30	1503.25	76.66	-5659.90	-4545.43	76.66
24	25	79.77	F	T	3250.30	2556.31	79.77	-5659.90	-2519.04	79.77
25	25	79.77	M	T	4437.80	2557.92	79.77	-4603.10	-2519.43	79.77
25	26	82.88	M	T	4437.80	3948.86	82.88	-4603.10	-1238.09	82.88
26	26	82.88	N	T	5581.30	3949.12	82.88	-1236.10	-1237.11	82.88
26	27	85.99	N	T	5581.30	5208.77	85.99	-1236.10	-493.70	85.99
27	27	85.99	N	T	5581.30	5209.52	85.99	-1236.10	-493.37	85.99
27	28	89.10	N	T	5581.30	5977.59	89.10	-1236.10	70.88	89.10
28	28	89.10	N	T	5581.30	5977.97	89.10	-1236.10	71.19	89.10
28	29	92.21	N	T	5581.30	6245.16	92.21	-1236.10	470.40	92.21
29	29	92.21	N	T	5581.30	6245.24	92.21	-1236.10	470.58	92.21
29	30	95.32	N	T	5581.30	6009.59	95.32	-1236.10	704.16	95.32
30	30	95.32	N	T	5581.30	6008.94	95.32	-1236.10	703.87	95.32
30	31	98.43	N	T	5581.30	5262.09	98.43	-1236.10	770.71	98.43
31	31	98.43	O	T	4454.50	5261.76	98.43	-1250.50	770.09	98.43
31	32	101.54	O	T	4454.50	4016.16	101.54	-1250.50	672.22	101.54

ROTURA.esf

Programa DINTEL PACADAR S.A.
ELU.STR COMPLETA
SIN REFUERZO

01/12/02

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.STR COMPLETA SIN REFUERZO

Coef. exc:

0

Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
32	32	101.54	B	T	3292.50	4015.68	101.54	-1268.30	671.28	101.54
32	33	104.65	B	T	3292.50	2261.43	104.65	-1268.30	414.03	104.65
33	33	104.65	A	T	1733.50	2260.81	104.65	-1298.70	412.85	104.65
33	34	107.76	A	T	1733.50	4.27	107.76	-1298.70	-3.34	107.76
101	101	0.00	A	T	1733.50	3.24	0.00	-1298.70	-4.11	0.00
101	102	3.05	A	T	1733.50	2326.47	3.05	-1298.70	427.54	3.05
102	102	3.05	B	T	3292.50	2324.31	3.05	-1268.30	428.02	3.05
102	103	6.10	B	T	3292.50	4111.22	6.10	-1268.30	690.49	6.10
103	103	6.10	C	T	4338.80	4109.50	6.10	-1252.70	690.90	6.10
103	104	9.15	C	T	4338.80	5365.89	9.15	-1252.70	786.49	9.15
104	104	9.15	D	T	5354.00	5364.69	9.15	-1241.40	786.83	9.15
104	105	12.20	D	T	5354.00	6108.47	12.20	-1241.40	713.87	12.20
105	105	12.20	D	T	5354.00	6108.31	12.20	-1241.40	714.21	12.20
105	106	15.25	D	T	5354.00	6325.32	15.25	-1241.40	470.47	15.25
106	106	15.25	D	T	5354.00	6324.82	15.25	-1241.40	470.32	15.25
106	107	18.30	D	T	5354.00	6031.19	18.30	-1241.40	54.78	18.30
107	107	18.30	D	T	5354.00	6031.73	18.30	-1241.40	54.92	18.30
107	108	21.35	D	T	5354.00	5227.97	21.35	-1241.40	-533.97	21.35
108	108	21.35	D	T	5354.00	5228.83	21.35	-1241.40	-533.80	21.35
108	109	24.40	D	T	5354.00	3915.47	24.40	-1241.40	-1309.94	24.40
109	109	24.40	E	T	4318.20	3917.10	24.40	-4775.10	-1310.32	24.40
109	110	27.45	E	T	4318.20	2483.94	27.45	-4775.10	-2664.16	27.45
110	110	27.45	F	T	3250.30	2483.71	27.45	-5659.90	-2662.77	27.45
110	111	30.50	F	T	3250.30	1402.72	30.50	-5659.90	-4810.51	30.50
111	111	30.50	G	T	1723.10	1402.92	30.50	-6270.30	-4809.97	30.50
111	112	33.55	Z	T	1915.50	467.87	33.55	-9635.90	-7820.02	33.55
112	10112	33.55	Z	T	1915.50	467.79	33.55	-9635.90	-7819.59	33.55
112	113	37.19	H	T	1843.20	1697.83	37.19	-6223.30	-4320.85	37.19
113	113	37.19	I	T	3370.10	1696.67	37.19	-5612.90	-4320.35	37.19
113	114	40.82	I	T	3370.10	3136.68	40.82	-5612.90	-2038.87	40.82
114	114	40.82	J	T	5017.50	3137.61	40.82	-4428.70	-2041.35	40.82
114	115	44.46	J	T	5017.50	4919.51	44.46	-4428.70	-918.42	44.46
115	115	44.46	K	T	6608.40	4918.51	44.46	-1205.50	-918.66	44.46
115	116	48.10	K	T	6608.40	6322.66	48.10	-1205.50	-357.20	48.10
116	116	48.10	K	T	6608.40	6321.94	48.10	-1205.50	-357.35	48.10
116	117	51.73	K	T	6608.40	7048.21	51.73	-1205.50	-96.71	51.73
117	117	51.73	K	T	6608.40	7047.97	51.73	-1205.50	-96.80	51.73
117	118	55.37	K	T	6608.40	7045.98	55.37	-1205.50	-115.74	55.37
118	118	55.37	K	T	6608.40	7046.23	55.37	-1205.50	-115.67	55.37
118	119	59.01	K	T	6608.40	6315.94	59.01	-1205.50	-405.73	59.01
119	119	59.01	K	T	6608.40	6316.63	59.01	-1205.50	-405.57	59.01
119	120	62.64	K	T	6608.40	4913.34	62.64	-1205.50	-1001.54	62.64
120	120	62.64	J	T	5017.50	4914.29	62.64	-4428.70	-1001.37	62.64
120	121	66.28	J	T	5017.50	3144.43	66.28	-4428.70	-2170.62	66.28
121	121	66.28	I	T	3370.10	3143.51	66.28	-5612.90	-2168.13	66.28
121	122	69.91	I	T	3370.10	1688.09	69.91	-5612.90	-4469.04	69.91
122	122	69.91	H	T	1843.20	1689.30	69.91	-6223.30	-4469.68	69.91
122	123	73.55	Z	T	1915.50	450.81	73.55	-9635.90	-7980.43	73.55
123	10123	73.55	Z	T	1915.50	450.54	73.55	-9635.90	-7981.56	73.55
123	124	76.66	G	T	1723.10	1424.64	76.66	-6270.30	-4862.09	76.66
124	124	76.66	F	T	3250.30	1423.98	76.66	-5659.90	-4862.99	76.66
124	125	79.77	F	T	3250.30	2545.63	79.77	-5659.90	-2637.79	79.77
125	125	79.77	M	T	4437.80	2545.89	79.77	-4603.10	-2639.24	79.77
125	126	82.88	M	T	4437.80	4050.88	82.88	-4603.10	-1257.17	82.88
126	126	82.88	N	T	5581.30	4049.21	82.88	-1236.10	-1256.79	82.88
126	127	85.99	N	T	5581.30	5414.30	85.99	-1236.10	-463.27	85.99
127	127	85.99	N	T	5581.30	5413.49	85.99	-1236.10	-463.45	85.99
127	128	89.10	N	T	5581.30	6251.02	89.10	-1236.10	135.35	89.10
128	128	89.10	N	T	5581.30	6250.49	89.10	-1236.10	135.25	89.10
128	129	92.21	N	T	5581.30	6558.36	92.21	-1236.10	554.51	92.21
129	129	92.21	N	T	5581.30	6558.02	92.21	-1236.10	554.28	92.21
129	130	95.32	N	T	5581.30	6334.56	95.32	-1236.10	794.68	95.32

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.STR COMPLETA SIN REFUERZO

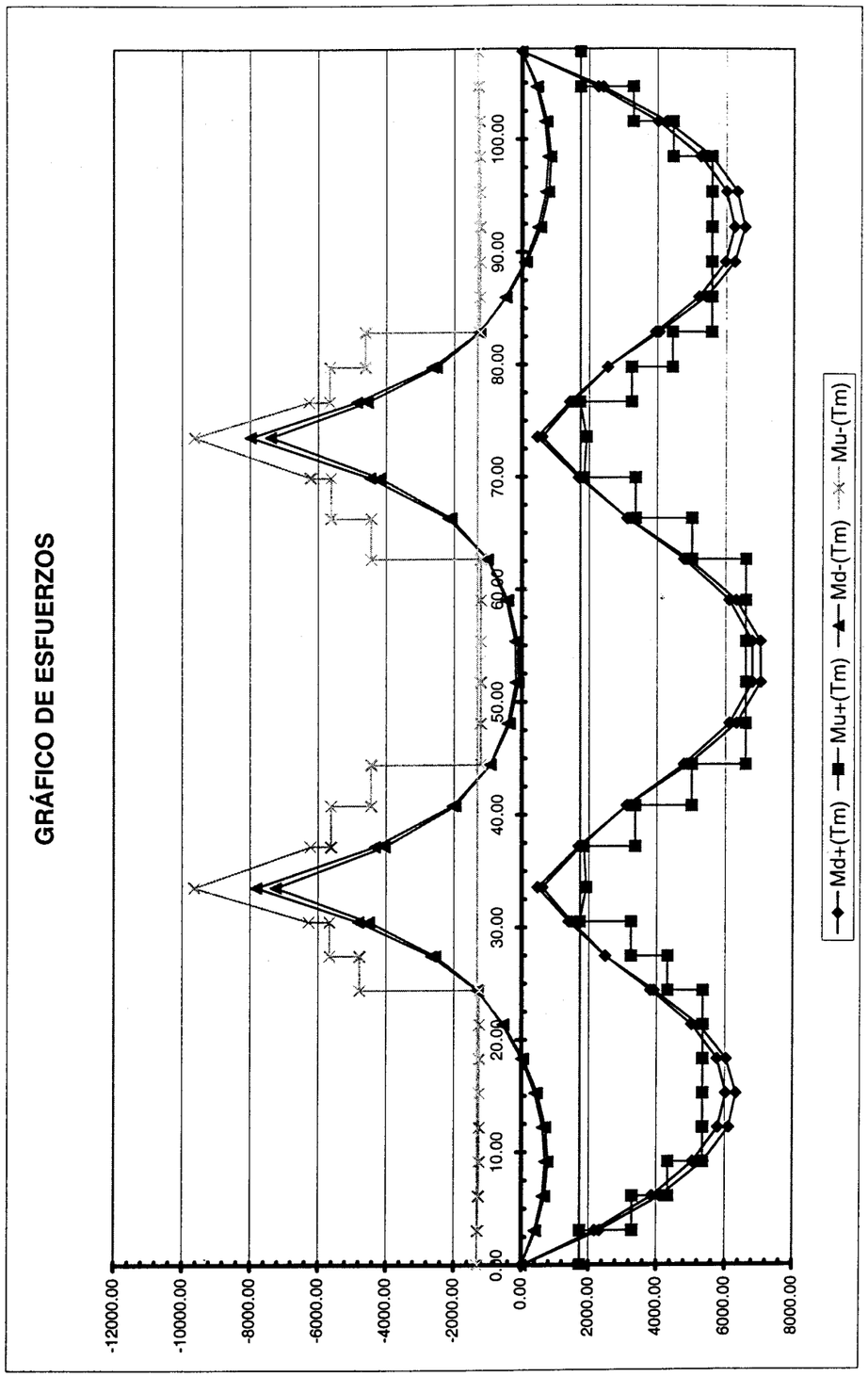
Coef. exc:

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Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
130	130	95.32	N	T	5581.30	6334.86	95.32	-1236.10	794.44	95.32
130	131	98.43	N	T	5581.30	5567.64	98.43	-1236.10	857.43	98.43
131	131	98.43	O	T	4454.50	5568.96	98.43	-1250.50	857.14	98.43
131	132	101.54	O	T	4454.50	4265.27	101.54	-1250.50	744.54	101.54
132	132	101.54	B	T	3292.50	4267.01	101.54	-1268.30	744.08	101.54
132	133	104.65	B	T	3292.50	2411.47	104.65	-1268.30	458.09	104.65
133	133	104.65	A	T	1733.50	2413.62	104.65	-1298.70	457.58	104.65
133	134	107.76	A	T	1733.50	3.34	107.76	-1298.70	-4.27	107.76

GRÁFICO DE ESFUERZOS

Programa DINTEL PACADAR S.A.
ELU.STR COMPLETA
SIN REFUERZO



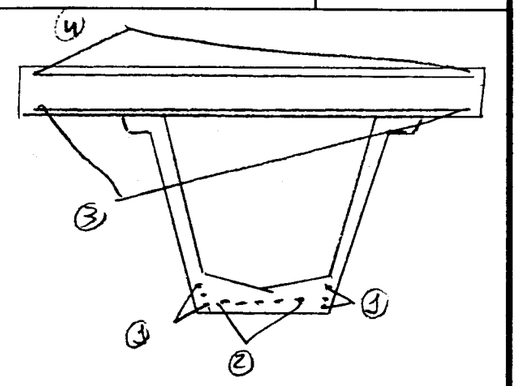
PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

Una vez obtenida la envolvente de esfuerzos en estructura completa (en la que se tienen los esfuerzos a tiempo ∞ y a tiempo infinito) se observa la necesidad de refuerzos en las siguientes secciones

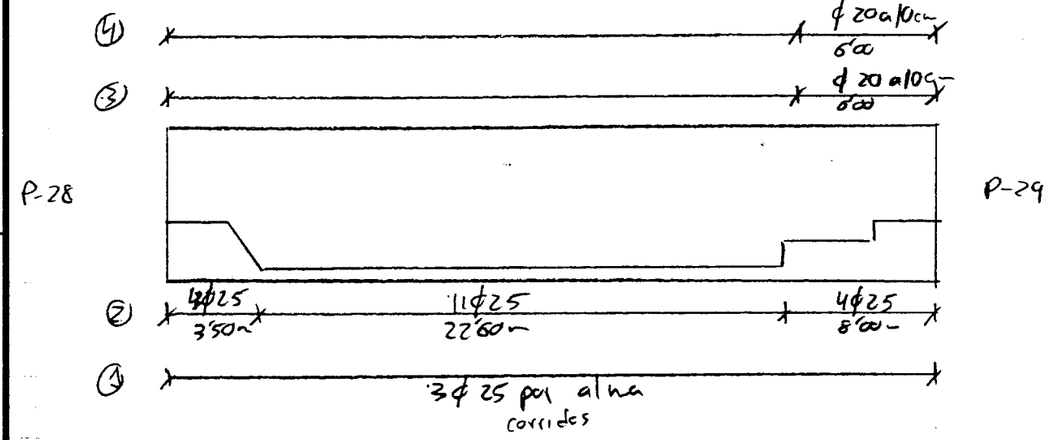
- Refuerzos a positivos:
  - Secciones: A, B, C, D (VANO 29)
    K (VANO 30)
    N, O, B, A (VANO 33)
- Refuerzos a negativos:
  - Secciones: G, H (PILA 29 y PILA 30)

A continuación se recogen los Momentos últimos con los refuerzos considerados, así como un croquis de los mismos en las diferentes vigas, posteriormente se presentan las nuevas envolventes de rotura con los refuerzos considerados

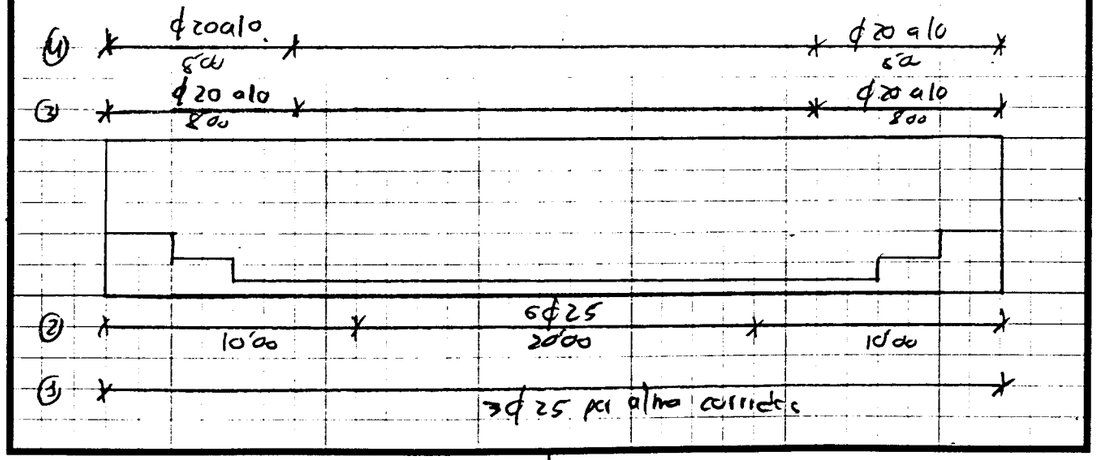
PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:



VIGAS V-12

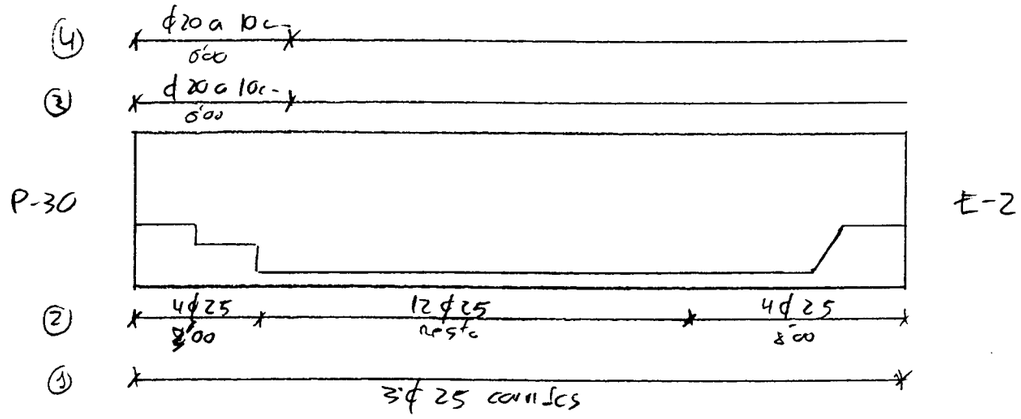


VIGAS V-13; V-14



PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

VIGAS P-15; P-16



PASO INFERIOR Nº 4
LAV TRAMO LLEIDA - MARTORELL
SUBTRAMO VIIB

MOMENTOS ÚLTIMOS DE LAS SECCIONES CON REFUERZOS

SECCION	CAJON		SECCION TOTAL		REFUERZO M+		REFUERZO M-	
	Mu+	Mu-	Mu+	Mu-	1	2	3	4
A	1.0	1.0	2316.6	-1306.9	3 ϕ 25 por alma	4 ϕ 25		
B	1.0	1.0	4137.5	-1288.4	3 ϕ 25 por alma	8 ϕ 25		
C	1.0	1.0	5350.1	-1288.6	3 ϕ 25 por alma	11 ϕ 25		
D	1.0	1.0	6360.9	-1293.8	3 ϕ 25 por alma	11 ϕ 25		
E	1.0	1.0	4318.2	-4775.1	3 ϕ 25 por alma	4 ϕ 25		
F	1.0	1.0	3250.3	-5845.2			ϕ 20 a 0.20m	ϕ 20 a 0.20m
G	1.0	1.0	1723.1	-6492.3			ϕ 20 a 0.20m	ϕ 20 a 0.20m
H	1.0	1.0	1843.2	-6442.2			ϕ 20 a 0.20m	ϕ 20 a 0.20m
I	1.0	1.0	3370.1	-5795.3			ϕ 20 a 0.20m	ϕ 20 a 0.20m
J	1.0	1.0	5017.5	-4428.7				
K	1.0	1.0	7213.0	-1252.6	2 ϕ 25 por alma	6 ϕ 25		
L	1.0	1.0	5012.6	-4526.7				
M	1.0	1.0	4437.8	-4603.1				
N	1.0	1.0	6567.3	-1289.5	3 ϕ 25 por alma	10 ϕ 25		
O	1.0	1.0	5522.6	-1289.9	3 ϕ 25 por alma	10 ϕ 25		
Z	1.0	1.0	1915.5	-9635.9				

NOTAS: Los momentos últimos de las secciones se expresan en m·ton
En la seccion F no se ha considerado la contribución del postesado en la union ni de pretensado de viga, para la obtención de los momentos últimos negativos en las fases de cajón sección total.

Refuerzo inferior de rotura

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.STR COMPLETA CON REFUERZO

Coef. exc:

Barra	Nudo	X	Seccion	Estado	0 Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
1	1	0.00	A	T	2316.60	4.11	0.00	-1306.90	-3.24	0.00
1	2	3.05	A	T	2316.60	2177.24	3.05	-1306.90	384.18	3.05
2	2	3.05	B	T	4137.50	2177.75	3.05	-1288.40	385.26	3.05
2	3	6.10	B	T	4137.50	3865.92	6.10	-1288.40	619.74	6.10
3	3	6.10	C	T	5350.10	3866.37	6.10	-1288.60	620.64	6.10
3	4	9.15	C	T	5350.10	5065.98	9.15	-1288.60	701.96	9.15
4	4	9.15	D	T	6360.90	5066.28	9.15	-1293.80	702.57	9.15
4	5	12.20	D	T	6360.90	5789.24	12.20	-1293.80	626.12	12.20
5	5	12.20	D	T	6360.90	5789.45	12.20	-1293.80	626.25	12.20
5	6	15.25	D	T	6360.90	6018.36	15.25	-1293.80	389.52	15.25
6	6	15.25	D	T	6360.90	6018.27	15.25	-1293.80	389.38	15.25
6	7	18.30	D	T	6360.90	5764.17	18.30	-1293.80	-6.51	18.30
7	7	18.30	D	T	6360.90	5763.81	18.30	-1293.80	-6.76	18.30
7	8	21.35	D	T	6360.90	5028.53	21.35	-1293.80	-561.21	21.35
8	8	21.35	D	T	6360.90	5027.91	21.35	-1293.80	-561.57	21.35
8	9	24.40	D	T	6360.90	3818.55	24.40	-1293.80	-1287.98	24.40
9	9	24.40	E	T	4318.20	3818.34	24.40	-4775.10	-1288.92	24.40
9	10	27.45	E	T	4318.20	2496.51	27.45	-4775.10	-2542.98	27.45
10	10	27.45	F	T	3250.30	2494.91	27.45	-5845.20	-2542.57	27.45
10	11	30.50	F	T	3250.30	1483.62	30.50	-5845.20	-4498.28	30.50
11	11	30.50	G	T	1723.10	1482.56	30.50	-6492.30	-4497.63	30.50
11	12	33.55	Z	T	1915.50	612.34	33.55	-9635.90	-7238.78	33.55
12	10012	33.55	Z	T	1915.50	612.35	33.55	-9635.90	-7238.12	33.55
12	13	37.19	H	T	1843.20	1759.63	37.19	-6442.20	-4035.24	37.19
13	13	37.19	I	T	3370.10	1758.84	37.19	-5795.30	-4033.49	37.19
13	14	40.82	I	T	3370.10	3120.56	40.82	-5795.30	-1954.20	40.82
14	14	40.82	J	T	5017.50	3122.76	40.82	-4428.70	-1955.56	40.82
14	15	44.46	J	T	5017.50	4790.47	44.46	-4428.70	-929.61	44.46
15	15	44.46	K	T	7213.00	4791.44	44.46	-1252.60	-929.33	44.46
15	16	48.10	K	T	7213.00	6114.95	48.10	-1252.60	-414.64	48.10
16	16	48.10	K	T	7213.00	6115.56	48.10	-1252.60	-414.39	48.10
16	17	51.73	K	T	7213.00	6804.01	51.73	-1252.60	-176.79	51.73
17	17	51.73	K	T	7213.00	6804.25	51.73	-1252.60	-176.69	51.73
17	18	55.37	K	T	7213.00	6802.36	55.37	-1252.60	-195.37	55.37
18	18	55.37	K	T	7213.00	6802.16	55.37	-1252.60	-195.49	55.37
18	19	59.01	K	T	7213.00	6109.93	59.01	-1252.60	-461.73	59.01
19	19	59.01	K	T	7213.00	6109.29	59.01	-1252.60	-461.96	59.01
19	20	62.64	K	T	7213.00	4787.05	62.64	-1252.60	-1010.29	62.64
20	20	62.64	L	T	5012.60	4786.07	62.64	-4526.70	-1010.55	62.64
20	21	66.28	L	T	5012.60	3130.55	66.28	-4526.70	-2081.12	66.28
21	21	66.28	I	T	3370.10	3128.37	66.28	-5795.30	-2079.72	66.28
21	22	69.91	I	T	3370.10	1751.29	69.91	-5795.30	-4175.80	69.91
22	22	69.91	H	T	1843.20	1752.01	69.91	-6442.20	-4177.49	69.91
22	23	73.55	Z	T	1915.50	596.28	73.55	-9635.90	-7389.80	73.55
23	10023	73.55	Z	T	1915.50	596.34	73.55	-9635.90	-7390.24	73.55
23	24	76.66	G	T	1723.10	1502.59	76.66	-6492.30	-4545.31	76.66
24	24	76.66	F	T	3250.30	1503.25	76.66	-5845.20	-4545.43	76.66
24	25	79.77	F	T	3250.30	2556.31	79.77	-5845.20	-2519.04	79.77
25	25	79.77	M	T	4437.80	2557.92	79.77	-4603.10	-2519.43	79.77
25	26	82.88	M	T	4437.80	3948.86	82.88	-4603.10	-1238.09	82.88
26	26	82.88	N	T	6567.30	3949.12	82.88	-1289.50	-1237.11	82.88
26	27	85.99	N	T	6567.30	5208.77	85.99	-1289.50	-493.70	85.99
27	27	85.99	N	T	6567.30	5209.52	85.99	-1289.50	-493.37	85.99
27	28	89.10	N	T	6567.30	5977.59	89.10	-1289.50	70.88	89.10
28	28	89.10	N	T	6567.30	5977.97	89.10	-1289.50	71.19	89.10
28	29	92.21	N	T	6567.30	6245.16	92.21	-1289.50	470.40	92.21
29	29	92.21	N	T	6567.30	6245.24	92.21	-1289.50	470.58	92.21
29	30	95.32	N	T	6567.30	6009.59	95.32	-1289.50	704.16	95.32
30	30	95.32	N	T	6567.30	6008.94	95.32	-1289.50	703.87	95.32
30	31	98.43	N	T	6567.30	5262.09	98.43	-1289.50	770.71	98.43
31	31	98.43	O	T	5522.60	5261.76	98.43	-1289.90	770.09	98.43
31	32	101.54	O	T	5522.60	4016.16	101.54	-1289.90	672.22	101.54

ROTURA.esf

Programa DINTEL PACADAR S.A.
ELU.STR COMPLETA
CON REFUERZO

01/12/02

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.STR COMPLETA CON REFUERZO

Coef. exc:

Barra	Nudo	X	Seccion	Estado	0 Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
32	32	101.54	B	T	4137.50	4015.68	101.54	-1288.40	671.28	101.54
32	33	104.65	B	T	4137.50	2261.43	104.65	-1288.40	414.03	104.65
33	33	104.65	A	T	2316.60	2260.81	104.65	-1306.90	412.85	104.65
33	34	107.76	A	T	2316.60	4.27	107.76	-1306.90	-3.34	107.76
101	101	0.00	A	T	2316.60	3.24	0.00	-1306.90	-4.11	0.00
101	102	3.05	A	T	2316.60	2326.47	3.05	-1306.90	427.54	3.05
102	102	3.05	B	T	4137.50	2324.31	3.05	-1288.40	428.02	3.05
102	103	6.10	B	T	4137.50	4111.22	6.10	-1288.40	690.49	6.10
103	103	6.10	C	T	5350.10	4109.50	6.10	-1288.60	690.90	6.10
103	104	9.15	C	T	5350.10	5365.89	9.15	-1288.60	786.49	9.15
104	104	9.15	D	T	6360.90	5364.69	9.15	-1293.80	786.83	9.15
104	105	12.20	D	T	6360.90	6108.47	12.20	-1293.80	713.87	12.20
105	105	12.20	D	T	6360.90	6108.31	12.20	-1293.80	714.21	12.20
105	106	15.25	D	T	6360.90	6325.32	15.25	-1293.80	470.47	15.25
106	106	15.25	D	T	6360.90	6324.82	15.25	-1293.80	470.32	15.25
106	107	18.30	D	T	6360.90	6031.19	18.30	-1293.80	54.78	18.30
107	107	18.30	D	T	6360.90	6031.73	18.30	-1293.80	54.92	18.30
107	108	21.35	D	T	6360.90	5227.97	21.35	-1293.80	-533.97	21.35
108	108	21.35	D	T	6360.90	5228.83	21.35	-1293.80	-533.80	21.35
108	109	24.40	D	T	6360.90	3915.47	24.40	-1293.80	-1309.94	24.40
109	109	24.40	E	T	4318.20	3917.10	24.40	-4775.10	-1310.32	24.40
109	110	27.45	E	T	4318.20	2483.94	27.45	-4775.10	-2664.16	27.45
110	110	27.45	F	T	3250.30	2483.71	27.45	-5845.20	-2662.77	27.45
110	111	30.50	F	T	3250.30	1402.72	30.50	-5845.20	-4810.51	30.50
111	111	30.50	G	T	1723.10	1402.92	30.50	-6492.30	-4809.97	30.50
111	112	33.55	Z	T	1915.50	467.87	33.55	-9635.90	-7820.02	33.55
112	10112	33.55	Z	T	1915.50	467.79	33.55	-9635.90	-7819.59	33.55
112	113	37.19	H	T	1843.20	1697.83	37.19	-6442.20	-4320.85	37.19
113	113	37.19	I	T	3370.10	1696.67	37.19	-5795.30	-4320.35	37.19
113	114	40.82	I	T	3370.10	3136.68	40.82	-5795.30	-2038.87	40.82
114	114	40.82	J	T	5017.50	3137.61	40.82	-4428.70	-2041.35	40.82
114	115	44.46	J	T	5017.50	4919.51	44.46	-4428.70	-918.42	44.46
115	115	44.46	K	T	7213.00	4918.51	44.46	-1252.60	-918.66	44.46
115	116	48.10	K	T	7213.00	6322.66	48.10	-1252.60	-357.20	48.10
116	116	48.10	K	T	7213.00	6321.94	48.10	-1252.60	-357.35	48.10
116	117	51.73	K	T	7213.00	7048.21	51.73	-1252.60	-96.71	51.73
117	117	51.73	K	T	7213.00	7047.97	51.73	-1252.60	-96.80	51.73
117	118	55.37	K	T	7213.00	7045.98	55.37	-1252.60	-115.74	55.37
118	118	55.37	K	T	7213.00	7046.23	55.37	-1252.60	-115.67	55.37
118	119	59.01	K	T	7213.00	6315.94	59.01	-1252.60	-405.73	59.01
119	119	59.01	K	T	7213.00	6316.63	59.01	-1252.60	-405.57	59.01
119	120	62.64	K	T	7213.00	4913.34	62.64	-1252.60	-1001.54	62.64
120	120	62.64	L	T	5012.60	4914.29	62.64	-4526.70	-1001.37	62.64
120	121	66.28	L	T	5012.60	3144.43	66.28	-4526.70	-2170.62	66.28
121	121	66.28	I	T	3370.10	3143.51	66.28	-5795.30	-2168.13	66.28
121	122	69.91	I	T	3370.10	1688.09	69.91	-5795.30	-4469.04	69.91
122	122	69.91	H	T	1843.20	1689.30	69.91	-6442.20	-4469.68	69.91
122	123	73.55	Z	T	1915.50	450.81	73.55	-9635.90	-7980.43	73.55
123	10123	73.55	Z	T	1915.50	450.54	73.55	-9635.90	-7981.56	73.55
123	124	76.66	G	T	1723.10	1424.64	76.66	-6492.30	-4862.09	76.66
124	124	76.66	F	T	3250.30	1423.98	76.66	-5845.20	-4862.99	76.66
124	125	79.77	F	T	3250.30	2545.63	79.77	-5845.20	-2637.79	79.77
125	125	79.77	M	T	4437.80	2545.89	79.77	-4603.10	-2639.24	79.77
125	126	82.88	M	T	4437.80	4050.88	82.88	-4603.10	-1257.17	82.88
126	126	82.88	N	T	6567.30	4049.21	82.88	-1289.50	-1256.79	82.88
126	127	85.99	N	T	6567.30	5414.30	85.99	-1289.50	-463.27	85.99
127	127	85.99	N	T	6567.30	5413.49	85.99	-1289.50	-463.45	85.99
127	128	89.10	N	T	6567.30	6251.02	89.10	-1289.50	135.35	89.10
128	128	89.10	N	T	6567.30	6250.49	89.10	-1289.50	135.25	89.10
128	129	92.21	N	T	6567.30	6558.36	92.21	-1289.50	554.51	92.21
129	129	92.21	N	T	6567.30	6558.02	92.21	-1289.50	554.28	92.21
129	130	95.32	N	T	6567.30	6334.56	95.32	-1289.50	794.68	95.32

CÁLCULO ROTURA

Hipótesis de cálculo:
ELU.STR COMPLETA CON REFUERZO

Coef. exc:

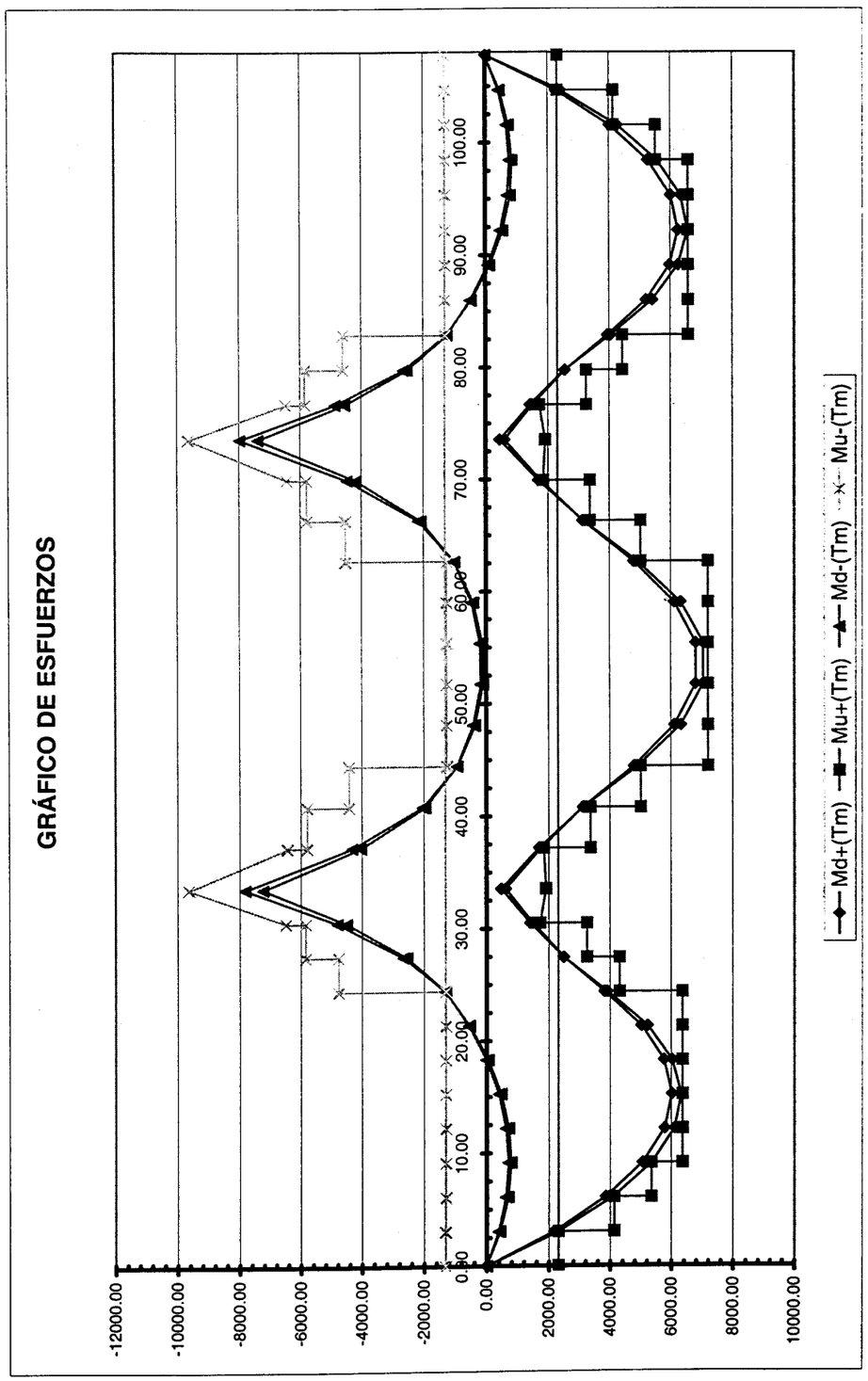
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Barra	Nudo	X	Seccion	Estado	Mu+(Tm)	Md+(Tm)	X+(m)	Mu-(Tm)	Md-(Tm)	X-(m)
130	130	95.32	N	T	6567.30	6334.86	95.32	-1289.50	794.44	95.32
130	131	98.43	N	T	6567.30	5567.64	98.43	-1289.50	857.43	98.43
131	131	98.43	O	T	5522.60	5568.96	98.43	-1289.90	857.14	98.43
131	132	101.54	O	T	5522.60	4265.27	101.54	-1289.90	744.54	101.54
132	132	101.54	B	T	4137.50	4267.01	101.54	-1288.40	744.08	101.54
132	133	104.65	B	T	4137.50	2411.47	104.65	-1288.40	458.09	104.65
133	133	104.65	A	T	2316.60	2413.62	104.65	-1306.90	457.58	104.65
133	134	107.76	A	T	2316.60	3.34	107.76	-1306.90	-4.27	107.76

01/12/02

Programa DINTEL PACADAR S.A.
ELU.STR COMPLETA
CON REFUERZO

GRÁFICO DE ESFUERZOS



ROTCONS.esf.xls

Proyecto:
V-3 STA OLIVA

Seccion:SECA REF M+

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jπ1	Jπ2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat. Num	B(cm)	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	0.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	4.0	25.0	280.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	3	6.0	25.0	275.0	CT	0

SECCIONES INTERMEDIAS

Num	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2235.7	20.78	5933075.5
	(1)	1030.9	37.30	5449733.3
	(2)	1396.0	31.14	5618760.4
F.pura -	(0)	1025.5	249.01	5353396.1
	(1)	460.1	218.82	4621379.3
	(2)	569.2	229.27	4869136.3
C.Simple	(0)	5573.6	88.59	57207460.8
	(1)	1673.6	92.76	18410738.1
	(2)	2377.7	91.00	25424921.6
T.Simple	(0)	173.6	144.19	2992582.9
	(1)	173.6	144.19	2992582.9
	(2)	173.6	144.19	2992582.9

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECA REF M+

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 651.05Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1644.3 Xu(cm.): 72.2

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00203 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -404.7 Xu(cm.): 266.7

Nu(Tn.): .3 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00098 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5091.9 aplicado en Yo(cm)= 177.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 814.8 aplicado en Yo(cm)= 232.2

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECA REF M+

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 651.05Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2316.6 Xu(cm.): 20.0

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00076 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1306.9 Xu(cm.): 259.9

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00117 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9738.6 aplicado en Yo(cm)= 103.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1296.5 aplicado en Yo(cm)= 177.2

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECB REF M+ V12

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	CT	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	8.0	25.0	280.0	CT	0
13	3	10.0	10.0	260.0	CT	0
14	3	6.0	25.0	275.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2828.0	26.20	9408929.4
	(1)	1133.4	49.00	8406959.2
	(2)	1504.8	40.15	8770069.0
F.pura -	(0)	1071.3	250.42	5394644.0
	(1)	504.1	224.99	4785922.8
	(2)	613.3	233.44	4982509.4
C.Simple	(0)	5627.8	90.41	59110366.9
	(1)	1727.7	98.53	20190570.6
	(2)	2431.8	95.14	27255949.3

T.Sample (0) 227.7 175.75 3720676.4
(1) 227.7 175.75 3720676.4
(2) 227.7 175.75 3720676.4

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECB REF M+ V12

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1148.92Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2932.0 Xu(cm.): 115.8

Nu(Tn.): .4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00651
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -390.1 Xu(cm.): 263.6

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00130 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5193.7 aplicado en Yo(cm)= 179.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1457.8 aplicado en Yo(cm)= 251.6

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECB REF M+ V12

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1148.92Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 4137.5 Xu(cm.): 26.5

Nu(Tn.): .1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00103 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1288.4 Xu(cm.): 257.0

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00147 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9840.4 aplicado en Yo(cm)= 105.1

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1939.5 aplicado en Yo(cm)= 210.0

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECC REF M+

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	18.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	11.0	25.0	280.0	CT	0
13	3	10.0	10.0	260.0	CT	0
14	3	6.0	25.0	275.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3162.3	29.20	11634284.9
	(1)	1198.4	55.93	10209134.8
	(2)	1574.4	45.63	10730737.0
F.pura -	(0)	1102.8	251.23	5417131.0
	(1)	534.8	228.39	4872208.4
	(2)	643.9	235.78	5043216.8
C.Simple	(0)	5664.1	91.59	60343637.8
	(1)	1764.1	102.17	21301791.7
	(2)	2468.2	97.79	28417161.3
T.Simple	(0)	264.1	189.43	4031401.5
	(1)	264.1	189.43	4031401.5
	(2)	264.1	189.43	4031401.5

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECC REF M+

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1493.60Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3539.1 Xu(cm.): 150.3

Nu(Tn.): .8 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00341
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -392.1 Xu(cm.): 261.5

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00151 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5259.0 aplicado en Yo(cm)= 180.5

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1897.8 aplicado en Yo(cm)= 256.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECC REF M+

* P[illegible]SOLICITACIONES ELASTICAS

Analisis SIN FISURACION

Pretensado: 1493.60Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[Π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 5350.1 Xu(cm.): 30.2

Nu(Tn.): -.2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00119 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1288.6 Xu(cm.): 254.7

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00168 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9905.7 aplicado en Yo(cm)= 106.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2379.5 aplicado en Yo(cm)= 221.6

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
VTO STA OLIVA

Seccion:SECD REF M+

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\Pi 1$	$J_\Pi 2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) Π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	18.0	13.4	270.4	*T	0
8	4	18.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	11.0	25.0	280.0	CT	0
13	3	10.0	10.0	260.0	CT	0
14	3	6.0	25.0	275.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3275.0	30.77	12837900.7
	(1)	1235.2	59.63	11145929.4
	(2)	1614.0	48.60	11766015.9
F.pura -	(0)	1122.7	251.52	5421796.2
	(1)	553.9	229.85	4901684.3
	(2)	663.1	236.77	5062385.1
C.Simple	(0)	5685.7	92.25	60998573.9
	(1)	1785.7	104.15	21874917.6
	(2)	2489.7	99.25	29023434.3

T.[illegible]mple (0) 285.7 195.22 4148661.7
(1) 285.7 195.22 4148661.7
(2) 285.7 195.22 4148661.7

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

T[illegible]tulo Secci[illegible]n: SECD REF M+

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1838.27Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

An[illegible]isis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3850.9 Xu(cm.): 171.1

Nu(Tn.): .2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00221
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu([illegible]T): -401.6 Xu(cm.): 258.2

Nu(Tn.): -.1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00178 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5259.0 aplicado en Yo(cm)= 180.5

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2272.4 aplicado en Yo(cm)= 258.1

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv[illegible]m): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T[illegible]tulo Secci[illegible]n: SECD REF M+

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1838.27Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 6360.9 Xu(cm.): 33.2

Nu(Tn.): -.8 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00134 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1293.8 Xu(cm.): 251.0

Nu(Tn.): -.2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00195 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9905.7 aplicado en Yo(cm)= 106.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2754.1 aplicado en Yo(cm)= 227.6

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECK REF M+

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	28.0	13.4	270.4	*T	0
8	4	28.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	6.0	25.0	280.0	CT	0
13	3	10.0	10.0	260.0	CT	0
14	3	4.0	25.0	275.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3256.8	30.08	12211772.7
	(1)	1220.4	57.98	10641353.3
	(2)	1598.0	47.28	11216404.0
F.pura -	(0)	1117.3	251.07	5403025.5
	(1)	548.0	228.63	4857198.4
	(2)	657.4	235.84	5026971.9
C.Simple	(0)	5677.7	91.94	60620238.8
	(1)	1777.7	103.21	21536363.8
	(2)	2481.8	98.56	28668724.1
T.Simple	(0)	277.7	191.83	4046109.4
	(1)	277.7	191.83	4046109.4
	(2)	277.7	191.83	4046109.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECK REF M+

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2259.54Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 4023.8 Xu(cm.): 182.2

Nu(Tn.): -.1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00160
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -378.7 Xu(cm.): 251.3

Nu(Tn.): -.2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00228 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5150.2 aplicado en Yo(cm)= 178.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2621.5 aplicado en Yo(cm)= 259.1

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECK REF M+

*** P SOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2259.54Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 7213.0 Xu(cm.): 35.9

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00147 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1252.6 Xu(cm.): 241.2

Nu(Tn.): -.4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00256 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9753.4 aplicado en Yo(cm)= 103.5

TRACCION SIMPLE(Rigido/Plastico):

Nu(.): 3059.6 aplicado en Yo(cm)= 231.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECN REF M+

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\pi 1$	$J_\pi 2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	20.0	13.4	270.4	*T	0
8	4	20.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	10.0	25.0	280.0	CT	0
13	3	10.0	12.0	260.0	CT	0
14	3	6.0	25.0	275.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3281.6	30.99	12984079.1
	(1)	1240.3	60.12	11253958.5
	(2)	1619.7	49.00	11887960.1
F.pura -	(0)	1126.2	251.49	5419179.0
	(1)	557.2	229.92	4899251.4
	(2)	666.4	236.79	5059554.0
C.Simple	(0)	5689.0	92.34	61070611.4
	(1)	1789.0	104.41	21935434.5
	(2)	2493.1	99.44	29088582.7

T.Simple (0) 289.0 195.76 4152967.9
(1) 289.0 195.76 4152967.9
(2) 289.0 195.76 4152967.9

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECN REF M+

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1914.87Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3885.4 Xu(cm.): 173.6

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00208
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -398.9 Xu(cm.): 257.2

Nu(Tn.): -.4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00186 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5252.6 aplicado en Yo(cm)= 180.3

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2349.2 aplicado en Yo(cm)= 258.2

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECN REF M+

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 1914.87Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 6567.3 Xu(cm.): 33.9

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00137 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1289.5 Xu(cm.): 249.8

Nu(Tn.): -.3 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00203 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9899.3 aplicado en Yo(cm)= 106.1

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2830.9 aplicado en Yo(cm)= 228.6

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 VTO STA OLIVA

Seccion:SECO REF M+

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	20.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	12.0	25.0	280.0	CT	0
13	3	10.0	10.0	260.0	CT	0
14	3	6.0	25.0	275.0	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3226.0	29.77	12085485.4
	(1)	1211.2	57.28	10567219.1
	(2)	1588.2	46.70	11123390.8
F.pura -	(0)	1109.0	251.41	5422467.1
	(1)	541.0	229.05	4890059.0
	(2)	650.1	236.25	5056209.9
C.Simple	(0)	5671.4	91.83	60597177.3
	(1)	1771.4	102.89	21526740.7
	(2)	2475.5	98.32	28653737.9
T.Simple	(0)	271.4	191.81	4087243.4
	(1)	271.4	191.81	4087243.4
	(2)	271.4	191.81	4087243.4

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECO REF M+

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1531.89Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3617.6 Xu(cm.): 155.2

Nu(Tn.): .4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00312
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -393.3 Xu(cm.): 261.4

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00153 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5280.8 aplicado en Yo(cm)= 180.9

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1961.2 aplicado en Yo(cm)= 257.1

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECO REF M+

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 1531.89Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 5522.6 Xu(cm.): 30.7

Nu(Tn.): -.3 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00122 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -1289.9 Xu(cm.): 254.6

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00169 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9927.5 aplicado en Yo(cm)= 106.6

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2442.9 aplicado en Yo(cm)= 223.0

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECF REF M-

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\pi 1$	$J_\pi 2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	105.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2373.1	17.44	4728224.5
	(1)	1364.7	26.20	4502944.3
	(2)	1594.6	23.51	4568692.9
F.pura -	(0)	1899.0	180.96	24293071.6
	(1)	1094.3	118.67	14763372.7
	(2)	1262.1	136.92	17475219.2
C.Simple	(0)	6042.3	81.93	59067476.4
	(1)	2142.3	73.05	20050631.5
	(2)	2846.4	76.46	27147516.3

T.Simple (0) 642.3 40.93 4198254.9
(1) 642.3 40.93 4198254.9
(2) 642.3 40.93 4198254.9

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

T┌tulo Secci├n: SECF REF M-

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 3159.53Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2639.5 Xu(cm.): 98.0

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00866
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -379.4 Xu(cm.): 261.2

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00138 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1268.9 aplicado en Yo(cm)= 247.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T┌tulo Secci├n: SECF REF M-

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 3159.53Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3273.6 Xu(cm.): 27.0

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00130 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -5845.2 Xu(cm.): 85.0

Nu(Tn.): -.1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00113
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -11120.3 aplicado en Yo(cm)= 86.9

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 5404.9 aplicado en Yo(cm)= 67.9

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 STA OLIVA

Seccion:SECG REF M-

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	26.0	13.4	280.0	*T	0
6	4	0.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	105.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1970.7	13.70	2615578.2
	(1)	1161.3	19.96	2510937.1
	(2)	1344.0	18.09	2540458.2
F.pura -	(0)	1877.2	179.38	24007399.2
	(1)	1070.7	114.07	13969954.0
	(2)	1239.5	133.41	16857729.8
C.Simple	(0)	6011.2	80.92	57888109.4
	(1)	2111.1	70.06	18748516.0
	(2)	2815.2	74.25	25893305.8
T.Simple	(0)	611.1	28.94	2388578.4
	(1)	611.1	28.94	2388578.4
	(2)	611.1	28.94	2388578.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci├n: SECG REF M-

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2661.66Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1445.7 Xu(cm.): 64.9

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00184 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -401.8 Xu(cm.): 265.0

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00101 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 727.7 aplicado en Yo(cm)= 226.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci├n: SECG REF M-

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2661.66Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[Π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1741.2 Xu(cm.): 23.3

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00114 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -6492.3 Xu(cm.): 90.2

Nu(Tn.): -.7 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00132
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -11120.3 aplicado en Yo(cm)= 86.9

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 4863.7 aplicado en Yo(cm)= 44.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 VTO STA OLIVA

Seccion:SECH REF M-

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\Pi}1$	$J_{\Pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) Π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	0.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	105.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2005.1	14.02	2786395.5
	(1)	1178.5	20.49	2673704.1
	(2)	1365.3	18.56	2705608.2
F.pura -	(0)	1878.8	179.51	24031986.4
	(1)	1072.5	114.45	14036402.0
	(2)	1241.2	133.70	16909663.5
C.Simple	(0)	6013.6	81.00	57983808.5
	(1)	2113.5	70.30	18854834.3
	(2)	2817.6	74.42	25995465.4

T.Simple (0) 613.5 29.92 2540038.9
(1) 613.5 29.92 2540038.9
(2) 613.5 29.92 2540038.9

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECH REF M-

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2699.96Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1549.4 Xu(cm.): 66.7

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00194 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -399.1 Xu(cm.): 264.7

Nu(Tn.): .4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00104 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 769.4 aplicado en Yo(cm)= 229.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: SECH REF M-

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 2699.96Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1861.7 Xu(cm.): 23.5

Nu(Tn.): .9 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00115 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -6442.2 Xu(cm.): 89.8

Nu(Tn.): -.6 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00130
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -11120.3 aplicado en Yo(cm)= 86.9

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 4905.3 aplicado en Yo(cm)= 46.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
V-3 VTO STA OLIVA

Seccion:SECI REF M-

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat. Num	B(cm) ╥(mm)	H(cm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	0.0	13.4	270.4	*T	0
8	4	0.0	13.4	265.4	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	3	0.0	20.0	265.0	CT	0
13	3	9.0	8.0	260.0	CT	0
14	4	105.0	13.4	12.0	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7
		8 9 12 13
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2401.7	17.70	4894325.1
	(1)	1379.4	26.64	4658056.0
	(2)	1612.6	23.89	4727145.3
F.pura -	(0)	1900.6	181.09	24316897.5
	(1)	1096.1	119.02	14826207.7
	(2)	1263.9	137.19	17524709.1
C.Simple	(0)	6044.7	82.01	59162213.8
	(1)	2144.7	73.29	20153947.3
	(2)	2848.8	76.63	27247501.4
T.Simple	(0)	644.7	41.82	4335654.1
	(1)	644.7	41.82	4335654.1
	(2)	644.7	41.82	4335654.1

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

**** CALCULO ELASTICO ****

T╒tulo Secci╞n: SECI REF M-

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

ANALISIS EN ROTURA(ELASTOPLASTICO)

T╒tulo Secci╞n: SECI REF M-

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 3197.83Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2709.0 Xu(cm.): 101.3

Nu(Tn.): -.1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00809
Rompe la fibra superior de la S.parcial 2

FLEXION PURA NEGATIVA:

Mu(m.T): -376.0 Xu(cm.): 260.9

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00141 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -5004.8 aplicado en Yo(cm)= 175.4

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1310.5 aplicado en Yo(cm)= 248.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 **Ru(Kg/cm):** 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

TÍtulo Secci├n: SECI REF M-

*** PRESOLICITACIONES ELASTICAS**
Analisis SIN FISURACION
Pretensado: 3197.83Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[╥*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3393.8 Xu(cm.): 27.3

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00131 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -5795.3 Xu(cm.): 84.6

Nu(Tn.): -.1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00112
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -11120.3 aplicado en Yo(cm)= 86.9

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 5446.5 aplicado en Yo(cm)= 69.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

2.2.3.6 B) CORTANTE Y TORSIÓN

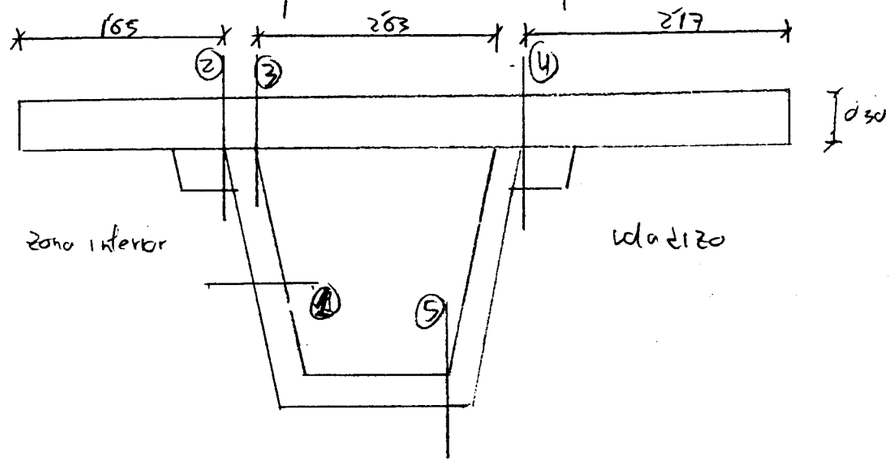
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-CALCULO DE CORTANTE - TORSOR

-Interacción cortante-torsor

-Cortante:

lo primero que se realiza es asignar el coeficiente (% de cortante que recibe cada fibra)



Fibras		Hormigón f_{ck} (kg/cm²)
1	$d_1 = 0'50$	600
2	$d_2 = 1'65/7 = 0'236$	350
3	$d_3 = 2'63/2/7 = 0'187$	350
4	$d_4 = 2'35/7 = 0'31$	350
5	$d_5 = 0'50$	600

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De esta forma el cortante de cada fibra es:

$V_{d} = d_i \, V_d$ (fibra)

la resistencia a compresión es:

$$V_{u1} = K f_{1cd} \, b_0 \, d \cdot \frac{\cot g\,\theta + \cot g\,\alpha}{1 + \cot g^2 \theta}$$

K=1

$\cot g\,\theta_e = \sqrt{1 + \frac{1'596 \cdot 0'75}{13'62}} = 1'40$ (del lado de la seguridad)

en zonas de estribos se toma

$\cot g\,\theta_c = 1$

$f_{1cd} = 0'40 f_{cd}$ Fibra traccionada

$0'60 f_{cd}$ Fibra 1 y fibra comprimida

$b_0 =$ 0'24/0'18 fibra 1 según zona

0'30 losa superior (fibra 2, 3, 4)

0'345 fibra 5

$d = 2'70$ m.

$\cot g\,\alpha = 1$ en fibras 2, 3, 4, y 5

TORSIÓN:

$$T_{us} = 2 f_{1cd} \cdot A_e \cdot h_e \frac{\cot g \theta}{1 + \cot g^2 \theta}$$

$d = 1'5$ (cercos en ambas caras)

$A_e = (1'52 + 2'81)/2 \times 2'55 = 5'52$ m.

$h_e = b_o$

INTERACCIÓN CORTANTE - TORSIÓN.

se deberá cumplir:

$$\left(\frac{V_d \cdot 2}{V_{u1}}\right) + \left(\frac{T_d}{T_{us}}\right) \leq 1'00$$

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

ARMADOS A CORTANTE:

-Cálculo de la armadura de fibras 2, 3, 4, y 5
En estas fibras se prescinde de la resistencia a cortante del hormigón (V_{cu}) por esto la armadura necesaria es:

fibra 3:

$$A_d = \frac{d_i \, V_d \text{ (cercada viga)}}{c_q \cdot 2 \cdot \cot g \theta \cdot f_{yd}} \qquad f_{yd,2} = 400 \text{ N/mm}^2$$

valor mínimo:

losa superior: $A_s = \frac{0'02 \, f_{cd} \cdot b_o}{f_{yd}} = 3 \text{cm}^2/\text{m}$

losa inferior $A_s = \frac{0'02 \, f_{cd} \cdot b_o}{f_{yd}} = 5'5 \text{cm}^2/\text{m}$

ARMADO A TORSIÓN (solo fibra 1, 3 y 5)

Armadura transversal de torsión:

Esta armadura se deberá sumar a la obtenida con el cortante concomitante

$$\frac{A_t}{s_t} = \frac{T_d}{\cot\theta \; f_{yt,d} \; 2A_e}$$

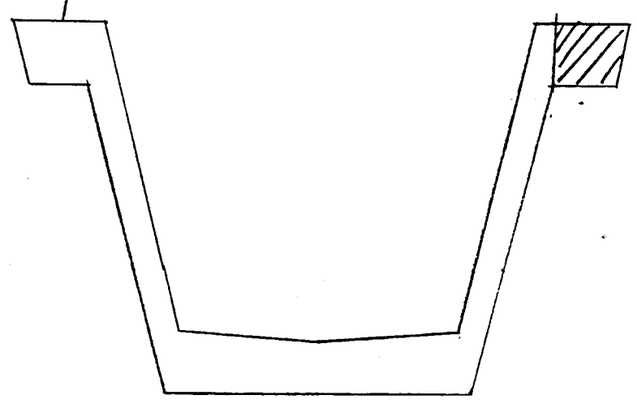
Armadura longitudinal por torsión:

$$\frac{A_e}{u_e} = \frac{T_d}{\operatorname{tg}\theta \cdot f_{ye,d} \cdot 2A_e}$$

A continuación se completa el calculo con la armadura de rasante en cabeza de viga.

ARMADURA DE RASANTE EN CABEZA DE VIGA

La cabeza de la viga tiene un rasante al cual se procede a comprobar a continuación; dicha comprobación se realiza en fase constructiva y en los puntos en los que no existe losa de compresión



$\phi = 0'50 \cdot \frac{0'302 \cdot 0'30}{0'1335} = 0'339$

$$A_{s\,rasante} = \frac{V_d \times d}{0'9 \cdot 2'43 \times 4'09} = \frac{180'71 \cdot 0'339}{0'9 \cdot 2'43 \times 4'09} = 6'88\,cm^2/m$$

$V_{d\,max\,construcción} = 180'71$ CO

$C\phi 10 a 20$

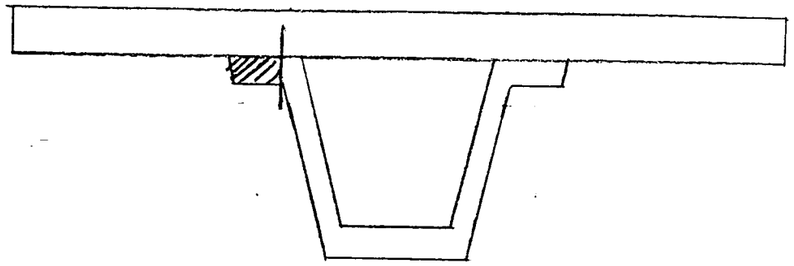
$7'85\,cm^2/m$

Barra	Nudo	X	PPCF1 Vy (T)	PPLF2 Vy (T)	PPLF3 Vy (T)	FASE 1 Vyd (T)	FASE 2 Vyd (T)	FASE 3 Vyd (T)
1	1	0.00	-64.17	0.07	-62.82	-86.62	-86.53	-171.34
1	2	3.05	-52.50	0.07	-46.80	-70.87	-70.78	-133.97
2	2	3.05	-52.50	0.07	-46.80	-70.87	-70.78	-133.97
2	3	6.10	-40.83	0.07	-30.79	-55.12	-55.03	-96.60
3	3	6.10	-40.83	0.07	-30.79	-55.12	-55.04	-96.60
3	4	9.15	-29.17	0.07	-14.78	-39.38	-39.29	-59.24
4	4	9.15	-29.17	0.07	-14.78	-39.37	-39.29	-59.24
4	5	12.20	-17.50	0.07	1.23	-23.63	-23.54	-21.87
5	5	12.20	-17.50	0.07	1.23	-23.63	-23.54	-21.87
5	6	15.25	-5.83	0.07	17.25	-7.88	-7.79	15.50
6	6	15.25	-5.83	0.07	17.25	-7.88	-7.79	15.50
6	7	18.30	5.83	0.07	33.26	7.87	7.96	52.86
7	7	18.30	5.83	0.07	33.26	7.87	7.96	52.86
7	8	21.35	17.50	0.07	49.27	23.62	23.71	90.23
8	8	21.35	17.50	0.07	49.27	23.63	23.71	90.23
8	9	24.40	29.17	0.07	65.28	39.37	39.46	127.60
9	9	24.40	29.17	0.07	65.28	39.38	39.46	
9	10	27.45	40.83	16.08	65.28	55.12	76.83	
10	10	27.45	40.83	16.08	65.28	55.13	76.83	
10	11	30.50	52.50	32.09	65.28	70.87	114.20	
11	11	30.50	52.50	32.09	65.28	70.87	114.20	
11	12	33.55	64.17	48.10	65.28	86.62	151.56	
12	10012	33.55	-76.50	-57.19	-47.10	-103.27	-180.48	
12	13	37.19	-62.59	-38.10	-47.10	-84.50	-135.93	
13	13	37.19	-62.59	-38.10	-47.10	-84.50	-135.93	
13	14	40.82	-48.68	-19.01	-47.10	-65.72	-91.38	
14	14	40.82	-48.68	-19.01	-47.10	-65.72	-91.38	
14	15	44.46	-34.77	0.09	-47.10	-46.94	-46.83	
15	15	44.46	-34.77	0.09	-47.10	-46.94	-46.83	-110.41
15	16	48.10	-20.86	0.09	-28.01	-28.17	-28.05	-65.86
16	16	48.10	-20.86	0.09	-28.01	-28.17	-28.05	-65.86
16	17	51.73	-6.95	0.09	-8.91	-9.39	-9.27	-21.31
17	17	51.73	-6.95	0.09	-8.91	-9.39	-9.27	-21.31
17	18	55.37	6.96	0.09	10.18	9.39	9.50	23.24
18	18	55.37	6.96	0.09	10.18	9.39	9.51	23.24
18	19	59.01	20.87	0.09	29.27	28.17	28.28	67.79
19	19	59.01	20.86	0.09	29.27	28.17	28.28	67.79
19	20	62.64	34.77	0.09	48.36	46.94	47.06	112.34
20	20	62.64	34.77	0.09	48.36	46.94	47.06	
20	21	66.28	48.68	19.18	48.36	65.72	91.61	
21	21	66.28	48.68	19.18	48.36	65.72	91.61	
21	22	69.91	62.59	38.27	48.36	84.50	136.16	
22	22	69.91	62.59	38.27	48.36	84.50	136.16	
22	23	73.55	76.50	57.36	48.36	103.27	180.71	
23	10023	73.55	-65.43	-48.89	-66.58	-88.32	-154.33	
23	24	76.66	-53.53	-32.56	-66.58	-72.27	-116.23	
24	24	76.66	-53.53	-32.56	-66.58	-72.27	-116.23	
24	25	79.77	-41.63	-16.24	-66.58	-56.21	-78.13	
25	25	79.77	-41.63	-16.24	-66.58	-56.21	-78.13	
25	26	82.88	-29.74	0.09	-66.58	-40.15	-40.03	
26	26	82.88	-29.74	0.09	-66.58	-40.15	-40.03	-129.91
26	27	85.99	-17.84	0.09	-50.25	-24.09	-23.97	-91.80
27	27	85.99	-17.84	0.09	-50.25	-24.09	-23.97	-91.80
27	28	89.10	-5.95	0.09	-33.92	-8.03	-7.91	-53.70
28	28	89.10	-5.95	0.09	-33.92	-8.03	-7.91	-53.70
28	29	92.21	5.95	0.09	-17.60	8.03	8.15	-15.60
29	29	92.21	5.95	0.09	-17.60	8.03	8.15	-15.60
29	30	95.32	17.84	0.09	-1.27	24.09	24.21	22.50
30	30	95.32	17.84	0.09	-1.27	24.09	24.21	22.50
30	31	98.43	29.74	0.09	15.06	40.15	40.27	60.60
31	31	98.43	29.74	0.09	15.06	40.15	40.27	60.60
31	32	101.54	41.63	0.09	31.39	56.21	56.33	98.70
32	32	101.54	41.63	0.09	31.39	56.21	56.33	98.70
32	33	104.65	53.53	0.09	47.72	72.27	72.39	136.80
33	33	104.65	53.53	0.09	47.72	72.27	72.39	136.81
33	34	107.76	65.43	0.09	64.04	88.33	88.45	174.91
101	101	0.00	-64.17	0.07	-62.82	-86.62	-86.53	-171.34
101	102	3.05	-52.50	0.07	-46.80	-70.87	-70.78	-133.97
102	102	3.05	-52.50	0.07	-46.80	-70.87	-70.78	-133.97
102	103	6.10	-40.83	0.07	-30.79	-55.12	-55.03	-96.60
103	103	6.10	-40.83	0.07	-30.79	-55.12	-55.04	-96.60
103	104	9.15	-29.17	0.07	-14.78	-39.38	-39.29	-59.24
104	104	9.15	-29.17	0.07	-14.78	-39.37	-39.29	-59.24
104	105	12.20	-17.50	0.07	1.23	-23.63	-23.54	-21.87
105	105	12.20	-17.50	0.07	1.23	-23.63	-23.54	-21.87
105	106	15.25	-5.83	0.07	17.25	-7.88	-7.79	15.50
106	106	15.25	-5.83	0.07	17.25	-7.88	-7.79	15.50
106	107	18.30	5.83	0.07	33.26	7.87	7.96	52.86
107	107	18.30	5.83	0.07	33.26	7.87	7.96	52.86
107	108	21.35	17.50	0.07	49.27	23.62	23.71	90.23
108	108	21.35	17.50	0.07	49.27	23.63	23.71	90.23
108	109	24.40	29.17	0.07	65.28	39.37	39.46	127.60
109	109	24.40	29.17	0.07	65.28	39.38	39.46	
109	110	27.45	40.83	16.08	65.28	55.12	76.83	
110	110	27.45	40.83	16.08	65.28	55.13	76.83	
110	111	30.50	52.50	32.09	65.28	70.87	114.20	
111	111	30.50	52.50	32.09	65.28	70.87	114.20	
111	112	33.55	64.17	48.10	65.28	86.62	151.56	
112	10112	33.55	-76.50	-57.19	-47.10	-103.27	-180.48	
112	113	37.19	-62.59	-38.10	-47.10	-84.50	-135.93	
113	113	37.19	-62.59	-38.10	-47.10	-84.50	-135.93	
113	114	40.82	-48.68	-19.01	-47.10	-65.72	-91.38	
114	114	40.82	-48.68	-19.01	-47.10	-65.72	-91.38	
114	115	44.46	-34.77	0.09	-47.10	-46.94	-46.83	
115	115	44.46	-34.77	0.09	-47.10	-46.94	-46.83	-110.41
115	116	48.10	-20.86	0.09	-28.01	-28.17	-28.05	-65.86
116	116	48.10	-20.86	0.09	-28.01	-28.17	-28.05	-65.86
116	117	51.73	-6.95	0.09	-8.91	-9.39	-9.27	-21.31
117	117	51.73	-6.95	0.09	-8.91	-9.39	-9.27	-21.31
117	118	55.37	6.96	0.09	10.18	9.39	9.50	23.24
118	118	55.37	6.96	0.09	10.18	9.39	9.51	23.24
118	119	59.01	20.87	0.09	29.27	28.17	28.28	67.79
119	119	59.01	20.86	0.09	29.27	28.17	28.28	67.79
119	120	62.64	34.77	0.09	48.36	46.94	47.06	112.34
120	120	62.64	34.77	0.09	48.36	46.94	47.06	
120	121	66.28	48.68	19.18	48.36	65.72	91.61	
121	121	66.28	48.68	19.18	48.36	65.72	91.61	
121	122	69.91	62.59	38.27	48.36	84.50	136.16	
122	122	69.91	62.59	38.27	48.36	84.50	136.16	
122	123	73.55	76.50	57.36	48.36	103.27	180.71	
123	10123	73.55	-65.43	-48.89	-66.58	-88.32	-154.33	
123	124	76.66	-53.53	-32.56	-66.58	-72.27	-116.23	
124	124	76.66	-53.53	-32.56	-66.58	-72.27	-116.23	
124	125	79.77	-41.63	-16.24	-66.58	-56.21	-78.13	
125	125	79.77	-41.63	-16.24	-66.58	-56.21	-78.13	
125	126	82.88	-29.74	0.09	-66.58	-40.15	-40.03	

Barra	Nudo	X	PPCF1 Vy (T)	PPLF2 Vy (T)	PPLF3 Vy (T)	FASE 1 Vyd (T)	FASE 2 Vyd (T)	FASE 3 Vyd (T)
126	126	82.88	-29.74	0.09	-66.58	-40.15	-40.03	-129.90
126	127	85.99	-17.84	0.09	-50.25	-24.09	-23.97	-91.80
127	127	85.99	-17.84	0.09	-50.25	-24.09	-23.97	-91.80
127	128	89.10	-5.95	0.09	-33.92	-8.03	-7.91	-53.70
128	128	89.10	-5.95	0.09	-33.92	-8.03	-7.91	-53.70
128	129	92.21	5.95	0.09	-17.59	8.03	8.15	-15.60
129	129	92.21	5.95	0.09	-17.59	8.03	8.15	-15.60
129	130	95.32	17.84	0.09	-1.27	24.09	24.21	22.50
130	130	95.32	17.84	0.09	-1.27	24.09	24.21	22.50
130	131	98.43	29.74	0.09	15.06	40.15	40.27	60.60
131	131	98.43	29.74	0.09	15.06	40.15	40.27	60.60
131	132	101.54	41.63	0.09	31.39	56.21	56.33	98.70
132	132	101.54	41.63	0.09	31.39	56.21	56.33	98.70
132	133	104.65	53.53	0.09	47.71	72.27	72.39	136.80
133	133	104.65	53.53	0.09	47.72	72.27	72.39	136.80
133	134	107.76	65.43	0.09	64.04	88.33	88.45	174.91
					MAX	103.27	180.71	174.91

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

En servicio: (tablero construido)



$$d = \frac{0'0906}{(7 \cdot 030 + 0'1335 \cdot 12)} \quad 0'0382$$

$$\Delta_{trasante} = \frac{V_d \cdot 1}{0'9 \cdot 2'73 \cdot 4'09} = \frac{120'87 \cdot 0'0382}{0'9 \cdot 2'73 \cdot 4} = 4'68 \text{ cm}$$

$V_{d\,max} = 120'87$ t/m

$\Downarrow$

c/ 10 a 20

ESTADO LÍMITE DE AGOTAMIENTO FRENTE A CORTANTE (según EHE)

Se deberá cumplir que : $V_{rd} \le V_{u1}$ y $V_{rd} \le V_{u2}$

V_{rd} cortante efectivo

V_{u1} esfuerzo cortante que agota por compresión las bielas de hormigón, $V_{u1} = K \cdot f_{1cd} \cdot b_0 \cdot d \cdot \frac{\cot g\vartheta + \cot g\alpha}{1+\cot g^2\theta}$

V_{u2} cortante que agota el alma por tracción. $V_{u2} = V_{cu} + V_{su}$

$$V_{cu} = \left(0.10 \cdot \zeta \cdot (100 \cdot \rho_l \cdot f_{ck})^{\frac{1}{3}} - 0.15 \cdot \sigma_{cd}\right) \cdot b_0 \cdot d \cdot \beta$$

$$V_{su} = z \cdot \operatorname{sen}\alpha \cdot (\cot g\alpha + \cot g\theta) \cdot A_{s,\alpha} \cdot f_{y\alpha d}$$

ESTADO LÍMITE DE AGOTAMIENTO POR TORSIÓN (según EHE)

Se deberá cumplir que :

$T_d \le T_{u1}$ Comprobación de bielas comprimidas de hormigón.
$T_d \le T_{u2}$ Comprobación de armaduras transversales.
$T_d \le T_{u3}$ Comprobación de armaduras longitudinales.

Donde **Td** es el momento Torsor de cálculo,

T_{u1} esfuerzo torsor que agota por compresión las bielas de hormigón,
T_{u2} máximo torsor resitido por las armaduras transversales,
T_{u3} máximo torsor que resiten las armaduras longitudinales.

$$T_{u1} = \alpha \cdot f_{1cd} \cdot A_e \cdot h_e \cdot \frac{\cot g\vartheta}{1+\cot g^2\theta} \qquad T_{u2} = 2 \cdot A_e \cdot \frac{A_t}{s_t} \cdot f_{yt,d} \cdot \cot g\vartheta \qquad T_{u3} = 2 \cdot A_e \cdot \frac{A_l}{u_e} \cdot f_{yl,d} \cdot tg\vartheta$$

Donde:

f_{1cd} $0.6 \cdot f_{cd}$ Con f_{cd} la resistencia característica del hormigón a compresión simple.

b_0 anchura neta del alma.

K coeficiente de reducción por efecto del esfuerzo axil. $K = \frac{5}{3} \cdot \left(1 + \frac{\sigma_{cd}}{f_{cd}}\right) \le 1$

Donde $\sigma_{cd} = \frac{N_d}{A_c}$ con el axil positivo de tracción.

z brazo mecánico, se tomará igual a 0.9· d

θ ángulo de inclinación de las bielas de hormigón. El valor de cotg(θ) debe estar entre 0.5 y 2

α ángulo que forman las armaduras con el eje de la pieza.

ξ $\zeta = 1 + \sqrt{\frac{200}{d}}$ Con d en mm.

r_l cuantía geométrica de la armadura longitudinal traccionada. $\rho_l = \frac{A_s + A_p \cdot \frac{f_{pd}}{f_{yd}}}{b_0 \cdot d} \le 0.02$

β (2·cotg(θ)-1)/(2·cotg(θ_e)-1) si 0.5<=cotg(θ)<cotg(θ_e)
(cotg(θ)-2)/(cotg(θ_e)-2) si cotg(θ_e)<=cotg(θ)<=2

θ_e valor de referencia de inclinación de las fisuras.

A_e área encerrada por la línea media de la sección hueca eficaz de cálculo.

h_e espesor eficaz de la pared de la sección de cálculo. $h_e \le \frac{A}{u}$

Con la limitación de no mayor de $\mathbf{h_o}$ y no menor de **2c**
Con *A* Área de la sección de cálculo, *u* su perímetro exterior, h_o el espesor real de la pared hueca,
y c el recubrimiento de las armaduras longitudinales.

a 1.20 si los estribos se colocan únicamente en el perímetro extrerior de la pieza
1.50 si se colocan estribos cerrados en ambas caras de la pared de la sección hueca equivalente o la real.

A_t/s_t área de la armadura transversal a colocar en la sección.
A_l/u_l área de la armadura longitudinal a colocar en el perímetro de la sección.

INTERACCIÓN CORTANTE-TORSOR

Se debe cumplir respecto de las bielas comprimidas de hormigón que: $\left(\frac{V_{rd}}{V_{u1}}\right)^{\beta} + \left(\frac{T_d}{T_{u1}}\right)^{\beta} \le 1$

Con $\beta = 2 \cdot (1 - h_e/b)$ con b es espesor bruto de la sección de cálculo (total en sec. maciza y suma de almas en hueca)

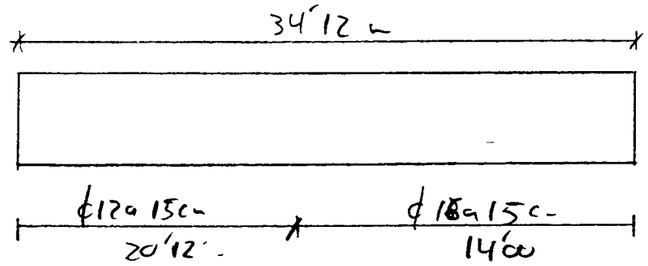
CUANTÍAS MÍNIMAS DE ARMADURAS TRANSVERSALES

$$\sum \frac{A_\alpha \cdot f_{y\alpha,d}}{sen\alpha} \ge 0.02 \cdot f_{cd} \cdot b_0$$

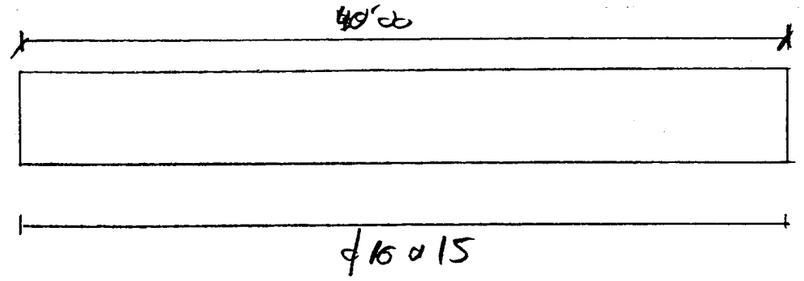
PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

ARMADO LONGITUDINAL POR TORSIÓN

VIGAS: V-12

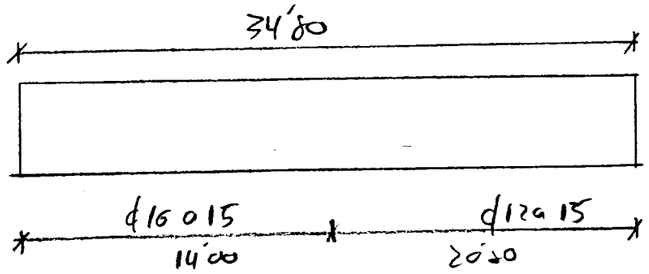


VIGAS V-13 ; V-14



PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

VIGAS V-15; V-16

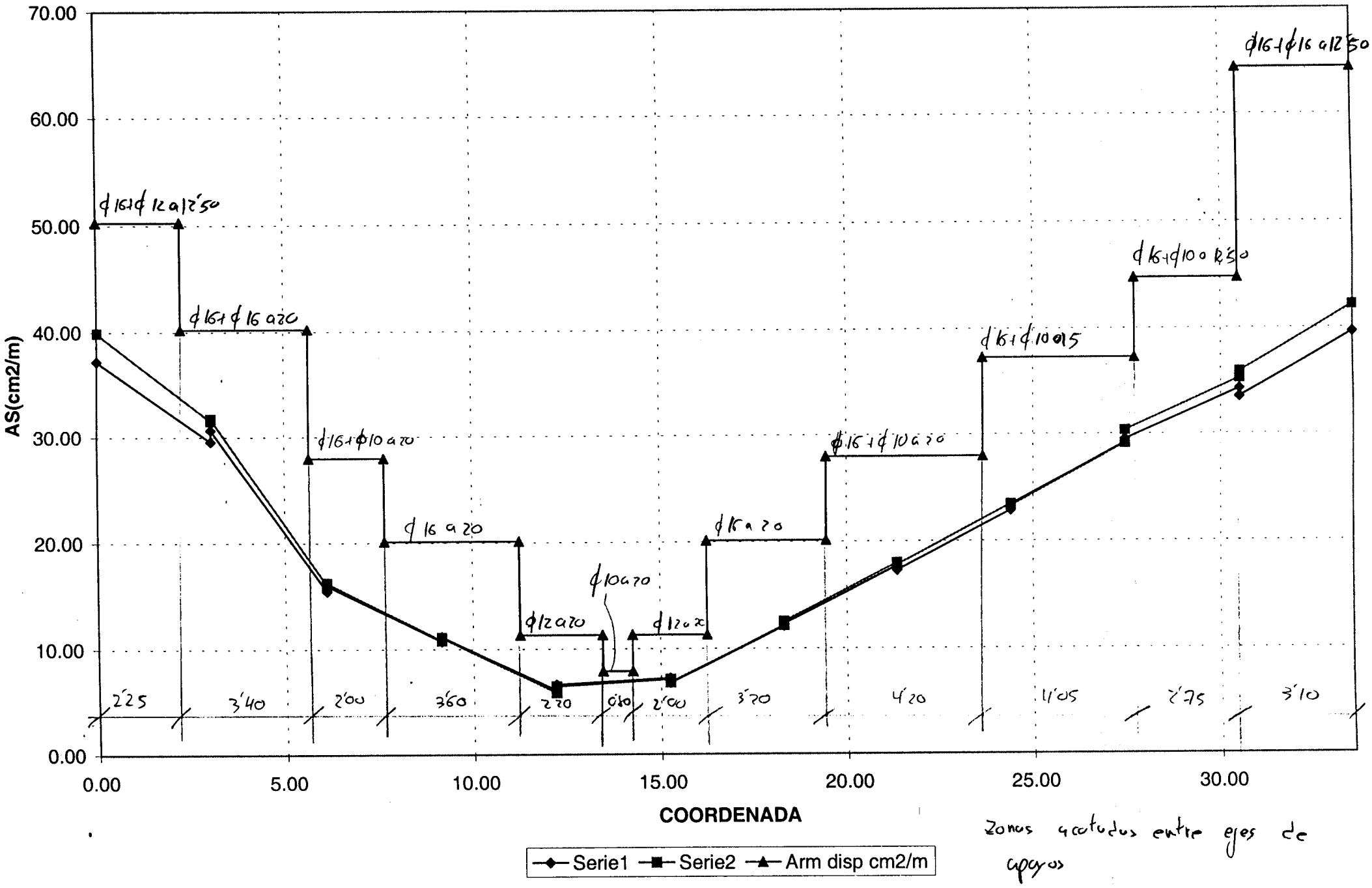


PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

FIBRA 1: ALMA DEL CAJÓN:

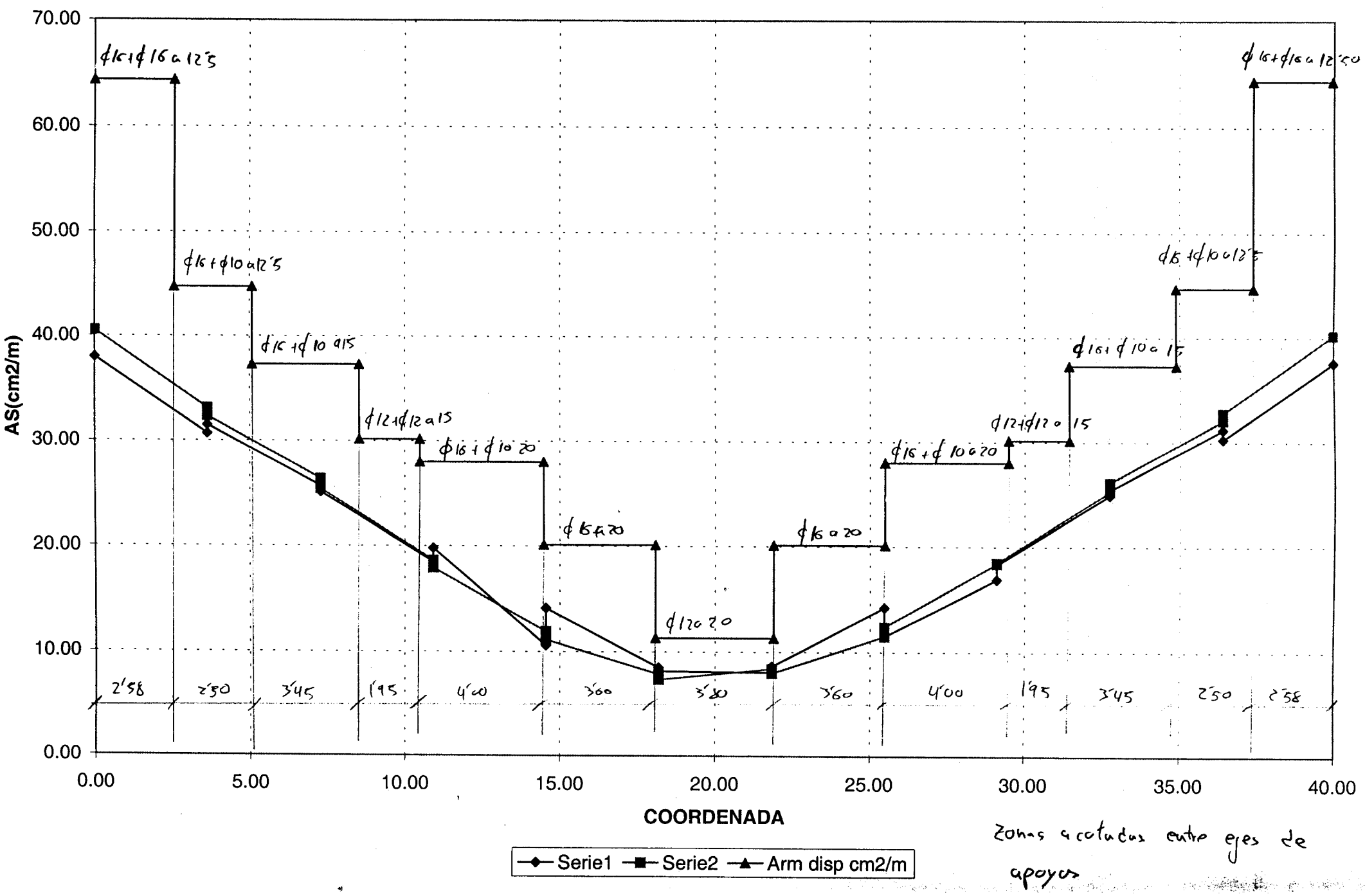
Se consideran secciones de espesor de alma de 0'18m; tan solo en la zona de pilas se hace necesario la existencia de rigidizadores en ~~las~~ que el espesor de alma es de 0'24m, esta zona tiene una longitud de 4'5m a cada lado de la pila.

FIBRA DE ALMA. ARMADURA TRANSVERSAL A CORTANTE. VIGA V12



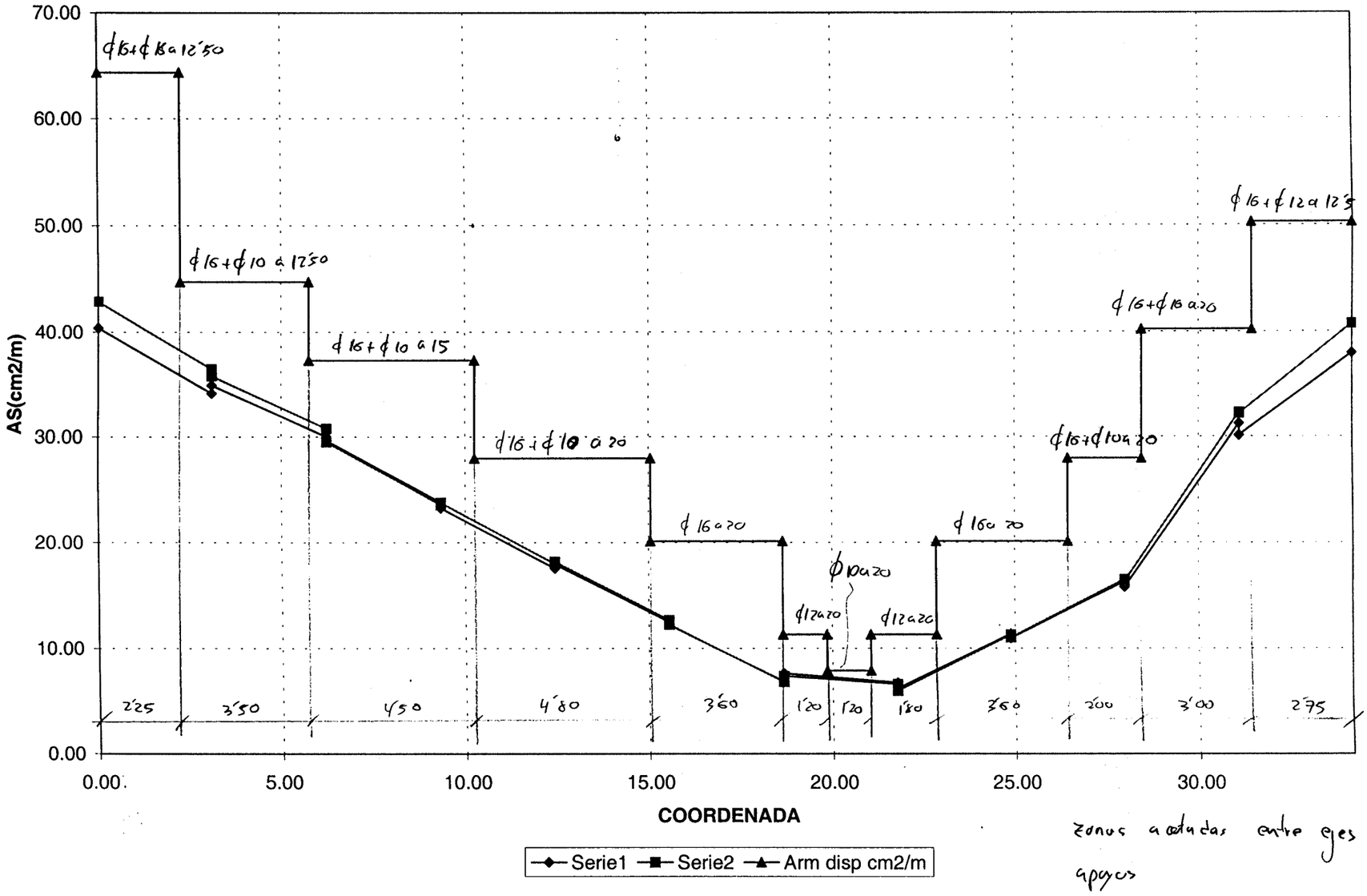
Zonas acotadas entre ejes de apoyos

FIBRA DE ALMA. ARMADURA TRANSVERSAL A CORTANTE. VIGA V13-V14



Zonas acotadas entre ejes de apoyos

FIBRA DE ALMA. [redacted]MADURA TRANSVERSAL A CORTAN[redacted]. VIGA V15-16

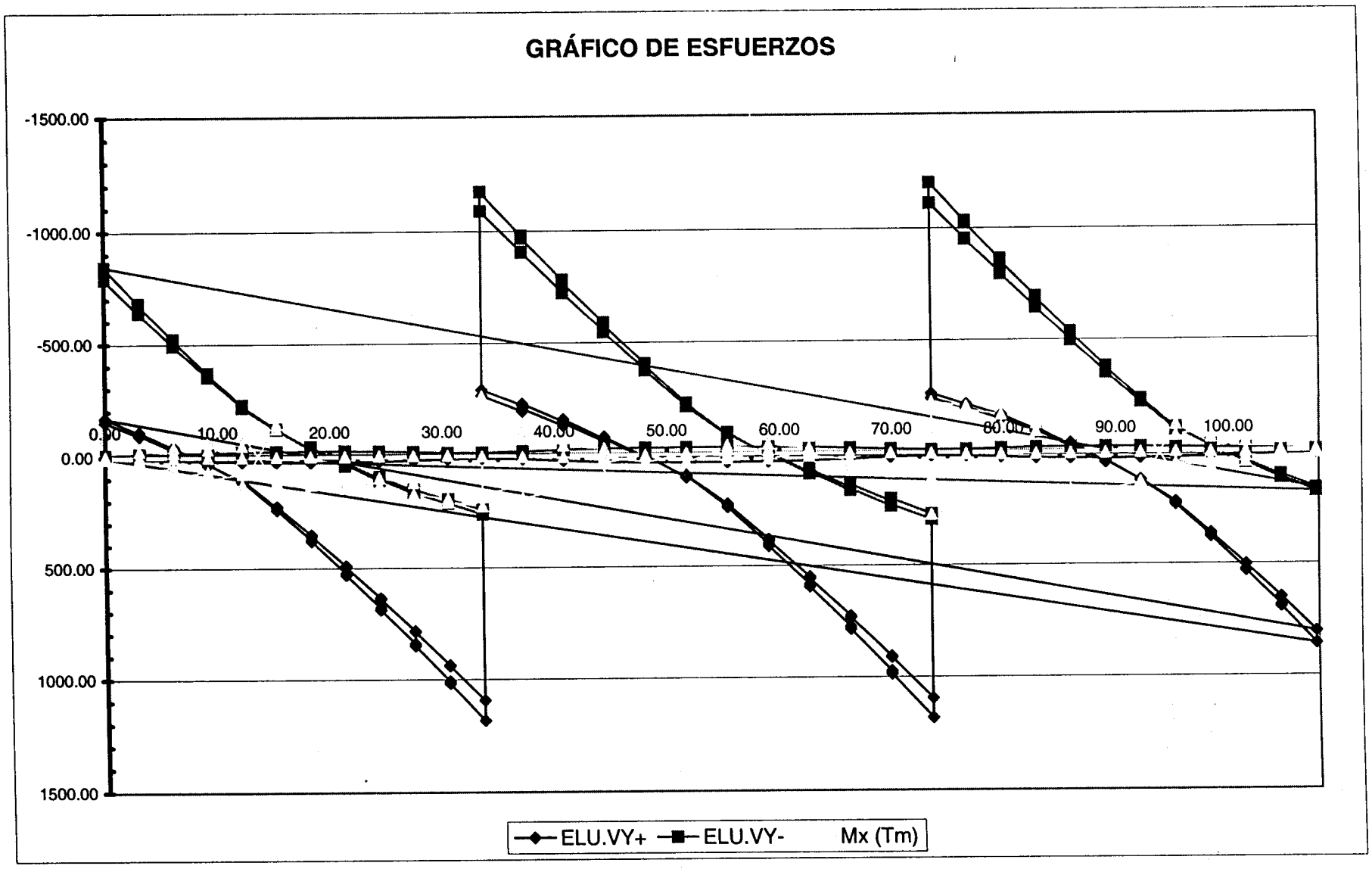


zonas acotadas entre ejes de apoyos

CARACTERISTICAS DE LAS SECCIONES TIPO

SECCIONES TIPO

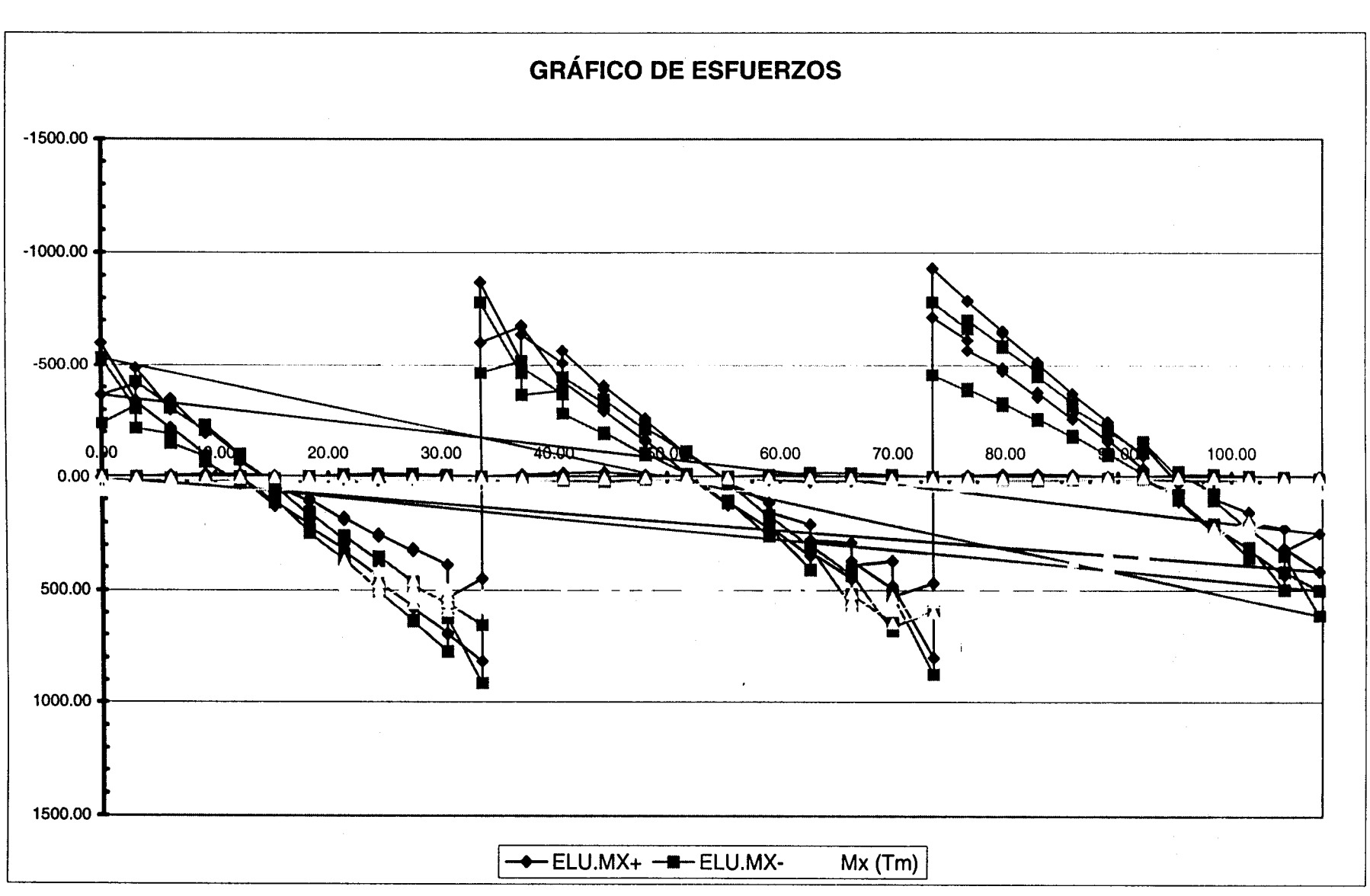
			CDV	PILA	ESTRIBO
Canto		(m.)	2.73	2.73	2.73
A_c		(m^2.)	5.500	5.500	5.500
A_s		(cm^2.)	0.000	0.000	0.000
A_p		(cm^2.)	98.000	98.000	33.600
A_c-510Ø17100+A_p		(cm^2.)	98.000	98.000	33.600
α			1.500	1.500	1.500
A		(m^2.)	5.500	5.500	5.500
u		(m.)	9.430	9.430	9.430
σ'_{cd}		(N/mm²)	-3.090	-3.090	-1.050
1 Descripción	b_w (m.)		0.180	0.240	0.180
Fibra lateral del alma	b (m)		0.360	0.480	0.360
	nº equiv. almas		2.000	2.000	2.000
	f_{fctmcc}		0.500	0.500	0.500
	f_{ck} (N/mm²)		60	60	60
	cotg θ (tracción)		1.000	1.000	1.000
	cotg θ (compr.)		1.400	1.400	1.000
	V_{cu} (si o no)		SI	SI	SI
	h_e		0.180	0.240	0.180
	f_{ck} (N/mm²)		4.598	4.598	4.598
	cotg θ_e		1.293	1.293	1.108
	Torsión		SI	SI	SI



rotura.esf.xls

Programa DINTEL PACADAR S.A.
Barra

20/11/02



CALCULO DE CORTANTE-TORSOR SEGÚN EHE

Fibra: 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Comprobación de bielas a compresión

$V_{u1}=K\cdot f_{1cd}\cdot b_0\cdot d\cdot 1/(ctg\theta+tg\theta)$ $T_{u1}=\alpha\cdot f_{1cd}\cdot A_e\cdot h_e\cdot 1/(ctg\theta+tg\theta)$

	Hipótesis 1		Hipótesis 2																					Hipótesis 1			Hipótesis 2			
x(m)	Vmax	Tcono	Vcon	Tmax	Sección	C/T	coef. F1cd	$\beta_{compr.}$	$\beta_{reacción}$	cotgθ	cotgθ$_e$	$A_{s,eq}+A_p$ (cm2)	f_{ck} (N/mm^2)	f_{cd} (N/mm^2)	f_{1cd} (N/mm^2)	σ'_{cd} (N/mm^2)	b_w(m)	b (m)	d_v(m)	K	Vu1 (tn)	h_e(m)	A_e (m2)	α	Tu1 (m tn)	$\gamma_{V,hip\ 1}$	$\gamma_{T,hip\ 1}$	$\gamma_{inter.hip\ 1}$	$\gamma_{V,hip\ 2}$	$\gamma_{T,hip\ 2}$	$\gamma_{inter.hip\ 2}$	βv-t
0.00	790.58	10.00	598.41	65.00	ESTRIBO	C	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.67	0.01	0.68	0.51	0.04	0.54	1.00
3.05	639.59	11.27	316.50	171.86	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.54	0.01	0.55	0.27	0.10	0.37	1.00
3.05	638.60	60.95	216.92	151.36	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.54	0.03	0.58	0.18	0.08	0.27	1.00
6.10	495.58	47.10	190.62	222.66	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.44	0.03	0.47	0.17	0.13	0.30	1.00
6.10	493.65	63.89	348.18	198.47	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.44	0.05	0.49	0.31	0.12	0.43	1.00
9.15	357.95	65.15	92.38	260.23	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.32	0.04	0.36	0.08	0.15	0.24	1.00
9.15	353.31	99.89	217.60	252.11	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.32	0.06	0.38	0.20	0.15	0.34	1.00
12.20	223.44	75.06	25.93	290.91	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.04	0.24	0.02	0.17	0.20	1.00
12.20	217.46	122.62	70.48	306.14	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.19	0.07	0.27	0.06	0.18	0.24	1.00
15.25	224.97	149.97	113.82	337.91	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.09	0.29	0.10	0.20	0.30	1.00
15.25	221.02	124.74	40.98	373.96	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.07	0.27	0.04	0.22	0.26	1.00
18.30	348.82	167.19	238.85	392.64	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.31	0.10	0.41	0.21	0.23	0.45	1.00
18.30	354.86	167.80	99.57	433.39	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.32	0.10	0.42	0.09	0.26	0.35	1.00
21.35	489.77	195.05	367.47	428.79	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.44	0.12	0.56	0.33	0.25	0.58	1.00
21.35	495.60	157.95	177.62	481.35	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.44	0.09	0.54	0.16	0.29	0.44	1.00
24.40	634.54	191.60	498.46	483.50	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.57	0.11	0.68	0.45	0.27	0.72	1.00
24.40	639.73	211.95	249.82	523.93	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.57	0.13	0.70	0.22	0.31	0.53	1.00
27.45	762.90	245.48	653.74	490.77	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.70	0.15	0.85	0.57	0.29	0.86	1.00
27.45	786.12	255.07	316.17	556.31	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.71	0.15	0.86	0.28	0.33	0.61	1.00
30.50	935.80	288.61	391.10	522.25	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.63	0.13	0.76	0.26	0.23	0.50	1.00
30.50	939.50	292.83	532.71	562.05	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.63	0.10	0.74	0.36	0.26	0.62	1.00
33.55	1092.98	264.21	449.68	564.70	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.73	0.12	0.85	0.30	0.25	0.55	1.00

FIBRA 2 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)							
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	· α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V14" V-30-2	112	10112	33.55	1174.32	0.00	781.67	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.72**	**0.48**
	112	113	37.19	980.77	0.00	672.75	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.60**	**0.41**
	113	113	37.19	968.14	0.00	638.27	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0 24	**0.60**	**0.39**
	113	114	40.82	782.56	0.00	509.46	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0 24	**0.48**	**0.31**
	114	114	40.82	769.32	0.00	426.87	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.47**	**0.26**
	114	115	44.46	590.49	0.00	295.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.36**	**0.18**
	115	115	44.46	578.52	0.00	298.86	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.36**	**0.18**
	115	116	48.10	406.03	0.00	159.13	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.25**	**0.10**
	116	116	48.10	395.42	0.00	165.86	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.24**	**0.10**
	116	117	51.73	228.79	0.00	18.40	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.01**
	117	117	51.73	225.05	0.00	116.34	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.07**
	117	118	55.37	230.64	0.00	121.95	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.08**
	118	118	55.37	234.00	0.00	25.72	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.02**
	118	119	59.01	400.52	0.00	173.42	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.25**	**0.11**
	119	119	59.01	411.22	0.00	166.58	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.25**	**0.10**
	119	120	62.64	583.65	0.00	306.68	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.36**	**0.19**
	120	120	62.64	595.67	0.00	303.10	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.37**	**0.19**
	120	121	66.28	774.47	0.00	434.97	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.48**	**0.27**
	121	121	66.28	787.90	0.00	517.32	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.49**	**0.32**
	121	122	69.91	973.44	0.00	646.21	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.60**	**0.40**
	122	122	69.91	986.41	0.00	666.14	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.61**	**0.41**
	122	123	73.55	1179.93	0.00	593.36	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.73**	**0.37**

FIBRA 2 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V16" V-31-2	123	10123	73.55	1200.87	0.00	782.95	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.74**	**0.48**
	123	124	76.66	1033.68	0.00	612.30	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.64**	**0.38**
	124	124	76.66	1022.24	0.00	566.98	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.63**	**0.35**
	124	125	79.77	862.33	0.00	487.69	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.53**	**0.30**
	125	125	79.77	851.53	0.00	472.38	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.52**	**0.29**
	125	126	82.88	696.66	0.00	358.59	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.43**	**0.22**
	126	126	82.88	686.78	0.00	378.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.42**	**0.23**
	126	127	85.99	536.55	0.00	260.01	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.33**	**0.16**
	127	127	85.99	527.47	0.00	283.06	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.32**	**0.17**
	127	128	89.10	381.80	0.00	160.23	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.24**	**0.10**
	128	128	89.10	373.20	0.00	208.09	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.13**
	128	129	92.21	234.99	0.00	42.36	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.03**
	129	129	92.21	236.70	0.00	160.06	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.15**	**0.10**
	129	130	95.32	226.29	0.00	80.95	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.05**
	130	130	95.32	232.45	0.00	28.28	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.02**
	130	131	98.43	372.41	0.00	70.80	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.04**
	131	131	98.43	378.42	0.00	100.71	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.06**
	131	132	101.54	525.47	0.00	225.89	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.32**	**0.14**
	132	132	101.54	531.75	0.00	223.58	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.33**	**0.14**
	132	133	104.65	686.51	0.00	344.68	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.42**	**0.21**
	133	133	104.65	694.71	0.00	420.08	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.43**	**0.26**
	133	134	107.76	859.45	0.00	500.58	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.53**	**0.31**

				ARMADO CORTANTE - TORSOR														ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG	
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V12" V 29-1	1	1	0.00	790.6	0.0	598.4	0.0	2.7	1.0	0.24	18.5	14.0	5.5	1.0	0.0	0.0		**18.5**	14.0		0.0	0.0
	1	2	3.05	639.6	0.0	318.5	0.0	2.7	1.0	0.24	15.0	7.5	5.5	1.0	0.0	0.0		**15.0**	7.5		0.0	0.0
	2	2	3.05	638.8	0.0	216.9	0.0	2.7	1.0	0.24	15.0	5.1	5.5	1.0	0.0	0.0		**15.0**	5.1		0.0	0.0
	2	3	6.10	495.6	0.0	190.6	0.0	2.7	1.0	0.24	11.6	4.5	5.5	1.0	0.0	0.0		**11.6**	4.5		0.0	0.0
	3	3	6.10	493.7	0.0	348.2	0.0	2.7	1.0	0.24	11.6	8.2	5.5	1.0	0.0	0.0		**11.6**	8.2		0.0	0.0
	3	4	9.15	357.3	0.0	92.4	0.0	2.7	1.0	0.24	8.4	2.2	5.5	1.0	0.0	0.0		**8.4**	2.2		0.0	0.0
	4	4	9.15	353.3	0.0	217.6	0.0	2.7	1.0	0.24	8.3	5.1	5.5	1.0	0.0	0.0		**8.3**	5.1		0.0	0.0
	4	5	12.20	223.4	0.0	25.9	0.0	2.7	1.0	0.24	5.2	0.6	5.5	1.0	0.0	0.0		**5.2**	0.6		0.0	0.0
	5	5	12.20	217.5	0.0	70.5	0.0	2.7	1.0	0.24	5.1	1.7	5.5	1.0	0.0	0.0		**5.1**	1.7		0.0	0.0
	5	6	15.25	224.4	0.0	113.8	0.0	2.7	1.0	0.24	5.3	2.7	5.5	1.0	0.0	0.0		**5.3**	2.7		0.0	0.0
	6	6	15.25	221.0	0.0	41.0	0.0	2.7	1.0	0.24	5.2	1.0	5.5	1.0	0.0	0.0		**5.2**	1.0		0.0	0.0
	6	7	18.30	348.8	0.0	238.8	0.0	2.7	1.0	0.24	8.2	5.6	5.5	1.0	0.0	0.0		**8.2**	5.6		0.0	0.0
	7	7	18.30	354.9	0.0	99.6	0.0	2.7	1.0	0.24	8.3	2.3	5.5	1.0	0.0	0.0		**8.3**	2.3		0.0	0.0
	7	8	21.35	489.8	0.0	367.5	0.0	2.7	1.0	0.24	11.5	8.6	5.5	1.0	0.0	0.0		**11.5**	8.6		0.0	0.0
	8	8	21.35	495.6	0.0	177.6	0.0	2.7	1.0	0.24	11.6	4.2	5.5	1.0	0.0	0.0		**11.6**	4.2		0.0	0.0
	8	9	24.40	634.5	0.0	498.5	0.0	2.7	1.0	0.24	14.9	11.7	5.5	1.0	0.0	0.0		**14.9**	11.7		0.0	0.0
	9	9	24.40	639.7	0.0	249.8	0.0	2.7	1.0	0.24	15.0	5.9	5.5	1.0	0.0	0.0		**15.0**	5.9		0.0	0.0
	9	10	27.45	782.9	0.0	633.7	0.0	2.7	1.0	0.24	18.3	14.8	5.5	1.0	0.0	0.0		**18.3**	14.8		0.0	0.0
	10	10	27.45	788.1	0.0	316.2	0.0	2.7	1.0	0.24	18.5	7.4	5.5	1.0	0.0	0.0		**18.5**	7.4		0.0	0.0
	10	11	30.50	935.7	0.0	391.1	0.0	2.7	1.0	0.24	21.9	9.2	5.5	1.0	0.0	0.0		**21.9**	9.2		0.0	0.0
	11	11	30.50	939.5	0.0	532.7	0.0	2.7	1.0	0.24	22.0	12.5	5.5	1.0	0.0	0.0		**22.0**	12.5		0.0	0.0
	11	12	33.55	1093.0	0.0	449.7	0.0	2.7	1.0	0.24	25.6	10.5	5.5	1.0	0.0	0.0		**25.6**	10.5		0.0	0.0

	ARMADO CORTANTE - TORSOR																	ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V13" V-30-1	12	10012	33.55	1090.0	0.0	870.6	0.0	2.7	1.0	0.24	25.5	20.4	5.5	1.0	0.0	0.0		**25.5**	20.4		0.0	0.0
	12	13	37.19	907.8	0.0	519.0	0.0	2.7	1.0	0.24	21.3	12.2	5.5	1.0	0.0	0.0		**21.3**	12.2		0.0	0.0
	13	13	37.19	904.1	0.0	367.0	0.0	2.7	1.0	0.24	21.2	8.6	5.5	1.0	0.0	0.0		**21.2**	8.6		0.0	0.0
	13	14	40.82	729.3	0.0	385.5	0.0	2.7	1.0	0.24	17.1	9.0	5.5	1.0	0.0	0.0		**17.1**	9.0		0.0	0.0
	14	14	40.82	722.1	0.0	284.4	0.0	2.7	1.0	0.24	16.9	6.7	5.5	1.0	0.0	0.0		**16.9**	6.7		0.0	0.0
	14	15	44.46	553.5	0.0	191.7	0.0	2.7	1.0	0.24	13.0	4.5	5.5	1.0	0.0	0.0		**13.0**	4.5		0.0	0.0
	15	15	44.46	544.9	0.0	407.0	0.0	2.7	1.0	0.24	12.8	9.5	5.5	1.0	0.0	0.0		**12.8**	9.5		0.0	0.0
	15	16	48.10	382.1	0.0	99.5	0.0	2.7	1.0	0.24	9.0	2.3	5.5	1.0	0.0	0.0		**9.0**	2.3		0.0	0.0
	16	16	48.10	373.8	0.0	255.3	0.0	2.7	1.0	0.24	8.8	6.0	5.5	1.0	0.0	0.0		**8.8**	6.0		0.0	0.0
	16	17	51.73	216.5	0.0	17.3	0.0	2.7	1.0	0.24	5.1	0.4	5.5	1.0	0.0	0.0		**5.1**	0.4		0.0	0.0
	17	17	51.73	213.8	0.0	107.8	0.0	2.7	1.0	0.24	5.0	2.5	5.5	1.0	0.0	0.0		**5.0**	2.5		0.0	0.0
	17	18	55.37	219.3	0.0	113.4	0.0	2.7	1.0	0.24	5.1	2.7	5.5	1.0	0.0	0.0		**5.1**	2.7		0.0	0.0
	18	18	55.37	221.5	0.0	24.6	0.0	2.7	1.0	0.24	5.2	0.6	5.5	1.0	0.0	0.0		**5.2**	0.6		0.0	0.0
	18	19	59.01	378.8	0.0	259.4	0.0	2.7	1.0	0.24	8.9	6.1	5.5	1.0	0.0	0.0		**8.9**	6.1		0.0	0.0
	19	19	59.01	387.0	0.0	153.3	0.0	2.7	1.0	0.24	9.1	3.6	5.5	1.0	0.0	0.0		**9.1**	3.6		0.0	0.0
	19	20	62.64	549.7	0.0	205.7	0.0	2.7	1.0	0.24	12.9	4.8	5.5	1.0	0.0	0.0		**12.9**	4.8		0.0	0.0
	20	20	62.64	558.2	0.0	276.7	0.0	2.7	1.0	0.24	13.1	6.5	5.5	1.0	0.0	0.0		**13.1**	6.5		0.0	0.0
	20	21	66.28	726.8	0.0	290.3	0.0	2.7	1.0	0.24	17.0	6.8	5.5	1.0	0.0	0.0		**17.0**	6.8		0.0	0.0
	21	21	66.28	734.1	0.0	392.9	0.0	2.7	1.0	0.24	17.2	9.2	5.5	1.0	0.0	0.0		**17.2**	9.2		0.0	0.0
	21	22	69.91	908.8	0.0	373.0	0.0	2.7	1.0	0.24	21.3	8.7	5.5	1.0	0.0	0.0		**21.3**	8.7		0.0	0.0
	22	22	69.91	912.8	0.0	526.3	0.0	2.7	1.0	0.24	21.4	12.3	5.5	1.0	0.0	0.0		**21.4**	12.3		0.0	0.0
	22	23	73.55	1094.9	0.0	469.6	0.0	2.7	1.0	0.24	25.7	11.0	5.5	1.0	0.0	0.0		**25.7**	11.0			

	ARMADO CORTANTE - TORSOR																	ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V15" V-31-1	23	10023	73.55	1111.3	0.0	931.7	0.0	2.7	1.0	0.24	26.0	21.8	5.5	1.0	0.0	0.0		**26.0**	21.8		0.0	0.0
	23	24	76.66	954.1	0.0	385.6	0.0	2.7	1.0	0.24	22.4	9.0	5.5	1.0	0.0	0.0		**22.4**	9.0		0.0	0.0
	24	24	76.66	950.2	0.0	396.6	0.0	2.7	1.0	0.24	22.3	9.3	5.5	1.0	0.0	0.0		**22.3**	9.3		0.0	0.0
	24	25	79.77	799.7	0.0	320.2	0.0	2.7	1.0	0.24	18.7	7.5	5.5	1.0	0.0	0.0		**18.7**	7.5		0.0	0.0
	25	25	79.77	794.2	0.0	644.6	0.0	2.7	1.0	0.24	18.6	15.1	5.5	1.0	0.0	0.0		**18.6**	15.1		0.0	0.0
	25	26	82.88	648.4	0.0	252.5	0.0	2.7	1.0	0.24	15.2	5.9	5.5	1.0	0.0	0.0		**15.2**	5.9		0.0	0.0
	26	26	82.88	642.7	0.0	506.7	0.0	2.7	1.0	0.24	15.1	11.9	5.5	1.0	0.0	0.0		**15.1**	11.9		0.0	0.0
	26	27	85.99	501.2	0.0	178.9	0.0	2.7	1.0	0.24	11.7	4.2	5.5	1.0	0.0	0.0		**11.7**	4.2		0.0	0.0
	27	27	85.99	495.0	0.0	372.9	0.0	2.7	1.0	0.24	11.6	8.7	5.5	1.0	0.0	0.0		**11.6**	8.7		0.0	0.0
	27	28	89.10	357.6	0.0	99.6	0.0	2.7	1.0	0.24	8.4	2.3	5.5	1.0	0.0	0.0		**8.4**	2.3		0.0	0.0
	28	28	89.10	351.1	0.0	219.2	0.0	2.7	1.0	0.24	8.2	5.1	5.5	1.0	0.0	0.0		**8.2**	5.1		0.0	0.0
	28	29	92.21	220.9	0.0	17.8	0.0	2.7	1.0	0.24	5.2	0.4	5.5	1.0	0.0	0.0		**5.2**	0.4		0.0	0.0
	29	29	92.21	224.0	0.0	147.6	0.0	2.7	1.0	0.24	5.2	3.5	5.5	1.0	0.0	0.0		**5.2**	3.5		0.0	0.0
	29	30	95.32	220.4	0.0	75.4	0.0	2.7	1.0	0.24	5.2	1.8	5.5	1.0	0.0	0.0		**5.2**	1.8		0.0	0.0
	30	30	95.32	226.7	0.0	24.4	0.0	2.7	1.0	0.24	5.3	0.6	5.5	1.0	0.0	0.0		**5.3**	0.6		0.0	0.0
	30	31	98.43	358.8	0.0	223.9	0.0	2.7	1.0	0.24	8.4	5.2	5.5	1.0	0.0	0.0		**8.4**	5.2		0.0	0.0
	31	31	98.43	363.2	0.0	93.8	0.0	2.7	1.0	0.24	8.5	2.2	5.5	1.0	0.0	0.0		**8.5**	2.2		0.0	0.0
	31	32	101.54	501.9	0.0	359.5	0.0	2.7	1.0	0.24	11.8	8.4	5.5	1.0	0.0	0.0		**11.8**	8.4		0.0	0.0
	32	32	101.54	503.9	0.0	196.0	0.0	2.7	1.0	0.24	11.8	4.6	5.5	1.0	0.0	0.0		**11.8**	4.6		0.0	0.0
	32	33	104.65	649.6	0.0	222.3	0.0	2.7	1.0	0.24	15.2	5.2	5.5	1.0	0.0	0.0		**15.2**	5.2		0.0	0.0
	33	33	104.65	650.5	0.0	326.2	0.0	2.7	1.0	0.24	15.2	7.6	5.5	1.0	0.0	0.0		**15.2**	7.6		0.0	0.0
	33	34	107.76	805.2	0.0	612.5	0.0	2.7	1.0	0.24	18.9	14.4	5.5	1.0	0.0	0.0		**18.9**	14.4		0.0	0.0

				ARMADO CORTANTE - TORSOR																ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2			HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)			A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V12" V-29-2	101	101	0.00	844.3	0.0	366.4	0.0	2.7	1.0	0.24	19.8	8.6	5.5	1.0	0.0	0.0			**19.8**	8.6		0.0	0.0
	101	102	3.05	683.6	0.0	411.2	0.0	2.7	1.0	0.24	16.0	9.6	5.5	1.0	0.0	0.0			**16.0**	9.6		0.0	0.0
	102	102	3.05	675.6	0.0	337.1	0.0	2.7	1.0	0.24	15.8	7.9	5.5	1.0	0.0	0.0			**15.8**	7.9		0.0	0.0
	102	103	6.10	523.5	0.0	216.6	0.0	2.7	1.0	0.24	12.3	5.1	5.5	1.0	0.0	0.0			**12.3**	5.1		0.0	0.0
	103	103	6.10	517.3	0.0	221.2	0.0	2.7	1.0	0.24	12.1	5.2	5.5	1.0	0.0	0.0			**12.1**	5.2		0.0	0.0
	103	104	9.15	372.8	0.0	99.0	0.0	2.7	1.0	0.24	8.7	2.3	5.5	1.0	0.0	0.0			**8.7**	2.3		0.0	0.0
	104	104	9.15	366.9	0.0	68.9	0.0	2.7	1.0	0.24	8.6	1.6	5.5	1.0	0.0	0.0			**8.6**	1.6		0.0	0.0
	104	105	12.20	229.3	0.0	29.6	0.0	2.7	1.0	0.24	5.4	0.7	5.5	1.0	0.0	0.0			**5.4**	0.7		0.0	0.0
	105	105	12.20	223.2	0.0	77.4	0.0	2.7	1.0	0.24	5.2	1.8	5.5	1.0	0.0	0.0			**5.2**	1.8		0.0	0.0
	105	106	15.25	237.0	0.0	127.6	0.0	2.7	1.0	0.24	5.6	3.0	5.5	1.0	0.0	0.0			**5.6**	3.0		0.0	0.0
	106	106	15.25	235.3	0.0	44.0	0.0	2.7	1.0	0.24	5.5	1.0	5.5	1.0	0.0	0.0			**5.5**	1.0		0.0	0.0
	106	107	18.30	371.0	0.0	205.8	0.0	2.7	1.0	0.24	8.7	4.8	5.5	1.0	0.0	0.0			**8.7**	4.8		0.0	0.0
	107	107	18.30	379.3	0.0	154.9	0.0	2.7	1.0	0.24	8.9	3.6	5.5	1.0	0.0	0.0			**8.9**	3.6		0.0	0.0
	107	108	21.35	522.3	0.0	275.6	0.0	2.7	1.0	0.24	12.2	6.5	5.5	1.0	0.0	0.0			**12.2**	6.5		0.0	0.0
	108	108	21.35	531.2	0.0	257.5	0.0	2.7	1.0	0.24	12.4	6.0	5.5	1.0	0.0	0.0			**12.4**	6.0		0.0	0.0
	108	109	24.40	678.7	0.0	373.8	0.0	2.7	1.0	0.24	15.9	8.8	5.5	1.0	0.0	0.0			**15.9**	8.8		0.0	0.0
	109	109	24.40	688.4	0.0	353.8	0.0	2.7	1.0	0.24	16.1	8.3	5.5	1.0	0.0	0.0			**16.1**	8.3		0.0	0.0
	109	110	27.45	840.4	0.0	465.6	0.0	2.7	1.0	0.24	19.7	10.9	5.5	1.0	0.0	0.0			**19.7**	10.9		0.0	0.0
	110	110	27.45	850.7	0.0	480.9	0.0	2.7	1.0	0.24	19.9	11.3	5.5	1.0	0.0	0.0			**19.9**	11.3		0.0	0.0
	110	111	30.50	1007.6	0.0	558.1	0.0	2.7	1.0	0.24	23.6	13.1	5.5	1.0	0.0	0.0			**23.6**	13.1		0.0	0.0
	111	111	30.50	1018.8	0.0	556.7	0.0	2.7	1.0	0.24	23.9	13.0	5.5	1.0	0.0	0.0			**23.9**	13.0		0.0	0.0
	111	112	33.55	1182.0	0.0	657.5	0.0	2.7	1.0	0.24	27.7	15.4	5.5	1.0	0.0	0.0			**27.7**	15.4		0.0	0.0

CALCULO DE CORTANTE-TORSOR SEGÚN EHE

Fibra : 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Comprobación de bielas a compresión

$V_{u1}=K\cdot f_{1cd}\cdot b_0\cdot d\cdot 1/(ctg\theta+tg\theta)$ $T_{u1}=\alpha\cdot f_{1cd}A_s\cdot h_s\cdot 1/(ctg\theta+tg\theta)$

	Hipótesis 1		Hipótesis 2																			Hipótesis 1			Hipótesis 2			
x(m)	Vmax	Tconc	Vcon	Tmax	Sección	C/T	coef. F1cd	$\beta_{compr.}$	$\beta_{tracción}$	cotgθ	cotgθs	$A_{s,eq}+A_p$ (cm2)	f_{ck} (N/mm²)	f_{cd} (N/mm²)	f_{1cd} (N/mm²)	σ'_{cd} (N/mm²)	b_w(m)	b (m)	d_v(m)	K	Vu1 (tn)	h_s(m)	A_s (m2)	α	Tu1 (m tn)	$\gamma_{V,hip\ 1}$	$\gamma_{T,hip\ 1}$	$\gamma_{interac.hip\ 1}$	$\gamma_{V,hip\ 2}$	$\gamma_{T,hip\ 2}$	$\gamma_{interac.hip\ 2}$	βv-t
33.55	1089.98	170.20	870.59	580.11	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	**743.74**	0.24	5.5	1.5	**2247.57**	0.73	0.08	0.81	0.59	0.26	0.84	1.00
37.19	907.82	128.91	519.00	638.61	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	**743.74**	0.24	5.5	1.5	**2247.57**	0.61	0.06	0.67	0.35	0.28	0.63	1.00
37.19	904.07	186.71	367.01	567.29	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	**743.74**	0.24	5.5	1.5	**2247.57**	0.61	0.08	0.69	0.25	0.25	0.50	1.00
40.62	729.27	152.98	385.49	617.59	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.65	0.09	0.74	0.35	0.37	0.71	1.00
40.62	722.15	133.16	284.35	543.31	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.65	0.08	0.73	0.25	0.32	0.58	1.00
44.46	553.55	102.40	191.67	594.47	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.50	0.06	0.56	0.17	0.35	0.52	1.00
44.46	544.89	31.57	407.01	510.98	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.49	0.02	0.51	0.36	0.30	0.67	1.00
48.10	382.10	0.69	99.47	559.31	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.34	0.00	0.34	0.09	0.33	0.42	1.00
48.10	373.65	31.99	255.27	501.60	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.34	0.02	0.35	0.23	0.30	0.53	1.00
51.73	216.47	5.45	17.34	523.97	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.19	0.00	0.20	0.02	0.31	0.33	1.00
51.73	213.78	32.51	107.63	500.09	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.19	0.02	0.21	0.10	0.30	0.39	1.00
55.37	219.27	26.31	113.37	494.53	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.20	0.02	0.21	0.10	0.29	0.40	1.00
55.37	221.47	17.81	24.59	531.30	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.20	0.01	0.21	0.02	0.32	0.34	1.00
59.01	378.75	20.38	259.44	499.16	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.34	0.01	0.35	0.23	0.30	0.53	1.00
59.01	386.97	20.46	153.27	567.03	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.35	0.01	0.36	0.14	0.34	0.47	1.00
62.64	549.69	12.51	205.71	517.56	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.49	0.01	0.50	0.18	0.31	0.49	1.00
62.64	558.20	78.71	276.73	602.61	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.50	0.05	0.55	0.25	0.36	0.61	1.00
66.28	726.76	110.19	290.32	550.77	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.65	0.07	0.72	0.26	0.33	0.59	1.00
66.28	734.13	123.66	392.94	626.61	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	**557.81**	0.18	5.5	1.5	**1685.68**	0.66	0.07	0.73	0.35	0.37	0.72	1.00
69.91	906.83	157.99	372.97	575.41	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	**743.74**	0.24	5.5	1.5	**2247.57**	0.61	0.07	0.68	0.25	0.26	0.51	1.00
69.91	912.81	92.84	526.26	648.94	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	**743.74**	0.24	5.5	1.5	**2247.57**	0.61	0.04	0.65	0.35	0.29	0.64	1.00
73.55	1094.91	134.76	469.60	600.89	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	**743.74**	0.24	5.5	1.5	**2247.57**	0.74	0.06	0.80	0.32	0.27	0.58	1.00

V13

CALCULO DE CORTANTE-TORSOR SEGÚN EHE

Fibra: 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Comprobación de bielas a compresión

$V_{u1}=K\cdot f_{1cd}\cdot b_0\cdot d\cdot 1/(ctg\theta+tg\theta)$ $T_{u1}=\alpha\cdot f_{1cd}\cdot A_e\cdot h_e\cdot 1/(ctg\theta+tg\theta)$

	Hipótesis 1		Hipótesis 2																						Hipótesis 1			Hipótesis 2			
x(m)	Vmax	Tcono	Vcon	Tmax	Sección	C/T	coef. F1cd	$\beta_{compr.}$	$\beta_{tracción}$	cotgθ	cotgθ$_e$	$A_{s,eq}+A_p$ (cm2)	f_{ck} (N/mm^2)	f_{cd} (N/mm^2)	f_{1cd} (N/mm^2)	σ'_{cd} (N/mm^2)	b_w(m)	b (m)	d_v(m)	K	Vu1 (tn)	h_e(m)	A_e (m2)	α	Tu1 (m tn)	$\gamma_{V,hip\ 1}$	$\gamma_{T,hip\ 1}$	$\gamma_{inter.hip\ 1}$	$\gamma_{V,hip\ 2}$	$\gamma_{T,hip\ 2}$	$\gamma_{inter.hip\ 2}$	βv-1
73.55	1111.33	271.64	931.70	601.37	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.75	0.12	0.87	0.63	0.27	0.89	1.00
76.68	954.06	239.09	385.59	569.96	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.64	0.11	0.75	0.26	0.26	0.52	1.00
76.66	950.16	295.51	396.57	520.68	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.64	0.13	0.77	0.27	0.23	0.50	1.00
79.77	799.75	261.63	320.21	557.48	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.72	0.16	0.87	0.29	0.33	0.62	1.00
79.77	794.23	253.46	644.62	497.27	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.71	0.15	0.86	0.58	0.29	0.87	1.00
82.88	648.40	217.40	252.49	523.61	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.58	0.13	0.71	0.23	0.31	0.54	1.00
82.86	642.72	196.98	506.69	469.25	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.58	0.12	0.69	0.45	0.28	0.73	1.00
85.99	501.18	162.65	178.92	481.27	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.45	0.10	0.55	0.16	0.29	0.45	1.00
85.99	494.98	201.04	372.90	433.70	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.44	0.12	0.56	0.33	0.26	0.59	1.00
89.10	357.57	172.45	99.85	433.51	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.32	0.10	0.42	0.09	0.26	0.35	1.00
89.10	351.07	171.46	219.22	396.21	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.31	0.10	0.42	0.20	0.24	0.43	1.00
92.21	220.85	128.79	17.84	373.83	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.08	0.27	0.02	0.22	0.24	1.00
92.21	224.01	146.26	147.62	340.83	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.09	0.29	0.13	0.20	0.33	1.00
95.32	220.40	122.79	75.40	306.52	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.07	0.27	0.07	0.18	0.25	1.00
95.32	226.68	75.14	24.39	295.05	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.04	0.25	0.02	0.18	0.20	1.00
98.43	358.83	99.76	223.86	255.06	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.32	0.06	0.38	0.20	0.15	0.35	1.00
98.43	363.20	65.46	98.84	264.91	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.33	0.04	0.36	0.08	0.16	0.24	1.00
101.54	501.86	83.68	359.48	201.29	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.45	0.05	0.50	0.32	0.12	0.44	1.00
101.54	503.90	47.03	196.03	226.85	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.45	0.03	0.48	0.18	0.13	0.31	1.00
104.65	649.54	60.48	222.32	154.29	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.55	0.03	0.58	0.19	0.09	0.28	1.00
104.65	650.48	10.36	326.20	175.27	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.55	0.01	0.56	0.28	0.10	0.37	1.00
107.76	805.22	8.55	612.52	66.17	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.68	0.00	0.69	0.52	0.04	0.56	1.00

V15

CALCULO DE CORTANTE-TORSOR SEGÚN EHE

Fibra: 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Comprobación de bielas a compresión

$V_{u1}=K\cdot f_{1cd}\cdot b_0\cdot d\cdot 1/(ctg\theta+tg\theta)$ $T_{u1}=\alpha\cdot f_{1cd}\cdot A_e\cdot h_e\cdot 1/(ctg\theta+tg\theta)$

	Hipótesis 1		Hipótesis 2																						Hipótesis 1			Hipótesis 2			
x(m)	Vmax	Tcono	Vcon	Tmax	Sección	C/T	coef. F1cd	$\beta_{compr.}$	$\beta_{tracción}$	cotgθ	cotgθ$_e$	$A_{s,eq}+A_p$ (cm2)	f_{ck} (N/mm^2)	f_{cd} (N/mm^2)	f_{1cd} (N/mm^2)	σ'_{cd} (N/mm^2)	b_w(m)	b (m)	d_v(m)	K	Vu1 (tn)	h_e(m)	A_e (m2)	α	Tu1 (m tn)	$\gamma_{V,hip\ 1}$	$\gamma_{T,hip\ 1}$	$\gamma_{inter.hip\ 1}$	$\gamma_{V,hip\ 2}$	$\gamma_{T,hip\ 2}$	$\gamma_{inter.hip\ 2}$	βv-1
0.00	844.34	7.77	366.43	57.77	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.72	0.00	0.72	0.31	0.03	0.34	1.00
3.05	883.81	0.35	411.17	164.44	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.58	0.00	0.58	0.35	0.09	0.44	1.00
3.05	675.62	26.26	337.05	150.58	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.57	0.01	0.59	0.29	0.08	0.37	1.00
6.10	523.54	20.55	216.64	209.82	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.47	0.01	0.48	0.19	0.12	0.32	1.00
6.10	517.26	45.03	221.20	190.47	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.46	0.03	0.49	0.20	0.11	0.31	1.00
9.15	372.76	35.29	98.96	242.45	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.33	0.02	0.36	0.09	0.14	0.23	1.00
9.15	366.88	66.56	66.86	219.06	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.33	0.04	0.37	0.06	0.13	0.19	1.00
12.20	229.34	50.18	29.61	262.90	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.03	0.24	0.03	0.16	0.18	1.00
12.20	223.29	100.21	77.38	274.58	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.06	0.26	0.07	0.16	0.23	1.00
15.25	236.98	109.34	127.61	293.97	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.06	0.28	0.11	0.17	0.29	1.00
15.25	235.35	94.44	44.02	345.74	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.06	0.27	0.04	0.21	0.24	1.00
18.30	370.95	121.99	205.76	339.20	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.33	0.07	0.40	0.18	0.20	0.38	1.00
18.30	379.25	126.26	154.67	405.54	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.34	0.07	0.41	0.14	0.24	0.38	1.00
21.35	522.26	141.31	275.58	374.18	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.47	0.08	0.55	0.25	0.22	0.47	1.00
21.35	531.25	109.31	257.49	452.90	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.48	0.06	0.54	0.23	0.27	0.50	1.00
24.40	678.69	128.68	373.85	418.67	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.61	0.08	0.68	0.34	0.25	0.58	1.00
24.40	686.37	95.80	353.83	493.45	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.62	0.06	0.67	0.32	0.29	0.61	1.00
27.45	840.42	115.72	465.63	457.56	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.75	0.07	0.82	0.42	0.27	0.69	1.00
27.45	850.74	166.45	480.85	522.81	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.76	0.10	0.86	0.43	0.31	0.74	1.00
30.50	1007.62	188.19	556.10	495.09	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.68	0.08	0.76	0.38	0.22	0.60	1.00
30.50	1018.79	202.56	556.68	550.39	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.68	0.09	0.78	0.37	0.24	0.62	1.00
33.55	1161.97	221.95	657.48	529.69	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.79	0.10	0.89	0.44	0.24	0.68	1.00

V12

CALCULO DE CORTANTE-TORSOR SEGÚN EHE

Fibra : 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Comprobación de bielas a compresión

$V_{u1}=K\cdot f_{1cd}\cdot b_0\cdot d\cdot 1/(ctg\theta+tg\theta)$ $\quad T_{u1}=\alpha\cdot f_{1cd}\cdot A_s\cdot h_s\cdot 1/(ctg\theta+tg\theta)$

	Hipótesis 1		Hipótesis 2																				Hipótesis 1					Hipótesis 2		
x(m)	Vmax	Tcono	Vcon	Tmax	Sección	C/T	coef. F1cd	$\beta_{compr.}$	$\beta_{tracción}$	cotgθ	cotgθ$_s$	$A_{s,eq}+A_p$ (cm2)	f_{ck} (N/mm^2)	f_{cd} (N/mm^2)	f_{1cd} (N/mm^2)	σ'_{cd} (N/mm^2)	b_w(m)	b (m)	d_v(m)	K	Vu1 (tn)	h_s(m)	A_s (m2)	α	Tu1 (m tn)	$\gamma_{V,hip\ 1}$	$\gamma_{T,hip\ 1}$	$\gamma_{Interhip\ 1}$	$\gamma_{V,hip\ 2}$	$\gamma_{T,hip\ 2}$	$\gamma_{Interhip\ 2}$	βv-t
33.55	1174.32	140.46	781.67	522.31	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.79	0.06	0.85	0.53	0.23	0.76	1.00
37.19	980.77	114.51	672.75	562.68	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.66	0.05	0.71	0.45	0.26	0.71	1.00
37.19	966.14	96.00	638.27	527.13	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.65	0.04	0.69	0.43	0.23	0.66	1.00
40.62	762.56	76.30	509.46	570.15	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.70	0.05	0.75	0.46	0.34	0.79	1.00
40.82	769.32	46.06	425.87	505.61	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.69	0.03	0.72	0.38	0.30	0.68	1.00
44.46	590.49	29.83	295.48	552.93	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.53	0.02	0.55	0.26	0.33	0.59	1.00
44.46	578.52	10.73	298.86	476.55	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.52	0.01	0.52	0.27	0.28	0.55	1.00
48.10	406.03	26.42	159.18	522.28	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.36	0.02	0.38	0.14	0.31	0.45	1.00
48.10	395.42	5.39	165.86	447.42	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.35	0.00	0.36	0.15	0.27	0.41	1.00
51.73	228.79	26.63	18.40	463.85	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.02	0.22	0.02	0.29	0.30	1.00
51.73	225.05	8.29	116.34	450.99	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.00	0.21	0.10	0.27	0.37	1.00
55.37	230.64	5.52	121.95	448.90	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.00	0.21	0.11	0.27	0.37	1.00
55.37	234.00	39.36	25.72	489.43	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.02	0.23	0.02	0.29	0.31	1.00
59.01	400.52	15.36	173.42	452.85	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.36	0.01	0.37	0.16	0.27	0.42	1.00
59.01	411.22	46.37	166.58	526.26	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.37	0.03	0.40	0.15	0.31	0.46	1.00
62.64	583.65	27.98	306.66	484.11	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.52	0.02	0.54	0.27	0.29	0.56	1.00
62.64	595.67	7.12	303.10	556.60	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.53	0.00	0.54	0.27	0.33	0.60	1.00
66.28	774.47	24.05	434.97	511.19	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.69	0.01	0.71	0.39	0.30	0.69	1.00
66.28	787.90	48.20	517.32	576.13	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.71	0.03	0.73	0.46	0.34	0.81	1.00
69.91	973.44	66.56	646.21	532.85	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.65	0.03	0.68	0.43	0.24	0.67	1.00
69.91	986.41	61.40	666.14	589.42	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.66	0.04	0.70	0.45	0.26	0.71	1.00
73.55	1179.93	108.00	593.35	553.28	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.79	0.05	0.84	0.40	0.25	0.65	1.00

V14

CALCULO DE CORTANTE-TORSOR SEGÚN EHE

Fibra : 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Comprobación de bielas a compresión

$V_{u1}=K\cdot f_{1cd}\cdot b_0\cdot d\cdot 1/(ctg\theta+tg\theta)$ $\quad T_{u1}=\alpha\cdot f_{1cd}\cdot A_s\cdot h_s\cdot 1/(ctg\theta+tg\theta)$

	Hipótesis 1		Hipótesis 2																				Hipótesis 1					Hipótesis 2		
x(m)	Vmax	Tcono	Vcon	Tmax	Sección	C/T	coef. F1cd	$\beta_{compr.}$	$\beta_{tracción}$	cotgθ	cotgθ$_s$	$A_{s,eq}+A_p$ (cm2)	f_{ck} (N/mm^2)	f_{cd} (N/mm^2)	f_{1cd} (N/mm^2)	σ'_{cd} (N/mm^2)	b_w(m)	b (m)	d_v(m)	K	Vu1 (tn)	h_s(m)	A_s (m2)	α	Tu1 (m tn)	$\gamma_{V,hip\ 1}$	$\gamma_{T,hip\ 1}$	$\gamma_{Interhip\ 1}$	$\gamma_{V,hip\ 2}$	$\gamma_{T,hip\ 2}$	$\gamma_{Interhip\ 2}$	βv-t
73.55	1200.87	224.84	782.95	529.80	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.81	0.10	0.91	0.53	0.24	0.76	1.00
76.66	1093.68	204.64	612.30	551.50	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.69	0.09	0.79	0.41	0.25	0.66	1.00
76.66	1022.24	188.51	566.98	495.73	PILA	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.24	0.48	2.73	1	743.74	0.24	5.5	1.5	2247.57	0.69	0.08	0.77	0.38	0.22	0.60	1.00
79.77	862.93	166.90	487.69	524.36	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.77	0.10	0.87	0.44	0.31	0.75	1.00
79.77	851.53	116.37	472.38	458.62	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.76	0.07	0.83	0.42	0.27	0.70	1.00
82.88	696.86	95.02	356.59	494.93	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.62	0.06	0.68	0.32	0.29	0.62	1.00
82.88	686.78	129.83	378.48	419.41	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.62	0.08	0.69	0.34	0.25	0.59	1.00
85.99	536.55	110.54	280.01	454.39	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.48	0.07	0.55	0.23	0.27	0.50	1.00
85.99	527.47	142.79	283.06	374.97	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.47	0.08	0.56	0.25	0.22	0.48	1.00
89.10	381.80	127.88	160.23	406.99	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.34	0.08	0.42	0.14	0.24	0.39	1.00
89.10	373.20	123.17	208.09	336.00	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.33	0.07	0.41	0.19	0.20	0.39	1.00
92.21	234.99	95.68	42.96	348.75	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.06	0.27	0.04	0.21	0.24	1.00
92.21	236.70	110.27	160.06	297.25	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.07	0.28	0.14	0.18	0.32	1.00
95.32	226.29	101.69	80.95	275.48	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.20	0.06	0.26	0.07	0.16	0.24	1.00
95.32	232.45	48.72	26.28	267.31	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.21	0.03	0.24	0.03	0.16	0.18	1.00
98.43	372.41	64.44	70.80	229.02	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.33	0.04	0.37	0.06	0.13	0.20	1.00
98.43	378.42	33.96	100.71	247.23	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.34	0.02	0.36	0.09	0.15	0.24	1.00
101.54	525.47	43.78	225.89	194.22	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.47	0.03	0.50	0.20	0.12	0.32	1.00
101.54	531.75	19.10	223.58	213.98	CDV	c	0.6	0.5	0.5	1.4	1.29	98	60	40.00	24.00	-3.09	0.18	0.36	2.73	1	557.81	0.18	5.5	1.5	1685.68	0.48	0.01	0.49	0.20	0.13	0.33	1.00
104.65	656.51	84.84	344.66	159.97	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.58	0.01	0.60	0.29	0.09	0.38	1.00
104.65	694.71	1.71	420.06	168.24	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.59	0.00	0.59	0.36	0.09	0.45	1.00
107.76	859.45	9.84	500.58	59.60	ESTRIBO	c	0.6	0.5	0.5	1	1.11	33.6	60	40.00	24.00	-1.05	0.18	0.36	2.73	1	589.68	0.18	5.5	1.5	1782.00	0.73	0.01	0.73	0.42	0.03	0.46	1.00

V16

CALCULO DE CORTANTE-TORSOR SEG

Fibra: 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Dimensionamiento $A_{trans.}$ — **Dimensionamiento A_{long}**

$Vu2=Vcu+Vsu$ | $V_{cu}=[0.1\cdot\xi\cdot(100\cdot\rho l\cdot f_{ck})^{1/3}-0.15\cdot\sigma'_{cd}]b_0\cdot d\cdot\beta$ | $V_{su}=z\cdot ctg\theta\cdot A_{\alpha}\cdot f_{yd}$ | $Tu2=2\cdot Ae\cdot A_t\cdot s\cdot f_{ytd}\cdot ctg\theta$ | $Tu3=2\cdot Ae\cdot A_l/u\cdot f_{ytd}\cdot tg\theta$

	Hipótesis 1		Hipótesis 2								Hipótesis 1						Hipótesis 2								Hipótesis 1	Hipótesis 2
x(m)	Vmax	Tconc	Vcon	Tmax	ξ	ρl	β	Vu2 sin	Vcu (si,no)	Vcu (tn)	Vrd	Vu2-Vcu hip1	$A_{\alpha cort}$ (cm2/m)	$A_{\alpha tor}$ (cm2/m)	$A_{\alpha min}$ (cm2/m)	$A_{\alpha total}$ (cm2/m)	Vrd	Vu2-Vcu hip2	$A_{\alpha cort}$ (cm2/m)	$A_{\alpha tor}$ (cm2/m)	$A_{\alpha min}$ (cm2/m)	$A_{\alpha total}$ (cm2/m)	St máx (cm) hip.1	St máx (cm) hip.2	A_{slong} (cm2/m)	A_{slong} (cm2/m)
0.00	790.56	10.00	598.41	65.00	1.27	0.020	0.821939	44.7	SI	31.7	395.3	363.6	37.00	0.23	3.60	37.23	299.20	267.5	27.22	1.48	3.60	28.70	20.0	30.00	0.23	1.48
3.05	639.59	11.27	316.50	171.86	1.27	0.020	0.821939	44.7	SI	31.7	319.8	288.1	29.32	0.26	3.60	29.57	159.25	127.6	12.98	3.91	3.60	16.89	30.0	30.00	0.26	3.91
3.05	636.80	60.95	216.92	151.38	1.27	0.020	0.821939	44.7	SI	31.7	319.4	287.7	29.28	1.39	3.60	30.66	108.46	76.8	7.81	3.44	3.60	11.25	30.0	30.00	1.39	3.44
6.10	495.56	47.10	190.62	222.86	1.27	0.020	0.848751	59.7	SI	45.5	247.8	202.3	14.70	0.76	3.60	15.47	95.31	49.8	3.62	3.62	3.60	7.24	30.0	30.00	1.50	7.09
6.10	493.65	83.89	348.18	198.47	1.27	0.020	0.848751	59.7	SI	45.5	246.8	201.4	14.63	1.36	3.60	16.00	174.09	128.6	9.35	3.22	3.60	12.57	30.0	30.00	2.67	6.31
9.15	357.95	65.15	92.56	260.23	1.27	0.020	0.848751	59.7	SI	45.5	178.7	133.2	9.68	1.06	3.60	10.74	46.19	-13.5	0.00	4.22	3.60	4.22	30.0	30.00	2.07	8.28
9.15	353.31	99.80	217.60	252.11	1.27	0.020	0.848751	59.7	SI	45.5	176.7	131.2	9.53	1.62	3.60	11.16	108.80	63.3	4.60	4.09	3.60	8.70	30.0	30.00	3.18	8.02
12.20	223.44	75.06	25.93	290.91	1.27	0.020	0.848751	59.7	SI	45.5	111.7	66.2	4.81	1.22	3.60	6.03	12.96	-46.8	0.00	4.71	3.60	4.71	30.0	30.00	2.39	9.24
12.20	217.46	122.62	70.48	306.14	1.27	0.020	0.848751	59.7	SI	45.5	108.7	63.3	4.60	1.99	3.60	6.59	35.24	-24.5	0.00	4.97	3.60	4.97	30.0	30.00	3.90	9.74
15.25	224.97	149.97	113.82	337.91	1.27	0.020	0.848751	59.7	SI	45.5	112.2	66.7	4.85	2.34	3.60	7.19	56.91	-2.8	0.00	5.49	3.60	5.49	30.0	30.00	4.58	10.75
15.25	221.02	124.74	40.98	373.95	1.27	0.020	0.848751	59.7	SI	45.5	110.5	65.0	4.73	2.02	3.60	6.75	20.49	-39.2	0.00	6.07	3.60	6.07	30.0	30.00	3.97	11.90
18.30	348.82	167.19	298.85	392.64	1.27	0.020	0.848751	59.7	SI	45.5	174.4	128.9	9.37	2.71	3.60	12.09	119.42	74.0	5.37	6.37	3.60	11.75	30.0	30.00	5.32	12.49
18.30	354.86	167.60	99.57	433.39	1.27	0.020	0.848751	59.7	SI	45.5	177.4	132.0	9.59	2.72	3.60	12.31	49.78	-10.0	0.00	7.04	3.60	7.04	30.0	30.00	5.33	13.79
21.35	469.77	196.05	397.47	428.79	1.27	0.020	0.848751	59.7	SI	45.5	244.9	199.4	14.49	3.18	3.60	17.68	183.73	138.3	10.05	6.96	3.60	17.01	30.0	30.00	6.24	13.64
21.35	495.60	157.35	177.62	481.35	1.27	0.020	0.848751	59.7	SI	45.5	247.8	202.3	14.71	2.55	3.60	17.26	88.81	43.3	3.15	7.81	3.60	10.96	30.0	30.00	5.00	15.32
24.40	634.54	191.60	498.48	463.50	1.27	0.020	0.848751	59.7	SI	45.5	317.3	271.6	19.75	3.11	3.60	22.86	249.24	203.8	14.81	7.52	3.60	22.33	30.0	30.00	6.10	14.75
24.40	639.79	211.95	249.82	522.93	1.27	0.020	0.848751	59.7	SI	45.5	319.9	274.4	19.94	3.44	3.60	23.38	124.91	79.4	5.77	8.51	3.60	14.28	30.0	30.00	6.74	16.67
27.45	782.90	246.48	693.74	490.77	1.27	0.020	0.848751	59.7	SI	45.5	391.4	346.0	25.15	4.00	3.60	29.15	316.87	271.4	19.72	7.97	3.60	27.69	20.0	30.00	7.84	15.62
27.45	786.12	256.07	318.17	556.31	1.27	0.020	0.848751	59.7	SI	45.5	394.1	348.6	25.34	4.14	3.60	29.48	158.08	112.6	8.18	9.06	3.60	17.25	20.0	30.00	8.12	17.76
30.50	935.89	298.61	391.10	622.25	1.27	0.020	0.848751	79.6	SI	60.6	467.8	407.2	29.60	4.69	4.80	34.28	195.55	134.9	9.81	8.48	4.80	18.28	30.0	30.00	9.18	16.62
30.50	939.50	292.83	532.71	592.05	1.27	0.020	0.848751	79.6	SI	60.6	469.7	409.1	29.73	3.78	4.80	33.51	266.36	205.7	14.95	9.61	4.80	24.56	30.0	30.00	7.41	18.84
33.55	1092.98	264.21	449.66	564.70	1.27	0.020	0.848751	79.6	SI	60.6	546.5	485.9	35.31	4.29	4.80	39.60	224.84	164.2	11.93	9.17	4.80	21.10	20.0	30.00	8.41	17.97

V12

ϕ12 c/s

ϕ 16 c/s

CALCULO DE CORTANTE-TORSOR SEG

Fibra: 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Dimensionamiento $A_{trans.}$ — **Dimensionamiento A_{long}**

	Hipótesis 1		Hipótesis 2								Hipótesis 1						Hipótesis 2								Hipótesis 1	Hipótesis 2
x(m)	Vmax	Tconc	Vcon	Tmax	ξ	ρl	β	Vu2 sin	Vcu (si,no)	Vcu (tn)	Vrd	Vu2-Vcu hip1	$A_{\alpha cort}$ (cm2/m)	$A_{\alpha tor}$ (cm2/m)	$A_{\alpha min}$ (cm2/m)	$A_{\alpha total}$ (cm2/m)	Vrd	Vu2-Vcu hip2	$A_{\alpha cort}$ (cm2/m)	$A_{\alpha tor}$ (cm2/m)	$A_{\alpha min}$ (cm2/m)	$A_{\alpha total}$ (cm2/m)	St máx (cm) hip.1	St máx (cm) hip.2	A_{slong} (cm2/m)	A_{slong} (cm2/m)
33.55	1089.98	170.20	870.59	580.11	1.27	0.020	0.848751	79.6	SI	60.6	545.0	484.4	35.20	2.76	4.80	37.97	435.29	374.7	27.23	9.42	4.80	36.65	20.0	30.00	5.42	18.46
37.19	907.82	128.91	519.00	638.61	1.27	0.020	0.848751	79.6	SI	60.6	453.9	393.3	28.58	2.09	4.80	30.68	259.50	198.9	14.45	10.37	4.80	24.82	30.0	30.00	4.10	20.33
37.19	904.07	186.71	367.01	567.29	1.27	0.020	0.848751	79.6	SI	60.6	452.0	391.4	28.45	3.03	4.80	31.48	183.51	122.9	8.93	9.21	4.80	18.14	30.0	30.00	5.94	18.05
40.82	729.27	152.98	385.49	617.59	1.27	0.020	0.848751	59.7	SI	45.5	364.6	319.2	23.20	2.48	3.60	25.68	192.75	147.3	10.70	10.03	3.60	20.73	30.0	30.00	4.87	19.65
40.82	722.15	133.16	284.35	543.31	1.27	0.020	0.848751	59.7	SI	45.5	361.1	315.6	22.94	2.16	3.60	25.10	142.18	96.7	7.03	8.82	3.60	15.85	30.0	30.00	4.24	17.29
44.46	553.55	102.40	191.67	594.47	1.27	0.020	0.848751	59.7	SI	45.5	276.8	231.3	16.81	1.66	3.60	18.47	95.83	50.4	3.66	9.65	3.60	13.31	30.0	30.00	3.26	18.91
44.46	544.89	31.57	407.01	510.95	1.27	0.020	0.848751	59.7	SI	45.5	272.4	227.0	16.50	0.51	3.60	17.01	203.50	158.0	11.49	8.30	3.60	19.78	30.0	30.00	1.00	16.26
48.10	362.10	0.69	99.47	559.31	1.27	0.020	0.848751	59.7	SI	45.5	191.1	145.6	10.58	0.01	3.60	10.59	49.73	-10.0	0.00	9.08	3.60	9.08	30.0	30.00	0.02	17.80
48.10	373.85	31.99	255.27	501.60	1.27	0.020	0.848751	59.7	SI	45.5	186.9	141.5	10.28	0.52	3.60	10.80	127.64	82.2	5.97	8.14	3.60	14.11	30.0	30.00	1.02	15.96
51.73	216.47	5.45	17.34	523.97	1.27	0.020	0.848751	59.7	SI	45.5	106.2	62.8	4.56	0.09	3.60	4.65	8.67	-51.1	0.00	8.51	3.60	8.51	30.0	30.00	0.17	16.67
51.73	213.78	32.51	107.63	500.09	1.27	0.020	0.848751	59.7	SI	45.5	106.9	61.4	4.46	0.53	3.60	4.99	53.92	-5.8	0.00	8.12	3.60	8.12	30.0	30.00	1.03	15.91
55.37	219.27	26.31	113.37	494.83	1.27	0.020	0.848751	59.7	SI	45.5	109.6	64.2	4.66	0.46	3.60	5.12	56.68	-3.1	0.00	8.03	3.60	8.03	30.0	30.00	0.90	15.74
55.37	221.47	17.81	24.59	531.30	1.27	0.020	0.848751	59.7	SI	45.5	110.7	65.3	4.74	0.29	3.60	5.03	12.29	-47.4	0.00	8.62	3.60	8.62	30.0	30.00	0.57	16.90
59.01	378.75	20.36	259.44	499.18	1.27	0.020	0.848751	59.7	SI	45.5	189.4	143.9	10.46	0.33	3.60	10.79	129.72	84.2	6.12	8.10	3.60	14.23	30.0	30.00	0.65	15.88
59.01	386.97	20.46	163.27	567.03	1.27	0.020	0.848751	59.7	SI	45.5	193.5	148.0	10.76	0.33	3.60	11.09	76.64	31.2	2.26	9.21	3.60	11.47	30.0	30.00	0.65	18.04
62.64	549.69	12.51	205.71	517.58	1.27	0.020	0.848751	59.7	SI	45.5	274.8	229.4	16.67	0.20	3.60	16.87	102.86	57.4	4.17	8.40	3.60	12.57	30.0	30.00	0.40	16.47
62.64	556.20	78.71	276.73	602.81	1.27	0.020	0.848751	59.7	SI	45.5	279.1	233.6	16.98	1.28	3.60	18.26	138.36	92.9	6.75	9.79	3.60	16.54	30.0	30.00	2.50	19.18
66.28	726.76	110.19	290.32	550.77	1.27	0.020	0.848751	59.7	SI	45.5	363.4	317.9	23.11	1.79	3.60	24.89	145.16	99.7	7.25	8.94	3.60	16.19	30.0	30.00	3.51	17.52
66.28	734.13	123.66	392.84	626.81	1.27	0.020	0.848751	59.7	SI	45.5	367.1	321.6	23.37	2.01	3.60	25.38	196.47	151.0	10.97	10.18	3.60	21.15	30.0	30.00	3.93	19.94
69.91	906.83	157.99	372.97	575.41	1.27	0.020	0.848751	79.6	SI	60.6	454.4	393.8	28.62	2.56	4.80	31.18	186.49	125.9	9.15	9.34	4.80	18.49	30.0	30.00	5.03	18.31
69.91	912.61	92.84	526.26	646.94	1.27	0.020	0.848751	79.6	SI	60.6	456.4	395.8	28.76	1.51	4.80	30.27	263.14	202.5	14.72	10.53	4.80	25.25	30.0	30.00	2.95	20.65
73.55	1094.91	134.76	469.60	600.99	1.27	0.020	0.848751	79.6	SI	60.6	547.5	486.8	35.38	2.19	4.80	37.57	234.80	174.2	12.66	9.76	4.80	22.41	20.0	30.00	4.29	19.12

V13

ϕ8 c/15

CALCULO DE CORTANTE-TORSOR SEG

Fibra: 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Dimensionamiento $A_{trans.}$ — **Dimensionamiento A_{long}**

					$Vu2=Vcu+Vsu$						$V_{cu}=[0.1\cdot\xi\cdot(100\cdot\rho l\cdot f_{ck})^{1/3}-0.15\cdot\sigma'_{cd}]b_0\cdot d\cdot\beta$						$V_{su}=z\cdot ctg\theta\cdot A_{\alpha}f_{yd}$							$Tu2=2\cdot Ae\cdot A_t/s\cdot f_{yt,d}\cdot ctg\theta$		$Tu3=2\cdot Ae\cdot A_l/u\cdot f_{yt,d}\cdot tg\theta$	
	Hipótesis 1		Hipótesis 2											Hipótesis 1							Hipótesis 2				Hipótesis 1	Hipótesis 2
x(m)	Vmax	Tcono	Vcon	Tmax	ξ	ρl	β	Vu2 sin	Vcu (si,no)	Vcu (tn)	Vrd	Vu2-Vcu hip1	$A_{s\,cort}$ (cm2/m)	$A_{s\,tor}$ (cm2/m)	$A_{s\,min}$ (cm2/m)	$A_{s\,total}$ (cm2/m)	Vrd	Vu2-Vcu hip2	$A_{s\,cort}$ (cm2/m)	$A_{s\,tor}$ (cm2/m)	$A_{s\,min}$ (cm2/m)	$A_{s\,total}$ (cm2/m)	St máx (cm) hip.1	St máx (cm) hip.2	$A_{s\,long}$ (cm2/m)	$A_{s\,long}$ (cm2/m)
73.55	1111.33	271.64	931.70	601.37	1.27	0.020	0.848751	79.6	SI	60.6	555.7	495.0	35.98	4.41	4.80	40.39	465.85	405.2	29.45	9.76	4.80	39.21	20.0	30.00	8.64	19.13
76.66	954.06	239.09	385.59	569.96	1.27	0.020	0.848751	79.6	SI	60.6	477.0	416.4	30.26	3.88	4.80	34.14	192.80	132.2	9.61	9.58	4.80	19.18	30.0	30.00	7.61	18.77
76.66	950.16	295.51	396.57	520.68	1.27	0.020	0.848751	79.6	SI	60.6	475.1	414.5	30.12	4.80	4.80	34.92	198.28	137.7	10.00	8.46	4.80	18.46	30.0	30.00	9.40	16.57
79.77	799.75	261.63	320.21	557.48	1.27	0.020	0.848751	59.7	SI	45.5	399.9	354.4	25.76	4.25	3.60	30.01	160.11	114.6	8.33	9.05	3.60	17.38	20.0	30.00	8.33	17.74
79.77	794.23	253.46	644.62	497.27	1.27	0.020	0.848751	59.7	SI	45.5	397.1	351.6	25.56	4.11	3.60	29.67	322.31	276.8	20.12	8.07	3.60	28.19	20.0	30.00	8.06	15.82
82.88	648.40	217.40	252.49	529.61	1.27	0.020	0.848751	59.7	SI	45.5	324.2	278.7	20.26	3.53	3.60	23.79	126.24	80.8	5.87	8.50	3.60	14.37	30.0	30.00	6.92	16.66
82.88	642.72	196.98	506.69	469.25	1.27	0.020	0.848751	59.7	SI	45.5	321.4	275.9	20.05	3.20	3.60	23.25	253.35	207.9	15.11	7.62	3.60	22.73	30.0	30.00	6.27	14.93
85.99	501.18	162.65	176.92	481.27	1.27	0.020	0.848751	59.7	SI	45.5	250.6	205.1	14.91	2.64	3.60	17.55	89.46	44.0	3.20	7.81	3.60	11.01	30.0	30.00	5.18	15.31
85.99	494.98	201.04	372.90	433.70	1.27	0.020	0.848751	59.7	SI	45.5	247.5	202.0	14.68	3.26	3.60	17.95	186.45	141.0	10.25	7.04	3.60	17.29	30.0	30.00	6.40	13.80
89.10	357.57	172.45	99.65	433.51	1.27	0.020	0.848751	59.7	SI	45.5	178.8	133.3	9.69	2.80	3.60	12.49	49.82	-9.9	0.00	7.04	3.60	7.04	30.0	30.00	5.49	13.79
89.10	351.07	171.48	219.22	396.21	1.27	0.020	0.848751	59.7	SI	45.5	175.5	130.1	9.45	2.78	3.60	12.24	109.61	64.1	4.66	6.43	3.60	11.09	30.0	30.00	5.46	12.61
92.21	220.85	128.79	17.84	373.83	1.27	0.020	0.848751	59.7	SI	45.5	110.4	65.0	4.72	2.09	3.60	6.81	8.92	-50.8	0.00	6.07	3.60	6.07	30.0	30.00	4.10	11.89
92.21	224.01	146.26	147.62	340.63	1.27	0.020	0.848751	59.7	SI	45.5	112.0	66.5	4.84	2.37	3.60	7.21	73.81	28.3	2.06	5.53	3.60	7.59	30.0	30.00	4.65	10.84
95.32	220.40	122.79	75.40	306.52	1.27	0.020	0.848751	59.7	SI	45.5	110.2	64.7	4.70	1.99	3.60	6.70	37.70	-22.0	0.00	4.98	3.60	4.98	30.0	30.00	3.91	9.75
95.32	226.68	75.14	24.39	296.05	1.27	0.020	0.848751	59.7	SI	45.5	113.3	67.9	4.93	1.22	3.60	6.15	12.19	-47.5	0.00	4.79	3.60	4.79	30.0	30.00	2.39	9.39
98.43	358.83	99.76	223.86	255.05	1.27	0.020	0.848751	59.7	SI	45.5	179.4	133.9	9.73	1.62	3.60	11.35	111.94	66.5	4.83	4.14	3.60	8.97	30.0	30.00	3.17	8.12
98.43	363.20	65.46	93.84	264.91	1.27	0.020	0.848751	59.7	SI	45.5	181.6	136.1	9.89	1.06	3.60	10.96	46.92	-12.8	0.00	4.30	3.60	4.30	30.0	30.00	2.08	8.43
101.54	501.86	83.65	359.48	201.29	1.27	0.020	0.848751	59.7	SI	45.5	250.9	205.5	14.93	1.36	3.60	16.29	179.74	134.3	9.76	3.27	3.60	13.03	30.0	30.00	2.67	6.40
101.54	503.90	47.03	196.03	226.85	1.27	0.020	0.848751	59.7	SI	45.5	251.9	206.5	15.01	0.76	3.60	15.77	98.02	52.5	3.82	3.68	3.60	7.50	30.0	30.00	1.50	7.22
104.65	649.64	60.48	222.32	154.29	1.27	0.020	0.821939	44.7	SI	31.7	324.8	293.1	29.83	1.37	3.60	31.20	111.16	79.5	8.09	3.51	3.60	11.59	30.0	30.00	1.37	3.51
104.65	650.48	10.36	326.20	175.27	1.27	0.020	0.821939	44.7	SI	31.7	325.2	293.6	29.87	0.24	3.60	30.11	163.10	131.4	13.37	3.98	3.60	17.36	30.0	30.00	0.24	3.98
107.76	805.22	8.55	612.52	66.17	1.27	0.020	0.821939	44.7	SI	31.7	402.6	370.9	37.74	0.19	3.60	37.94	306.26	274.6	27.94	1.50	3.60	29.44	20.0	30.00	0.19	1.50

CALCULO DE CORTANTE-TORSOR SEG

Fibra: 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Dimensionamiento $A_{trans.}$ — **Dimensionamiento A_{long}**

					$Vu2=Vcu+Vsu$						$V_{cu}=[0.1\cdot\xi\cdot(100\cdot\rho l\cdot f_{ck})^{1/3}-0.15\cdot\sigma'_{cd}]b_0\cdot d\cdot\beta$						$V_{su}=z\cdot ctg\theta\cdot A_{\alpha}f_{yd}$							$Tu2=2\cdot Ae\cdot A_t/s\cdot f_{yt,d}\cdot ctg\theta$		$Tu3=2\cdot Ae\cdot A_l/u\cdot f_{yt,d}\cdot tg\theta$	
	Hipótesis 1		Hipótesis 2											Hipótesis 1							Hipótesis 2				Hipótesis 1	Hipótesis 2
x(m)	Vmax	Tcono	Vcon	Tmax	ξ	ρl	β	Vu2 sin	Vcu (si,no)	Vcu (tn)	Vrd	Vu2-Vcu hip1	$A_{s\,cort}$ (cm2/m)	$A_{s\,tor}$ (cm2/m)	$A_{s\,min}$ (cm2/m)	$A_{s\,total}$ (cm2/m)	Vrd	Vu2-Vcu hip2	$A_{s\,cort}$ (cm2/m)	$A_{s\,tor}$ (cm2/m)	$A_{s\,min}$ (cm2/m)	$A_{s\,total}$ (cm2/m)	St máx (cm) hip.1	St máx (cm) hip.2	$A_{s\,long}$ (cm2/m)	$A_{s\,long}$ (cm2/m)
0.00	644.34	7.77	366.43	57.77	1.27	0.020	0.821939	44.7	SI	31.7	422.2	390.5	39.73	0.18	3.60	39.91	183.22	151.5	15.42	1.31	3.60	16.73	20.0	30.00	0.18	1.31
3.05	683.61	0.35	411.17	164.44	1.27	0.020	0.821939	44.7	SI	31.7	341.8	310.1	31.56	0.01	3.60	31.56	205.58	173.9	17.70	3.74	3.60	21.43	30.0	30.00	0.01	3.74
3.05	675.62	26.26	337.05	150.56	1.27	0.020	0.821939	44.7	SI	31.7	337.8	306.1	31.15	0.60	3.60	31.75	168.53	136.9	13.92	3.42	3.60	17.35	30.0	30.00	0.60	3.42
6.10	523.54	20.55	216.64	209.82	1.27	0.020	0.848751	59.7	SI	45.5	261.8	216.3	15.72	0.33	3.60	16.05	108.32	62.9	4.57	3.41	3.60	7.97	30.0	30.00	0.65	6.68
6.10	517.26	45.03	221.20	190.47	1.27	0.020	0.848751	59.7	SI	45.5	258.6	213.2	15.49	0.73	3.60	16.22	110.60	65.1	4.73	3.09	3.60	7.83	30.0	30.00	1.43	6.06
9.15	372.76	35.29	98.96	242.45	1.27	0.020	0.848751	59.7	SI	45.5	186.4	140.9	10.24	0.57	3.60	10.81	49.48	-10.3	0.00	3.94	3.60	3.94	30.0	30.00	1.12	7.71
9.15	366.88	65.58	68.86	219.06	1.27	0.020	0.848751	59.7	SI	45.5	183.4	138.0	10.03	1.06	3.60	11.09	34.43	-25.3	0.00	3.56	3.60	3.60	30.0	30.00	2.09	6.97
12.20	229.34	50.18	29.61	262.90	1.27	0.020	0.848751	59.7	SI	45.5	114.7	69.2	5.03	0.81	3.60	5.84	14.80	-44.9	0.00	4.27	3.60	4.27	30.0	30.00	1.60	8.36
12.20	223.23	100.21	77.38	274.58	1.27	0.020	0.848751	59.7	SI	45.5	111.6	66.1	4.81	1.63	3.60	6.43	38.69	-21.0	0.00	4.46	3.60	4.46	30.0	30.00	3.19	8.74
15.25	236.98	109.34	127.61	293.97	1.27	0.020	0.848751	59.7	SI	45.5	118.5	73.0	5.31	1.77	3.60	7.08	63.81	18.3	1.33	4.77	3.60	6.10	30.0	30.00	3.48	9.35
15.25	235.35	94.44	44.02	345.74	1.27	0.020	0.848751	59.7	SI	45.5	117.7	72.2	5.25	1.53	3.60	6.78	22.01	-37.7	0.00	5.61	3.60	5.61	30.0	30.00	3.00	11.00
18.30	370.95	121.99	205.76	333.20	1.27	0.020	0.848751	59.7	SI	45.5	185.5	140.0	10.18	1.98	3.60	12.16	102.89	57.4	4.17	5.41	3.60	9.58	30.0	30.00	3.88	10.60
18.30	379.25	126.26	154.87	405.54	1.27	0.020	0.848751	59.7	SI	45.5	189.6	144.2	10.48	2.05	3.60	12.53	77.43	32.0	2.32	6.58	3.60	8.91	30.0	30.00	4.02	12.90
21.35	522.26	141.31	275.58	374.18	1.27	0.020	0.848751	59.7	SI	45.5	261.1	216.7	15.67	2.29	3.60	17.97	137.79	92.3	6.71	6.07	3.60	12.78	30.0	30.00	4.50	11.91
21.35	531.25	109.31	257.49	452.90	1.27	0.020	0.848751	59.7	SI	45.5	265.6	220.2	16.00	1.77	3.60	17.77	126.75	83.3	6.05	7.35	3.60	13.40	30.0	30.00	3.48	14.41
24.40	678.69	126.66	373.85	418.67	1.27	0.020	0.848751	59.7	SI	45.5	339.3	293.9	21.36	2.09	3.60	23.45	186.92	141.5	10.28	6.80	3.60	17.08	30.0	30.00	4.10	13.32
24.40	688.37	95.80	353.63	493.45	1.27	0.020	0.848751	59.7	SI	45.5	344.2	298.7	21.71	1.55	3.60	23.26	176.92	131.4	9.55	8.01	3.60	17.56	30.0	30.00	3.04	15.70
27.45	840.42	118.72	466.60	467.86	1.27	0.020	0.848751	59.7	SI	45.5	420.2	374.7	27.24	1.86	3.60	28.11	232.61	187.5	13.62	7.43	3.60	21.05	20.0	30.00	3.68	14.67
27.45	850.74	166.45	480.66	522.61	1.27	0.020	0.848751	59.7	SI	45.5	425.4	379.9	27.61	2.73	3.60	30.34	240.43	195.0	14.17	8.49	3.60	22.66	20.0	30.00	5.36	16.63
30.50	1007.62	164.10	556.10	495.09	1.27	0.020	0.848751	79.6	SI	60.6	503.8	443.2	32.21	3.06	4.80	35.26	279.05	218.4	15.87	8.04	4.80	23.91	20.0	30.00	5.99	15.75
30.50	1018.79	202.66	556.66	550.33	1.27	0.020	0.848751	79.6	SI	60.6	509.4	448.8	32.62	3.29	4.80	35.90	276.34	217.7	15.82	8.93	4.80	24.76	20.0	30.00	6.45	17.51
33.55	1161.97	221.95	667.48	529.69	1.27	0.020	0.848751	79.6	SI	60.6	581.0	530.4	38.55	3.60	4.80	42.15	328.74	288.1	19.49	8.60	4.80	28.09	20.0	30.00	7.06	16.86

CALCULO DE CORTANTE-TORSOR SEG

Fibra : 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Dimensionamiento $A_{trans.}$ **Dimensionamiento A_{long}**

					Vu2=Vcu+Vsu						$V_{cu}=[0.1\cdot\xi\cdot(100\cdot\rho l\cdot f_{ck})^{1/3}-0.15\cdot\sigma'_{cd}]b_0\cdot d\cdot\beta$						$V_{su}=z\cdot ctg\theta\cdot A_{sw}f_{yd}$						Tu2=2·Ae·A_t/s·f_{ytd}·ctgθ				Tu3=2·Ae·A_l/u·f_{ytd}·tgθ	
	Hipótesis 1		Hipótesis 2								Hipótesis 1						Hipótesis 2								Hipótesis 1	Hipótesis 2
x(m)	Vmax	Tcono	Vcon	Tmax	ξ	ρl	β	Vu2 sin	Vcu (si,no)	Vcu (tn)	Vrd	Vu2-Vcu hip1	A_{scorl} (cm2/m)	A_{stor} (cm2/m)	A_{smin} (cm2/m)	A_{stotal} (cm2/m)	Vrd	Vu2-Vcu hip2	A_{scorl} (cm2/m)	A_{stor} (cm2/m)	A_{smin} (cm2/m)	A_{stotal} (cm2/m)	St máx (cm) hip.1	St máx (cm) hip.2	A_{slong} (cm2/m)	A_{slong} (cm2/m)
33.55	1174.32	140.46	781.67	522.31	1.27	0.020	0.848751	79.6	SI	60.6	587.2	526.5	38.27	2.28	4.80	40.55	390.83	330.2	24.00	8.48	4.80	32.48	20.0	30.00	4.47	16.62
37.19	980.77	114.51	672.75	562.56	1.27	0.020	0.848751	79.6	SI	60.6	490.4	429.8	31.23	1.86	4.80	33.09	336.38	275.7	20.04	9.46	4.80	29.50	30.0	30.00	3.64	18.54
37.19	966.14	95.00	638.27	527.13	1.27	0.020	0.848751	79.6	SI	60.6	484.1	423.4	30.78	1.56	4.80	32.33	319.14	258.5	18.79	8.56	4.80	27.35	30.0	30.00	3.05	16.77
40.82	782.56	76.30	509.46	570.15	1.27	0.020	0.848751	59.7	SI	45.5	391.3	345.8	25.13	1.24	3.60	26.37	254.73	209.3	15.21	9.26	3.60	24.46	20.0	30.00	2.43	18.14
40.82	769.32	46.06	426.87	505.61	1.27	0.020	0.848751	59.7	SI	45.5	384.7	339.2	24.65	0.75	3.60	25.40	213.43	168.0	12.21	8.21	3.60	20.42	20.0	30.00	1.47	16.09
44.46	590.49	29.63	295.48	552.93	1.27	0.020	0.848751	59.7	SI	45.5	295.2	249.8	18.15	0.48	3.60	18.64	147.74	102.3	7.43	8.97	3.60	16.40	30.0	30.00	0.95	17.57
44.46	578.52	10.73	298.86	478.55	1.27	0.020	0.848751	59.7	SI	45.5	289.3	243.8	17.72	0.17	3.60	17.89	149.43	104.0	7.56	7.77	3.60	15.32	30.0	30.00	0.34	15.23
48.10	406.03	26.42	159.13	522.28	1.27	0.020	0.848751	59.7	SI	45.5	203.0	157.5	11.45	0.46	3.60	11.91	79.56	34.1	2.48	8.48	3.60	10.96	30.0	30.00	0.90	16.62
48.10	395.42	5.39	165.86	447.42	1.27	0.020	0.848751	59.7	SI	45.5	197.7	152.2	11.06	0.09	3.60	11.15	82.93	37.5	2.72	7.26	3.60	9.99	30.0	30.00	0.17	14.24
51.73	228.79	26.68	18.40	469.85	1.27	0.020	0.848751	59.7	SI	45.5	114.4	68.9	5.01	0.46	3.60	5.47	9.20	-50.5	0.00	7.85	3.60	7.85	30.0	30.00	0.91	15.40
51.73	225.05	8.29	116.34	450.99	1.27	0.020	0.848751	59.7	SI	45.5	112.5	67.1	4.87	0.13	3.60	5.01	58.17	-1.6	0.00	7.32	3.60	7.32	30.0	30.00	0.26	14.35
55.37	230.64	5.52	121.95	446.90	1.27	0.020	0.848751	59.7	SI	45.5	115.3	69.8	5.08	0.09	3.60	5.17	60.97	15.5	1.13	7.25	3.60	8.38	30.0	30.00	0.18	14.22
55.37	234.00	39.36	25.72	489.43	1.27	0.020	0.848751	59.7	SI	45.5	117.0	71.5	5.20	0.64	3.60	5.84	12.86	-46.9	0.00	7.95	3.60	7.95	30.0	30.00	1.25	15.57
59.01	400.52	15.38	173.42	452.85	1.27	0.020	0.848751	59.7	SI	45.5	200.3	154.8	11.25	0.25	3.60	11.50	86.71	41.2	3.00	7.35	3.60	10.35	30.0	30.00	0.49	14.41
59.01	411.22	46.37	166.58	526.26	1.27	0.020	0.848751	59.7	SI	45.5	205.6	160.1	11.64	0.75	3.60	12.39	83.29	37.8	2.75	8.58	3.60	11.32	30.0	30.00	1.48	16.81
62.64	563.65	27.98	306.66	484.11	1.27	0.020	0.848751	59.7	SI	45.5	291.8	246.4	17.90	0.45	3.60	18.36	153.34	107.9	7.84	7.86	3.60	15.70	30.0	30.00	0.89	15.40
62.64	595.67	7.12	303.10	556.60	1.27	0.020	0.848751	59.7	SI	45.5	297.8	252.4	18.34	0.12	3.60	18.46	151.55	106.1	7.71	9.07	3.60	16.78	30.0	30.00	0.23	17.77
66.28	774.47	24.05	434.97	511.19	1.27	0.020	0.848751	59.7	SI	45.5	387.2	341.8	24.84	0.39	3.60	25.23	217.48	172.0	12.50	8.30	3.60	20.80	20.0	30.00	0.77	16.27
66.28	787.90	48.20	517.92	576.13	1.27	0.020	0.848751	59.7	SI	45.5	393.9	348.5	25.33	0.78	3.60	26.11	258.66	213.2	15.49	9.35	3.60	24.85	20.0	30.00	1.53	18.33
69.91	973.44	68.58	646.21	532.85	1.27	0.020	0.848751	79.6	SI	60.6	486.7	426.1	30.97	1.11	4.80	32.08	323.11	262.5	19.08	8.65	4.80	27.73	30.0	30.00	2.18	16.95
69.91	986.41	61.40	666.14	589.42	1.27	0.020	0.848751	79.6	SI	60.6	493.2	432.6	31.44	1.32	4.80	32.76	333.07	272.4	19.80	9.57	4.80	29.37	30.0	30.00	2.59	18.75
73.55	1179.93	108.00	593.36	553.26	1.27	0.020	0.848751	79.6	SI	60.6	590.0	529.3	38.47	1.75	4.80	40.22	296.68	236.1	17.16	8.98	4.80	26.14	20.0	30.00	3.44	17.60

CALCULO DE CORTANTE-TORSOR SEG

Fibra : 1

Fibra lateral del alma

Características generales de la sección:

Coeficiente de minoración γ_c 1.5

Dimensionamiento $A_{trans.}$ **Dimensionamiento A_{long}**

					Vu2=Vcu+Vsu						$V_{cu}=[0.1\cdot\xi\cdot(100\cdot\rho l\cdot f_{ck})^{1/3}-0.15\cdot\sigma'_{cd}]b_0\cdot d\cdot\beta$						$V_{su}=z\cdot ctg\theta\cdot A_{sw}f_{yd}$						Tu2=2·Ae·A_t/s·f_{ytd}·ctgθ				Tu3=2·Ae·A_l/u·f_{ytd}·tgθ	
	Hipótesis 1		Hipótesis 2								Hipótesis 1						Hipótesis 2								Hipótesis 1	Hipótesis 2
x(m)	Vmax	Tcono	Vcon	Tmax	ξ	ρl	β	Vu2 sin	Vcu (si,no)	Vcu (tn)	Vrd	Vu2-Vcu hip1	A_{scorl} (cm2/m)	A_{stor} (cm2/m)	A_{smin} (cm2/m)	A_{stotal} (cm2/m)	Vrd	Vu2-Vcu hip2	A_{scorl} (cm2/m)	A_{stor} (cm2/m)	A_{smin} (cm2/m)	A_{stotal} (cm2/m)	St máx (cm) hip.1	St máx (cm) hip.2	A_{slong} (cm2/m)	A_{slong} (cm2/m)
73.55	1200.87	224.84	782.95	529.80	1.27	0.020	0.848751	79.6	SI	60.6	600.4	539.8	39.23	3.65	4.80	42.88	391.47	330.8	24.05	8.60	4.80	32.65	20.0	30.00	7.15	16.86
76.66	1093.66	204.64	612.30	551.50	1.27	0.020	0.848751	79.6	SI	60.6	516.8	456.2	33.16	3.32	4.80	36.48	306.15	245.5	17.84	8.95	4.80	26.80	20.0	30.00	6.51	17.55
76.66	1022.24	186.51	566.98	495.73	1.27	0.020	0.848751	79.6	SI	60.6	511.1	450.5	32.74	3.06	4.80	35.80	283.49	222.9	16.20	8.05	4.80	24.24	20.0	30.00	6.00	15.77
79.77	862.93	168.90	487.69	524.96	1.27	0.020	0.848751	59.7	SI	45.5	431.2	385.7	28.03	2.74	3.60	30.77	243.85	198.4	14.42	8.51	3.60	22.93	20.0	30.00	5.37	16.68
79.77	851.53	116.97	472.38	458.62	1.27	0.020	0.848751	59.7	SI	45.5	425.8	380.3	27.64	1.89	3.60	29.53	236.19	190.7	13.86	7.45	3.60	21.31	20.0	30.00	3.70	14.59
82.88	696.66	95.02	358.59	494.93	1.27	0.020	0.848751	59.7	SI	45.5	348.3	302.9	22.01	1.54	3.60	23.55	179.30	133.8	9.73	8.03	3.60	17.76	30.0	30.00	3.02	15.75
82.88	686.78	129.83	378.48	419.41	1.27	0.020	0.848751	59.7	SI	45.5	343.4	297.9	21.65	2.11	3.60	23.76	189.24	143.8	10.45	6.81	3.60	17.26	30.0	30.00	4.13	13.34
85.99	536.55	110.54	280.01	454.39	1.27	0.020	0.848751	59.7	SI	45.5	268.3	222.8	16.19	1.79	3.60	17.99	130.01	84.5	6.14	7.38	3.60	13.52	30.0	30.00	3.52	14.46
85.99	527.47	142.79	283.06	374.97	1.27	0.020	0.848751	59.7	SI	45.5	263.7	218.3	15.86	2.32	3.60	18.18	141.53	96.1	6.98	6.09	3.60	13.07	30.0	30.00	4.54	11.93
89.10	381.80	127.88	160.23	406.99	1.27	0.020	0.848751	59.7	SI	45.5	190.9	145.4	10.57	2.08	3.60	12.65	80.12	34.6	2.52	6.61	3.60	9.12	30.0	30.00	4.07	12.95
89.10	373.20	123.17	208.09	336.00	1.27	0.020	0.848751	59.7	SI	45.5	186.6	141.1	10.26	2.00	3.60	12.26	104.05	58.6	4.26	5.45	3.60	9.71	30.0	30.00	3.92	10.69
92.21	234.99	95.65	42.96	346.75	1.27	0.020	0.848751	59.7	SI	45.5	117.5	72.0	5.23	1.55	3.60	6.79	21.18	-38.6	0.00	5.63	3.60	5.63	30.0	30.00	3.04	11.03
92.21	236.70	110.27	160.06	297.25	1.27	0.020	0.848751	59.7	SI	45.5	118.4	72.9	5.30	1.79	3.60	7.09	80.03	34.6	2.51	4.83	3.60	7.34	30.0	30.00	3.51	9.46
95.32	226.29	101.69	80.95	275.48	1.27	0.020	0.848751	59.7	SI	45.5	113.1	67.7	4.92	1.65	3.60	6.57	40.48	-19.3	0.00	4.47	3.60	4.47	30.0	30.00	3.24	8.77
95.32	232.45	48.72	26.28	267.31	1.27	0.020	0.848751	59.7	SI	45.5	116.2	70.8	5.14	0.79	3.60	5.93	14.14	-45.6	0.00	4.34	3.60	4.34	30.0	30.00	1.55	8.51
98.43	372.41	64.44	70.80	223.02	1.27	0.020	0.848751	59.7	SI	45.5	186.2	140.7	10.23	1.05	3.60	11.27	35.40	-24.3	0.00	3.62	3.60	3.62	30.0	30.00	2.05	7.10
98.43	378.42	33.96	100.71	247.23	1.27	0.020	0.848751	59.7	SI	45.5	189.2	143.7	10.45	0.55	3.60	11.00	50.35	-9.4	0.00	4.01	3.60	4.01	30.0	30.00	1.08	7.87
101.54	525.47	43.75	285.88	194.82	1.27	0.020	0.848751	59.7	SI	45.5	262.7	217.3	15.79	0.71	3.60	16.50	112.95	67.5	4.90	3.15	3.60	8.06	30.0	30.00	1.39	6.18
101.54	531.75	19.10	223.58	213.95	1.27	0.020	0.848751	59.7	SI	45.5	265.9	220.4	16.02	0.31	3.60	16.33	111.79	66.3	4.82	3.47	3.60	8.29	30.0	30.00	0.61	6.81
104.65	666.51	24.64	344.66	153.97	1.27	0.020	0.821939	44.7	SI	31.7	343.3	311.6	31.70	0.56	3.60	32.27	172.34	140.7	14.31	3.50	3.60	17.81	30.0	30.00	0.56	3.50
104.65	694.71	1.71	420.06	168.24	1.27	0.020	0.821939	44.7	SI	31.7	347.4	315.7	32.12	0.04	3.60	32.16	210.04	178.4	18.15	3.82	3.60	21.97	30.0	30.00	0.04	3.82
107.76	859.45	9.84	500.58	59.60	1.27	0.020	0.821939	44.7	SI	31.7	429.7	398.0	40.50	0.22	3.60	40.73	250.29	218.6	22.24	1.35	3.60	23.60	20.0	30.00	0.22	1.35

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

FIBRA 2: LOSA

A continuación se explica el calculo realizado para esta fibra, El armado necesario máximo está en torno a 23cm²/m no obstante se considera el calculo transversal de la losa que pedirá mayor cantidad de armadura

En esta fibra no se considera rasante por torsion y es por ello por lo que no se incluye

En ccalquier caso el coeficiente de interacción obtenido es siempre menor que 1

Se ha empleado cotg θ = 1

FIBRA 2 INTERACCIÓN CORTANTE TORSOR

Barra	Nudo	X	Hipótesis 1 Vmax	Tconc	Hipótesis 2 Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	CALCULO Vrd(tn) bo	d	Cotg θ	Vrd(tn)	CALCULO Trd(tn) α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V12" V-29-1	1	1	0.00 790.58	0.00	598.41	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.49	0.37
	1	2	3.05 639.59	0.00	318.50	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.39	0.20
	2	2	3.05 638.80	0.00	216.92	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.39	0.13
	2	3	6.10 495.58	0.00	190.62	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.31	0.12
	3	3	6.10 493.65	0.00	348.18	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.30	0.21
	3	4	9.15 357.35	0.00	92.38	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.22	0.06
	4	4	9.15 353.31	0.00	217.60	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.22	0.13
	4	5	12.20 223.44	0.00	25.93	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.14	0.02
	5	5	12.20 217.46	0.00	70.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.14	0.04
	5	6	15.25 224.37	0.00	113.82	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.13	0.04
	6	6	15.25 221.02	0.00	40.98	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.14	0.07
	6	7	18.30 348.82	0.00	238.85	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.21	0.03
	7	7	18.30 354.86	0.00	99.57	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.14	0.15
	7	8	21.35 489.77	0.00	367.47	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.22	0.06
	8	8	21.35 495.60	0.00	177.62	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.30	0.23
	8	9	24.40 634.54	0.00	498.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.31	0.11
	9	9	24.40 639.73	0.00	249.82	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.39	0.31
	9	10	27.45 782.90	0.00	633.74	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.48	0.15
	10	10	27.45 788.12	0.00	316.17	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.39	0.39
	10	11	30.50 935.69	0.00	391.10	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.49	0.19
	11	11	30.50 939.50	0.00	532.71	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.58	0.24
	11	12	33.55 1092.99	0.00	449.68	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	0.67	0.28

FIBRA 2 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V13" V-30-1	12	10012	33.55	1089.98	0.00	870.59	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.67**	**0.54**
	12	13	37.19	907.82	0.00	519.00	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.56**	**0.32**
	13	13	37.19	904.07	0.00	367.01	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.56**	**0.23**
	13	14	40.82	729.27	0.00	385.49	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.45**	**0.24**
	14	14	40.82	722.15	0.00	284.35	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.44**	**0.18**
	14	15	44.46	553.55	0.00	191.67	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.34**	**0.12**
	15	15	44.46	544.89	0.00	407.01	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.34**	**0.25**
	15	16	48.10	382.10	0.00	99.47	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.24**	**0.06**
	16	16	48.10	373.85	0.00	255.27	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.16**
	16	17	51.73	216.47	0.00	17.34	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.13**	**0.01**
	17	17	51.73	213.78	0.00	107.83	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.13**	**0.07**
	17	18	55.37	219.27	0.00	113.37	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.07**
	18	18	55.37	221.47	0.00	24.59	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.02**
	18	19	59.01	378.75	0.00	259.44	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.16**
	19	19	59.01	386.97	0.00	153.27	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.24**	**0.09**
	19	20	62.64	549.69	0.00	205.71	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.34**	**0.13**
	20	20	62.64	558.20	0.00	276.73	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.34**	**0.17**
	20	21	66.28	726.78	0.00	290.32	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.45**	**0.18**
	21	21	66.28	734.13	0.00	392.94	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.45**	**0.24**
	21	22	69.91	908.83	0.00	372.97	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.56**	**0.23**
	22	22	69.91	912.81	0.00	526.28	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.56**	**0.32**
	22	23	73.55	1094.91	0.00	469.60	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.67**	**0.29**

FIBRA 2 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V15" V-31-1	23	10023	73.55	1111.33	0.00	931.70	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.68**	**0.57**
	23	24	76.66	954.06	0.00	385.59	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.59**	**0.24**
	24	24	76.66	950.16	0.00	396.57	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.59**	**0.24**
	24	25	79.77	799.75	0.00	320.21	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.49**	**0.20**
	25	25	79.77	794.23	0.00	644.62	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.49**	**0.40**
	25	26	82.88	648.40	0.00	252.49	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.40**	**0.16**
	26	26	82.88	642.72	0.00	506.69	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.40**	**0.31**
	26	27	85.99	501.18	0.00	178.92	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.31**	**0.11**
	27	27	85.99	494.98	0.00	372.90	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.30**	**0.23**
	27	28	89.10	357.57	0.00	99.65	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.22**	**0.06**
	28	28	89.10	351.07	0.00	219.22	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.22**	**0.14**
	28	29	92.21	220.85	0.00	17.84	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.01**
	29	29	92.21	224.01	0.00	147.62	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.09**
	29	30	95.32	220.40	0.00	75.40	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.05**
	30	30	95.32	226.68	0.00	24.39	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.02**
	30	31	98.43	358.83	0.00	223.88	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.22**	**0.14**
	31	31	98.43	363.20	0.00	93.84	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.22**	**0.06**
	31	32	101.54	501.88	0.00	359.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.31**	**0.22**
	32	32	101.54	503.90	0.00	196.03	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.31**	**0.12**
	32	33	104.65	649.64	0.00	222.32	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.40**	**0.14**
	33	33	104.65	650.48	0.00	326.20	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.40**	**0.20**
	33	34	107.76	805.22	0.00	612.52	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.50**	**0.38**

FIBRA 2 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V12" V-29-2	101	101	0.00	844.34	0.00	366.43	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.52**	**0.23**
	101	102	3.05	683.61	0.00	411.17	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.42**	**0.25**
	102	102	3.05	675.62	0.00	337.05	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.42**	**0.21**
	102	103	6.10	523.54	0.00	216.64	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.32**	**0.13**
	103	103	6.10	517.26	0.00	221.20	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.32**	**0.14**
	103	104	9.15	372.76	0.00	98.96	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.06**
	104	104	9.15	366.88	0.00	68.86	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.04**
	104	105	12.20	229.34	0.00	29.61	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.02**
	105	105	12.20	223.23	0.00	77.38	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.05**
	105	106	15.25	236.98	0.00	127.61	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.15**	**0.08**
	106	106	15.25	235.35	0.00	44.02	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.14**	**0.03**
	106	107	18.30	370.95	0.00	205.78	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.13**
	107	107	18.30	379.25	0.00	154.87	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.23**	**0.10**
	107	108	21.35	522.26	0.00	275.58	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.32**	**0.17**
	108	108	21.35	531.25	0.00	257.49	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.33**	**0.16**
	108	109	24.40	678.69	0.00	373.85	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.42**	**0.23**
	109	109	24.40	688.37	0.00	353.83	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.42**	**0.22**
	109	110	27.45	840.42	0.00	465.63	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.52**	**0.29**
	110	110	27.45	850.74	0.00	480.85	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.52**	**0.30**
	110	111	30.50	1007.62	0.00	558.10	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.62**	**0.34**
	111	111	30.50	1018.79	0.00	556.68	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.63**	**0.34**
	111	112	33.55	1181.97	0.00	657.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.24	**0.73**	**0.41**

				ARMADO CORTANTE - TORSOR														ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TO		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V14" V-30-2	112	10112	33.55	1174.3	0.0	781.7	0.0	2.7	1.0	0.24	27.6	18.3	5.5	1.0	0.0	0.0		**27.6**	18.3		0.0	0.0
	112	113	37.19	980.8	0.0	672.8	0.0	2.7	1.0	0.24	23.0	15.8	5.5	1.0	0.0	0.0		**23.0**	15.8		0.0	0.0
	113	113	37.19	968.1	0.0	638.3	0.0	2.7	1.0	0.24	22.7	15.0	5.5	1.0	0.0	0.0		**22.7**	15.0		0.0	0.0
	113	114	40.82	782.6	0.0	509.5	0.0	2.7	1.0	0.24	18.3	11.9	5.5	1.0	0.0	0.0		**18.3**	11.9		0.0	0.0
	114	114	40.82	769.3	0.0	426.9	0.0	2.7	1.0	0.24	18.0	10.0	5.5	1.0	0.0	0.0		**18.0**	10.0		0.0	0.0
	114	115	44.46	590.5	0.0	295.5	0.0	2.7	1.0	0.24	13.8	6.9	5.5	1.0	0.0	0.0		**13.8**	6.9		0.0	0.0
	115	115	44.46	578.5	0.0	298.9	0.0	2.7	1.0	0.24	13.6	7.0	5.5	1.0	0.0	0.0		**13.6**	7.0		0.0	0.0
	115	116	48.10	406.0	0.0	159.1	0.0	2.7	1.0	0.24	9.5	3.7	5.5	1.0	0.0	0.0		**9.5**	3.7		0.0	0.0
	116	116	48.10	395.4	0.0	165.9	0.0	2.7	1.0	0.24	9.3	3.9	5.5	1.0	0.0	0.0		**9.3**	3.9		0.0	0.0
	116	117	51.73	228.8	0.0	18.4	0.0	2.7	1.0	0.24	5.4	0.4	5.5	1.0	0.0	0.0		**5.4**	0.4		0.0	0.0
	117	117	51.73	225.1	0.0	116.3	0.0	2.7	1.0	0.24	5.3	2.7	5.5	1.0	0.0	0.0		**5.3**	2.7		0.0	0.0
	117	118	55.37	230.6	0.0	121.9	0.0	2.7	1.0	0.24	5.4	2.9	5.5	1.0	0.0	0.0		**5.4**	2.9		0.0	0.0
	118	118	55.37	234.0	0.0	25.7	0.0	2.7	1.0	0.24	5.5	0.6	5.5	1.0	0.0	0.0		**5.5**	0.6		0.0	0.0
	118	119	59.01	400.5	0.0	173.4	0.0	2.7	1.0	0.24	9.4	4.1	5.5	1.0	0.0	0.0		**9.4**	4.1		0.0	0.0
	119	119	59.01	411.2	0.0	166.6	0.0	2.7	1.0	0.24	9.6	3.9	5.5	1.0	0.0	0.0		**9.6**	3.9		0.0	0.0
	119	120	62.64	583.6	0.0	306.7	0.0	2.7	1.0	0.24	13.7	7.2	5.5	1.0	0.0	0.0		**13.7**	7.2		0.0	0.0
	120	120	62.64	595.7	0.0	303.1	0.0	2.7	1.0	0.24	14.0	7.1	5.5	1.0	0.0	0.0		**14.0**	7.1		0.0	0.0
	120	121	66.28	774.5	0.0	435.0	0.0	2.7	1.0	0.24	18.1	10.2	5.5	1.0	0.0	0.0		**18.1**	10.2		0.0	0.0
	121	121	66.28	787.9	0.0	517.3	0.0	2.7	1.0	0.24	18.5	12.1	5.5	1.0	0.0	0.0		**18.5**	12.1		0.0	0.0
	121	122	69.91	973.4	0.0	646.2	0.0	2.7	1.0	0.24	22.8	15.1	5.5	1.0	0.0	0.0		**22.8**	15.1		0.0	0.0
	122	122	69.91	986.4	0.0	666.1	0.0	2.7	1.0	0.24	23.1	15.6	5.5	1.0	0.0	0.0		**23.1**	15.6		0.0	0.0
	122	123	73.55	1179.9	0.0	593.4	0.0	2.7	1.0	0.24	27.6	13.9	5.5	1.0	0.0	0.0		**27.6**	13.9		0.0	0.0

	ARMADO CORTANTE - TORSOR																ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2	HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V16" V-31-2	123	10123	73.55	1200.9	0.0	782.9	0.0	2.7	1.0	0.24	28.1	18.3	5.5	1.0	0.0	0.0	**28.1**	18.3		0.0	0.0
	123	124	76.66	1033.7	0.0	612.3	0.0	2.7	1.0	0.24	24.2	14.3	5.5	1.0	0.0	0.0	**24.2**	14.3		0.0	0.0
	124	124	76.66	1022.2	0.0	567.0	0.0	2.7	1.0	0.24	23.9	13.3	5.5	1.0	0.0	0.0	**23.9**	13.3		0.0	0.0
	124	125	79.77	862.3	0.0	487.7	0.0	2.7	1.0	0.24	20.2	11.4	5.5	1.0	0.0	0.0	**20.2**	11.4		0.0	0.0
	125	125	79.77	851.5	0.0	472.4	0.0	2.7	1.0	0.24	19.9	11.1	5.5	1.0	0.0	0.0	**19.9**	11.1		0.0	0.0
	125	126	82.88	696.7	0.0	358.6	0.0	2.7	1.0	0.24	16.3	8.4	5.5	1.0	0.0	0.0	**16.3**	8.4		0.0	0.0
	126	126	82.88	686.8	0.0	378.5	0.0	2.7	1.0	0.24	16.1	8.9	5.5	1.0	0.0	0.0	**16.1**	8.9		0.0	0.0
	126	127	85.99	536.6	0.0	260.0	0.0	2.7	1.0	0.24	12.6	6.1	5.5	1.0	0.0	0.0	**12.6**	6.1		0.0	0.0
	127	127	85.99	527.5	0.0	283.1	0.0	2.7	1.0	0.24	12.4	6.6	5.5	1.0	0.0	0.0	**12.4**	6.6		0.0	0.0
	127	128	89.10	381.8	0.0	160.2	0.0	2.7	1.0	0.24	8.9	3.8	5.5	1.0	0.0	0.0	**8.9**	3.8		0.0	0.0
	128	128	89.10	373.2	0.0	208.1	0.0	2.7	1.0	0.24	8.7	4.9	5.5	1.0	0.0	0.0	**8.7**	4.9		0.0	0.0
	128	129	92.21	235.0	0.0	42.4	0.0	2.7	1.0	0.24	5.5	1.0	5.5	1.0	0.0	0.0	**5.5**	1.0		0.0	0.0
	129	129	92.21	236.7	0.0	160.1	0.0	2.7	1.0	0.24	5.5	3.7	5.5	1.0	0.0	0.0	**5.5**	3.7		0.0	0.0
	129	130	95.32	226.3	0.0	81.0	0.0	2.7	1.0	0.24	5.3	1.9	5.5	1.0	0.0	0.0	**5.3**	1.9		0.0	0.0
	130	130	95.32	232.4	0.0	28.3	0.0	2.7	1.0	0.24	5.4	0.7	5.5	1.0	0.0	0.0	**5.4**	0.7		0.0	0.0
	130	131	98.43	372.4	0.0	70.8	0.0	2.7	1.0	0.24	8.7	1.7	5.5	1.0	0.0	0.0	**8.7**	1.7		0.0	0.0
	131	131	98.43	378.4	0.0	100.7	0.0	2.7	1.0	0.24	8.9	2.4	5.5	1.0	0.0	0.0	**8.9**	2.4		0.0	0.0
	131	132	101.54	525.5	0.0	225.9	0.0	2.7	1.0	0.24	12.3	5.3	5.5	1.0	0.0	0.0	**12.3**	5.3		0.0	0.0
	132	132	101.54	531.8	0.0	223.6	0.0	2.7	1.0	0.24	12.5	5.2	5.5	1.0	0.0	0.0	**12.5**	5.2		0.0	0.0
	132	133	104.65	686.5	0.0	344.7	0.0	2.7	1.0	0.24	16.1	8.1	5.5	1.0	0.0	0.0	**16.1**	8.1		0.0	0.0
	133	133	104.65	694.7	0.0	420.1	0.0	2.7	1.0	0.24	16.3	9.8	5.5	1.0	0.0	0.0	**16.3**	9.8		0.0	0.0
	133	134	107.76	859.4	0.0	500.6	0.0	2.7	1.0	0.24	20.1	11.7	5.5	1.0	0.0	0.0	**20.1**	11.7		0.0	0.0

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

FIBRA 3 · Losa en zona central del vano

El armado es calido con dreforzo que se dispone debido a la fibra U.

El coeficiente de interacción es siempre menor que la unidad

Se ha adoptado cotg θ = 1

Longitudinalmente se colora c/ 10 a 12'5cm. en ambas caras

FIBRA 3 INTERACCIÓN CORTANTE TORSOR

Barra	Nudo	X	Hipótesis 1 Vmax	Tconc	Hipótesis 2 Vcon	Tmax
"Y12" V-29-1	1	0.00	790.58	10.00	598.41	65.00
	1	3.05	639.59	11.27	318.50	171.86
	2	3.05	638.80	60.95	216.92	151.38
	2	6.10	495.58	47.10	190.62	222.86
	3	6.10	493.65	83.89	348.18	198.47
	3	9.15	357.35	65.15	92.38	260.23
	4	9.15	353.31	99.89	217.60	252.11
	4	12.20	223.44	76.08	25.93	290.31
	5	12.20	217.46	122.62	70.48	306.14
	5	15.25	224.37	143.97	113.82	337.91
	6	15.25	221.02	124.74	40.98	373.96
	6	18.30	348.82	167.19	238.85	392.64
	7	18.30	354.86	167.60	99.57	433.39
	7	21.35	489.77	196.05	367.47	428.79
	8	21.35	495.60	157.25	177.62	481.35
	8	24.40	634.54	191.60	498.48	463.50
	9	24.40	639.73	211.95	249.82	523.93
	9	27.45	782.90	246.48	633.74	490.77
	10	27.45	788.12	255.07	316.17	558.31
	10	30.50	935.69	288.61	391.10	522.25
	11	30.50	939.50	232.83	632.71	592.05
	11	33.55	1092.99	264.21	449.68	564.70

CÁLCULO Vrd(tn)								CÁLCULO Trd(tn)							
Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.40	0.35
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.32	0.30
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.37	0.24
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.28	0.29
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.31	0.34
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.23	0.27
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.26	0.32
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.17	0.26
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.21	0.30
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.23	0.35
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.22	0.34
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.32	0.46
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.32	0.42
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.41	0.55
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.38	0.50
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.48	0.64
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.50	0.57
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.60	0.73
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.61	0.64
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.71	0.64
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.66	0.77
2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	0.78	0.71

FIBRA 3 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V13" V-30-1	12	10012	33.55	1089.98	170.20	870.59	580.11	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.68**	**0.93**
	12	13	37.19	907.82	128.91	519.00	638.81	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.56**	**0.81**
	13	13	37.19	904.07	186.71	367.01	567.29	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.60**	**0.67**
	13	14	40.82	729.27	152.98	385.49	617.59	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.49**	**0.72**
	14	14	40.82	722.15	133.16	284.35	543.31	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.47**	**0.61**
	14	15	44.46	553.55	102.40	191.67	594.47	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.36**	**0.61**
	15	15	44.46	544.89	31.57	407.01	510.98	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.29**	**0.64**
	15	16	48.10	382.10	0.69	99.47	559.31	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.19**	**0.53**
	16	16	48.10	373.85	31.99	255.27	501.60	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.21**	**0.56**
	16	17	51.73	216.47	5.45	17.34	523.97	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.11**	**0.46**
	17	17	51.73	213.78	32.51	107.83	500.09	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.13**	**0.48**
	17	18	55.37	219.27	28.31	113.37	494.63	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.13**	**0.48**
	18	18	55.37	221.47	17.81	24.59	531.30	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.12**	**0.47**
	18	19	59.01	378.75	20.38	259.44	499.18	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.20**	**0.56**
	19	19	59.01	386.97	20.46	153.27	567.03	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.21**	**0.56**
	19	20	62.64	549.69	12.51	205.71	517.68	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.28**	**0.55**
	20	20	62.64	558.20	78.71	276.73	602.81	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.34**	**0.66**
	20	21	66.28	726.78	110.19	290.32	550.77	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.45**	**0.62**
	21	21	66.28	734.13	123.66	392.94	626.81	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.47**	**0.73**
	21	22	69.91	908.83	157.99	372.97	575.41	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.58**	**0.68**
	22	22	69.91	912.81	92.84	526.28	648.94	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.53**	**0.82**
	22	23	73.55	1094.91	134.76	469.60	600.99	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.65**	**0.75**

FIBRA 3 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V15" V-31-1	23	10023	73.55	1111.33	271.64	931.70	601.37	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.78**	**0.98**
	23	24	76.66	954.06	239.09	385.59	589.96	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.67**	**0.70**
	24	24	76.66	950.16	295.51	396.57	520.88	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.72**	**0.64**
	24	25	79.77	799.75	261.83	320.21	557.48	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.62**	**0.64**
	25	25	79.77	794.23	253.46	644.62	497.27	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.61**	**0.74**
	25	26	82.88	648.40	217.40	252.49	523.61	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.51**	**0.58**
	26	26	82.88	642.72	196.98	506.69	469.25	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.48**	**0.65**
	26	27	85.99	501.18	162.65	178.92	481.27	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.39**	**0.50**
	27	27	85.99	494.98	201.04	372.90	433.70	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.42**	**0.56**
	27	28	89.10	357.57	172.45	99.65	433.51	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.32**	**0.42**
	28	28	89.10	351.07	171.48	219.22	396.21	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.32**	**0.45**
	28	29	92.21	220.85	128.79	17.84	373.83	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.22**	**0.33**
	29	29	92.21	224.01	146.26	147.62	340.83	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.24**	**0.37**
	29	30	95.32	220.40	122.79	75.40	306.62	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.21**	**0.30**
	30	30	95.32	226.68	75.14	24.39	295.05	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.18**	**0.27**
	30	31	98.43	358.83	99.76	223.88	255.05	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.26**	**0.33**
	31	31	98.43	363.20	65.48	93.84	264.91	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.23**	**0.27**
	31	32	101.54	501.88	83.88	359.48	201.29	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.32**	**0.35**
	32	32	101.54	503.90	47.03	196.03	226.85	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.29**	**0.29**
	32	33	104.65	649.64	60.48	222.32	164.29	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.37**	**0.24**
	33	33	104.65	650.48	10.36	326.20	175.27	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.33**	**0.31**
	33	34	107.76	805.22	8.55	612.52	66.17	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.40**	**0.36**

FIBRA 3 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V12" V-29-2	101	101	0.00	844.34	7.77	366.43	57.77	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.42**	**0.23**
	101	102	3.05	683.61	0.35	411.17	164.44	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.34**	**0.34**
	102	102	3.05	675.62	26.26	337.05	150.56	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.35**	**0.30**
	102	103	6.10	523.54	20.55	216.64	209.82	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.27**	**0.29**
	103	103	6.10	517.26	45.03	221.20	190.47	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.29**	**0.27**
	103	104	9.15	372.76	35.29	98.96	242.45	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.21**	**0.26**
	104	104	9.15	366.88	65.58	68.86	219.06	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.24**	**0.22**
	104	105	12.20	229.34	50.18	29.61	262.90	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.16**	**0.24**
	105	105	12.20	223.23	100.21	77.38	274.58	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.20**	**0.27**
	105	106	15.25	236.98	109.34	127.61	293.97	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.21**	**0.32**
	106	106	15.25	235.35	94.44	44.02	345.74	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.20**	**0.32**
	106	107	18.30	370.95	121.99	205.78	333.20	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.29**	**0.39**
	107	107	18.30	379.25	126.28	154.87	405.54	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.29**	**0.43**
	107	108	21.35	522.26	141.31	275.58	374.18	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.38**	**0.46**
	108	108	21.35	531.25	109.31	257.49	452.90	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.35**	**0.52**
	108	109	24.40	678.69	128.88	373.85	418.67	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.44**	**0.54**
	109	109	24.40	688.37	95.60	353.83	493.45	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.42**	**0.60**
	109	110	27.45	840.42	115.72	465.63	457.86	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.51**	**0.62**
	110	110	27.45	850.74	168.45	480.85	522.81	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.56**	**0.69**
	110	111	30.50	1007.62	188.19	558.10	495.09	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.66**	**0.70**
	111	111	30.50	1018.79	202.56	556.68	550.33	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.67**	**0.75**
	111	112	33.55	1181.97	221.95	657.48	529.89	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.77**	**0.78**

FIBRA 3 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V14" V-30-2	112	10112	33.55	1174.32	140.46	781.67	522.31	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.70**	**0.83**
	112	113	37.19	980.77	114.51	672.75	582.68	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.58**	**0.83**
	113	113	37.19	968.14	96.00	638.27	527.13	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.56**	**0.77**
	113	114	40.82	782.56	76.30	509.46	570.15	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.45**	**0.74**
	114	114	40.82	769.32	46.06	426.87	505.61	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.42**	**0.65**
	114	115	44.46	590.49	29.83	295.48	552.33	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.32**	**0.62**
	115	115	44.46	578.52	10.73	298.86	478.55	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.29**	**0.56**
	115	116	48.10	406.03	28.42	159.13	522.28	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.22**	**0.53**
	116	116	48.10	395.42	5.39	165.86	447.42	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.20**	**0.47**
	116	117	51.73	228.79	28.63	18.40	483.85	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.14**	**0.43**
	117	117	51.73	225.05	8.29	116.34	450.99	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.12**	**0.45**
	117	118	55.37	230.64	5.52	121.95	446.90	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.12**	**0.45**
	118	118	55.37	234.00	39.38	25.72	489.43	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.15**	**0.43**
	118	119	59.01	400.52	15.38	173.42	452.85	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.21**	**0.48**
	119	119	59.01	411.22	46.37	166.58	528.26	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.24**	**0.54**
	119	120	62.64	583.65	27.98	306.68	484.11	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.31**	**0.57**
	120	120	62.64	595.67	7.12	303.10	558.60	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.30**	**0.63**
	120	121	66.28	774.47	24.05	434.97	511.19	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.40**	**0.65**
	121	121	66.28	787.90	48.20	517.32	576.13	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.43**	**0.75**
	121	122	69.91	973.44	68.56	646.21	532.85	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.54**	**0.78**
	122	122	69.91	986.41	81.40	666.14	589.42	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.55**	**0.83**
	122	123	73.55	1179.93	108.00	593.36	553.28	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.67**	**0.77**

FIBRA 3 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V16" V-31-2	123	10123	73.55	1200.87	224.84	782.95	529.80	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.78**	**0.84**
	123	124	76.66	1033.68	204.64	612.30	551.50	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.68**	**0.78**
	124	124	76.66	1022.24	188.51	566.98	495.73	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.66**	**0.71**
	124	125	79.77	862.33	168.90	487.69	524.36	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.57**	**0.69**
	125	125	79.77	851.53	116.37	472.38	458.62	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.52**	**0.63**
	125	126	82.88	696.66	95.02	358.59	494.93	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.42**	**0.60**
	126	126	82.88	686.78	129.83	378.48	419.41	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.45**	**0.55**
	126	127	85.99	536.55	110.54	260.01	454.39	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.36**	**0.52**
	127	127	85.99	527.47	142.79	283.06	374.97	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.38**	**0.46**
	127	128	89.10	381.80	127.88	160.23	406.99	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.30**	**0.43**
	128	128	89.10	373.20	123.17	208.09	336.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.29**	**0.39**
	128	129	92.21	234.99	95.66	42.36	346.75	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.20**	**0.32**
	129	129	92.21	236.70	110.27	160.06	297.25	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.21**	**0.33**
	129	130	95.32	226.29	101.69	80.95	275.48	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.20**	**0.28**
	130	130	95.32	232.45	48.72	28.28	267.31	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.16**	**0.24**
	130	131	98.43	372.41	64.44	70.80	223.02	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.24**	**0.23**
	131	131	98.43	378.42	33.96	100.71	247.23	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.21**	**0.26**
	131	132	101.54	525.47	43.79	225.89	194.22	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.30**	**0.28**
	132	132	101.54	531.75	19.10	223.58	213.98	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.28**	**0.29**
	132	133	104.65	686.51	24.84	344.68	153.97	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.36**	**0.30**
	133	133	104.65	694.71	1.71	420.06	168.24	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.34**	**0.35**
	133	134	107.76	859.45	9.84	500.58	59.60	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.19	**0.43**	**0.30**

ARMADO CORTANTE - TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2	ARMAD. TOTAL TRANSV. HIP1	ARMAD. TOTAL TRANSV. HIP2		ARMAD. TORSIÓN LONG HIP1	ARMAD. TORSIÓN LONG HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V12" V 29-1	1	1	0.00	790.6	10.0	598.4	65.0	2.7	1.0	0.19	14.7	11.2	5.5	1.0	0.2	1.4	**15.0**	12.6		0.2	1.5
	1	2	3.05	639.6	11.3	318.5	171.9	2.7	1.0	0.19	11.9	5.9	5.5	1.0	0.2	3.8	**12.2**	9.7		0.3	3.9
	2	2	3.05	638.8	61.0	216.9	151.4	2.7	1.0	0.19	11.9	4.0	5.5	1.0	1.3	3.4	**13.3**	7.4		1.4	3.4
	2	3	6.10	495.6	47.1	190.6	222.9	2.7	1.0	0.19	9.2	3.6	5.5	1.0	1.0	4.9	**10.3**	8.5		1.1	5.0
	3	3	6.10	493.7	83.9	348.2	198.5	2.7	1.0	0.19	9.2	6.5	5.5	1.0	1.9	4.4	**11.1**	10.9		1.9	4.5
	3	4	9.15	357.3	65.2	92.4	260.2	2.7	1.0	0.19	6.7	1.7	5.5	1.0	1.4	5.8	**8.1**	7.5		1.5	5.9
	4	4	9.15	353.3	99.9	217.6	252.1	2.7	1.0	0.19	6.6	4.1	5.5	1.0	2.2	5.6	**8.8**	9.6		2.3	5.7
	4	5	12.20	223.4	75.1	25.9	290.3	2.7	1.0	0.19	4.2	0.5	5.5	1.0	1.7	6.4	**5.8**	6.9		1.7	6.6
	5	5	12.20	217.5	122.6	70.5	306.1	2.7	1.0	0.19	4.1	1.3	5.5	1.0	2.7	6.8	**6.8**	8.1		2.8	6.9
	5	6	15.25	224.4	144.0	113.8	337.9	2.7	1.0	0.19	4.2	2.1	5.5	1.0	3.2	7.5	**7.4**	9.6		3.3	7.7
	6	6	15.25	221.0	124.7	41.0	374.0	2.7	1.0	0.19	4.1	0.8	5.5	1.0	2.8	8.3	**6.9**	9.0		2.8	8.5
	6	7	18.30	348.8	167.2	238.8	392.6	2.7	1.0	0.19	6.5	4.5	5.5	1.0	3.7	8.7	**10.2**	13.1		3.8	8.9
	7	7	18.30	354.9	167.6	99.6	433.4	2.7	1.0	0.19	6.6	1.9	5.5	1.0	3.7	9.6	**10.3**	11.5		3.8	9.8
	7	8	21.35	489.8	196.1	367.5	428.8	2.7	1.0	0.19	9.1	6.9	5.5	1.0	4.3	9.5	**13.5**	16.3		4.4	9.7
	8	8	21.35	495.6	157.2	177.6	481.3	2.7	1.0	0.19	9.2	3.3	5.5	1.0	3.5	10.7	**12.7**	14.0		3.6	10.9
	8	9	24.40	634.5	191.6	498.5	463.5	2.7	1.0	0.19	11.8	9.3	5.5	1.0	4.2	10.3	**16.1**	19.6		4.3	10.5
	9	9	24.40	639.7	212.0	249.8	523.9	2.7	1.0	0.19	11.9	4.7	5.5	1.0	4.7	11.6	**16.6**	16.3		4.8	11.9
	9	10	27.45	782.9	246.5	633.7	490.8	2.7	1.0	0.19	14.6	11.8	5.5	1.0	5.5	10.9	**20.1**	22.7		5.6	11.1
	10	10	27.45	788.1	255.1	316.2	558.3	2.7	1.0	0.19	14.7	5.9	5.5	1.0	5.6	12.4	**20.3**	18.3		5.8	12.6
	10	11	30.50	935.7	288.6	391.1	522.3	2.7	1.0	0.19	17.4	7.3	5.5	1.0	6.4	11.6	**23.8**	18.9		6.5	11.8
	11	11	30.50	939.5	232.8	532.7	592.0	2.7	1.0	0.19	17.5	9.9	5.5	1.0	5.2	13.1	**22.7**	23.0		5.3	13.4
	11	12	33.55	1093.0	264.2	449.7	564.7	2.7	1.0	0.19	20.4	8.4	5.5	1.0	5.9	12.5	**26.2**	20.9		6.0	12.8

	ARMADO CORTANTE - TORSOR																ARMAD. TOTAL TRANSV.			ARMAD. TORSIÓN LONG	
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2	HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V13" V-30-1	12	10012	33.55	1090.0	170.2	870.6	580.1	2.7	1.0	0.19	20.3	16.2	5.5	1.0	3.8	12.8	**24.1**	29.1		3.9	13.1
	12	13	37.19	907.8	128.9	519.0	638.8	2.7	1.0	0.19	16.9	9.7	5.5	1.0	2.9	14.1	**19.8**	23.8		2.9	14.5
	13	13	37.19	904.1	186.7	367.0	567.3	2.7	1.0	0.19	16.9	6.8	5.5	1.0	4.1	12.6	**21.0**	19.4		4.2	12.8
	13	14	40.82	729.3	153.0	385.5	617.6	2.7	1.0	0.19	13.6	7.2	5.5	1.0	3.4	13.7	**17.0**	20.9		3.5	14.0
	14	14	40.82	722.1	133.2	284.4	543.3	2.7	1.0	0.19	13.5	5.3	5.5	1.0	2.9	12.0	**16.4**	17.3		3.0	12.3
	14	15	44.46	553.5	102.4	191.7	594.5	2.7	1.0	0.19	10.3	3.6	5.5	1.0	2.3	13.2	**12.6**	16.7		2.3	13.5
	15	15	44.46	544.9	31.6	407.0	511.0	2.7	1.0	0.19	10.2	7.6	5.5	1.0	0.7	11.3	**10.9**	18.9		0.7	11.6
	15	16	48.10	382.1	0.7	99.5	559.3	2.7	1.0	0.19	7.1	1.9	5.5	1.0	0.0	12.4	**7.1**	14.2		0.0	12.7
	16	16	48.10	373.8	32.0	255.3	501.6	2.7	1.0	0.19	7.0	4.8	5.5	1.0	0.7	11.1	**7.7**	15.9		0.7	11.4
	16	17	51.73	216.5	5.4	17.3	524.0	2.7	1.0	0.19	4.0	0.3	5.5	1.0	0.1	11.6	**4.2**	11.9		0.1	11.9
	17	17	51.73	213.8	32.5	107.8	500.1	2.7	1.0	0.19	4.0	2.0	5.5	1.0	0.7	11.1	**4.7**	13.1		0.7	11.3
	17	18	55.37	219.3	28.3	113.4	494.6	2.7	1.0	0.19	4.1	2.1	5.5	1.0	0.6	11.0	**4.7**	13.1		0.6	11.2
	18	18	55.37	221.5	17.8	24.6	531.3	2.7	1.0	0.19	4.1	0.5	5.5	1.0	0.4	11.8	**4.5**	12.2		0.4	12.0
	18	19	59.01	378.8	20.4	259.4	499.2	2.7	1.0	0.19	7.1	4.8	5.5	1.0	0.5	11.1	**7.5**	15.9		0.5	11.3
	19	19	59.01	387.0	20.5	153.3	567.0	2.7	1.0	0.19	7.2	2.9	5.5	1.0	0.5	12.6	**7.7**	15.4		0.5	12.8
	19	20	62.64	549.7	12.5	205.7	517.7	2.7	1.0	0.19	10.2	3.8	5.5	1.0	0.3	11.5	**10.5**	15.3		0.3	11.7
	20	20	62.64	558.2	78.7	276.7	602.8	2.7	1.0	0.19	10.4	5.2	5.5	1.0	1.7	13.4	**12.1**	18.5		1.8	13.7
	20	21	66.28	726.8	110.2	290.3	550.8	2.7	1.0	0.19	13.5	5.4	5.5	1.0	2.4	12.2	**16.0**	17.6		2.5	12.5
	21	21	66.28	734.1	123.7	392.9	626.8	2.7	1.0	0.19	13.7	7.3	5.5	1.0	2.7	13.9	**16.4**	21.2		2.8	14.2
	21	22	69.91	908.8	158.0	373.0	575.4	2.7	1.0	0.19	16.9	7.0	5.5	1.0	3.5	12.7	**20.4**	19.7		3.6	13.0
	22	22	69.91	912.8	92.8	526.3	648.9	2.7	1.0	0.19	17.0	9.8	5.5	1.0	2.1	14.4	**19.1**	24.2		2.1	14.7
	22	23	73.55	1094.9	134.8	469.6	601.0	2.7	1.0	0.19	20.4	8.8	5.5	1.0	3.0	13.3	**23.4**	22.1		3.1	13.6

	ARMADO CORTANTE - TORSOR																ARMAD. TOTAL TRANSV.			ARMAD. TORSIÓN LONG	
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2	HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V15" V-31-1	23	10023	73.55	1111.3	271.6	931.7	601.4	2.7	1.0	0.19	20.7	17.4	5.5	1.0	6.0	13.3	**26.7**	30.7		6.2	13.6
	23	24	76.66	954.1	239.1	385.6	590.0	2.7	1.0	0.19	17.8	7.2	5.5	1.0	5.3	13.1	**23.1**	20.3		5.4	13.4
	24	24	76.66	950.2	295.5	396.6	520.9	2.7	1.0	0.19	17.7	7.4	5.5	1.0	6.5	11.5	**24.3**	18.9		6.7	11.8
	24	25	79.77	799.7	261.8	320.2	557.5	2.7	1.0	0.19	14.9	6.0	5.5	1.0	5.8	12.3	**20.7**	18.3		5.9	12.6
	25	25	79.77	794.2	253.5	644.6	497.3	2.7	1.0	0.19	14.8	12.0	5.5	1.0	5.6	11.0	**20.4**	23.0		5.7	11.3
	25	26	82.88	648.4	217.4	252.5	523.6	2.7	1.0	0.19	12.1	4.7	5.5	1.0	4.8	11.6	**16.9**	16.3		4.9	11.9
	26	26	82.88	642.7	197.0	506.7	469.2	2.7	1.0	0.19	12.0	9.4	5.5	1.0	4.4	10.4	**16.3**	19.8		4.5	10.6
	26	27	85.99	501.2	162.7	178.9	481.3	2.7	1.0	0.19	9.3	3.3	5.5	1.0	3.6	10.7	**12.9**	14.0		3.7	10.9
	27	27	85.99	495.0	201.0	372.9	433.7	2.7	1.0	0.19	9.2	7.0	5.5	1.0	4.5	9.6	**13.7**	16.6		4.6	9.8
	27	28	89.10	357.6	172.5	99.6	433.5	2.7	1.0	0.19	6.7	1.9	5.5	1.0	3.8	9.6	**10.5**	11.5		3.9	9.8
	28	28	89.10	351.1	171.5	219.2	396.2	2.7	1.0	0.19	6.5	4.1	5.5	1.0	3.8	8.8	**10.3**	12.9		3.9	9.0
	28	29	92.21	220.9	128.8	17.8	373.8	2.7	1.0	0.19	4.1	0.3	5.5	1.0	2.9	8.3	**7.0**	8.6		2.9	8.5
	29	29	92.21	224.0	146.3	147.6	340.8	2.7	1.0	0.19	4.2	2.8	5.5	1.0	3.2	7.5	**7.4**	10.3		3.3	7.7
	29	30	95.32	220.4	122.8	75.4	306.5	2.7	1.0	0.19	4.1	1.4	5.5	1.0	2.7	6.8	**6.8**	8.2		2.8	6.9
	30	30	95.32	226.7	75.1	24.4	295.0	2.7	1.0	0.19	4.2	0.5	5.5	1.0	1.7	6.5	**5.9**	7.0		1.7	6.7
	30	31	98.43	358.8	99.8	223.9	255.1	2.7	1.0	0.19	6.7	4.2	5.5	1.0	2.2	5.6	**8.9**	9.8		2.3	5.8
	31	31	98.43	363.2	65.5	93.8	264.9	2.7	1.0	0.19	6.8	1.7	5.5	1.0	1.5	5.9	**8.2**	7.6		1.5	6.0
	31	32	101.54	501.9	83.9	359.5	201.3	2.7	1.0	0.19	9.4	6.7	5.5	1.0	1.9	4.5	**11.2**	11.2		1.9	4.6
	32	32	101.54	503.9	47.0	196.0	226.8	2.7	1.0	0.19	9.4	3.7	5.5	1.0	1.0	5.0	**10.4**	8.7		1.1	5.1
	32	33	104.65	649.6	60.5	222.3	154.3	2.7	1.0	0.19	12.1	4.1	5.5	1.0	1.3	3.4	**13.5**	7.6		1.4	3.5
	33	33	104.65	650.5	10.4	326.2	175.3	2.7	1.0	0.19	12.1	6.1	5.5	1.0	0.2	3.9	**12.4**	10.0		0.2	4.0
	33	34	107.76	805.2	8.6	612.5	66.2	2.7	1.0	0.19	15.0	11.4	5.5	1.0	0.2	1.5	**15.2**	12.9		0.2	1.5

ARMADO CORTANTE - TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TO		HIP1	HIP2	ARMAD. TOTAL TRANSV. HIP1	ARMAD. TOTAL TRANSV. HIP2		ARMAD. TORSIÓN LONG HIP1	ARMAD. TORSIÓN LONG HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V12" V-29-2	101	101	0.00	844.3	7.8	366.4	57.8	2.7	1.0	0.19	15.7	6.8	5.5	1.0	0.2	1.3	**15.9**	8.1		0.2	1.3
	101	102	3.05	683.6	0.3	411.2	164.4	2.7	1.0	0.19	12.7	7.7	5.5	1.0	0.0	3.6	**12.8**	11.3		0.0	3.7
	102	102	3.05	675.6	26.3	337.1	150.6	2.7	1.0	0.19	12.6	6.3	5.5	1.0	0.6	3.3	**13.2**	9.6		0.6	3.4
	102	103	6.10	523.5	20.5	216.6	209.8	2.7	1.0	0.19	9.8	4.0	5.5	1.0	0.5	4.6	**10.2**	8.7		0.5	4.8
	103	103	6.10	517.3	45.0	221.2	190.5	2.7	1.0	0.19	9.6	4.1	5.5	1.0	1.0	4.2	**10.6**	8.3		1.0	4.3
	103	104	9.15	372.8	35.3	99.0	242.4	2.7	1.0	0.19	6.9	1.8	5.5	1.0	0.8	5.4	**7.7**	7.2		0.8	5.5
	104	104	9.15	366.9	65.6	68.9	219.1	2.7	1.0	0.19	6.8	1.3	5.5	1.0	1.5	4.9	**8.3**	6.1		1.5	5.0
	104	105	12.20	229.3	50.2	29.6	262.9	2.7	1.0	0.19	4.3	0.6	5.5	1.0	1.1	5.8	**5.4**	6.4		1.1	6.0
	105	105	12.20	223.2	100.2	77.4	274.6	2.7	1.0	0.19	4.2	1.4	5.5	1.0	2.2	6.1	**6.4**	7.5		2.3	6.2
	105	106	15.25	237.0	109.3	127.6	294.0	2.7	1.0	0.19	4.4	2.4	5.5	1.0	2.4	6.5	**6.8**	8.9		2.5	6.7
	106	106	15.25	235.3	94.4	44.0	345.7	2.7	1.0	0.19	4.4	0.8	5.5	1.0	2.1	7.7	**6.5**	8.5		2.1	7.8
	106	107	18.30	371.0	122.0	205.8	333.2	2.7	1.0	0.19	6.9	3.8	5.5	1.0	2.7	7.4	**9.6**	11.2		2.8	7.5
	107	107	18.30	379.3	126.3	154.9	405.5	2.7	1.0	0.19	7.1	2.9	5.5	1.0	2.8	9.0	**9.9**	11.9		2.9	9.2
	107	108	21.35	522.3	141.3	275.6	374.2	2.7	1.0	0.19	9.7	5.1	5.5	1.0	3.1	8.3	**12.9**	13.4		3.2	8.5
	108	108	21.35	531.2	109.3	257.5	452.9	2.7	1.0	0.19	9.9	4.8	5.5	1.0	2.4	10.0	**12.3**	14.8		2.5	10.3
	108	109	24.40	678.7	128.9	373.8	418.7	2.7	1.0	0.19	12.7	7.0	5.5	1.0	2.9	9.3	**15.5**	16.2		2.9	9.5
	109	109	24.40	688.4	95.6	353.8	493.5	2.7	1.0	0.19	12.8	6.6	5.5	1.0	2.1	10.9	**15.0**	17.5		2.2	11.2
	109	110	27.45	840.4	115.7	465.6	457.9	2.7	1.0	0.19	15.7	8.7	5.5	1.0	2.6	10.1	**18.2**	18.8		2.6	10.4
	110	110	27.45	850.7	168.5	480.9	522.8	2.7	1.0	0.19	15.9	9.0	5.5	1.0	3.7	11.6	**19.6**	20.5		3.8	11.8
	110	111	30.50	1007.6	188.2	558.1	495.1	2.7	1.0	0.19	18.8	10.4	5.5	1.0	4.2	11.0	**23.0**	21.4		4.3	11.2
	111	111	30.50	1018.8	202.6	556.7	550.3	2.7	1.0	0.19	19.0	10.4	5.5	1.0	4.5	12.2	**23.5**	22.6		4.6	12.5
	111	112	33.55	1182.0	221.9	657.5	529.9	2.7	1.0	0.19	22.0	12.3	5.5	1.0	4.9	11.7	**27.0**	24.0		5.0	12.0

ARMADO CORTANTE - TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TO		HIP1	HIP2	ARMAD. TOTAL TRANSV. HIP1	ARMAD. TOTAL TRANSV. HIP2		ARMAD. TORSIÓN LONG HIP1	ARMAD. TORSIÓN LONG HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V14" V-30-2	112	10112	33.55	1174.3	140.5	781.7	522.3	2.7	1.0	0.19	21.9	14.6	5.5	1.0	3.1	11.6	**25.0**	26.1		3.2	11.8
	112	113	37.19	980.8	114.5	672.8	582.7	2.7	1.0	0.19	18.3	12.5	5.5	1.0	2.5	12.9	**20.8**	25.4		2.6	13.2
	113	113	37.19	968.1	96.0	638.3	527.1	2.7	1.0	0.19	18.0	11.9	5.5	1.0	2.1	11.7	**20.2**	23.6		2.2	11.9
	113	114	40.82	782.6	76.3	509.5	570.1	2.7	1.0	0.19	14.6	9.5	5.5	1.0	1.7	12.6	**16.3**	22.1		1.7	12.9
	114	114	40.82	769.3	46.1	426.9	505.6	2.7	1.0	0.19	14.3	8.0	5.5	1.0	1.0	11.2	**15.4**	19.2		1.0	11.4
	114	115	44.46	590.5	29.8	295.5	552.3	2.7	1.0	0.19	11.0	5.5	5.5	1.0	0.7	12.2	**11.7**	17.7		0.7	12.5
	115	115	44.46	578.5	10.7	298.9	478.5	2.7	1.0	0.19	10.8	5.6	5.5	1.0	0.2	10.6	**11.0**	16.2		0.2	10.8
	115	116	48.10	406.0	28.4	159.1	522.3	2.7	1.0	0.19	7.6	3.0	5.5	1.0	0.6	11.6	**8.2**	14.5		0.6	11.8
	116	116	48.10	395.4	5.4	165.9	447.4	2.7	1.0	0.19	7.4	3.1	5.5	1.0	0.1	9.9	**7.5**	13.0		0.1	10.1
	116	117	51.73	228.8	28.6	18.4	483.8	2.7	1.0	0.19	4.3	0.3	5.5	1.0	0.6	10.7	**4.9**	11.1		0.6	11.0
	117	117	51.73	225.1	8.3	116.3	451.0	2.7	1.0	0.19	4.2	2.2	5.5	1.0	0.2	10.0	**4.4**	12.2		0.2	10.2
	117	118	55.37	230.6	5.5	121.9	446.9	2.7	1.0	0.19	4.3	2.3	5.5	1.0	0.1	9.9	**4.4**	12.2		0.1	10.1
	118	118	55.37	234.0	39.4	25.7	489.4	2.7	1.0	0.19	4.4	0.6	5.5	1.0	0.9	10.8	**5.2**	11.3		0.9	11.1
	118	119	59.01	400.5	15.4	173.4	452.9	2.7	1.0	0.19	7.5	3.2	5.5	1.0	0.3	10.0	**7.8**	13.3		0.3	10.3
	119	119	59.01	411.2	46.4	166.6	528.3	2.7	1.0	0.19	7.7	3.1	5.5	1.0	1.0	11.7	**8.7**	14.8		1.1	12.0
	119	120	62.64	583.6	28.0	306.7	484.1	2.7	1.0	0.19	10.9	5.7	5.5	1.0	0.6	10.7	**11.5**	16.4		0.6	11.0
	120	120	62.64	595.7	7.1	303.1	558.6	2.7	1.0	0.19	11.1	5.7	5.5	1.0	0.2	12.4	**11.3**	18.0		0.2	12.6
	120	121	66.28	774.5	24.1	435.0	511.2	2.7	1.0	0.19	14.4	8.1	5.5	1.0	0.5	11.3	**15.0**	19.4		0.5	11.6
	121	121	66.28	787.9	48.2	517.3	576.1	2.7	1.0	0.19	14.7	9.6	5.5	1.0	1.1	12.8	**15.8**	22.4		1.1	13.0
	121	122	69.91	973.4	68.6	646.2	532.8	2.7	1.0	0.19	18.1	12.0	5.5	1.0	1.5	11.8	**19.7**	23.8		1.6	12.1
	122	122	69.91	986.4	81.4	666.1	589.4	2.7	1.0	0.19	18.4	12.4	5.5	1.0	1.8	13.1	**20.2**	25.5		1.8	13.3
	122	123	73.55	1179.9	108.0	593.4	553.3	2.7	1.0	0.19	22.0	11.1	5.5	1.0	2.4	12.3	**24.4**	23.3		2.4	12.5

ARMADO CORTANTE - TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE					ARMADURA POR TC HIP1		HIP2		ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG			
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)		Ae(m2)	Coig q	A (cm2/m)		HIP1		HIP2		HIP1	HIP2
																	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)
"V16" V-31-2	123	10123	73.55	1200.9	224.8	782.9	529.8	2.7	1.0	0.19	22.4		5.5	1.0	5.0	11.7	27.4	26.3	5.1	12.0		
	123	124	76.66	1033.7	204.6	612.3	551.5	2.7	1.0	0.19	19.3		5.5	1.0	4.5	12.2	23.8	23.6	4.6	12.5		
	124	124	76.66	1022.2	188.5	567.0	495.7	2.7	1.0	0.19	19.1		5.5	1.0	4.2	11.0	23.2	21.5	4.3	11.2		
	124	125	79.77	862.3	168.9	487.7	524.4	2.7	1.0	0.19	16.1		5.5	1.0	3.7	11.6	19.8	20.7	3.8	11.9		
	125	125	79.77	851.5	116.4	472.4	458.6	2.7	1.0	0.19	15.9		5.5	1.0	2.6	10.2	18.5	19.0	2.6	10.4		
	125	126	82.88	696.7	95.0	358.6	494.9	2.7	1.0	0.19	13.0		5.5	1.0	2.1	11.0	15.1	17.6	2.2	11.2		
	126	126	82.88	686.8	129.8	378.5	419.4	2.7	1.0	0.19	12.8		5.5	1.0	2.9	9.3	15.7	16.3	2.9	9.5		
	126	127	85.99	536.6	110.5	260.0	454.4	2.7	1.0	0.19	10.0		5.5	1.0	2.4	10.1	12.5	14.9	2.5	10.3		
	127	127	85.99	527.5	142.8	283.1	375.0	2.7	1.0	0.19	9.8		5.5	1.0	3.2	8.3	13.0	13.6	3.2	8.5		
	127	128	89.10	381.8	127.9	160.2	407.0	2.7	1.0	0.19	7.1		5.5	1.0	2.8	9.0	10.0	12.0	2.9	9.2		
	128	128	89.10	373.2	123.2	208.1	336.0	2.7	1.0	0.19	7.0		5.5	1.0	2.7	7.4	9.7	11.3	2.8	7.6		
	128	129	92.21	235.0	95.7	42.4	346.8	2.7	1.0	0.19	4.4		5.5	1.0	2.1	7.7	6.5	8.5	2.2	7.9		
	129	129	92.21	236.7	110.3	160.1	297.2	2.7	1.0	0.19	4.4		5.5	1.0	2.4	6.6	6.9	9.6	2.9	6.7		
	129	130	95.32	226.3	101.7	81.0	275.5	2.7	1.0	0.19	4.2		5.5	1.0	2.3	6.1	6.5	7.6	2.5	6.2		
	130	130	95.32	232.4	48.7	28.3	267.3	2.7	1.0	0.19	4.3		5.5	1.0	1.1	5.9	5.4	6.4	2.3	6.1		
	130	131	98.43	372.4	64.4	70.8	223.0	2.7	1.0	0.19	6.9		5.5	1.0	1.4	4.9	8.4	6.3	1.5	5.1		
	131	131	98.43	378.4	34.0	100.7	247.2	2.7	1.0	0.19	7.1		5.5	1.0	0.8	5.5	7.8	7.4	1.5	5.6		
	131	132	101.54	525.5	43.8	225.9	194.2	2.7	1.0	0.19	9.8		5.5	1.0	1.0	4.3	10.8	8.5	1.0	4.4		
	132	132	101.54	531.8	19.1	223.6	214.0	2.7	1.0	0.19	9.9		5.5	1.0	0.4	4.7	10.3	8.9	0.4	4.8		
	132	133	104.65	686.5	24.8	344.7	154.0	2.7	1.0	0.19	12.8		5.5	1.0	0.6	3.4	13.3	9.8	0.6	3.5		
	133	133	104.65	694.7	1.7	420.1	168.2	2.7	1.0	0.19	13.0		5.5	1.0	0.0	3.7	13.0	11.6	0.0	3.8		
	133	134	107.76	859.4	9.8	500.6	59.6	2.7	1.0	0.19	16.0		5.5	1.0	0.2	1.3	16.2	10.7	0.2	1.3		

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

FIBRA 4 - VOLADIZO

La armadura gral de flexión es de ϕ12 a 10 + ϕ12 a 20, por lo que es necesario reforzar en zona de pilas:

Adicionalmente se verifica que el coeficiente de ITaracción es siempre menor que la unidad

El refuerzo se coloca a 7'00 a cada lado de la pila disponiendo:

ϕ12 a 20 + ϕ20 a 20 (cara inf) ≅ ϕ16 a 10

ϕ20 a 20 (cara superior)

FIBRA 4 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V12" V-29-1	1	1	0.00	790.58	0.00	598.41	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.64**	**0.49**
	1	2	3.05	639.59	0.00	318.50	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.52**	**0.26**
	2	2	3.05	638.80	0.00	216.92	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.52**	**0.18**
	2	3	6.10	495.58	0.00	190.62	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.40**	**0.15**
	3	3	6.10	493.65	0.00	348.18	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.40**	**0.28**
	3	4	9.15	357.35	0.00	92.38	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.29**	**0.08**
	4	4	9.15	353.31	0.00	217.60	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.29**	**0.18**
	4	5	12.20	223.44	0.00	25.93	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.02**
	5	5	12.20	217.46	0.00	70.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.06**
	5	6	15.25	224.37	0.00	113.82	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.09**
	6	6	15.25	221.02	0.00	40.98	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.03**
	6	7	18.30	348.82	0.00	238.85	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.28**	**0.19**
	7	7	18.30	354.86	0.00	99.57	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.29**	**0.08**
	7	8	21.35	489.77	0.00	367.47	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.40**	**0.30**
	8	8	21.35	495.60	0.00	177.62	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.40**	**0.14**
	8	9	24.40	634.54	0.00	498.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.52**	**0.41**
	9	9	24.40	639.73	0.00	249.82	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.52**	**0.20**
	9	10	27.45	782.90	0.00	633.74	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.64**	**0.51**
	10	10	27.45	788.12	0.00	316.17	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.64**	**0.26**
	10	11	30.50	935.69	0.00	391.10	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.76**	**0.32**
	11	11	30.50	939.50	0.00	532.71	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.76**	**0.43**
	11	12	33.55	1092.99	0.00	449.68	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.89**	**0.37**

FIBRA 4 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V13" V-30-1	12	10012	33.55	1089.98	0.00	870.59	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.89**	**0.71**
	12	13	37.19	907.82	0.00	519.00	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.74**	**0.42**
	13	13	37.19	904.07	0.00	367.01	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.73**	**0.30**
	13	14	40.82	729.27	0.00	385.49	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.59**	**0.31**
	14	14	40.82	722.15	0.00	284.35	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.59**	**0.23**
	14	15	44.46	553.55	0.00	191.67	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.45**	**0.16**
	15	15	44.46	544.89	0.00	407.01	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.44**	**0.33**
	15	16	48.10	382.10	0.00	99.47	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.31**	**0.08**
	16	16	48.10	373.85	0.00	255.27	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.30**	**0.21**
	16	17	51.73	216.47	0.00	17.34	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.01**
	17	17	51.73	213.78	0.00	107.83	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.17**	**0.09**
	17	18	55.37	219.27	0.00	113.37	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.09**
	18	18	55.37	221.47	0.00	24.59	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.02**
	18	19	59.01	378.75	0.00	259.44	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.31**	**0.21**
	19	19	59.01	386.97	0.00	153.27	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.31**	**0.12**
	19	20	62.64	549.69	0.00	205.71	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.45**	**0.17**
	20	20	62.64	558.20	0.00	276.73	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.45**	**0.22**
	20	21	66.28	726.78	0.00	290.32	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.59**	**0.24**
	21	21	66.28	734.13	0.00	392.94	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.60**	**0.32**
	21	22	69.91	908.83	0.00	372.97	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.74**	**0.30**
	22	22	69.91	912.81	0.00	526.28	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.74**	**0.43**
	22	23	73.55	1094.91	0.00	469.60	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.89**	**0.38**

FIBRA 4 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V15" V-31-1	23	10023	73.55	1111.33	0.00	931.70	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.90**	**0.76**
	23	24	76.66	954.06	0.00	385.59	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.78**	**0.31**
	24	24	76.66	950.16	0.00	396.57	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.77**	**0.32**
	24	25	79.77	799.75	0.00	320.21	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.65**	**0.26**
	25	25	79.77	794.23	0.00	644.62	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.65**	**0.52**
	25	26	82.88	648.40	0.00	252.49	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.53**	**0.21**
	26	26	82.88	642.72	0.00	506.69	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.52**	**0.41**
	26	27	85.99	501.18	0.00	178.92	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.41**	**0.15**
	27	27	85.99	494.98	0.00	372.90	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.40**	**0.30**
	27	28	89.10	357.57	0.00	99.65	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.29**	**0.08**
	28	28	89.10	351.07	0.00	219.22	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.29**	**0.18**
	28	29	92.21	220.85	0.00	17.84	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.01**
	29	29	92.21	224.01	0.00	147.62	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.12**
	29	30	95.32	220.40	0.00	75.40	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.06**
	30	30	95.32	226.68	0.00	24.39	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.02**
	30	31	98.43	358.83	0.00	223.88	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.29**	**0.18**
	31	31	98.43	363.20	0.00	93.84	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.30**	**0.08**
	31	32	101.54	501.88	0.00	359.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.41**	**0.29**
	32	32	101.54	503.90	0.00	196.03	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.41**	**0.16**
	32	33	104.65	649.64	0.00	222.32	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.53**	**0.18**
	33	33	104.65	650.48	0.00	326.20	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.53**	**0.27**
	33	34	107.76	805.22	0.00	612.52	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.65**	**0.50**

FIBRA 4 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V12" V-29-2	101	101	0.00	844.34	0.00	366.43	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.69**	**0.30**
	101	102	3.05	683.61	0.00	411.17	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.56**	**0.33**
	102	102	3.05	675.62	0.00	337.05	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.55**	**0.27**
	102	103	6.10	523.54	0.00	216.64	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.43**	**0.18**
	103	103	6.10	517.26	0.00	221.20	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.42**	**0.18**
	103	104	9.15	372.76	0.00	98.96	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.30**	**0.08**
	104	104	9.15	366.88	0.00	68.86	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.30**	**0.06**
	104	105	12.20	229.34	0.00	29.61	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.02**
	105	105	12.20	223.23	0.00	77.38	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.06**
	105	106	15.25	236.98	0.00	127.61	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.10**
	106	106	15.25	235.35	0.00	44.02	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.04**
	106	107	18.30	370.95	0.00	205.78	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.30**	**0.17**
	107	107	18.30	379.25	0.00	154.87	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.31**	**0.13**
	107	108	21.35	522.26	0.00	275.58	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.42**	**0.22**
	108	108	21.35	531.25	0.00	257.49	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.43**	**0.21**
	108	109	24.40	678.69	0.00	373.85	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.55**	**0.30**
	109	109	24.40	688.37	0.00	353.83	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.56**	**0.29**
	109	110	27.45	840.42	0.00	465.63	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.68**	**0.38**
	110	110	27.45	850.74	0.00	480.85	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.69**	**0.39**
	110	111	30.50	1007.62	0.00	558.10	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.82**	**0.45**
	111	111	30.50	1018.79	0.00	556.68	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.83**	**0.45**
	111	112	33.55	1181.97	0.00	657.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.96**	**0.53**

FIBRA 4 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V14" V-30-2	112	10112	33.55	1174.32	0.00	781.67	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.95**	**0.64**
	112	113	37.19	980.77	0.00	672.75	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.80**	**0.55**
	113	113	37.19	968.14	0.00	638.27	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.79**	**0.52**
	113	114	40.82	782.56	0.00	509.46	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.64**	**0.41**
	114	114	40.82	769.32	0.00	426.87	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.63**	**0.35**
	114	115	44.46	590.49	0.00	295.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.48**	**0.24**
	115	115	44.46	578.52	0.00	298.86	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.47**	**0.24**
	115	116	48.10	406.03	0.00	159.13	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.33**	**0.13**
	116	116	48.10	395.42	0.00	165.86	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.32**	**0.13**
	116	117	51.73	228.79	0.00	18.40	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.01**
	117	117	51.73	225.05	0.00	116.34	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.09**
	117	118	55.37	230.64	0.00	121.95	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.10**
	118	118	55.37	234.00	0.00	25.72	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.02**
	118	119	59.01	400.52	0.00	173.42	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.33**	**0.14**
	119	119	59.01	411.22	0.00	166.58	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.33**	**0.14**
	119	120	62.64	583.65	0.00	306.68	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.47**	**0.25**
	120	120	62.64	595.67	0.00	303.10	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.48**	**0.25**
	120	121	66.28	774.47	0.00	434.97	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.63**	**0.35**
	121	121	66.28	787.90	0.00	517.32	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.64**	**0.42**
	121	122	69.91	973.44	0.00	646.21	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.79**	**0.53**
	122	122	69.91	986.41	0.00	666.14	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.80**	**0.54**
	122	123	73.55	1179.93	0.00	593.36	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.96**	**0.48**

FIBRA 4 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V16" V-31-2	123	10123	73.55	1200.87	0.00	782.95	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.98**	**0.64**
	123	124	76.66	1033.68	0.00	612.30	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.84**	**0.50**
	124	124	76.66	1022.24	0.00	566.98	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.83**	**0.46**
	124	125	79.77	862.33	0.00	487.69	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.70**	**0.40**
	125	125	79.77	851.53	0.00	472.38	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.69**	**0.38**
	125	126	82.88	696.66	0.00	358.59	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.57**	**0.29**
	126	126	82.88	686.78	0.00	378.48	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.56**	**0.31**
	126	127	85.99	536.55	0.00	260.01	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.44**	**0.21**
	127	127	85.99	527.47	0.00	283.06	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.43**	**0.23**
	127	128	89.10	381.80	0.00	160.23	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.31**	**0.13**
	128	128	89.10	373.20	0.00	208.09	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.30**	**0.17**
	128	129	92.21	234.99	0.00	42.36	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.03**
	129	129	92.21	236.70	0.00	160.06	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.13**
	129	130	95.32	226.29	0.00	80.95	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.18**	**0.07**
	130	130	95.32	232.45	0.00	28.28	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.19**	**0.02**
	130	131	98.43	372.41	0.00	70.80	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.30**	**0.06**
	131	131	98.43	378.42	0.00	100.71	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.31**	**0.08**
	131	132	101.54	525.47	0.00	225.89	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.43**	**0.18**
	132	132	101.54	531.75	0.00	223.58	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.43**	**0.18**
	132	133	104.65	686.51	0.00	344.68	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.56**	**0.28**
	133	133	104.65	694.71	0.00	420.08	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.56**	**0.34**
	133	134	107.76	859.45	0.00	500.58	0.00	1.0	2333.3	0.4	0.30	2.73	1.0	381.5	1.5	5.5	0.30	1159.2	0.31	**0.70**	**0.41**

	ARMADO CORTANTE - TORSOR																	ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V14" V-30-2	112	10112	33.55	1174.3	140.5	781.7	522.3	2.7	1.0	0.50	58.5	39.0	5.5	1.0	3.1	11.6		**61.6**	50.5		3.2	11.8
	112	113	37.19	980.8	114.5	672.8	582.7	2.7	1.0	0.50	48.9	33.5	5.5	1.0	2.5	12.9		**51.4**	46.4		2.6	13.2
	113	113	37.19	968.1	96.0	638.3	527.1	2.7	1.0	0.50	48.3	31.8	5.5	1.0	2.1	11.7		**50.4**	43.5		2.2	11.9
	113	114	40.82	782.6	76.3	509.5	570.1	2.7	1.0	0.50	39.0	25.4	5.5	1.0	1.7	12.6		**40.7**	38.0		1.7	12.9
	114	114	40.82	769.3	46.1	426.9	505.6	2.7	1.0	0.50	38.3	21.3	5.5	1.0	1.0	11.2		**39.4**	32.5		1.0	11.4
	114	115	44.46	590.5	29.8	295.5	552.3	2.7	1.0	0.50	29.4	14.7	5.5	1.0	0.7	12.2		**30.1**	27.0		0.7	12.5
	115	115	44.46	578.5	10.7	298.9	478.5	2.7	1.0	0.50	28.8	14.9	5.5	1.0	0.2	10.6		**29.1**	25.5		0.2	10.8
	115	116	48.10	406.0	28.4	159.1	522.3	2.7	1.0	0.50	20.2	7.9	5.5	1.0	0.6	11.6		**20.9**	19.5		0.6	11.8
	116	116	48.10	395.4	5.4	165.9	447.4	2.7	1.0	0.50	19.7	8.3	5.5	1.0	0.1	9.9		**19.8**	18.2		0.1	10.1
	116	117	51.73	228.8	28.6	18.4	483.8	2.7	1.0	0.50	11.4	0.9	5.5	1.0	0.6	10.7		**12.0**	11.6		0.6	11.0
	117	117	51.73	225.1	8.3	116.3	451.0	2.7	1.0	0.50	11.2	5.8	5.5	1.0	0.2	10.0		**11.4**	15.8		0.2	10.2
	117	118	55.37	230.6	5.5	121.9	446.9	2.7	1.0	0.50	11.5	6.1	5.5	1.0	0.1	9.9		**11.6**	16.0		0.1	10.1
	118	118	55.37	234.0	39.4	25.7	489.4	2.7	1.0	0.50	11.7	1.3	5.5	1.0	0.9	10.8		**12.5**	12.1		0.9	11.1
	118	119	59.01	400.5	15.4	173.4	452.9	2.7	1.0	0.50	20.0	8.6	5.5	1.0	0.3	10.0		**20.3**	18.7		0.3	10.3
	119	119	59.01	411.2	46.4	166.6	528.3	2.7	1.0	0.50	20.5	8.3	5.5	1.0	1.0	11.7		**21.5**	20.0		1.1	12.0
	119	120	62.64	583.6	28.0	306.7	484.1	2.7	1.0	0.50	29.1	15.3	5.5	1.0	0.6	10.7		**29.7**	26.0		0.6	11.0
	120	120	62.64	595.7	7.1	303.1	558.6	2.7	1.0	0.50	29.7	15.1	5.5	1.0	0.2	12.4		**29.8**	27.5		0.2	12.6
	120	121	66.28	774.5	24.1	435.0	511.2	2.7	1.0	0.50	38.6	21.7	5.5	1.0	0.5	11.3		**39.1**	33.0		0.5	11.6
	121	121	66.28	787.9	48.2	517.3	576.1	2.7	1.0	0.50	39.3	25.8	5.5	1.0	1.1	12.8		**40.3**	38.5		1.1	13.0
	121	122	69.91	973.4	68.6	646.2	532.8	2.7	1.0	0.50	48.5	32.2	5.5	1.0	1.5	11.8		**50.0**	44.0		1.6	12.1
	122	122	69.91	986.4	81.4	666.1	589.4	2.7	1.0	0.50	49.2	33.2	5.5	1.0	1.8	13.1		**51.0**	46.3		1.8	13.3
	122	123	73.55	1179.9	108.0	593.4	553.3	2.7	1.0	0.50	58.8	29.6	5.5	1.0	2.4	12.3		**61.2**	41.8		2.4	12.5

	ARMADO CORTANTE - TORSOR																	ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V16" V-31-2	123	10123	73.55	1200.9	224.8	782.9	529.8	2.7	1.0	0.50	59.9	39.0	5.5	1.0	5.0	11.7		**64.8**	50.8		5.1	12.0
	123	124	76.66	1033.7	204.6	612.3	551.5	2.7	1.0	0.50	51.5	30.5	5.5	1.0	4.5	12.2		**56.1**	42.7		4.6	12.5
	124	124	76.66	1022.2	188.5	567.0	495.7	2.7	1.0	0.50	51.0	28.3	5.5	1.0	4.2	11.0		**55.1**	39.2		4.3	11.2
	124	125	79.77	862.3	168.9	487.7	524.4	2.7	1.0	0.50	43.0	24.3	5.5	1.0	3.7	11.6		**46.7**	35.9		3.8	11.9
	125	125	79.77	851.5	116.4	472.4	458.6	2.7	1.0	0.50	42.4	23.5	5.5	1.0	2.6	10.2		**45.0**	33.7		2.6	10.4
	125	126	82.88	696.7	95.0	358.6	494.9	2.7	1.0	0.50	34.7	17.9	5.5	1.0	2.1	11.0		**36.8**	28.8		2.2	11.2
	126	126	82.88	686.8	129.8	378.5	419.4	2.7	1.0	0.50	34.2	18.9	5.5	1.0	2.9	9.3		**37.1**	28.2		2.9	9.5
	126	127	85.99	536.6	110.5	260.0	454.4	2.7	1.0	0.50	26.7	13.0	5.5	1.0	2.4	10.1		**29.2**	23.0		2.5	10.3
	127	127	85.99	527.5	142.8	283.1	375.0	2.7	1.0	0.50	26.3	14.1	5.5	1.0	3.2	8.3		**29.5**	22.4		3.2	8.5
	127	128	89.10	381.8	127.9	160.2	407.0	2.7	1.0	0.50	19.0	8.0	5.5	1.0	2.8	9.0		**21.9**	17.0		2.9	9.2
	128	128	89.10	373.2	123.2	208.1	336.0	2.7	1.0	0.50	18.6	10.4	5.5	1.0	2.7	7.4		**21.3**	17.8		2.8	7.6
	128	129	92.21	235.0	95.7	42.4	346.8	2.7	1.0	0.50	11.7	2.1	5.5	1.0	2.1	7.7		**13.8**	9.8		2.2	7.9
	129	129	92.21	236.7	110.3	160.1	297.2	2.7	1.0	0.50	11.8	8.0	5.5	1.0	2.4	6.6		**14.2**	14.6		2.5	6.7
	129	130	95.32	226.3	101.7	81.0	275.5	2.7	1.0	0.50	11.3	4.0	5.5	1.0	2.3	6.1		**13.5**	10.1		2.3	6.2
	130	130	95.32	232.4	48.7	28.3	267.3	2.7	1.0	0.50	11.6	1.4	5.5	1.0	1.1	5.9		**12.7**	7.3		1.1	6.1
	130	131	98.43	372.4	64.4	70.8	223.0	2.7	1.0	0.50	18.6	3.5	5.5	1.0	1.4	4.9		**20.0**	8.5		1.5	5.1
	131	131	98.43	378.4	34.0	100.7	247.2	2.7	1.0	0.50	18.9	5.0	5.5	1.0	0.8	5.5		**19.6**	10.5		0.8	5.6
	131	132	101.54	525.5	43.8	225.9	194.2	2.7	1.0	0.50	26.2	11.3	5.5	1.0	1.0	4.3		**27.2**	15.6		1.0	4.4
	132	132	101.54	531.8	19.1	223.6	214.0	2.7	1.0	0.50	26.5	11.1	5.5	1.0	0.4	4.7		**26.9**	15.9		0.4	4.8
	132	133	104.65	686.5	24.8	344.7	154.0	2.7	1.0	0.50	34.2	17.2	5.5	1.0	0.6	3.4		**34.8**	20.6		0.6	3.5
	133	133	104.65	694.7	1.7	420.1	168.2	2.7	1.0	0.50	34.6	20.9	5.5	1.0	0.0	3.7		**34.7**	24.7		0.0	3.8
	133	134	107.76	859.4	9.8	500.6	59.6	2.7	1.0	0.50	42.8	25.0	5.5	1.0	0.2	1.3		**43.1**	26.3		0.2	1.3

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

COMPROBACIÓN RASANTE VIGA - LOSA

- ESFUERZOS NEGATIVOS:

El Momento de cálculo en pilas tiene el valor de

$$M_d^- = -7980'43 \text{ mton}$$

la armadura necesaria de rasante entre viga y losa deberá ser capaz de movilizar el Momento máximo de cálculo

$$t_d = \frac{M_d^-}{\text{brazo}} = \frac{7980'43}{(2'85 - 0'12)\times 0'9} = 3248 \text{ ton}$$

Esta fuerza horizontal de rasante es la que se debe recoger con la armadura existente entre viga y losa y a repartir entre el anclaje del postesado y pila)

$$t_d/\text{alma}: \quad 3248/2 = 1624 \text{ ton}$$

Debido a la similitud de armado de las vigas extremas se va a comprobar exclusivamente la pila de mayor momento negativo

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

VIGA V13

$$M_d^- = -7980'43 \text{ mton}$$

$$t_d/2 = 1624 \text{ ton}$$

Long. mínima: 10'10 m

Armadura disp: $[300 \times 64'35 + 2\,\text{Cercos}\,0'27 + 3'45 \times 41'91] = 438'18 \text{ cm}^2$

$$t_{max} = 438'18 \times 4'09 = 1792'17 \text{ ton}$$

VIGA V-15 =

$$M_d^- = -7980'43 \text{ T-}$$

$$t_d/2 = 1624 \text{ ton}$$

long = 8'90 m

Armadura disp = $[3'30 \times 64'35 + 3'00 \times 40'22 + 2'00 \times 31'42 + 0'40 \times 20'11] = 403'90 \text{ cm}^2$.

$$t_{max} = 1652 \text{ ton}$$

En ambos casos la armadura dispuesta es mayor que la necesaria

CÁLCULO TENSIONAL

Hipótesis de cálculo:
ELU.CM.T0.MZ-

SIN GRADIENTE DOMINANTE

[.9; 1.35]PPCF1 + [.9; 1.35]PPLF3 + [.9; 1.35]PPLF2 + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRET

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-194.11	0.13
1	2	3.05	0.00	-144.42	512.18
2	2	3.05	0.00	-144.96	512.43
2	3	6.10	0.00	-98.04	883.02
3	3	6.10	0.00	-98.29	883.22
3	4	9.15	0.00	-51.38	1111.47
4	4	9.15	0.00	-51.42	1111.60
4	5	12.20	0.00	-4.50	1196.86
5	5	12.20	0.00	-4.41	1196.91
5	6	15.25	0.00	42.51	1138.85
6	6	15.25	0.00	42.62	1138.83
6	7	18.30	0.00	89.53	937.33
7	7	18.30	0.00	89.57	937.23
7	8	21.35	0.00	136.49	592.50
8	8	21.35	0.00	136.37	592.35
8	9	24.40	0.00	212.67	91.32
9	9	24.40	15.93	213.55	90.56
9	10	27.45	15.93	395.19	-877.06
10	10	27.45	28.74	394.56	-877.93
10	11	30.50	28.74	475.21	-2204.33
11	11	30.50	34.23	473.75	-2204.81
11	12	33.55	34.23	554.41	-3772.79
12	10012	33.55	36.14	-525.97	-3772.76
12	13	37.19	36.14	-429.80	-2035.05
13	13	37.19	32.43	-431.46	-2034.38
13	14	40.82	0.00	-323.76	-665.68
14	14	40.82	0.00	-325.00	-665.24
14	15	44.46	0.00	-159.43	164.53
15	15	44.46	0.00	-159.71	164.71
15	16	48.10	0.00	-82.58	617.87
16	16	48.10	0.00	-82.63	618.00
16	17	51.73	0.00	-26.68	816.78
17	17	51.73	0.00	-26.61	816.83
17	18	55.37	0.00	29.33	811.92
18	18	55.37	0.00	29.40	811.88
18	19	59.01	0.00	85.34	603.35
19	19	59.01	0.00	85.27	603.21
19	20	62.64	0.00	162.97	135.13
20	20	62.64	0.00	162.67	134.95
20	21	66.28	0.00	329.82	-727.01
21	21	66.28	32.76	331.51	-727.48
21	22	69.91	32.76	436.30	-2115.37
22	22	69.91	36.25	434.57	-2116.02
22	23	73.55	36.25	530.73	-3871.22
23	10023	73.55	34.29	-564.06	-3871.10
23	24	76.66	34.29	-481.80	-2244.75
24	24	76.66	28.65	-483.29	-2244.23
24	25	79.77	28.65	-401.04	-869.12
25	25	79.77	15.33	-401.65	-868.18
25	26	82.88	15.33	-216.82	121.20
26	26	82.88	0.00	-215.86	121.97

CÁLCULO TENSIONAL

Hipótesis de cálculo:
ELU.CM.T0.MZ-

SIN GRADIENTE DOMINANTE

[.9; 1.35]PPCF1 + [.9; 1.35]PPLF3 + [.9; 1.35]PPLF2 + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRET

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-138.05	639.87
27	27	85.99	0.00	-138.13	640.02
27	28	89.10	0.00	-90.29	995.24
28	28	89.10	0.00	-90.23	995.33
28	29	92.21	0.00	-42.39	1201.53
29	29	92.21	0.00	-42.25	1201.56
29	30	95.32	0.00	5.58	1258.57
30	30	95.32	0.00	5.69	1258.35
30	31	98.43	0.00	53.54	1166.39
31	31	98.43	0.00	53.52	1166.25
31	32	101.54	0.00	101.36	925.40
32	32	101.54	0.00	101.11	925.19
32	33	104.65	0.00	148.96	536.32
33	33	104.65	0.00	148.40	536.06
33	34	107.76	0.00	198.90	0.14
101	101	0.00	0.00	-328.10	-0.30
101	102	3.05	0.00	-152.97	541.46
102	102	3.05	0.00	-152.43	541.21
102	103	6.10	0.00	-103.23	931.10
103	103	6.10	0.00	-102.98	930.90
103	104	9.15	0.00	-53.79	1169.98
104	104	9.15	0.00	-53.76	1169.85
104	105	12.20	0.00	-4.56	1258.76
105	105	12.20	0.00	-4.64	1258.87
105	106	15.25	0.00	44.56	1197.87
106	106	15.25	0.00	44.46	1197.62
106	107	18.30	0.00	93.65	987.30
107	107	18.30	0.00	93.61	987.39
107	108	21.35	0.00	142.81	626.85
108	108	21.35	0.00	142.91	627.00
108	109	24.40	0.00	221.48	102.57
109	109	24.40	15.93	222.97	102.17
109	110	27.45	15.93	420.99	-922.48
110	110	27.45	28.74	422.62	-922.57
110	111	30.50	28.74	508.31	-2342.24
111	111	30.50	34.22	509.94	-2342.20
111	112	33.55	34.23	595.62	-4027.95
112	10112	33.55	36.14	-566.10	-4028.14
112	113	37.19	36.14	-463.96	-2155.33
113	113	37.19	32.43	-461.98	-2155.28
113	114	40.82	0.00	-348.29	-686.48
114	114	40.82	0.00	-347.05	-686.92
114	115	44.46	0.00	-166.71	186.11
115	115	44.46	0.00	-166.44	185.92
115	116	48.10	0.00	-86.59	658.60
116	116	48.10	0.00	-86.53	658.47
116	117	51.73	0.00	-27.87	866.52
117	117	51.73	0.00	-27.94	866.47
117	118	55.37	0.00	30.71	861.51
118	118	55.37	0.00	30.64	861.55
118	119	59.01	0.00	89.29	643.56

CÁLCULO TENSIONAL

Hipótesis de cálculo:

ELU.CM.T0.MZ-

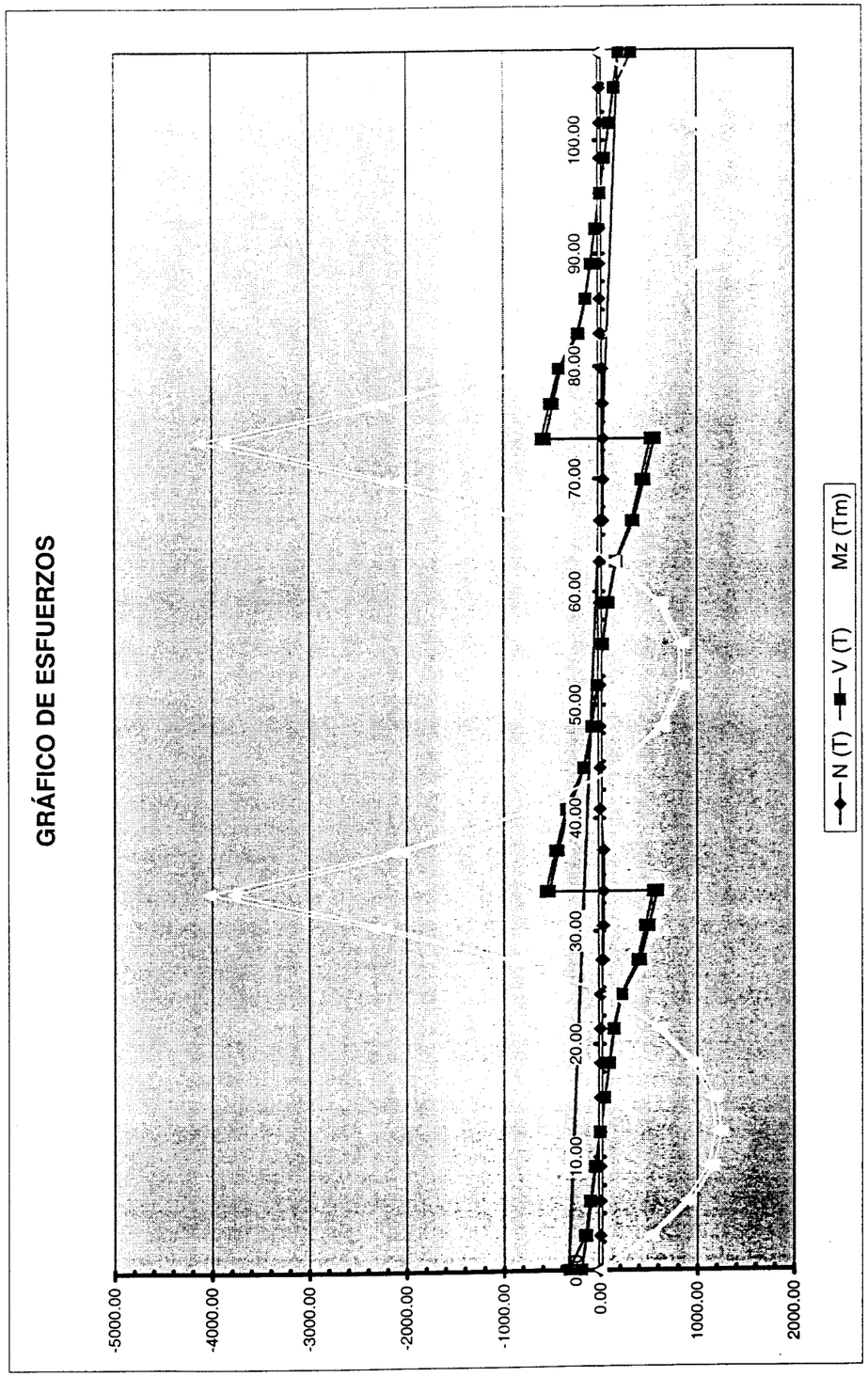
SIN GRADIENTE DOMINANTE

[.9; 1.35]PPCF1 + [.9; 1.35]PPLF3 + [.9; 1.35]PPLF2 + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRET

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	89.34	643.69
119	120	62.64	0.00	169.76	155.85
120	120	62.64	0.00	170.05	156.02
120	121	66.28	0.00	352.09	-750.56
121	121	66.28	32.76	356.33	-750.17
121	122	69.91	32.76	467.12	-2239.22
122	122	69.91	36.25	469.11	-2239.26
122	123	73.55	36.25	571.27	-4130.44
123	10123	73.55	34.29	-605.56	-4130.95
123	124	76.66	34.29	-518.18	-2382.96
124	124	76.66	28.65	-516.53	-2383.55
124	125	79.77	28.65	-429.16	-913.03
125	125	79.77	15.33	-427.47	-912.93
125	126	82.88	15.33	-226.20	133.73
126	126	82.88	0.00	-224.67	134.11
126	127	85.99	0.00	-144.53	675.79
127	127	85.99	0.00	-144.45	675.63
127	128	89.10	0.00	-94.29	1046.87
128	128	89.10	0.00	-94.35	1046.77
128	129	92.21	0.00	-44.18	1262.19
129	129	92.21	0.00	-44.32	1262.05
129	130	95.32	0.00	5.83	1322.01
130	130	95.32	0.00	5.72	1321.99
130	131	98.43	0.00	55.89	1226.23
131	131	98.43	0.00	55.91	1226.41
131	132	101.54	0.00	106.07	974.49
132	132	101.54	0.00	106.32	974.70
132	133	104.65	0.00	156.48	566.00
133	133	104.65	0.00	157.05	566.27
133	134	107.76	0.00	335.88	-0.31

GRÁFICO DE ESFUERZOS



PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

- ESFUERZOS POSITIVOS.

Como distancia de desarrollo del momento positivo se toma la que existe entre puntos de momento nulo bajo la ley de cargas permanentes a tiempo infinito

el valor del rasante máximo a ceder es de

$M_d^+ = 7050$ mTon

$$t_d = \frac{7050}{0{,}9 \times (285 - (10{,}5 + 10{,}4) \times 15)} = 28{,}71 \text{ Ton/m}$$

por alma se tiene un valor de:

$$t_{d\,alma} = 28{,}71/2 = 14{,}35 \text{ Ton.}$$

La armadura dispuesta en la zona entre los puntos de momento nulo es de:

$$1{,}90 \times 11{,}33 + 3{,}6 \times 20{,}11 + 4{,}0 \times 31{,}42 + 1{,}95 \times 30{,}16 + 2{,}55 \times 41{,}89 = 385{,}2 \text{ cm}^2.$$

$$t_{máximo} = 385{,}2 \times 4{,}09 = 1575{,}5 \text{ Ton.} > t_d$$

ROTURA.esf

Programa DINTEL PACADAR S.A.
ELU.CM.TINF.MZ-

30/11/02

CÁLCULO TENSIONAL

Hipótesis de cálculo:
ELU.CM.TINF.MZ-
SIN GRADIENTE DOMINANTE

[.9; 1.35]PPCF1 + [.9; 1.35]PPLF3 + [.9; 1.35]PPLF2 + [.95; 1.05]PRETF1I.HIP.To + [.95, 1.05]PRET

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
1	1	0.00	0.00	-229.97	0.13
1	2	3.05	0.00	-175.93	608.27
2	2	3.05	0.00	-176.53	608.52
2	3	6.10	0.00	-129.61	1075.37
3	3	6.10	0.00	-129.91	1075.58
3	4	9.15	0.00	-82.98	1400.21
4	4	9.15	0.00	-83.07	1400.34
4	5	12.20	0.00	-36.15	1582.16
5	5	12.20	0.00	-36.09	1582.20
5	6	15.25	0.00	10.83	1620.75
6	6	15.25	0.00	10.90	1620.72
6	7	18.30	0.00	57.83	1515.91
7	7	18.30	0.00	57.85	1515.81
7	8	21.35	0.00	104.76	1267.83
8	8	21.35	0.01	104.63	1267.68
8	9	24.40	0.01	180.93	863.42
9	9	24.40	15.93	181.80	862.67
9	10	27.45	15.93	363.45	-8.12
10	10	27.45	28.75	362.80	-9.02
10	11	30.50	28.75	443.45	-1238.53
11	11	30.50	34.22	441.96	-1239.03
11	12	33.55	34.22	522.63	-2710.06
12	10012	33.55	36.14	-526.83	-2710.03
12	13	37.19	36.14	-430.66	-969.19
13	13	37.19	32.44	-432.32	-968.52
13	14	40.82	0.01	-324.62	403.40
14	14	40.82	0.00	-325.90	403.84
14	15	44.46	0.00	-160.35	1236.88
15	15	44.46	0.01	-160.64	1237.08
15	16	48.10	0.01	-83.51	1693.56
16	16	48.10	0.00	-83.56	1693.69
16	17	51.73	0.00	-27.63	1895.86
17	17	51.73	0.00	-27.56	1895.90
17	18	55.37	0.00	28.37	1894.44
18	18	55.37	0.00	28.45	1894.40
18	19	59.01	0.00	84.38	1689.28
19	19	59.01	0.00	84.31	1689.14
19	20	62.64	0.00	162.01	1224.54
20	20	62.64	0.01	161.72	1224.35
20	21	66.28	0.01	328.87	365.87
21	21	66.28	32.76	330.55	365.40
21	22	69.91	32.76	435.34	-1019.00
22	22	69.91	36.25	433.61	-1019.65
22	23	73.55	36.25	529.77	-2771.35
23	10023	73.55	34.29	-531.91	-2771.23
23	24	76.66	34.29	-449.65	-1244.90
24	24	76.66	28.65	-451.14	-1244.38
24	25	79.77	28.65	-368.88	30.75
25	25	79.77	15.33	-369.48	31.68
25	26	82.88	15.33	-184.67	921.06
26	26	82.88	0.00	-183.71	921.82

285 cm

CÁLCULO TENSIONAL

Hipótesis de cálculo:
ELU.CM.TINF.MZ-
SIN GRADIENTE DOMINANTE

[.9; 1.35]PPCF1 + [.9; 1.35]PPLF3 + [.9; 1.35]PPLF2 + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRET

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
26	27	85.99	0.00	-105.90	1339.74
27	27	85.99	0.00	-105.99	1339.90
27	28	89.10	0.00	-58.15	1595.13
28	28	89.10	0.00	-58.08	1595.22
28	29	92.21	0.00	-10.24	1701.42
29	29	92.21	0.00	-10.10	1701.45
29	30	95.32	0.00	37.73	1658.47
30	30	95.32	0.00	37.85	1658.25
30	31	98.43	0.00	85.70	1466.30
31	31	98.43	0.00	85.67	1466.16
31	32	101.54	0.00	133.51	1125.34
32	32	101.54	0.00	133.26	1125.14
32	33	104.65	0.00	181.10	636.28
33	33	104.65	0.00	180.54	636.02
33	34	107.76	0.00	235.33	0.14
101	101	0.00	0.00	-364.15	-0.30
101	102	3.05	0.00	-184.78	638.47
102	102	3.05	0.00	-184.18	638.21
102	103	6.10	0.00	-134.99	1124.92
103	103	6.10	0.00	-134.70	1124.72
103	104	9.15	0.00	-85.48	1460.48
104	104	9.15	0.00	-85.42	1460.35
104	105	12.20	0.00	-36.22	1645.85
105	105	12.20	0.00	-36.26	1645.95
105	106	15.25	0.00	12.92	1681.40
106	106	15.25	0.00	12.84	1681.14
106	107	18.30	0.00	62.05	1567.22
107	107	18.30	0.00	62.02	1567.30
107	108	21.35	0.00	111.20	1303.12
108	108	21.35	0.01	111.33	1303.28
108	109	24.40	0.01	189.90	875.13
109	109	24.40	15.93	191.40	874.74
109	110	27.45	15.93	389.43	-53.66
110	110	27.45	28.75	391.10	-53.75
110	111	30.50	28.75	476.77	-1377.23
111	111	30.50	34.22	478.41	-1377.17
111	112	33.55	34.22	564.10	-2966.80
112	10112	33.55	36.14	-567.12	-2966.97
112	113	37.19	36.14	-464.98	-1090.40
113	113	37.19	32.44	-462.98	-1090.36
113	114	40.82	0.01	-349.29	382.09
114	114	40.82	0.00	-348.03	381.65
114	115	44.46	0.00	-167.71	1258.28
115	115	44.46	0.01	-167.42	1258.10
115	116	48.10	0.01	-87.57	1734.29
116	116	48.10	0.00	-87.49	1734.16
116	117	51.73	0.00	-28.84	1945.73
117	117	51.73	0.00	-28.91	1945.68
117	118	55.37	0.00	29.74	1944.17
118	118	55.37	0.00	29.68	1944.21
118	119	59.01	0.00	88.34	1729.63

ROTURA.esf

Programa DINTEL PACADAR S.A.
ELU.CM.TINF.MZ-

30/11/02

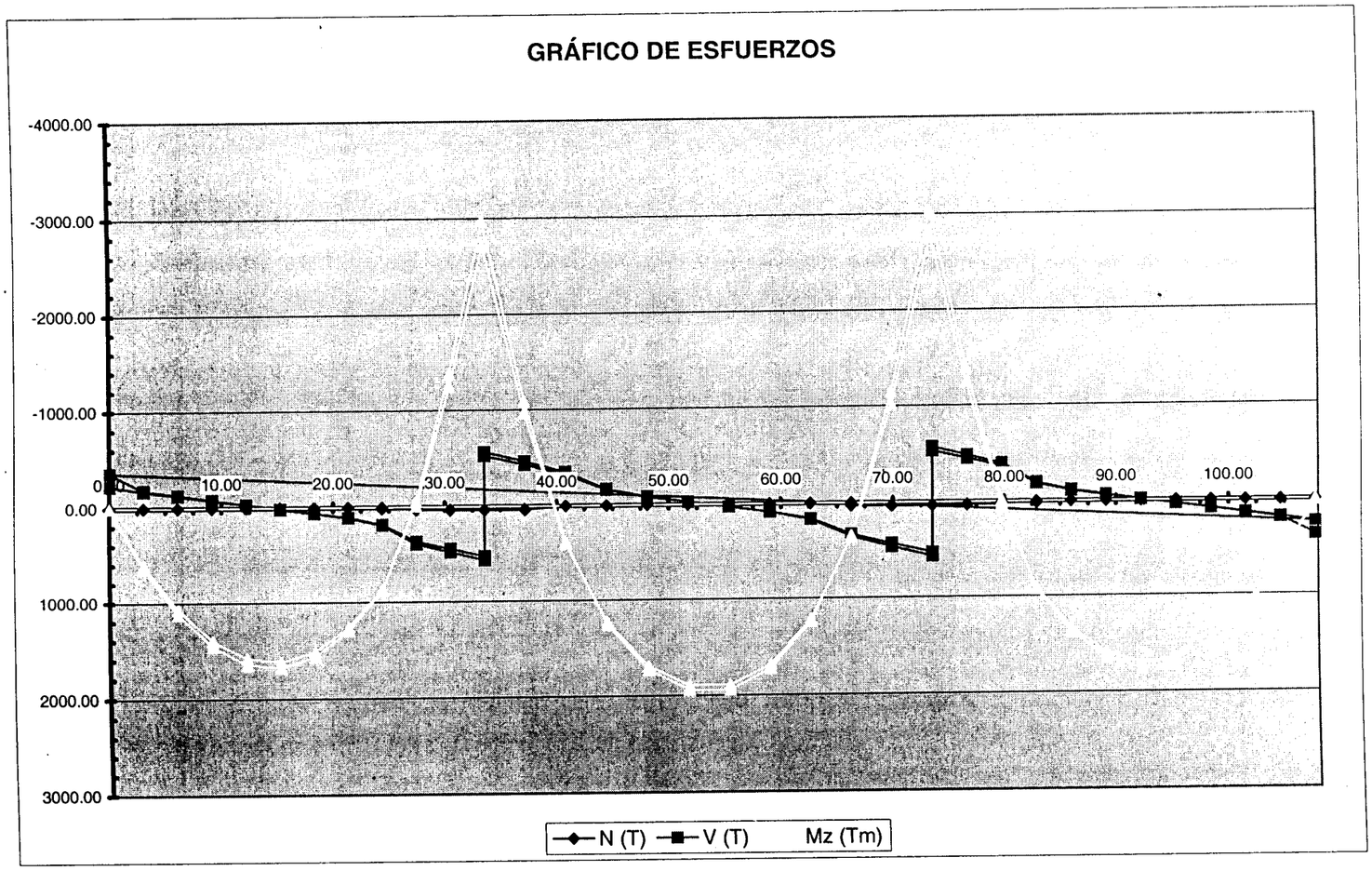
CÁLCULO TENSIONAL

Hipótesis de cálculo:
ELU.CM.TINF.MZ-
SIN GRADIENTE DOMINANTE

[.9; 1.35]PPCF1 + [.9; 1.35]PPLF3 + [.9; 1.35]PPLF2 + [.95; 1.05]PRETF1I.HIP.To + [.95; 1.05]PRET

Coef. exc:

Barra	Nudo	X	N (T)	Vy (T)	Mz (Tm)
119	119	59.01	0.00	88.39	1729.77
119	120	62.64	0.00	168.81	1245.39
120	120	62.64	0.01	169.11	1245.56
120	121	66.28	0.01	351.15	342.41
121	121	66.28	32.76	355.39	342.79
121	122	69.91	32.76	466.17	-1142.85
122	122	69.91	36.25	468.17	-1142.90
122	123	73.55	36.25	570.33	-3030.65
123	10123	73.55	34.29	-573.43	-3031.18
123	124	76.66	34.29	-486.05	-1383.18
124	124	76.66	28.65	-484.39	-1383.76
124	125	79.77	28.65	-397.02	-13.19
125	125	79.77	15.33	-395.32	-13.10
125	126	82.88	15.33	-194.06	933.59
126	126	82.88	0.00	-192.52	933.98
126	127	85.99	0.00	-112.38	1375.67
127	127	85.99	0.00	-112.30	1375.53
127	128	89.10	0.00	-62.16	1646.78
128	128	89.10	0.00	-62.21	1646.68
128	129	92.21	0.00	-12.04	1762.12
129	129	92.21	0.00	-12.18	1761.98
129	130	95.32	0.00	37.98	1721.95
130	130	95.32	0.00	37.88	1721.92
130	131	98.43	0.00	88.05	1526.18
131	131	98.43	0.00	88.07	1526.37
131	132	101.54	0.00	138.24	1174.46
132	132	101.54	0.00	138.48	1174.66
132	133	104.65	0.00	188.63	665.99
133	133	104.65	0.00	189.19	666.26
133	134	107.76	0.00	372.31	-0.31



PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

2.2.3.6 c) FATIGA

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

c) FATIGA

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

Para el cálculo a fatiga se empleo el procedimiento de carrera de tensión equivalente contemplado por la EHE, considerando una vida útil de la estructura de 100 años y una intensidad de tráfico de $25 \cdot 10^6$

$$\gamma_F \cdot \gamma_{Sd} \cdot \Delta\sigma_{s,equiv} \leq \frac{\Delta\sigma_{Rsk}}{\gamma_{c\,fatiga}}$$ EC-2 PARTE 2

$\gamma_F = 1'00$

$\gamma_{Sd} = 1'00$

$\gamma_{Sd} = 1'15$

$\Delta\sigma_{Rsk}\ (N/mm^2) =$ 170 MPa (Arm. activa)
180 MPa (Arm. pasiva)

$\Delta\sigma_{s,equiv} =$ [rango tensional de daño equivalente para acero de armar y pretensado] $= \Delta\sigma_{s,71} \cdot \lambda_s$

λ_s = Coeficiente corrector para el cálculo de incrementos de tensión de daño equivalente a partir del rango tensional del tren de cálculo

$\lambda_s = \lambda_{s,1} \cdot \lambda_{s,2} \cdot \lambda_{s,3} \cdot \lambda_{s,4}$

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

$\lambda_{s,1}$ = Tiene en cuenta la luz del tramo y el tráfico

Si $L_c \geq 20$ m ⇒ $\lambda_{s,1} = 0{,}75$ en Pila

$0{,}55$ en cuanto vano intermedio

$\lambda_{s,2}$: Tiene en cuenta el volumen del tráfico

$$\lambda_{s,2} = \sqrt[n_2]{\frac{Vol.}{25\cdot10^6}} = 1 \qquad Vol: 25\cdot10^6 \text{ ton/año}$$

$\lambda_{s,3}$: tiene en cuenta la vida en servicio.

$$\lambda_{s,3} = \sqrt[n_2]{\frac{N}{100}} = 1 \qquad N = 100 \text{ años}$$

$\lambda_{s,4}$ tiene en cuenta la influencia de vías múltiples.

$$\lambda_{s,4} = \sqrt[K_2]{n_1(1-n)\cdot S^{K_2} + (1-n)S_2^{K_2}}$$

$\lambda_{s,4} = 0{,}875$ (se ha tomado el mismo valor que en las otras estructuras)

Puesto que todos los valores que se toman son análogos a los de las estructuras anteriores se obtienen las mismas carreras de tensiones que en dichas estructuras

Dichas carreras son:

$\Delta\sigma_{s,71} \leq$	353'00	MPa	CAJ	Arm Activa
	374'02	MPa	CAJ	Arm Pasiva
	259'04	MPa	PILA	Arm Activa
	274'30	MPa	PILA	Arm Pasiva

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

$\Delta\sigma_{s,71}$ EN PILA (sección PIL) Nudo 10123

Se consideran en fuerzas en servicio (con la infraestructura) los trenes incorporan el coef de impacto

$$\begin{cases} N = 2392'96 \\ M = 4661'70 \end{cases} \qquad e = \frac{4661'7}{2392'96} + 0'0271 =$$

$$= 1'95 + 0'93 = 2'88 \text{ m}$$

En la situación de cargas permanentes anteriores

$N = 2392'96$ ton

$M = -2148'2$ mton

$$e = \frac{2392'96}{2148'2} + 0{,}2295$$

$$= 2'04 \text{ m}$$

Se obtiene una carrera de tensiones de:

$\Delta\sigma_{s,71} = 75'5 + 596'5 = 672 \text{ kg/cm}^2 < 2590 \text{ kg/cm}^2$

OK

Proyecto:
V-3 STA OLIVA

Seccion:PIL

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\Pi}1$	$J_{\Pi}2$
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) Π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	0.0	0.0	0.0	*T	0
7	4	0.0	0.0	0.0	*T	0
8	4	0.0	0.0	0.0	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	4	105.0	13.4	18.0	*T	0
13	1	130.0	25.0	233.0	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1982.7	13.84	2514207.5
	(1)	1166.2	20.21	2405939.7
	(2)	1350.6	18.31	2436560.7
F.pura -	(0)	2255.3	192.93	25374732.7
	(1)	1172.4	128.69	15756471.3
	(2)	1388.1	148.78	18701225.9
C.Simple	(0)	6469.9	92.71	69346977.9
	(1)	2237.0	80.28	22322364.5
	(2)	3001.2	85.12	30922263.7
T.Simple	(0)	609.0	29.45	2278045.8
	(1)	609.0	29.45	2278045.8
	(2)	609.0	29.45	2278045.8

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

**** CALCULO ELASTICO ****

T$_{\Gamma}$tulo Secci$_{\vdash}$n: PIL

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Axil : -2392.96Tn. C PERM
Excentricidad: 204.00cm.(respecto a la directriz)
Tipo de Solicitacion: SO
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	-3.6	-2.0	-18.3	0.0	0.0	1	$$$$$$	0.0	0.0	0.0	0.0
2	-3.6	-21.3	-40.4	0.0	0.0	2	$$$$$$	0.0	0.0	0.0	0.0
3	-3.6	-40.4	-166.0	0.0	0.0	3	$$$$$$	0.0	0.0	0.0	0.0
4	-3.6	-166.0	-183.1	0.0	0.0	4	$$$$$$	0.0	0.0	0.0	0.0
5	-3.6	-933.5	-937.9	0.0	937.9	5	$$$$$$	0.0	0.0	0.0	0.0
6	-3.6	-11.9	-11.9	0.0	11.9	6	$$$$$$	0.0	0.0	0.0	0.0
7	-3.6	-11.9	-11.9	0.0	11.9	7	$$$$$$	0.0	0.0	0.0	0.0
8	-3.6	-11.9	-11.9	0.0	11.9	8	$$$$$$	0.0	0.0	0.0	0.0
9	-3.6	-160.0	-164.4	0.0	164.4	9	$$$$$$	0.0	0.0	0.0	0.0
10	-3.6	-33.0	-40.7	0.0	40.7	10	$$$$$$	0.0	0.0	0.0	0.0
11	-3.6	-86.8	-94.5	0.0	94.5	11	$$$$$$	0.0	0.0	0.0	0.0
12	-3.6	-71.1	-75.5	0.0	75.5	12	$$$$$$	0.0	0.0	0.0	0.0
13	-3.6	-128.8	-142.5	0.0	0.0	13	$$$$$$	0.0	0.0	0.0	0.0

Incrementos de Carga:
1

Incremento de Carga 2 :
Axil : -2392.96Tn. SC INFREC
Excentricidad: 288.00cm.(respecto a la directriz)
Tipo de Solicitacion: SO
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	92.5	0.0	0.0	0.0	0.0	1	$$$$$$	0.0	0.0	0.0	0.0
2	92.5	0.0	0.0	0.0	0.0	2	$$$$$$	0.0	0.0	0.0	0.0
3	92.5	0.0	-255.2	0.0	0.0	3	$$$$$$	0.0	0.0	0.0	0.0
4	92.5	-255.2	-296.8	0.0	0.0	4	$$$$$$	0.0	0.0	0.0	0.0
5	92.5	-1499.8	-1510.5	0.0	1510.5	5	$$$$$$	0.0	0.0	0.0	0.0
6	92.5	740.5	740.5	0.0	740.5	6	$$$$$$	0.0	0.0	0.0	0.0
7	92.5	740.5	740.5	0.0	740.5	7	$$$$$$	0.0	0.0	0.0	0.0
8	92.5	740.5	740.5	0.0	740.5	8	$$$$$$	0.0	0.0	0.0	0.0
9	92.5	380.4	369.8	0.0	380.4	9	$$$$$$	0.0	0.0	0.0	0.0

ARMADO CORTANTE - TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TO		HIP1	HIP2	ARMAD. TOTAL TRANSV. HIP1	ARMAD. TOTAL TRANSV. HIP2		ARMAD. TORSIÓN LONG HIP1	ARMAD. TORSIÓN LONG HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V12" V 29-1	1	1	0.00	790.6	0.0	598.4	0.0	2.7	1.0	0.31	24.4	18.5	5.5	1.0	0.0	0.0	**24.4**	18.5		0.0	0.0
	1	2	3.05	639.6	0.0	318.5	0.0	2.7	1.0	0.31	19.8	9.8	5.5	1.0	0.0	0.0	**19.8**	9.8		0.0	0.0
	2	2	3.05	638.8	0.0	216.9	0.0	2.7	1.0	0.31	19.7	6.7	5.5	1.0	0.0	0.0	**19.7**	6.7		0.0	0.0
	2	3	6.10	495.6	0.0	190.6	0.0	2.7	1.0	0.31	15.3	5.9	5.5	1.0	0.0	0.0	**15.3**	5.9		0.0	0.0
	3	3	6.10	493.7	0.0	348.2	0.0	2.7	1.0	0.31	15.3	10.8	5.5	1.0	0.0	0.0	**15.3**	10.8		0.0	0.0
	3	4	9.15	357.3	0.0	92.4	0.0	2.7	1.0	0.31	11.0	2.9	5.5	1.0	0.0	0.0	**11.0**	2.9		0.0	0.0
	4	4	9.15	353.3	0.0	217.6	0.0	2.7	1.0	0.31	10.9	6.7	5.5	1.0	0.0	0.0	**10.9**	6.7		0.0	0.0
	4	5	12.20	223.4	0.0	25.9	0.0	2.7	1.0	0.31	6.9	0.8	5.5	1.0	0.0	0.0	**6.9**	0.8		0.0	0.0
	5	5	12.20	217.5	0.0	70.5	0.0	2.7	1.0	0.31	6.7	2.2	5.5	1.0	0.0	0.0	**6.7**	2.2		0.0	0.0
	5	6	15.25	224.4	0.0	113.8	0.0	2.7	1.0	0.31	6.9	3.5	5.5	1.0	0.0	0.0	**6.9**	3.5		0.0	0.0
	6	6	15.25	221.0	0.0	41.0	0.0	2.7	1.0	0.31	6.8	1.3	5.5	1.0	0.0	0.0	**6.8**	1.3		0.0	0.0
	6	7	18.30	348.8	0.0	238.8	0.0	2.7	1.0	0.31	10.8	7.4	5.5	1.0	0.0	0.0	**10.8**	7.4		0.0	0.0
	7	7	18.30	354.9	0.0	99.6	0.0	2.7	1.0	0.31	11.0	3.1	5.5	1.0	0.0	0.0	**11.0**	3.1		0.0	0.0
	7	8	21.35	489.8	0.0	367.5	0.0	2.7	1.0	0.31	15.1	11.4	5.5	1.0	0.0	0.0	**15.1**	11.4		0.0	0.0
	8	8	21.35	495.6	0.0	177.6	0.0	2.7	1.0	0.31	15.3	5.5	5.5	1.0	0.0	0.0	**15.3**	5.5		0.0	0.0
	8	9	24.40	634.5	0.0	498.5	0.0	2.7	1.0	0.31	19.6	15.4	5.5	1.0	0.0	0.0	**19.6**	15.4		0.0	0.0
	9	9	24.40	639.7	0.0	249.8	0.0	2.7	1.0	0.31	19.8	7.7	5.5	1.0	0.0	0.0	**19.8**	7.7		0.0	0.0
	9	10	27.45	782.9	0.0	633.7	0.0	2.7	1.0	0.31	24.2	19.6	5.5	1.0	0.0	0.0	**24.2**	19.6		0.0	0.0
	10	10	27.45	788.1	0.0	316.2	0.0	2.7	1.0	0.31	24.4	9.8	5.5	1.0	0.0	0.0	**24.4**	9.8		0.0	0.0
	10	11	30.50	935.7	0.0	391.1	0.0	2.7	1.0	0.31	28.9	12.1	5.5	1.0	0.0	0.0	**28.9**	12.1		0.0	0.0
	11	11	30.50	939.5	0.0	532.7	0.0	2.7	1.0	0.31	29.0	16.5	5.5	1.0	0.0	0.0	**29.0**	16.5		0.0	0.0
	11	12	33.55	1093.0	0.0	449.7	0.0	2.7	1.0	0.31	33.8	13.9	5.5	1.0	0.0	0.0	**33.8**	13.9		0.0	0.0

ARMADO CORTANTE - TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TO		HIP1	HIP2	ARMAD. TOTAL TRANSV. HIP1	ARMAD. TOTAL TRANSV. HIP2		ARMAD. TORSIÓN LONG HIP1	ARMAD. TORSIÓN LONG HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V13" V-30-1	12	10012	33.55	1090.0	0.0	870.6	0.0	2.7	1.0	0.31	33.7	26.9	5.5	1.0	0.0	0.0	**33.7**	26.9		0.0	0.0
	12	13	37.19	907.8	0.0	519.0	0.0	2.7	1.0	0.31	28.1	16.0	5.5	1.0	0.0	0.0	**28.1**	16.0		0.0	0.0
	13	13	37.19	904.1	0.0	367.0	0.0	2.7	1.0	0.31	27.9	11.3	5.5	1.0	0.0	0.0	**27.9**	11.3		0.0	0.0
	13	14	40.82	729.3	0.0	385.5	0.0	2.7	1.0	0.31	22.5	11.9	5.5	1.0	0.0	0.0	**22.5**	11.9		0.0	0.0
	14	14	40.82	722.1	0.0	284.4	0.0	2.7	1.0	0.31	22.3	8.8	5.5	1.0	0.0	0.0	**22.3**	8.8		0.0	0.0
	14	15	44.46	553.5	0.0	191.7	0.0	2.7	1.0	0.31	17.1	5.9	5.5	1.0	0.0	0.0	**17.1**	5.9		0.0	0.0
	15	15	44.46	544.9	0.0	407.0	0.0	2.7	1.0	0.31	16.8	12.6	5.5	1.0	0.0	0.0	**16.8**	12.6		0.0	0.0
	15	16	48.10	382.1	0.0	99.5	0.0	2.7	1.0	0.31	11.8	3.1	5.5	1.0	0.0	0.0	**11.8**	3.1		0.0	0.0
	16	16	48.10	373.8	0.0	255.3	0.0	2.7	1.0	0.31	11.6	7.9	5.5	1.0	0.0	0.0	**11.6**	7.9		0.0	0.0
	16	17	51.73	216.5	0.0	17.3	0.0	2.7	1.0	0.31	6.7	0.5	5.5	1.0	0.0	0.0	**6.7**	0.5		0.0	0.0
	17	17	51.73	213.8	0.0	107.8	0.0	2.7	1.0	0.31	6.6	3.3	5.5	1.0	0.0	0.0	**6.6**	3.3		0.0	0.0
	17	18	55.37	219.3	0.0	113.4	0.0	2.7	1.0	0.31	6.8	3.5	5.5	1.0	0.0	0.0	**6.8**	3.5		0.0	0.0
	18	18	55.37	221.5	0.0	24.6	0.0	2.7	1.0	0.31	6.8	0.8	5.5	1.0	0.0	0.0	**6.8**	0.8		0.0	0.0
	18	19	59.01	378.8	0.0	259.4	0.0	2.7	1.0	0.31	11.7	8.0	5.5	1.0	0.0	0.0	**11.7**	8.0		0.0	0.0
	19	19	59.01	387.0	0.0	153.3	0.0	2.7	1.0	0.31	12.0	4.7	5.5	1.0	0.0	0.0	**12.0**	4.7		0.0	0.0
	19	20	62.64	549.7	0.0	205.7	0.0	2.7	1.0	0.31	17.0	6.4	5.5	1.0	0.0	0.0	**17.0**	6.4		0.0	0.0
	20	20	62.64	558.2	0.0	276.7	0.0	2.7	1.0	0.31	17.3	8.6	5.5	1.0	0.0	0.0	**17.3**	8.6		0.0	0.0
	20	21	66.28	726.8	0.0	290.3	0.0	2.7	1.0	0.31	22.5	9.0	5.5	1.0	0.0	0.0	**22.5**	9.0		0.0	0.0
	21	21	66.28	734.1	0.0	392.9	0.0	2.7	1.0	0.31	22.7	12.1	5.5	1.0	0.0	0.0	**22.7**	12.1		0.0	0.0
	21	22	69.91	908.8	0.0	373.0	0.0	2.7	1.0	0.31	28.1	11.5	5.5	1.0	0.0	0.0	**28.1**	11.5		0.0	0.0
	22	22	69.91	912.8	0.0	526.3	0.0	2.7	1.0	0.31	28.2	16.3	5.5	1.0	0.0	0.0	**28.2**	16.3		0.0	0.0
	22	23	73.55	1094.9	0.0	469.6	0.0	2.7	1.0	0.31	33.8	14.5	5.5	1.0	0.0	0.0	**33.8**	14.5		0.0	0.0

	ARMADO CORTANTE - TORSOR																	ARMAD. TOTAL TRANSV.			ARMAD. TORSIÓN LONG	
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V15" V-31-1	23	10023	73.55	1111.3	0.0	931.7	0.0	2.7	1.0	0.31	34.3	28.8	5.5	1.0	0.0	0.0		**34.3**	28.8		0.0	0.0
	23	24	76.66	954.1	0.0	385.6	0.0	2.7	1.0	0.31	29.5	11.9	5.5	1.0	0.0	0.0		**29.5**	11.9		0.0	0.0
	24	24	76.66	950.2	0.0	396.6	0.0	2.7	1.0	0.31	29.4	12.3	5.5	1.0	0.0	0.0		**29.4**	12.3		0.0	0.0
	24	25	79.77	799.7	0.0	320.2	0.0	2.7	1.0	0.31	24.7	9.9	5.5	1.0	0.0	0.0		**24.7**	9.9		0.0	0.0
	25	25	79.77	794.2	0.0	644.6	0.0	2.7	1.0	0.31	24.5	19.9	5.5	1.0	0.0	0.0		**24.5**	19.9		0.0	0.0
	25	26	82.88	648.4	0.0	252.5	0.0	2.7	1.0	0.31	20.0	7.8	5.5	1.0	0.0	0.0		**20.0**	7.8		0.0	0.0
	26	26	82.88	642.7	0.0	506.7	0.0	2.7	1.0	0.31	19.9	15.7	5.5	1.0	0.0	0.0		**19.9**	15.7		0.0	0.0
	26	27	85.99	501.2	0.0	178.9	0.0	2.7	1.0	0.31	15.5	5.5	5.5	1.0	0.0	0.0		**15.5**	5.5		0.0	0.0
	27	27	85.99	495.0	0.0	372.9	0.0	2.7	1.0	0.31	15.3	11.5	5.5	1.0	0.0	0.0		**15.3**	11.5		0.0	0.0
	27	28	89.10	357.6	0.0	99.6	0.0	2.7	1.0	0.31	11.1	3.1	5.5	1.0	0.0	0.0		**11.1**	3.1		0.0	0.0
	28	28	89.10	351.1	0.0	219.2	0.0	2.7	1.0	0.31	10.8	6.8	5.5	1.0	0.0	0.0		**10.8**	6.8		0.0	0.0
	28	29	92.21	220.9	0.0	17.8	0.0	2.7	1.0	0.31	6.8	0.6	5.5	1.0	0.0	0.0		**6.8**	0.6		0.0	0.0
	29	29	92.21	224.0	0.0	147.6	0.0	2.7	1.0	0.31	6.9	4.6	5.5	1.0	0.0	0.0		**6.9**	4.6		0.0	0.0
	29	30	95.32	220.4	0.0	75.4	0.0	2.7	1.0	0.31	6.8	2.3	5.5	1.0	0.0	0.0		**6.8**	2.3		0.0	0.0
	30	30	95.32	226.7	0.0	24.4	0.0	2.7	1.0	0.31	7.0	0.8	5.5	1.0	0.0	0.0		**7.0**	0.8		0.0	0.0
	30	31	98.43	358.8	0.0	223.9	0.0	2.7	1.0	0.31	11.1	6.9	5.5	1.0	0.0	0.0		**11.1**	6.9		0.0	0.0
	31	31	98.43	363.2	0.0	93.8	0.0	2.7	1.0	0.31	11.2	2.9	5.5	1.0	0.0	0.0		**11.2**	2.9		0.0	0.0
	31	32	101.54	501.9	0.0	359.5	0.0	2.7	1.0	0.31	15.5	11.1	5.5	1.0	0.0	0.0		**15.5**	11.1		0.0	0.0
	32	32	101.54	503.9	0.0	196.0	0.0	2.7	1.0	0.31	15.6	6.1	5.5	1.0	0.0	0.0		**15.6**	6.1		0.0	0.0
	32	33	104.65	649.6	0.0	222.3	0.0	2.7	1.0	0.31	20.1	6.9	5.5	1.0	0.0	0.0		**20.1**	6.9		0.0	0.0
	33	33	104.65	650.5	0.0	326.2	0.0	2.7	1.0	0.31	20.1	10.1	5.5	1.0	0.0	0.0		**20.1**	10.1		0.0	0.0
	33	34	107.76	805.2	0.0	612.5	0.0	2.7	1.0	0.31	24.9	18.9	5.5	1.0	0.0	0.0		**24.9**	18.9		0.0	0.0

	ARMADO CORTANTE - TORSOR																	ARMAD. TOTAL TRANSV.			ARMAD. TORSIÓN LONG	
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V12" V-29-2	101	101	0.00	844.3	0.0	366.4	0.0	2.7	1.0	0.31	26.1	11.3	5.5	1.0	0.0	0.0		**26.1**	11.3		0.0	0.0
	101	102	3.05	683.6	0.0	411.2	0.0	2.7	1.0	0.31	21.1	12.7	5.5	1.0	0.0	0.0		**21.1**	12.7		0.0	0.0
	102	102	3.05	675.6	0.0	337.1	0.0	2.7	1.0	0.31	20.9	10.4	5.5	1.0	0.0	0.0		**20.9**	10.4		0.0	0.0
	102	103	6.10	523.5	0.0	216.6	0.0	2.7	1.0	0.31	16.2	6.7	5.5	1.0	0.0	0.0		**16.2**	6.7		0.0	0.0
	103	103	6.10	517.3	0.0	221.2	0.0	2.7	1.0	0.31	16.0	6.8	5.5	1.0	0.0	0.0		**16.0**	6.8		0.0	0.0
	103	104	9.15	372.8	0.0	99.0	0.0	2.7	1.0	0.31	11.5	3.1	5.5	1.0	0.0	0.0		**11.5**	3.1		0.0	0.0
	104	104	9.15	366.9	0.0	68.9	0.0	2.7	1.0	0.31	11.3	2.1	5.5	1.0	0.0	0.0		**11.3**	2.1		0.0	0.0
	104	105	12.20	229.3	0.0	29.6	0.0	2.7	1.0	0.31	7.1	0.9	5.5	1.0	0.0	0.0		**7.1**	0.9		0.0	0.0
	105	105	12.20	223.2	0.0	77.4	0.0	2.7	1.0	0.31	6.9	2.4	5.5	1.0	0.0	0.0		**6.9**	2.4		0.0	0.0
	105	106	15.25	237.0	0.0	127.6	0.0	2.7	1.0	0.31	7.3	3.9	5.5	1.0	0.0	0.0		**7.3**	3.9		0.0	0.0
	106	106	15.25	235.3	0.0	44.0	0.0	2.7	1.0	0.31	7.3	1.4	5.5	1.0	0.0	0.0		**7.3**	1.4		0.0	0.0
	106	107	18.30	371.0	0.0	205.8	0.0	2.7	1.0	0.31	11.5	6.4	5.5	1.0	0.0	0.0		**11.5**	6.4		0.0	0.0
	107	107	18.30	379.3	0.0	164.9	0.0	2.7	1.0	0.31	11.7	4.8	5.5	1.0	0.0	0.0		**11.7**	4.8		0.0	0.0
	107	108	21.35	522.3	0.0	276.6	0.0	2.7	1.0	0.31	16.1	8.5	5.5	1.0	0.0	0.0		**16.1**	8.5		0.0	0.0
	108	108	21.35	531.2	0.0	257.5	0.0	2.7	1.0	0.31	16.4	8.0	5.5	1.0	0.0	0.0		**16.4**	8.0		0.0	0.0
	108	109	24.40	678.7	0.0	373.8	0.0	2.7	1.0	0.31	21.0	11.6	5.5	1.0	0.0	0.0		**21.0**	11.6		0.0	0.0
	109	109	24.40	688.4	0.0	353.8	0.0	2.7	1.0	0.31	21.3	10.9	5.5	1.0	0.0	0.0		**21.3**	10.9		0.0	0.0
	109	110	27.45	840.4	0.0	465.6	0.0	2.7	1.0	0.31	26.0	14.4	5.5	1.0	0.0	0.0		**26.0**	14.4		0.0	0.0
	110	110	27.45	850.7	0.0	480.9	0.0	2.7	1.0	0.31	26.3	14.9	5.5	1.0	0.0	0.0		**26.3**	14.9		0.0	0.0
	110	111	30.50	1007.6	0.0	558.1	0.0	2.7	1.0	0.31	31.1	17.2	5.5	1.0	0.0	0.0		**31.1**	17.2		0.0	0.0
	111	111	30.50	1018.8	0.0	556.7	0.0	2.7	1.0	0.31	31.5	17.2	5.5	1.0	0.0	0.0		**31.5**	17.2		0.0	0.0
	111	112	33.55	1182.0	0.0	657.5	0.0	2.7	1.0	0.31	36.5	20.3	5.5	1.0	0.0	0.0		**36.5**	20.3		0.0	0.0

	ARMADO CORTANTE - TORSOR																ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2	HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V14" V-30-2	112	10112	33.55	1174.3	0.0	781.7	0.0	2.7	1.0	0.31	36.3	24.2	5.5	1.0	0.0	0.0	**36.3**	24.2		0.0	0.0
	112	113	37.19	980.8	0.0	672.8	0.0	2.7	1.0	0.31	30.3	20.8	5.5	1.0	0.0	0.0	**30.3**	20.8		0.0	0.0
	113	113	37.19	968.1	0.0	638.3	0.0	2.7	1.0	0.31	29.9	19.7	5.5	1.0	0.0	0.0	**29.9**	19.7		0.0	0.0
	113	114	40.82	782.6	0.0	509.5	0.0	2.7	1.0	0.31	24.2	15.7	5.5	1.0	0.0	0.0	**24.2**	15.7		0.0	0.0
	114	114	40.82	769.3	0.0	426.9	0.0	2.7	1.0	0.31	23.8	13.2	5.5	1.0	0.0	0.0	**23.8**	13.2		0.0	0.0
	114	115	44.46	590.5	0.0	295.5	0.0	2.7	1.0	0.31	18.2	9.1	5.5	1.0	0.0	0.0	**18.2**	9.1		0.0	0.0
	115	115	44.46	578.5	0.0	298.9	0.0	2.7	1.0	0.31	17.9	9.2	5.5	1.0	0.0	0.0	**17.9**	9.2		0.0	0.0
	115	116	48.10	406.0	0.0	159.1	0.0	2.7	1.0	0.31	12.5	4.9	5.5	1.0	0.0	0.0	**12.5**	4.9		0.0	0.0
	116	116	48.10	395.4	0.0	165.9	0.0	2.7	1.0	0.31	12.2	5.1	5.5	1.0	0.0	0.0	**12.2**	5.1		0.0	0.0
	116	117	51.73	228.8	0.0	18.4	0.0	2.7	1.0	0.31	7.1	0.6	5.5	1.0	0.0	0.0	**7.1**	0.6		0.0	0.0
	117	117	51.73	225.1	0.0	116.3	0.0	2.7	1.0	0.31	7.0	3.6	5.5	1.0	0.0	0.0	**7.0**	3.6		0.0	0.0
	117	118	55.37	230.6	0.0	121.9	0.0	2.7	1.0	0.31	7.1	3.8	5.5	1.0	0.0	0.0	**7.1**	3.8		0.0	0.0
	118	118	55.37	234.0	0.0	25.7	0.0	2.7	1.0	0.31	7.2	0.8	5.5	1.0	0.0	0.0	**7.2**	0.8		0.0	0.0
	118	119	59.01	400.5	0.0	173.4	0.0	2.7	1.0	0.31	12.4	5.4	5.5	1.0	0.0	0.0	**12.4**	5.4		0.0	0.0
	119	119	59.01	411.2	0.0	166.6	0.0	2.7	1.0	0.31	12.7	5.1	5.5	1.0	0.0	0.0	**12.7**	5.1		0.0	0.0
	119	120	62.64	583.6	0.0	306.7	0.0	2.7	1.0	0.31	18.0	9.5	5.5	1.0	0.0	0.0	**18.0**	9.5		0.0	0.0
	120	120	62.64	595.7	0.0	303.1	0.0	2.7	1.0	0.31	18.4	9.4	5.5	1.0	0.0	0.0	**18.4**	9.4		0.0	0.0
	120	121	66.28	774.5	0.0	435.0	0.0	2.7	1.0	0.31	23.9	13.4	5.5	1.0	0.0	0.0	**23.9**	13.4		0.0	0.0
	121	121	66.28	787.9	0.0	517.3	0.0	2.7	1.0	0.31	24.4	16.0	5.5	1.0	0.0	0.0	**24.4**	16.0		0.0	0.0
	121	122	69.91	973.4	0.0	646.2	0.0	2.7	1.0	0.31	30.1	20.0	5.5	1.0	0.0	0.0	**30.1**	20.0		0.0	0.0
	122	122	69.91	986.4	0.0	666.1	0.0	2.7	1.0	0.31	30.5	20.6	5.5	1.0	0.0	0.0	**30.5**	20.6		0.0	0.0
	122	123	73.55	1179.9	0.0	593.4	0.0	2.7	1.0	0.31	36.5	18.3	5.5	1.0	0.0	0.0	**36.5**	18.3		0.0	0.0

	ARMADO CORTANTE - TORSOR																ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2	HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V16" V-31-2	123	10123	73.55	1200.9	0.0	782.9	0.0	2.7	1.0	0.31	37.1	24.2	5.5	1.0	0.0	0.0	**37.1**	24.2		0.0	0.0
	123	124	76.66	1033.7	0.0	612.3	0.0	2.7	1.0	0.31	31.9	18.9	5.5	1.0	0.0	0.0	**31.9**	18.9		0.0	0.0
	124	124	76.66	1022.2	0.0	567.0	0.0	2.7	1.0	0.31	31.6	17.5	5.5	1.0	0.0	0.0	**31.6**	17.5		0.0	0.0
	124	125	79.77	862.3	0.0	487.7	0.0	2.7	1.0	0.31	26.7	15.1	5.5	1.0	0.0	0.0	**26.7**	15.1		0.0	0.0
	125	125	79.77	851.5	0.0	472.4	0.0	2.7	1.0	0.31	26.3	14.6	5.5	1.0	0.0	0.0	**26.3**	14.6		0.0	0.0
	125	126	82.88	696.7	0.0	358.6	0.0	2.7	1.0	0.31	21.5	11.1	5.5	1.0	0.0	0.0	**21.5**	11.1		0.0	0.0
	126	126	82.88	686.8	0.0	378.5	0.0	2.7	1.0	0.31	21.2	11.7	5.5	1.0	0.0	0.0	**21.2**	11.7		0.0	0.0
	126	127	85.99	536.6	0.0	260.0	0.0	2.7	1.0	0.31	16.6	8.0	5.5	1.0	0.0	0.0	**16.6**	8.0		0.0	0.0
	127	127	85.99	527.5	0.0	283.1	0.0	2.7	1.0	0.31	16.3	8.7	5.5	1.0	0.0	0.0	**16.3**	8.7		0.0	0.0
	127	128	89.10	381.8	0.0	160.2	0.0	2.7	1.0	0.31	11.8	5.0	5.5	1.0	0.0	0.0	**11.8**	5.0		0.0	0.0
	128	128	89.10	373.2	0.0	208.1	0.0	2.7	1.0	0.31	11.5	6.4	5.5	1.0	0.0	0.0	**11.5**	6.4		0.0	0.0
	128	129	92.21	235.0	0.0	42.4	0.0	2.7	1.0	0.31	7.3	1.3	5.5	1.0	0.0	0.0	**7.3**	1.3		0.0	0.0
	129	129	92.21	236.7	0.0	160.1	0.0	2.7	1.0	0.31	7.3	4.9	5.5	1.0	0.0	0.0	**7.3**	4.9		0.0	0.0
	129	130	95.32	226.3	0.0	81.0	0.0	2.7	1.0	0.31	7.0	2.5	5.5	1.0	0.0	0.0	**7.0**	2.5		0.0	0.0
	130	130	95.32	232.4	0.0	28.3	0.0	2.7	1.0	0.31	7.2	0.9	5.5	1.0	0.0	0.0	**7.2**	0.9		0.0	0.0
	130	131	98.43	372.4	0.0	70.8	0.0	2.7	1.0	0.31	11.5	2.2	5.5	1.0	0.0	0.0	**11.5**	2.2		0.0	0.0
	131	131	98.43	378.4	0.0	100.7	0.0	2.7	1.0	0.31	11.7	3.1	5.5	1.0	0.0	0.0	**11.7**	3.1		0.0	0.0
	131	132	101.54	525.5	0.0	225.9	0.0	2.7	1.0	0.31	16.2	7.0	5.5	1.0	0.0	0.0	**16.2**	7.0		0.0	0.0
	132	132	101.54	531.8	0.0	223.6	0.0	2.7	1.0	0.31	16.4	6.9	5.5	1.0	0.0	0.0	**16.4**	6.9		0.0	0.0
	132	133	104.65	686.5	0.0	344.7	0.0	2.7	1.0	0.31	21.2	10.7	5.5	1.0	0.0	0.0	**21.2**	10.7		0.0	0.0
	133	133	104.65	694.7	0.0	420.1	0.0	2.7	1.0	0.31	21.5	13.0	5.5	1.0	0.0	0.0	**21.5**	13.0		0.0	0.0
	133	134	107.76	859.4	0.0	500.6	0.0	2.7	1.0	0.31	26.6	15.5	5.5	1.0	0.0	0.0	**26.6**	15.5		0.0	0.0

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

FIBRA 5 : TABLA INFERIOR VIGA

Se verifica que el refuerzo de armadura transversal por cortante-torsor es el mayor que la unidad en cualquier sección

A continuación se muestra la relación longitudinal transversal necesaria

La armadura mínima es de $\rho = 15\ cm^2/m$

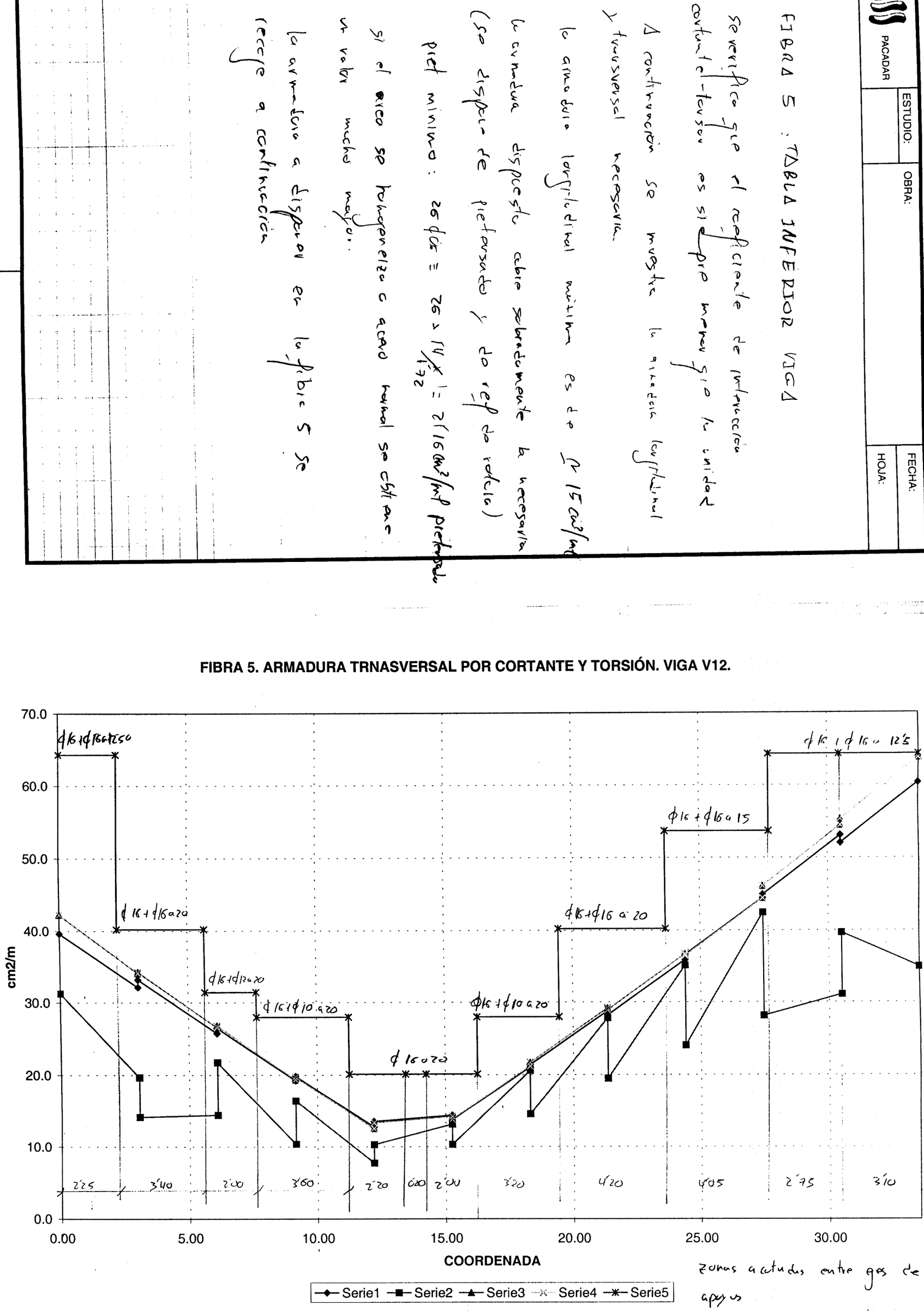
La armadura dispuesta cubre sobradamente la necesaria (se dispone de ϕ 16 a 20 cada rama)

Pilar mínimo: 25 dm = 250 mm $\rightarrow$ $2716\ mm^2/m$ / 2 ramas = $1358\ mm^2/m$

Si el axil se homogeneiza a acero normal se obtiene un valor mucho mayor.

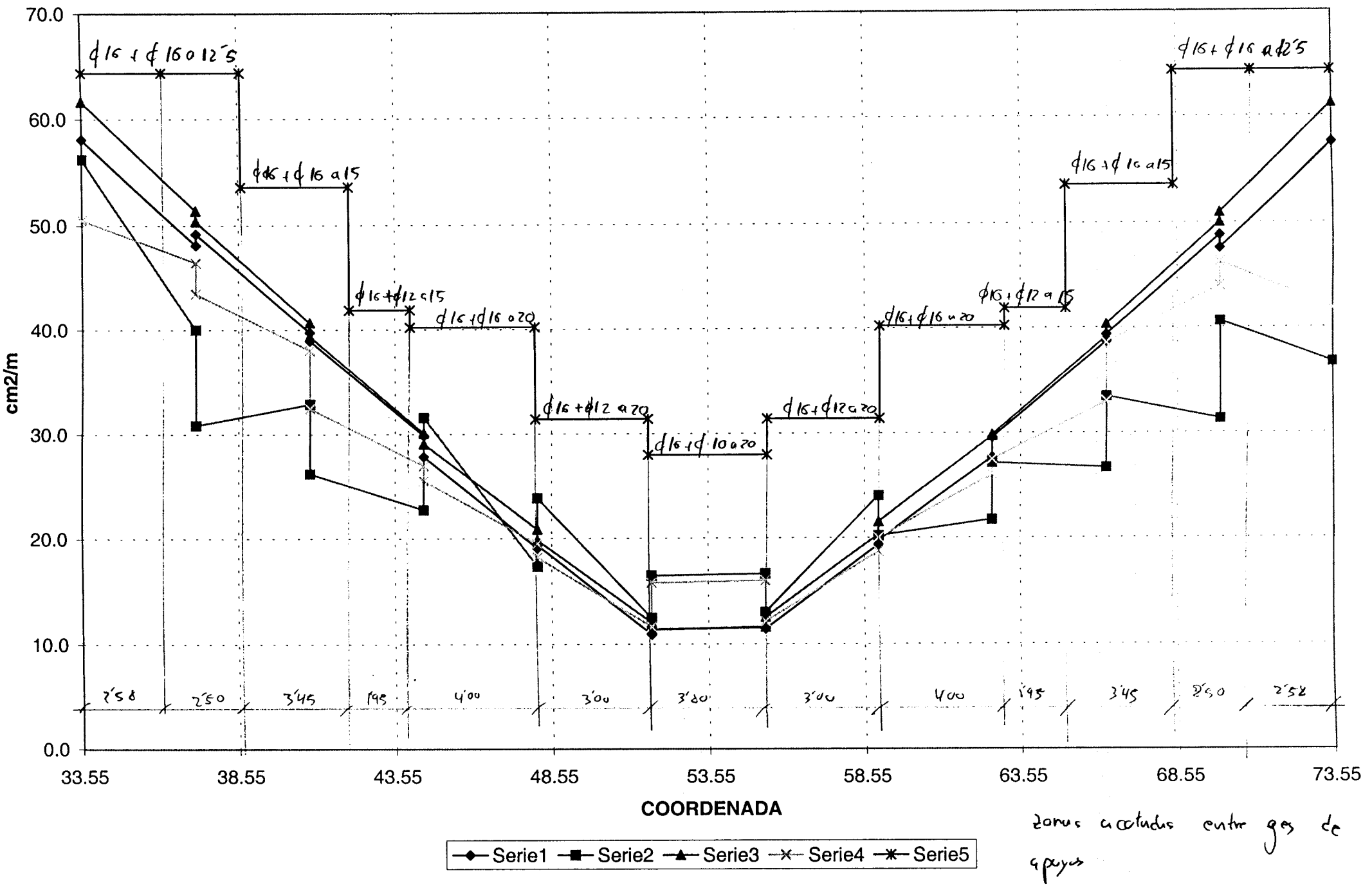
La armadura dispuesta en los pilares 5 se recoge en conformidad

FIBRA 5. ARMADURA TRNASVERSAL POR CORTANTE Y TORSIÓN. VIGA V12.



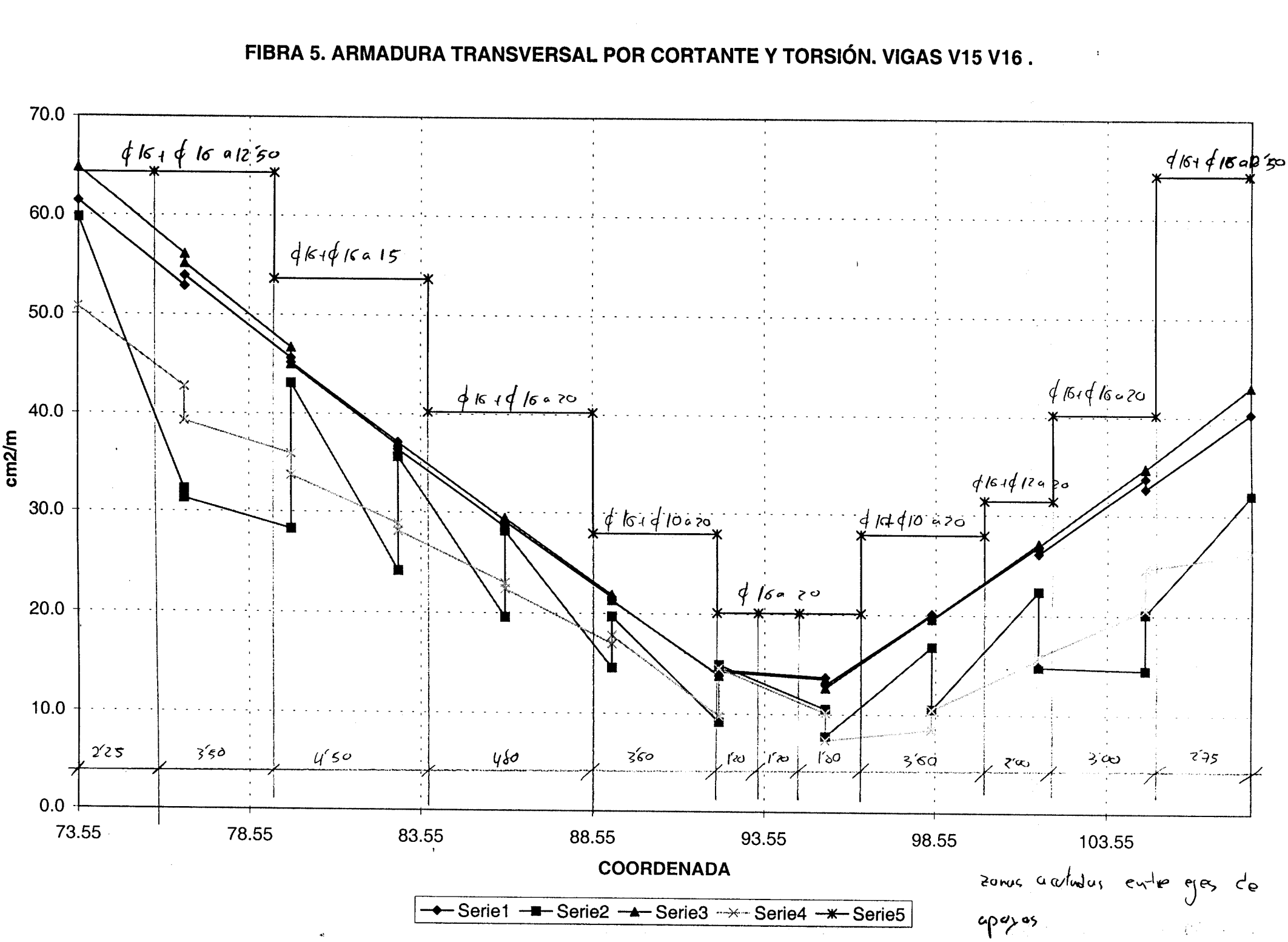
zonas actuadas entre ejes de apoyos

FIBRA 5. ARMADURA TRANSVERSAL POR CORTANTE Y TORSIÓN. VIGA V13 V14.



zonas acotadas entre ejes de apoyos

FIBRA 5. ARMADURA TRANSVERSAL POR CORTANTE Y TORSIÓN. VIGAS V15 V16 .



zonas acotadas entre ejes de apoyos

FIBRA 5 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V12" V-29-1	1	1	0.00	790.58	10.00	598.41	65.00	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.53**	**0.43**
	1	2	3.05	639.59	11.27	318.50	171.86	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.43**	**0.29**
	2	2	3.05	638.80	60.95	216.92	151.38	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.45**	**0.21**
	2	3	6.10	495.58	47.10	190.62	222.86	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.35**	**0.22**
	3	3	6.10	493.65	83.89	348.18	198.47	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.36**	**0.32**
	3	4	9.15	357.35	65.15	92.38	260.23	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.27**	**0.18**
	4	4	9.15	353.31	99.89	217.60	252.11	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.28**	**0.25**
	4	5	12.20	223.44	75.08	25.93	290.31	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.18**	**0.14**
	5	5	12.20	217.46	122.62	70.48	306.14	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.20**	**0.18**
	5	6	15.25	224.37	143.97	113.82	337.91	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.21**	**0.22**
	6	6	15.25	221.02	124.74	40.98	373.96	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.20**	**0.19**
	6	7	18.30	348.82	167.19	238.85	392.64	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.31**	**0.33**
	7	7	18.30	354.86	167.60	99.57	433.39	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.31**	**0.26**
	7	8	21.35	489.77	196.05	367.47	428.79	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.41**	**0.43**
	8	8	21.35	495.60	157.25	177.62	481.35	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.40**	**0.33**
	8	9	24.40	634.54	191.60	498.48	463.50	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.51**	**0.53**
	9	9	24.40	639.73	211.95	249.82	523.93	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.52**	**0.40**
	9	10	27.45	782.90	246.48	633.74	490.77	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.63**	**0.64**
	10	10	27.45	788.12	255.07	316.17	558.31	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.64**	**0.45**
	10	11	30.50	935.69	288.61	391.10	522.25	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.75**	**0.49**
	11	11	30.50	939.50	232.83	532.71	592.05	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.73**	**0.61**
	11	12	33.55	1092.99	264.21	449.68	564.70	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.84**	**0.55**

FIBRA 5 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V13" V-30-1	12	10012	33.55	1089.98	170.20	870.59	580.11	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.80**	**0.83**
	12	13	37.19	907.82	128.91	519.00	638.81	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.66**	**0.62**
	13	13	37.19	904.07	186.71	367.01	567.29	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.68**	**0.49**
	13	14	40.82	729.27	152.98	385.49	617.59	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.55**	**0.53**
	14	14	40.82	722.15	133.16	284.35	643.31	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.54**	**0.43**
	14	15	44.46	553.55	102.40	191.67	594.47	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.41**	**0.39**
	15	15	44.46	544.89	31.57	407.01	510.98	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.38**	**0.49**
	15	16	48.10	382.10	0.69	99.47	559.31	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.25**	**0.31**
	16	16	48.10	373.85	31.99	255.27	501.60	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.26**	**0.39**
	16	17	51.73	216.47	5.45	17.34	523.97	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.15**	**0.24**
	17	17	51.73	213.78	32.51	107.83	500.09	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.16**	**0.29**
	17	18	55.37	219.27	28.31	113.37	494.63	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.16**	**0.29**
	18	18	55.37	221.47	17.81	24.59	531.30	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.16**	**0.25**
	18	19	59.01	378.75	20.38	269.44	499.18	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.26**	**0.39**
	19	19	59.01	386.97	20.46	153.27	567.03	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.27**	**0.35**
	19	20	62.64	549.69	12.51	205.71	517.68	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.37**	**0.36**
	20	20	62.64	558.20	78.71	276.73	602.81	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.41**	**0.45**
	20	21	66.28	726.78	110.19	290.32	550.77	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.53**	**0.43**
	21	21	66.28	734.13	123.66	392.94	626.81	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.54**	**0.54**
	21	22	69.91	908.83	157.99	372.97	575.41	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.67**	**0.50**
	22	22	69.91	912.81	92.84	526.28	648.94	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.65**	**0.63**
	22	23	73.55	1094.91	134.76	469.60	600.99	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.79**	**0.58**

FIBRA 5 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V15" V-31-1	23	10023	73.55	1111.33	271.64	931.70	601.37	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.86**	**0.88**
	23	24	76.66	954.06	239.09	385.59	589.96	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.74**	**0.51**
	24	24	76.66	950.16	295.51	396.57	520.88	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.76**	**0.49**
	24	25	79.77	799.75	261.83	320.21	557.48	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.65**	**0.46**
	25	25	79.77	794.23	253.46	644.62	497.27	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.64**	**0.65**
	25	26	82.88	648.40	217.40	252.49	523.61	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.53**	**0.40**
	26	26	82.88	642.72	196.98	506.69	469.25	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.51**	**0.54**
	26	27	85.99	501.18	162.65	178.92	481.27	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.40**	**0.33**
	27	27	85.99	494.98	201.04	372.90	433.70	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.42**	**0.44**
	27	28	89.10	357.57	172.45	99.65	433.51	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.31**	**0.26**
	28	28	89.10	351.07	171.48	219.22	396.21	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.31**	**0.32**
	28	29	92.21	220.85	128.79	17.84	373.83	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.20**	**0.18**
	29	29	92.21	224.01	146.26	147.62	340.83	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.21**	**0.25**
	29	30	95.32	220.40	122.79	75.40	306.52	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.20**	**0.18**
	30	30	95.32	226.68	75.14	24.39	295.05	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.18**	**0.15**
	30	31	98.43	358.83	99.76	223.88	255.05	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.28**	**0.26**
	31	31	98.43	363.20	65.48	93.84	264.91	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.27**	**0.18**
	31	32	101.54	501.88	83.88	359.48	201.29	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.37**	**0.33**
	32	32	101.54	503.90	47.03	196.03	226.85	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.36**	**0.23**
	32	33	104.65	649.64	60.48	222.32	154.29	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.46**	**0.22**
	33	33	104.65	650.48	10.36	326.20	175.27	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.44**	**0.29**
	33	34	107.76	805.22	8.55	612.52	66.17	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.54**	**0.44**

FIBRA 5 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V12" V-29-2	101	101	0.00	844.34	7.77	366.43	57.77	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.56**	**0.27**
	101	102	3.05	683.61	0.35	411.17	164.44	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.45**	**0.35**
	102	102	3.05	675.62	26.26	337.05	150.56	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.46**	**0.29**
	102	103	6.10	523.54	20.55	216.64	209.82	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.36**	**0.24**
	103	103	6.10	517.26	45.03	221.20	190.47	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.36**	**0.23**
	103	104	9.15	372.76	35.29	98.96	242.45	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.26**	**0.17**
	104	104	9.15	366.88	65.58	68.86	219.06	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.27**	**0.14**
	104	105	12.20	229.34	50.18	29.61	262.90	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.17**	**0.13**
	105	105	12.20	223.23	100.21	77.38	274.58	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.19**	**0.17**
	105	106	15.25	236.98	109.34	127.61	293.97	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.21**	**0.21**
	106	106	15.25	235.35	94.44	44.02	345.74	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.20**	**0.18**
	106	107	18.30	370.95	121.99	205.78	333.20	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.30**	**0.28**
	107	107	18.30	379.25	126.28	154.87	405.54	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.31**	**0.28**
	107	108	21.35	522.26	141.31	275.58	374.18	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.41**	**0.35**
	108	108	21.35	531.25	109.31	257.49	452.90	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.40**	**0.37**
	108	109	24.40	678.69	128.88	373.85	418.67	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.51**	**0.43**
	109	109	24.40	688.37	95.60	353.83	493.45	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.50**	**0.45**
	109	110	27.45	840.42	115.72	465.63	457.86	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.61**	**0.51**
	110	110	27.45	850.74	168.45	480.85	522.81	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.64**	**0.55**
	110	111	30.50	1007.62	188.19	558.10	495.09	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.75**	**0.59**
	111	111	30.50	1018.79	202.56	556.68	550.33	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.77**	**0.61**
	111	112	33.55	1181.97	221.95	657.48	529.89	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.88**	**0.67**

FIBRA 5 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V14" V-30-2	112	10112	33.55	1174.32	140.46	781.67	522.31	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.84**	**0.75**
	112	113	37.19	980.77	114.51	672.75	582.68	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.70**	**0.70**
	113	113	37.19	968.14	96.00	638.27	527.13	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.69**	**0.65**
	113	114	40.82	782.56	76.30	509.46	570.15	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.55**	**0.59**
	114	114	40.82	769.32	46.06	426.87	505.61	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.53**	**0.51**
	114	115	44.46	590.49	29.83	295.48	552.33	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.41**	**0.44**
	115	115	44.46	578.52	10.73	298.86	478.55	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.39**	**0.41**
	115	116	48.10	406.03	28.42	159.13	522.28	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.28**	**0.33**
	116	116	48.10	395.42	5.39	165.86	447.42	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.27**	**0.31**
	116	117	51.73	228.79	28.63	18.40	483.85	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.16**	**0.22**
	117	117	51.73	225.05	8.29	116.34	450.99	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.15**	**0.27**
	117	118	55.37	230.64	5.52	121.95	446.90	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.16**	**0.28**
	118	118	55.37	234.00	39.38	25.72	489.43	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.17**	**0.23**
	118	119	59.01	400.52	15.38	173.42	452.85	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.27**	**0.31**
	119	119	59.01	411.22	46.37	166.58	528.26	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.29**	**0.34**
	119	120	62.64	583.65	27.98	306.68	484.11	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.40**	**0.42**
	120	120	62.64	595.67	7.12	303.10	558.60	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.40**	**0.45**
	120	121	66.28	774.47	24.05	434.97	511.19	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.53**	**0.51**
	121	121	66.28	787.90	48.20	517.32	576.13	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.54**	**0.60**
	121	122	69.91	973.44	68.56	646.21	532.85	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.68**	**0.66**
	122	122	69.91	986.41	81.40	666.14	589.42	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.69**	**0.70**
	122	123	73.55	1179.93	108.00	593.36	553.28	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.83**	**0.64**

FIBRA 5 INTERACCIÓN CORTANTE TORSOR

	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		CÁLCULO Vrd(tn)							CÁLCULO Trd(tn)						
				Vmax	Tconc	Vcon	Tmax	K	Fcd(TN/M2)	COEF F1cd	bo	d	Cotg θ	Vrd(tn)	α	Ae	he	Trd(tn)	factor colaboración de fibra	Interacción hip 1	Interacción hip 2
"V16" V-31-2	123	10123	73.55	1200.87	224.84	782.95	529.80	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.90**	**0.75**
	123	124	76.66	1033.68	204.64	612.30	551.50	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.78**	**0.65**
	124	124	76.66	1022.24	188.51	566.98	495.73	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.76**	**0.59**
	124	125	79.77	862.33	168.90	487.69	524.36	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.65**	**0.55**
	125	125	79.77	851.53	116.37	472.38	458.62	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.62**	**0.51**
	125	126	82.88	696.66	95.02	358.59	494.93	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.50**	**0.45**
	126	126	82.88	686.78	129.83	378.48	419.41	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.51**	**0.44**
	126	127	85.99	536.55	110.54	260.01	454.39	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.41**	**0.37**
	127	127	85.99	527.47	142.79	283.06	374.97	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.41**	**0.35**
	127	128	89.10	381.80	127.88	160.23	406.99	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.31**	**0.28**
	128	128	89.10	373.20	123.17	208.09	336.00	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.30**	**0.29**
	128	129	92.21	234.99	95.66	42.36	346.75	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.20**	**0.18**
	129	129	92.21	236.70	110.27	160.06	297.25	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.21**	**0.24**
	129	130	95.32	226.29	101.69	80.95	275.48	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.19**	**0.17**
	130	130	95.32	232.45	48.72	28.28	267.31	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.18**	**0.14**
	130	131	98.43	372.41	64.44	70.80	223.02	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.28**	**0.14**
	131	131	98.43	378.42	33.96	100.71	247.23	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.27**	**0.18**
	131	132	101.54	525.47	43.79	225.89	194.22	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.37**	**0.24**
	132	132	101.54	531.75	19.10	223.58	213.98	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.36**	**0.24**
	132	133	104.65	686.51	24.84	344.68	153.97	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.47**	**0.30**
	133	133	104.65	694.71	1.71	420.08	168.24	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.46**	**0.35**
	133	134	107.76	859.45	9.84	500.58	59.60	1.0	4000.0	0.4	0.35	2.73	1.0	752.1	1.5	5.5	0.35	2285.3	0.50	**0.58**	**0.36**

				ARMADO CORTANTE - TORSOR														ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V12" V 29-1	1	1	0.00	790.6	10.0	598.4	65.0	2.7	1.0	0.50	39.4	29.8	5.5	1.0	0.2	1.4		**39.6**	31.3		0.2	1.5
	1	2	3.05	639.6	11.3	318.5	171.9	2.7	1.0	0.50	31.9	15.9	5.5	1.0	0.2	3.8		**32.1**	19.7		0.3	3.9
	2	2	3.05	638.8	61.0	216.9	151.4	2.7	1.0	0.50	31.8	10.8	5.5	1.0	1.3	3.4		**33.2**	14.2		1.4	3.4
	2	3	6.10	495.6	47.1	190.6	222.9	2.7	1.0	0.50	24.7	9.5	5.5	1.0	1.0	4.9		**25.7**	14.4		1.1	5.0
	3	3	6.10	493.7	83.9	348.2	198.5	2.7	1.0	0.50	24.6	17.4	5.5	1.0	1.9	4.4		**26.5**	21.8		1.9	4.5
	3	4	9.15	357.3	65.2	92.4	260.2	2.7	1.0	0.50	17.8	4.6	5.5	1.0	1.4	5.8		**19.3**	10.4		1.5	5.9
	4	4	9.15	353.3	99.9	217.6	252.1	2.7	1.0	0.50	17.6	10.8	5.5	1.0	2.2	5.6		**19.8**	16.4		2.3	5.7
	4	5	12.20	223.4	75.1	25.9	290.3	2.7	1.0	0.50	11.1	1.3	5.5	1.0	1.7	6.4		**12.8**	7.7		1.7	6.6
	5	5	12.20	217.5	122.6	70.5	306.1	2.7	1.0	0.50	10.8	3.5	5.5	1.0	2.7	6.8		**13.6**	10.3		2.8	6.9
	5	6	15.25	224.4	144.0	113.8	337.9	2.7	1.0	0.50	11.2	5.7	5.5	1.0	3.2	7.5		**14.4**	13.2		3.3	7.7
	6	6	15.25	221.0	124.7	41.0	374.0	2.7	1.0	0.50	11.0	2.0	5.5	1.0	2.8	8.3		**13.8**	10.3		2.8	8.5
	6	7	18.30	348.8	167.2	238.8	392.6	2.7	1.0	0.50	17.4	11.9	5.5	1.0	3.7	8.7		**21.1**	20.6		3.8	8.9
	7	7	18.30	354.9	167.6	99.6	433.4	2.7	1.0	0.50	17.7	5.0	5.5	1.0	3.7	9.6		**21.4**	14.6		3.8	9.8
	7	8	21.35	489.8	196.1	367.5	428.8	2.7	1.0	0.50	24.4	18.3	5.5	1.0	4.3	9.5		**28.8**	27.8		4.4	9.7
	8	8	21.35	495.6	157.2	177.6	481.3	2.7	1.0	0.50	24.7	8.9	5.5	1.0	3.5	10.7		**28.2**	19.5		3.6	10.9
	8	9	24.40	634.5	191.6	498.5	463.5	2.7	1.0	0.50	31.6	24.8	5.5	1.0	4.2	10.3		**35.9**	35.1		4.3	10.5
	9	9	24.40	639.7	212.0	249.8	523.9	2.7	1.0	0.50	31.9	12.5	5.5	1.0	4.7	11.6		**36.6**	24.1		4.8	11.9
	9	10	27.45	782.9	246.5	633.7	490.8	2.7	1.0	0.50	39.0	31.6	5.5	1.0	5.5	10.9		**44.5**	42.5		5.6	11.1
	10	10	27.45	788.1	255.1	316.2	558.3	2.7	1.0	0.50	39.3	15.8	5.5	1.0	5.6	12.4		**44.9**	28.1		5.8	12.6
	10	11	30.50	935.7	288.6	391.1	522.3	2.7	1.0	0.50	46.6	19.5	5.5	1.0	6.4	11.6		**53.0**	31.1		6.5	11.8
	11	11	30.50	939.5	232.8	532.7	592.0	2.7	1.0	0.50	46.8	26.6	5.5	1.0	5.2	13.1		**52.0**	39.7		5.3	13.4
	11	12	33.55	1093.0	264.2	449.7	564.7	2.7	1.0	0.50	54.5	22.4	5.5	1.0	5.9	12.5		**60.3**	34.9		6.0	12.8

				ARMADO CORTANTE - TORSOR														ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TC		HIP1	HIP2		HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V13" V-30-1	12	10012	33.55	1090.0	170.2	870.6	580.1	2.7	1.0	0.50	54.3	43.4	5.5	1.0	3.8	12.8		**58.1**	56.2		3.9	13.1
	12	13	37.19	907.8	128.9	519.0	638.8	2.7	1.0	0.50	45.3	25.9	5.5	1.0	2.9	14.1		**48.1**	40.0		2.9	14.5
	13	13	37.19	904.1	186.7	367.0	567.3	2.7	1.0	0.50	45.1	18.3	5.5	1.0	4.1	12.6		**49.2**	30.9		4.2	12.8
	13	14	40.82	729.3	153.0	385.5	617.6	2.7	1.0	0.50	36.4	19.2	5.5	1.0	3.4	13.7		**39.7**	32.9		3.5	14.0
	14	14	40.82	722.1	133.2	284.4	543.3	2.7	1.0	0.50	36.0	14.2	5.5	1.0	2.9	12.0		**38.9**	26.2		3.0	12.3
	14	15	44.46	553.5	102.4	191.7	594.5	2.7	1.0	0.50	27.6	9.6	5.5	1.0	2.3	13.2		**29.9**	22.7		2.3	13.5
	15	15	44.46	544.9	31.6	407.0	511.0	2.7	1.0	0.50	27.2	20.3	5.5	1.0	0.7	11.3		**27.9**	31.6		0.7	11.6
	15	16	48.10	382.1	0.7	99.5	559.3	2.7	1.0	0.50	19.0	5.0	5.5	1.0	0.0	12.4		**19.1**	17.3		0.0	12.7
	16	16	48.10	373.8	32.0	255.3	501.6	2.7	1.0	0.50	18.6	12.7	5.5	1.0	0.7	11.1		**19.3**	23.8		0.7	11.4
	16	17	51.73	216.5	5.4	17.3	524.0	2.7	1.0	0.50	10.8	0.9	5.5	1.0	0.1	11.6		**10.9**	12.5		0.1	11.9
	17	17	51.73	213.8	32.5	107.8	500.1	2.7	1.0	0.50	10.7	5.4	5.5	1.0	0.7	11.1		**11.4**	16.5		0.7	11.3
	17	18	55.37	219.3	28.3	113.4	494.6	2.7	1.0	0.50	10.9	5.7	5.5	1.0	0.6	11.0		**11.6**	16.6		0.6	11.2
	18	18	55.37	221.5	17.8	24.6	531.3	2.7	1.0	0.50	11.0	1.2	5.5	1.0	0.4	11.8		**11.4**	13.0		0.4	12.0
	18	19	59.01	378.8	20.4	259.4	499.2	2.7	1.0	0.50	18.9	12.9	5.5	1.0	0.5	11.1		**19.3**	24.0		0.5	11.3
	19	19	59.01	387.0	20.5	153.3	567.0	2.7	1.0	0.50	19.3	7.6	5.5	1.0	0.5	12.6		**19.7**	20.2		0.5	12.8
	19	20	62.64	549.7	12.5	205.7	517.7	2.7	1.0	0.50	27.4	10.3	5.5	1.0	0.3	11.5		**27.7**	21.7		0.3	11.7
	20	20	62.64	558.2	78.7	276.7	602.8	2.7	1.0	0.50	27.8	13.8	5.5	1.0	1.7	13.4		**29.6**	27.1		1.8	13.7
	20	21	66.28	726.8	110.2	290.3	550.8	2.7	1.0	0.50	36.2	14.5	5.5	1.0	2.4	12.2		**38.7**	26.7		2.5	12.5
	21	21	66.28	734.1	123.7	392.9	626.8	2.7	1.0	0.50	36.6	19.6	5.5	1.0	2.7	13.9		**39.3**	33.5		2.8	14.2
	21	22	69.91	908.8	158.0	373.0	575.4	2.7	1.0	0.50	45.3	18.6	5.5	1.0	3.5	12.7		**48.8**	31.3		3.6	13.0
	22	22	69.91	912.8	92.8	526.3	648.9	2.7	1.0	0.50	45.5	26.2	5.5	1.0	2.1	14.4		**47.6**	40.6		2.1	14.7
	22	23	73.55	1094.9	134.8	469.6	601.0	2.7	1.0	0.50	54.6	23.4	5.5	1.0	3.0	13.3		**57.6**	36.7		3.1	13.6

	ARMADO CORTANTE - TORSOR																ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TO		HIP1	HIP2	HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V15" V-31-1	23	10023	73.55	1111.3	271.6	931.7	601.4	2.7	1.0	0.50	55.4	46.4	5.5	1.0	6.0	13.3	**61.4**	59.8		6.2	13.6
	23	24	76.66	954.1	239.1	385.6	590.0	2.7	1.0	0.50	47.6	19.2	5.5	1.0	5.3	13.1	**52.9**	32.3		5.4	13.4
	24	24	76.66	950.2	295.5	396.6	520.9	2.7	1.0	0.50	47.4	19.8	5.5	1.0	6.5	11.5	**53.9**	31.3		6.7	11.8
	24	25	79.77	799.7	261.8	320.2	557.5	2.7	1.0	0.50	39.9	16.0	5.5	1.0	5.8	12.3	**45.7**	28.3		5.9	12.6
	25	25	79.77	794.2	253.5	644.6	497.3	2.7	1.0	0.50	39.6	32.1	5.5	1.0	5.6	11.0	**45.2**	43.1		5.7	11.3
	25	26	82.88	648.4	217.4	252.5	523.6	2.7	1.0	0.50	32.3	12.6	5.5	1.0	4.8	11.6	**37.1**	24.2		4.9	11.9
	26	26	82.88	642.7	197.0	506.7	469.2	2.7	1.0	0.50	32.0	25.3	5.5	1.0	4.4	10.4	**36.4**	35.6		4.5	10.6
	26	27	85.99	501.2	162.7	178.9	481.3	2.7	1.0	0.50	25.0	8.9	5.5	1.0	3.6	10.7	**28.6**	19.6		3.7	10.9
	27	27	85.99	495.0	201.0	372.9	433.7	2.7	1.0	0.50	24.7	18.6	5.5	1.0	4.5	9.6	**29.1**	28.2		4.6	9.8
	27	28	89.10	357.6	172.5	99.6	433.5	2.7	1.0	0.50	17.8	5.0	5.5	1.0	3.8	9.6	**21.6**	14.6		3.9	9.8
	28	28	89.10	351.1	171.5	219.2	396.2	2.7	1.0	0.50	17.5	10.9	5.5	1.0	3.8	8.8	**21.3**	19.7		3.9	9.0
	28	29	92.21	220.9	128.8	17.8	373.8	2.7	1.0	0.50	11.0	0.9	5.5	1.0	2.9	8.3	**13.9**	9.2		2.9	8.5
	29	29	92.21	224.0	146.3	147.6	340.8	2.7	1.0	0.50	11.2	7.4	5.5	1.0	3.2	7.5	**14.4**	14.9		3.3	7.7
	29	30	95.32	220.4	122.8	75.4	306.5	2.7	1.0	0.50	11.0	3.8	5.5	1.0	2.7	6.8	**13.7**	10.5		2.8	6.9
	30	30	95.32	226.7	75.1	24.4	295.0	2.7	1.0	0.50	11.3	1.2	5.5	1.0	1.7	6.5	**13.0**	7.7		1.7	6.7
	30	31	98.43	358.8	99.8	223.9	255.1	2.7	1.0	0.50	17.9	11.2	5.5	1.0	2.2	5.6	**20.1**	16.8		2.3	5.8
	31	31	98.43	363.2	65.5	93.8	264.9	2.7	1.0	0.50	18.1	4.7	5.5	1.0	1.5	5.9	**19.6**	10.5		1.5	6.0
	31	32	101.54	501.9	83.9	359.5	201.3	2.7	1.0	0.50	25.0	17.9	5.5	1.0	1.9	4.5	**26.9**	22.4		1.9	4.6
	32	32	101.54	503.9	47.0	196.0	226.8	2.7	1.0	0.50	25.1	9.8	5.5	1.0	1.0	5.0	**26.2**	14.8		1.1	5.1
	32	33	104.65	649.6	60.5	222.3	154.3	2.7	1.0	0.50	32.4	11.1	5.5	1.0	1.3	3.4	**33.7**	14.5		1.4	3.5
	33	33	104.65	650.5	10.4	326.2	175.3	2.7	1.0	0.50	32.4	16.3	5.5	1.0	0.2	3.9	**32.7**	20.1		0.2	4.0
	33	34	107.76	805.2	8.6	612.5	66.2	2.7	1.0	0.50	40.1	30.5	5.5	1.0	0.2	1.5	**40.3**	32.0		0.2	1.5

	ARMADO CORTANTE - TORSOR																ARMAD. TOTAL TRANSV.		ARMAD. TORSIÓN LONG		
	Barra	Nudo	X	Hipótesis 1		Hipótesis 2		ARMADURA POR CORTANTE			HIP1	HIP2	ARMADURA POR TO		HIP1	HIP2	HIP1	HIP2		HIP1	HIP2
				Vmax	Tconc	Vcon	Tmax	d	Cotg θ	factor colaboración de fibra	A (cm2/m)	A (cm2/m)	Ae(m2)	Cotg q	A (cm2/m)	A (cm2/m)	A (cm2/m)	A (cm2/m)		A (cm2/m)	A (cm2/m)
"V12" V-29-2	101	101	0.00	844.3	7.8	366.4	57.8	2.7	1.0	0.50	42.1	18.3	5.5	1.0	0.2	1.3	**42.3**	19.5		0.2	1.3
	101	102	3.05	683.6	0.3	411.2	164.4	2.7	1.0	0.50	34.1	20.5	5.5	1.0	0.0	3.6	**34.1**	24.1		0.0	3.7
	102	102	3.05	675.6	26.3	337.1	150.6	2.7	1.0	0.50	33.7	16.8	5.5	1.0	0.6	3.3	**34.3**	20.1		0.6	3.4
	102	103	6.10	523.5	20.5	216.6	209.8	2.7	1.0	0.50	26.1	10.8	5.5	1.0	0.5	4.6	**26.6**	15.4		0.5	4.8
	103	103	6.10	517.3	45.0	221.2	190.5	2.7	1.0	0.50	25.8	11.0	5.5	1.0	1.0	4.2	**26.8**	15.2		1.0	4.3
	103	104	9.15	372.8	35.3	99.0	242.4	2.7	1.0	0.50	18.6	4.9	5.5	1.0	0.8	5.4	**19.4**	10.3		0.8	5.5
	104	104	9.15	366.9	65.6	68.9	219.1	2.7	1.0	0.50	18.3	3.4	5.5	1.0	1.5	4.9	**19.7**	8.3		1.5	5.0
	104	105	12.20	229.3	50.2	29.6	262.9	2.7	1.0	0.50	11.4	1.5	5.5	1.0	1.1	5.8	**12.5**	7.3		1.1	6.0
	105	105	12.20	223.2	100.2	77.4	274.6	2.7	1.0	0.50	11.1	3.9	5.5	1.0	2.2	6.1	**13.3**	9.9		2.3	6.2
	105	106	15.25	237.0	109.3	127.6	294.0	2.7	1.0	0.50	11.8	6.4	5.5	1.0	2.4	6.5	**14.2**	12.9		2.5	6.7
	106	106	15.25	235.3	94.4	44.0	345.7	2.7	1.0	0.50	11.7	2.2	5.5	1.0	2.1	7.7	**13.8**	9.9		2.1	7.8
	106	107	18.30	371.0	122.0	205.8	333.2	2.7	1.0	0.50	18.5	10.3	5.5	1.0	2.7	7.4	**21.2**	17.6		2.8	7.5
	107	107	18.30	379.3	126.3	154.9	405.5	2.7	1.0	0.50	18.9	7.7	5.5	1.0	2.8	9.0	**21.7**	16.7		2.9	9.2
	107	108	21.35	522.3	141.3	275.6	374.2	2.7	1.0	0.50	26.0	13.7	5.5	1.0	3.1	8.3	**29.2**	22.0		3.2	8.5
	108	108	21.35	531.2	109.3	257.5	452.9	2.7	1.0	0.50	26.5	12.8	5.5	1.0	2.4	10.0	**28.9**	22.9		2.5	10.3
	108	109	24.40	678.7	128.9	373.8	418.7	2.7	1.0	0.50	33.8	18.6	5.5	1.0	2.9	9.3	**36.7**	27.9		2.9	9.5
	109	109	24.40	688.4	95.6	353.8	493.5	2.7	1.0	0.50	34.3	17.6	5.5	1.0	2.1	10.9	**36.4**	28.6		2.2	11.2
	109	110	27.45	840.4	115.7	465.6	457.9	2.7	1.0	0.50	41.9	23.2	5.5	1.0	2.6	10.1	**44.5**	33.4		2.6	10.4
	110	110	27.45	850.7	168.5	480.9	522.8	2.7	1.0	0.50	42.4	24.0	5.5	1.0	3.7	11.6	**46.1**	35.5		3.8	11.8
	110	111	30.50	1007.6	188.2	558.1	495.1	2.7	1.0	0.50	50.2	27.8	5.5	1.0	4.2	11.0	**54.4**	38.8		4.3	11.2
	111	111	30.50	1018.8	202.6	556.7	550.3	2.7	1.0	0.50	50.8	27.7	5.5	1.0	4.5	12.2	**55.3**	39.9		4.6	12.5
	111	112	33.55	1182.0	221.9	657.5	529.9	2.7	1.0	0.50	58.9	32.8	5.5	1.0	4.9	11.7	**63.8**	44.5		5.0	12.0

10	92.5	817.2	798.5	0.0	817.2	10	$$$$$$	0.0	0.0	0.0	0.0
11	92.5	686.5	667.9	0.0	686.5	11	$$$$$$	0.0	0.0	0.0	0.0
12	92.5	596.5	585.8	0.0	596.5	12	$$$$$$	0.0	0.0	0.0	0.0
13	92.5	-185.9	-219.0	0.0	0.0	13	$$$$$$	0.0	0.0	0.0	0.0

Incrementos de Carga:

2

PACADAR | ESTUDIO: | OBRA: | FECHA: | HOJA:

$\Delta\sigma_{s,71}$ EN CDV (Sección CSEC 1)

Se consideran esfuerzos en servicio (comb infrecuente) los trenes incorporan el coeficiente de impacto

$N = -1604'05$ ton. $\quad e = \frac{-1879'03}{1604'05} + 0'2281$

$M = 1879'03$ ton.

$e = -1'172 + 0'2281 = -0'24$ m.

En la situación de cargas permanentes inf a pesitivas se tiene:

$N = -1604'05$ ton. $\quad e = -\frac{3693'20}{1604'05} + 0'2281 =$

$M = 3693'20$ m ton. $\quad = -2'302 + 0'2281 =$

$= -1'37$ m

se obtiene unas tensiones de

$\Delta\sigma_{s,71} = 3843'5 - 1076'4 = 2767'1 < 3530$ kp/cm²

OK

Proyecto:
V-3 [redacted]TA OLIVA

Seccion:CSEC1

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J╥1	J╥2
1(HO)	350.0	1.50	297790	2.60	1.45
2(HO)	600.0	1.50	346940	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1800000		
7(PR)	1.0	1.00	1		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ╥(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	4	28.0	13.4	280.0	*T	0
6	4	26.0	13.4	275.2	*T	0
7	4	28.0	13.4	270.4	*T	0
8	4	28.0	13.4	265.6	*T	0
9	4	8.0	13.4	45.0	*T	0
10	3	35.0	12.0	5.0	CT	0
11	3	35.0	12.0	19.0	CT	0
12	3	16.0	20.0	260.0	CT	0
13	3	8.0	25.0	265.0	CT	0

SECCIONES INTERMEDIAS

Num	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3321.3	32.19	13634768.1
	(1)	1266.5	62.77	11687045.0
	(2)	1654.8	51.17	12399273.8
F.pura -	(0)	1152.2	250.77	5377335.2
	(1)	580.0	229.32	4832458.9
	(2)	689.9	236.06	4998476.0
C.Simple	(0)	5710.8	92.81	61318274.4
	(1)	1810.8	105.72	22120527.2
	(2)	2514.9	100.43	29298564.9
T.Simple	(0)	310.8	197.03	4087253.4
	(1)	310.8	197.03	4087253.4
	(2)	310.8	197.03	4087253.4

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

**** CALCULO ELASTICO ****

T╒tulo Secci├n: CSEC1

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Axil : -1604.05Tn. SC INFRECU
Excentricidad: -24.00cm.(respecto a la directriz)
Tipo de Solicitacion: SO
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	95.7	-92.5	-63.5	0.0	0.0	1	$$$$$$	0.0	0.0	0.0	0.0
2	95.7	-74.0	-40.2	0.0	0.0	2	$$$$$$	0.0	0.0	0.0	0.0
3	95.7	-40.2	0.0	0.0	0.0	3	$$$$$$	0.0	0.0	0.0	0.0
4	95.7	0.0	0.0	0.0	0.0	4	$$$$$$	0.0	0.0	0.0	0.0
5	95.7	1076.4	1084.2	0.0	1084.2	5	$$$$$$	0.0	0.0	0.0	0.0
6	95.7	1048.4	1056.2	0.0	1056.2	6	$$$$$$	0.0	0.0	0.0	0.0
7	95.7	1020.3	1028.2	0.0	1028.2	7	$$$$$$	0.0	0.0	0.0	0.0
8	95.7	992.3	1000.1	0.0	1000.1	8	$$$$$$	0.0	0.0	0.0	0.0
9	95.7	-296.4	-288.6	0.0	296.4	9	$$$$$$	0.0	0.0	0.0	0.0
10	95.7	-618.4	-610.2	0.0	618.4	10	$$$$$$	0.0	0.0	0.0	0.0
11	95.7	-523.0	-514.8	0.0	523.0	11	$$$$$$	0.0	0.0	0.0	0.0
12	95.7	1119.5	1133.1	0.0	1133.1	12	$$$$$$	0.0	0.0	0.0	0.0
13	95.7	1153.6	1170.6	0.0	1170.6	13	$$$$$$	0.0	0.0	0.0	0.0

Incrementos de Carga:
1

Incremento de Carga 2 :
Axil : -1604.05Tn. C PERM
Excentricidad: -137.00cm.(respecto a la directriz)
Tipo de Solicitacion: SO
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	55.2	-156.2	-71.3	0.0	0.0	1	$$$$$$	0.0	0.0	0.0	0.0
2	55.2	-83.1	0.0	0.0	0.0	2	$$$$$$	0.0	0.0	0.0	0.0
3	55.2	0.0	0.0	0.0	0.0	3	$$$$$$	0.0	0.0	0.0	0.0
4	55.2	0.0	0.0	0.0	0.0	4	$$$$$$	0.0	0.0	0.0	0.0
5	55.2	3843.5	3866.4	0.0	3866.4	5	$$$$$$	0.0	0.0	0.0	0.0
6	55.2	3761.5	3784.3	0.0	3784.3	6	$$$$$$	0.0	0.0	0.0	0.0
7	55.2	3679.4	3702.3	0.0	3702.3	7	$$$$$$	0.0	0.0	0.0	0.0
8	55.2	3597.3	3620.2	0.0	3620.2	8	$$$$$$	0.0	0.0	0.0	0.0

9	55.2	-174.7	-151.8	0.0	174.7	9 $$$$$$	0.0	0.0	0.0	0.0
10	55.2	-1001.7	-977.8	0.0	1001.7	10 $$$$$$	0.0	0.0	0.0	0.0
11	55.2	-722.4	-698.5	0.0	722.4	11 $$$$$$	0.0	0.0	0.0	0.0
12	55.2	4085.2	4125.1	0.0	4125.1	12 $$$$$$	0.0	0.0	0.0	0.0
13	55.2	4184.9	4234.8	0.0	4234.8	13 $$$$$$	0.0	0.0	0.0	0.0

Incrementos de Carga:

2

2.2.4. Tablero. Cálculos locales

2.2.4.1. *Armaduras locales de apoyos y anclajes de pretensado*

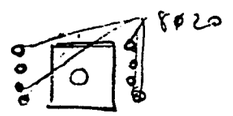
Detalles locales de pretensado:

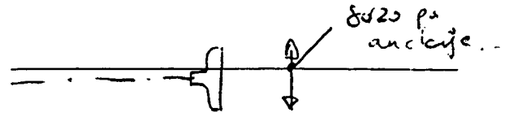
Se dimensiona con $P_k = 1'1 \cdot 1995 \text{ kn/tendón} \times 2 =$
$= 1553'5 \text{ kn/ud} = 350'6''$

o Armadura de anclaje: en la zona de pretensado supone un esfuerzo bajo efecto de

$0'3 P_k$ a $210 \text{ N/mm}^2 =$ $\frac{1553'5 \cdot 0'3}{2'2} = 24'5 \text{ cm}^2$

$\Rightarrow$ 8ø20 por anclaje.





o Armadura superficial: $0'04 P_k$ a $210 \text{ N/mm}^2 =$

$0'04 \cdot 1553'5 / 210 = 2'93 \text{ cm}^2/\text{m} \Rightarrow 4ø10$ por anclaje.

56 para anclaje activo.

o Armadura de difusión primaria =>

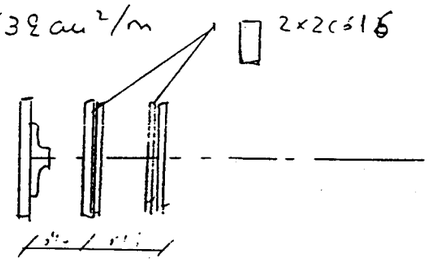
- En Vertical o.

$$0'33 \cdot \frac{P_k}{2'1} \cdot \left(1 - \frac{d_1}{d_2}\right)$$

Andenes pares - $d_1/d_2 = 0'16/0'33 = 0'3$

Andenes impares - $d_1/d_2 = 0'09/0'36 = 0'2$

$A_s = 11'32 cm^2/m$ □ 2×2c/15



- En Horizontal o

- Andenes pares

$\frac{d_1}{d_2} = \frac{0'16}{0'33} = 0'325 \rightarrow$

$A_s = 16'08 cm^2 \Rightarrow$ 8ø16

- Andenes impares
A 25 cm/ml.

$\frac{d_1}{d_2} = \frac{0'09}{1'20} = 0'0791$

$A_s = 18'67 cm^2 \Rightarrow$ 3×2cc

Este apartado se estructura en:

- Aparatos de apoyo.
- Mamparos intermedios
- Mamparos extremos
- Dimensionamiento sección pila. Barras MACALLOY.
- Estudio de mamparos frente a cargas horizontales.

APARATOS DE APOYO

La definición de los aparatos de apoyo así como los alojamientos de los pernos en las vigas no se detallan en los planos de proyecto.

No obstante PACADAR, en su adaptación de los planos de proyecto a los planos de taller para la fabricación de las vigas incluye dichos aparatos de apoyo.

Asimismo, en las vigas, para evitar el vuelco durante la construcción PACADAR tiene previsto la colocación de unas tacas metálicas de apoyo.

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

La Geometría de los mamparos es análoga a la de los frames previamente calculados. Se recogen a continuación los esfuerzos de cálculo empleados en los cálculos del viaducto V-1 y los del presente viaducto V-3

MAMPAROS INTERIORES

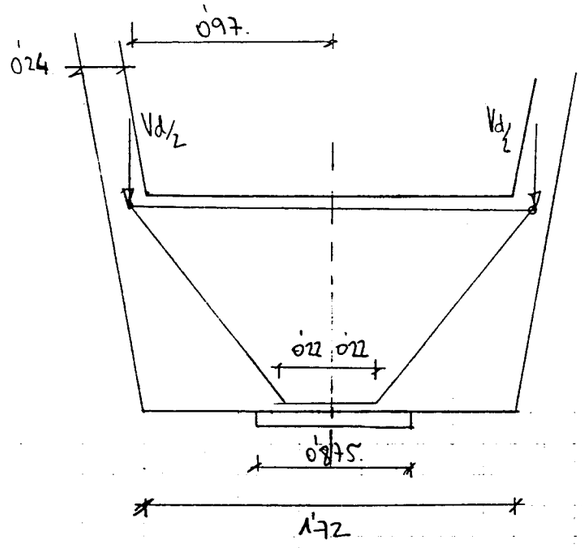
V-1	V-3	
$V_d = 1225'31$ ton	$V_d = 1200'9$ ton	$\frac{V_2 i_{V2}}{V_2 V_1} = 0'98$

MAMPAROS EXTREMOS:

V-1	V-3	
$V_d = 845'08$	$V_d = 859'45$	$\frac{V_2 V_3}{V_2 V_1} = 1'01$

Se observa la semejanza de esfuerzos entre ambos viaductos por lo que NO se realiza un nuevo cálculo se adjunta a continuación los cálculos correspondientes a los mamparos realizados en el viaducto V-2

MAMPAROS INTERMEDIOS (de continuidad)



$V_d = 1225'31$ t.

A) ARMADO COMO MÉNSULA CORTA.

Vuelo = 0'97 - 0'875/4 = 0'751 m.

Canto útil = 0'92 - 0'15 = 0'77 m

$T_{Vd} = 1225'31/2 \times 0'751/0'77 \times \frac{1}{4'09} = 1'4609$ cm².

⇓

3 capas de 10 ϕ 25 ⌐ 7'62.

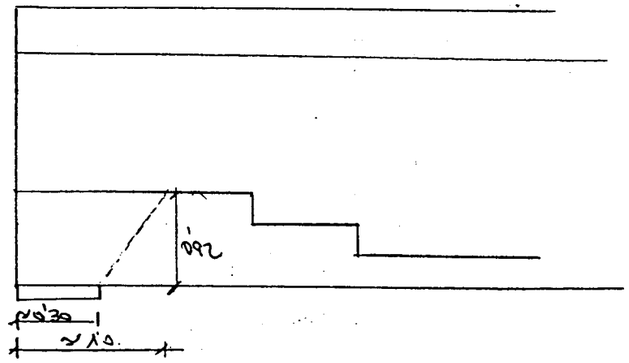
$$T_{2d} = 0'2\, T_{td} = 0'2 \times 1225'31/2 = 122'53\ t \Rightarrow 2495.\ cm^2$$

$$\Downarrow$$

$2 \times 3\,\phi 16 + 2 \times 3\,\phi 20.$

1ño

B) ARMADURA de CUELGUE:



Se comprueba que con la armadura dispuesta a cortante se puede colgar el cortante del rincón (en aproximadamente 1m)

$A_{S\ cuelgue} = 1'0 \times 4 = 160'88\ t/alma$

"

$2c\phi 16 a 0'20$

Cortante a colgar: $1225'31/2 \times 0'92/2'55 = 221'04\ t.$

Armadura que cose el rincón $8\,2c\phi 16 \times 1'5\ (257\ t.)$

C) ARMADURA de APOYOS

- Superficial:

$$0'04 \times P_k/2'1 = 0'04 \times \frac{1225/1'5}{2'1} = 15'56\ cm^2$$

- Difusión primaria:

En transversal está contemplado en el calculo del tirante

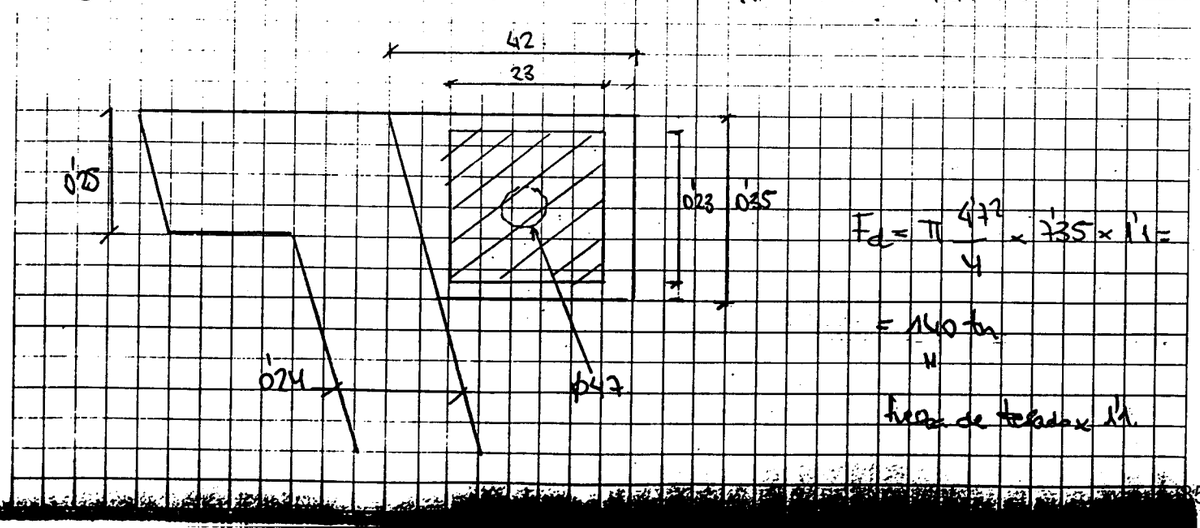
En longitudinal:

$$0'33 \times P_k\,(1 - 0'60/2) = 188'7\ t.$$

$$\Downarrow$$

recogido por las barras Macalloy.

D) ARMADURA de REFUERZO de BARRAS MACALLOY SUPERIORES

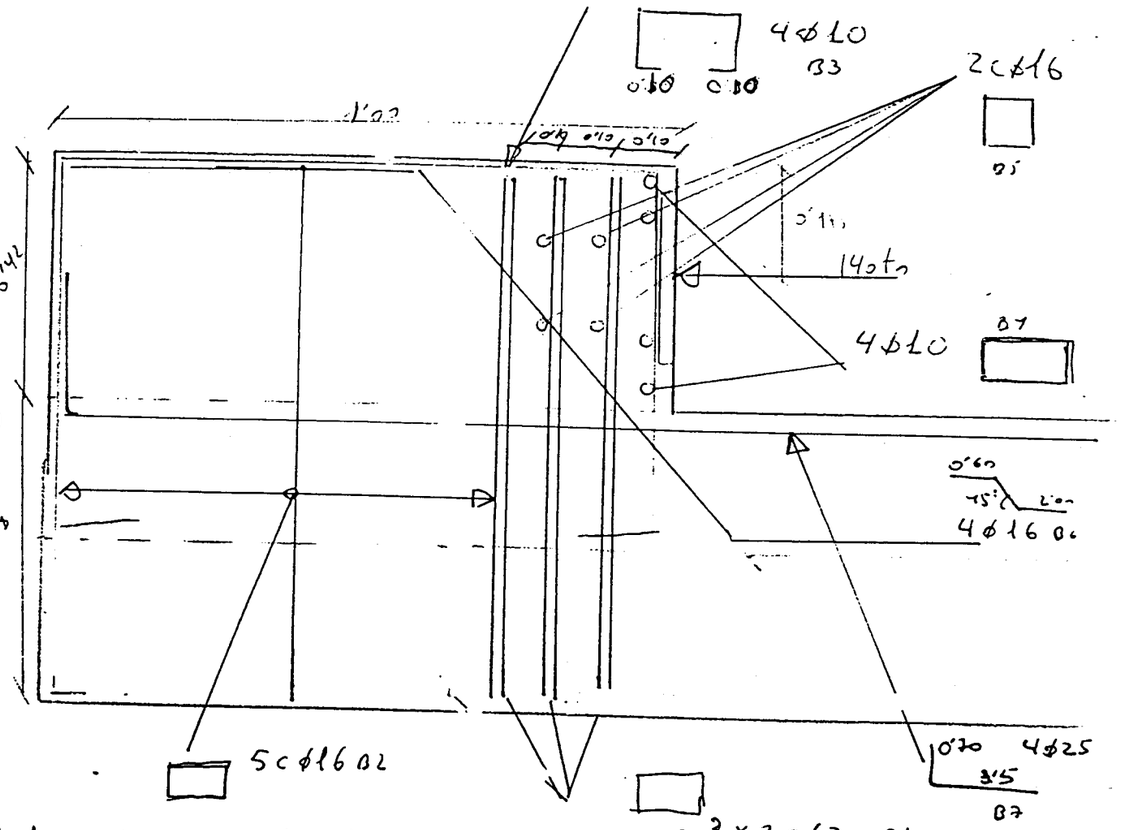


$$F_d = \pi \frac{47^2}{4} \times 7'35 \times 1'1 =$$

$$= 1140\ t_m$$

"

fuerza de tesado $\times 1'1$.



d1) Armadura superficial =>

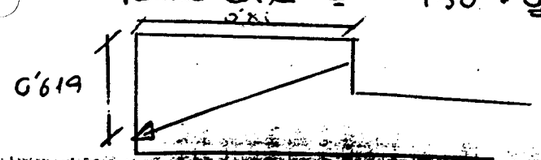
$$\frac{0'04\ P_K}{2'1} = 0'04 \cdot \frac{140\ tn}{2'1} = 2'66\ cm^2 \quad 4\phi 10$$

d2) Planta => armadura principal:

difusión principal = $0'33 \cdot \frac{140\ tn}{2'1}\left(1 - \frac{2'2}{7'15}\right) = 18'6\ cm^2/anclaje$

50% RASANTE = $\frac{0'5 \cdot 140}{2'8 \cdot 1'4} = 17'85\ cm^2/anclaje$

Manuela corta = $150 * \frac{0'619}{0'85} \cdot \frac{1}{2'8} = \boxed{32'01}$ anclaje



3*2cϕ20 + suplementos

armadura secundaria:

0'5 Rasante = $\boxed{17'85}\ cm^2/m$ 5cϕ16

$0'2 \cdot \frac{150}{2'8} = 10'71\ cm^2/m$

d3) difusión en vertical

$0'33 \cdot \frac{150}{2'1} \cdot \left(1 - \frac{2'3}{3'5}\right) = 8'08\ cm^2$ 4ϕ16

d4) Comprobación de compresión:

$\frac{150}{0'3 \cdot 1'33} < 0'2\ f_{cd} = 0'2 \cdot \frac{6000}{1'5} = 800\ tn/m^2$

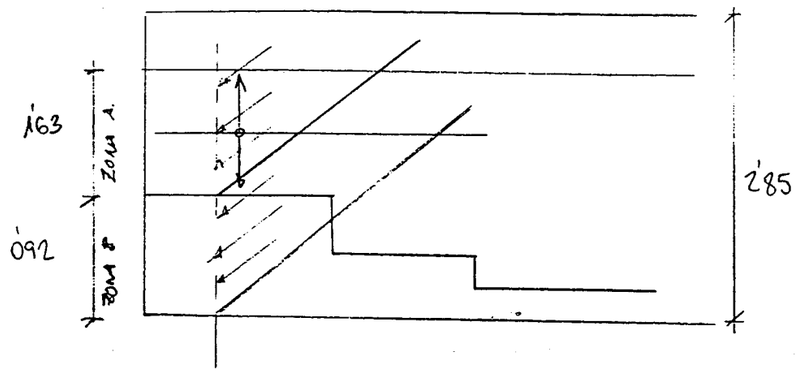
d5) Armadura: $\frac{0'35 \cdot 150}{2'5} = 21\ cm^2$

2/3 14 cm² 4ϕ25

1/3 7cm² => 4ϕ16

E) COMPROBACIÓN DEL ANCLAJE DE LA BIELA.

Al existir continuidad en el apoyo, se considera a efectos de anclaje la diferencia de cortante máximo por un lado y mínimo por el otro.



ZONA A: Los cercos deben resistir:

$$\frac{V_d}{2} \times \frac{1'63}{2'55} \times \frac{1}{4} = \frac{955'4}{2} \times \frac{1'63}{2'55} \times \frac{1}{4} = 76'34\ cm^2 \Rightarrow 19\ U\ \phi 16.$$

ZONA B:

$$V_d \cdot \frac{0'92}{2'55} = 344'69\ t \Rightarrow \text{se cogen con } 26\ \phi 06''$$

$$26 \times \frac{17'1}{1'15} \times 1'4 = 541'25\ t.$$

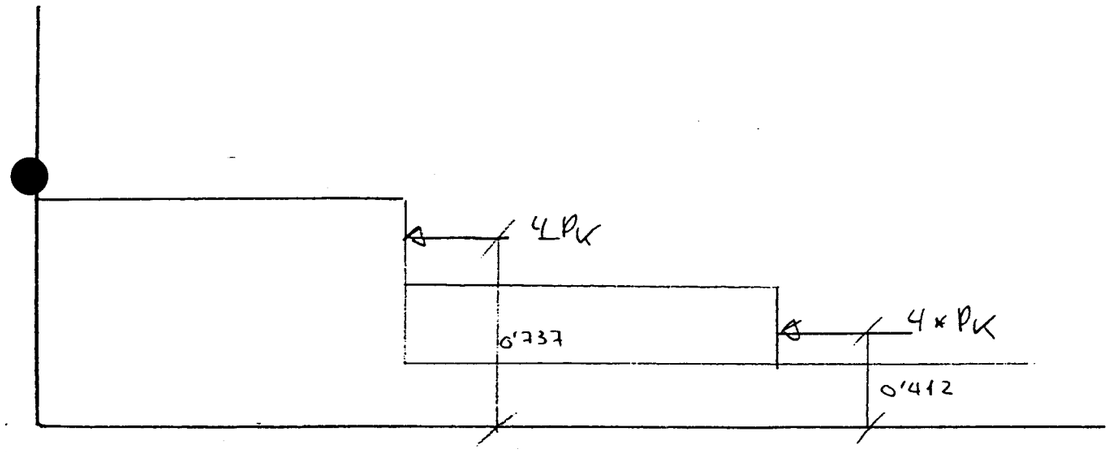
CÁLCULO TENSIONAL

Hipótesis de cálculo:

CONGRADIENTE			ENVOLVENTE VY+			ENVOLVENTE VY-			DIFERENCIAS
Coeficiente	Barra	Nudo	X	Vy (T)	Mx (Tm)		Vy (T)	Mx (Tm)	
	12	10013	33.50	1047.016	101.0595		250.5548	-47.07356	-899.5992
	13	13	33.50	-271.356	-63.67978		-1150.154	115.4958	775.66
	24	10025	73.50	1022.133	-85.04314		281.6844	249.9204	-723.0426
	25	25	73.50	-173.8812	-76.67958		-1004.727	452.359	848.2518
	110	10111	27.40	1066.835	395.0225		197.5744	-54.79112	-901.4046
	111	111	27.40	-303.5818	48.76847		-1098.979	-1.901291	763.2532
	122	10123	67.40	1225.31	64.46812		277.6331	-74.15189	-862.1219
	123	123	67.40	-269.8975	-74.67499		-1139.755	118.0564	955.4125

f) Armaduras de difusión de bases blocalloy inferiores:

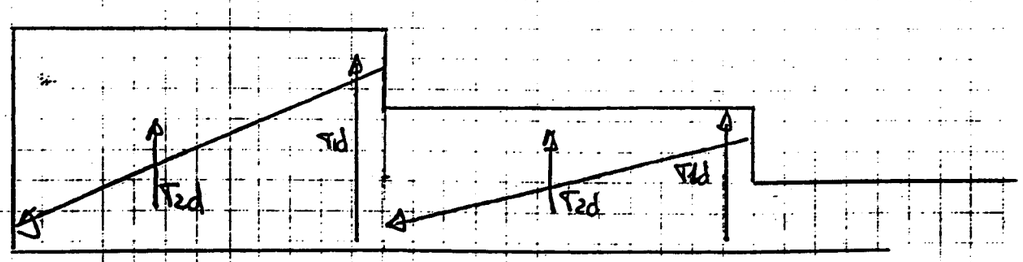
$P_K = 140\,t_n$



f1) Armadura superficial ⇒

$\frac{0'04\,P_K}{2'L} = \frac{0'02 \cdot 140}{2'1} = 2'66$ 4ø10 por anclaje

f2) ARMADO COMO MENSULA CORTA:



Anclajes superiores: (Tabla inferior)

□ T_{1d} (POR ANCLAJE) = $\frac{0'734}{1'10} \times \frac{140\,t_n}{2'80} = 33'40$ cm²/anclaje

Se comprueba que es mayor que:

o DIFUSIÓN PRIMARIA:

$0'33 \cdot P_K \cdot \frac{1}{2'5} \cdot \left(1 - \frac{0'22}{0'57}\right) = 11'96$ cm²/anclaje

o 50% del rasante:

$0'5 \cdot \frac{140\,t_n}{2'8 \cdot 1'4} = 17'85$ cm²/anclaje

□ En el resto se disponen la mayor de estas calculadas:

T_{2d} - Momento corte = $0'2 \cdot \frac{140\,t_n}{2'80} = 10$ cm²/anclaje

T_{2d} - 50% rasante = $0'5 \cdot \frac{140\,t_n}{2'8 \cdot 1'4} = 17'85$ cm²/anclaje

Realizando el mismo cálculo para los anclajes inferiores (tabla inferior)

$T_{1d} = \frac{140\,t_n}{3'0} (\cot g\,\theta = 1) = 46$ cm²/anclaje

Resto = 50% rasante ⇒ $0'5 \cdot \frac{140}{2'8 \cdot 1'4} = 17'85$ cm²/anclaje

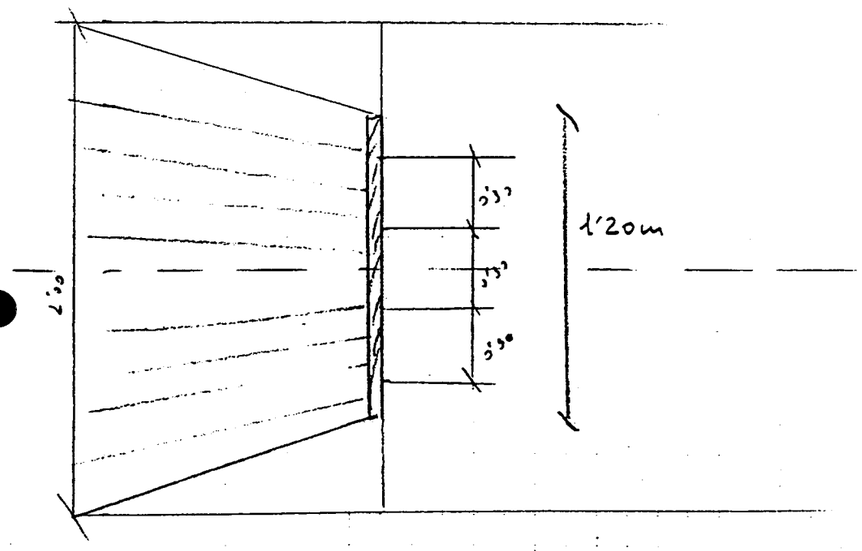
d3) Armadura = $\frac{0'35 \cdot P_k}{2'5} = 19'60\ cm^2/m$ por anclaje

e) Comprobación de compresión

$\frac{1'5 Fn \cdot \gamma_{anclaje}}{1'30m \cdot 1'25m} = 344'61\ tn/m^2 < 0'2 f_{cd} = 466 tn/m^2$.

$f_{cd} = \frac{25.000}{1'5}$

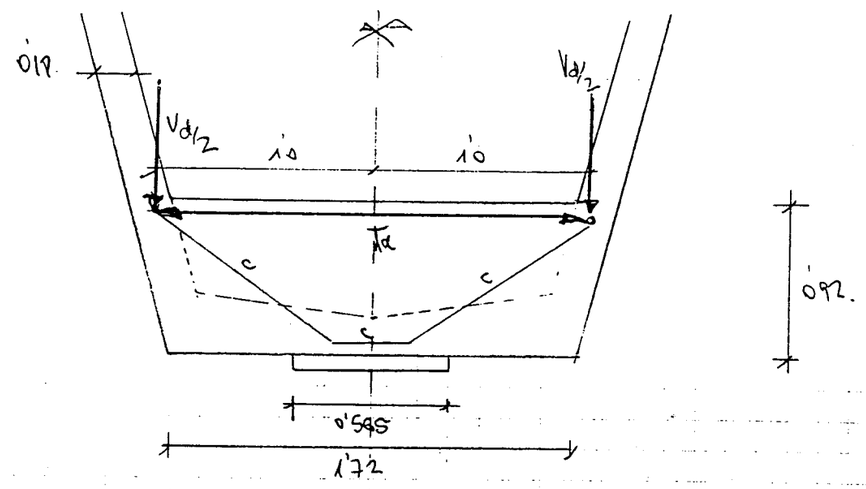
5) Difusión en planta



$0'33 \cdot \gamma \cdot P_k \cdot \left(1 - \frac{d}{d'}\right) = 0'33 \cdot 4 \cdot 170 \cdot \left(1 - \frac{1'22}{2}\right)$

$= 73'92\ tn$ a $2.500\ kg/cm^2 \Rightarrow 29'56\ cm^2$

MAMPAROS EXTREMOS



$V_{d\,max} = 845'08$ t. (nudo 135)

c) ARMADO COMO MÉNSULA CORTA:

Vuelo = 1 - 0'595/2 = 0'7175 m. ; (canto útil = 0'92 - 0'10 = 0'82)

$\cdot T_{sd} = F_{cd} \times tg\theta = A_s f_{yd}$

$A_s = \frac{845}{2} \times \frac{0'7175}{0'82} \times \frac{1}{4} = 92'42\ cm^2$.

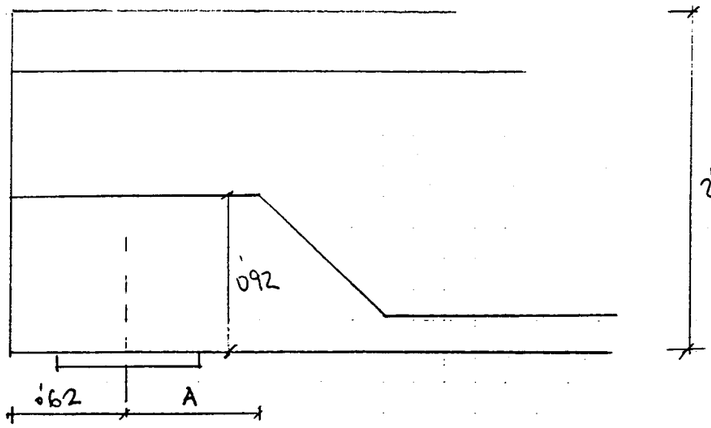
3 capas de 10 ϕ 20. ⌈ 15.

$T_{2d} = 0'26\ F_{vd} = 0'26 \times 845/2 = 84'5\ tn \Rightarrow 21'125\ cm^2/m.$

$\Downarrow$

$3 \times 4 \text{ c } \phi 12.$

B) ARMADURA de CUELGE



Se comprueba que con la armadura de cortante existente se cuelga el cortante que llega por la parte inferior del macizado.

$$A_{s(corte\ 1/c)} \times (A + 0'62) \times 4 \geq \frac{V_d}{2} \times \frac{0'92}{2'85}$$

VIGA.	A.	A_s	V_d	$A_s \times (1+0'62) \times 4'0$		$V_d/2 \cdot 0'92/2'75.$
V1	0'232	2φ16a20.	778'96.	233'28	>	125'71 tn
V2	0'652.	2φ16a20.	C885B	204'32.	>	1M'13. tn
V4	0'922	2φ16a20.	654'79	247'75.	>	165'62. tn
V5	0'512.	2φ16a20.	845'09.	181'79.	>	136'39. tn

C) ARMADURA de APOYOS.:

- Superficial:

$0'04 \times P_k/2'1 = 0'04 \times (845'03/1'5)/2'1 = 10'73\ cm^2.$

- Difusión primaria:

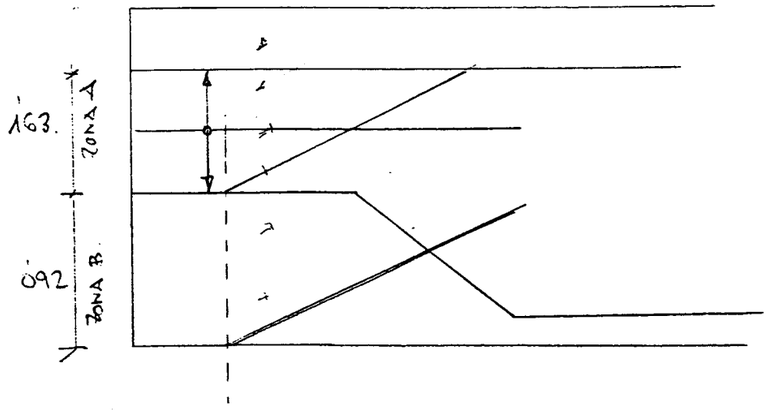
Esta ya considerada en el calculo de mensula corta en transversal. En longitudinal:

$0'33 \times P_k\ (1 - 0'6a/1'0)/4'0 = 13'60\ cm^2$

$\Downarrow$

3 capas de 7φ12.

d) Comprobación del anclaje de la biela:



ZONA A: Se introducen cercos en horizontal para recoger:

$$V_d \cdot \frac{1'63}{2} \cdot \frac{1}{2'55} \cdot \frac{1}{4} = \frac{845}{2} \cdot \frac{1'63}{2'55} \cdot \frac{1}{4} = 67'52 \text{ cm}^2/\text{alma}$$

$\Downarrow$

17 u ϕ16/alma (2'0 m.)

ZONA B: Se comprueba que la armadura de pretensado es suficiente para recoger la biela de:

$$V_d \cdot \frac{0'92}{2'55} = 845 \cdot \frac{0'92}{2'55} = 304'86 \text{ tn}$$

26 torones $0'6'' \Rightarrow \frac{17'1}{1'15} \cdot 1'40 \text{ cm}^2 \cdot 26 = 541'25 \text{ tn}$

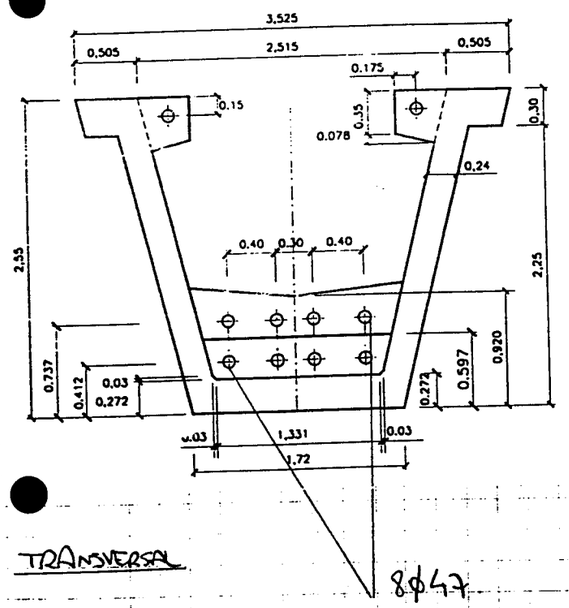
· Realmente no se puede contar con todo el pretensado porque no está anclado (el pretensado se considera anclado a partir de 0'7 metros) luego

$$304'86 < 497 \cdot 0'6/0'7 = 427'7 \text{ t.}$$

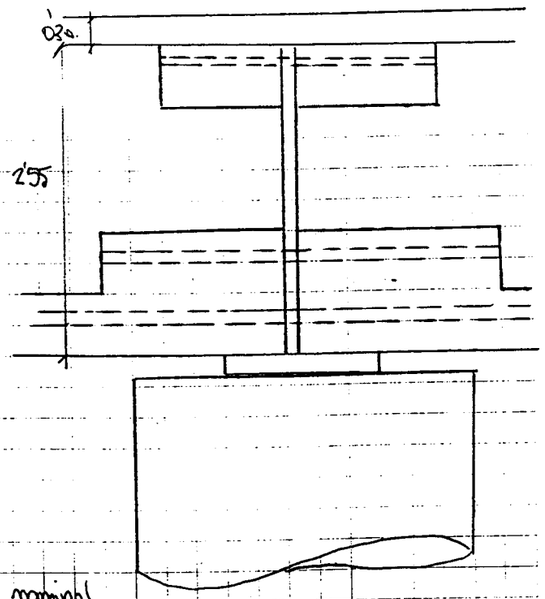
DIMENSIONAMIENTO SECCIÓN PILA.

BARRAS MACALLOY.

La sección en pila es:



TRANSVERSAL



LONGITUDINAL

8ϕ47

47 mm diámetro nominal

$f_y \geq 8350\ kp/cm^2$.

Para el dimensionamiento de la junta de continuidad entre vigas se realizan 3 comprobaciones:

4) En construcción se produce un momento negativo con sección abierta. Se comprueba dicha sección a rotura.

B) Con el puente construido existe un momento positivo Dicho momento se comprueba a estado límite último.

c) La torsión debe ser capaz de pasar de una viga a otra. Se comprueba el paso de dicha torsión sin contar con la armadura del alma.

Para las comprobaciones se utiliza el cálculo de la rotura de la sección tipo con mampara.

PACADAR	ESTUDIO:	OBRA:	FECHA:
			HOJA:

se recoge a continuación los esfuerzos correspondientes a cada una de las hipótesis de cálculo, tanto del viaducto V-1 como del V-3:

A): construcción:

V-1 = $M_g^+ = 217'29$ mt.

$M_g^- = -330'41$ mt.

V-3 = $M_g^+ = 144'10$ mt.

$M_g^- = -225'46$ mt.

se verifican las condiciones de seguridad puesto que los esfuerzos son menores

B) sección completa.

V-1 $M_g^+ = 655'07$ mt.

V-3 $M_g^+ = 612'35$ mt.

se verifica las condiciones de seguridad de forma análoga al pto anterior

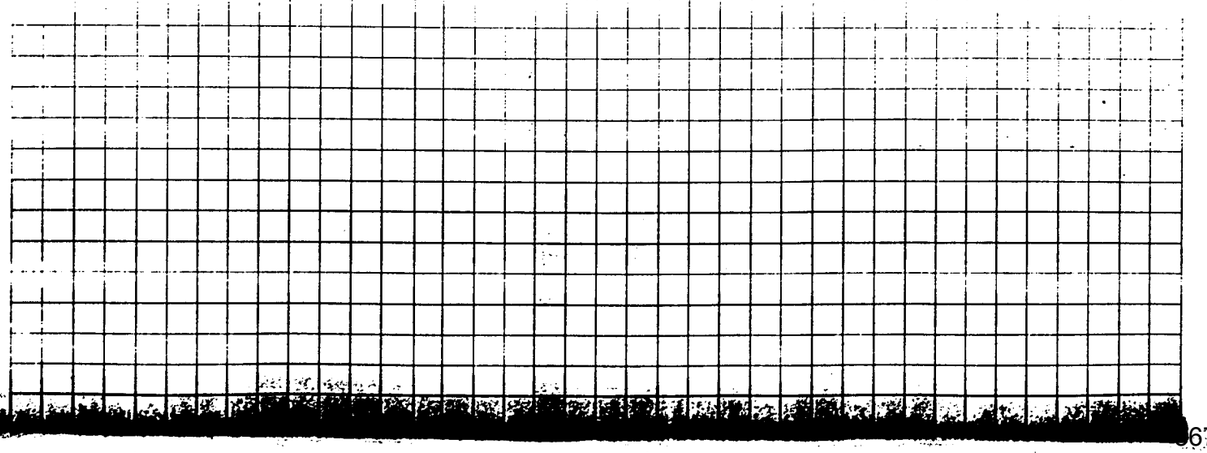
A) En construcción debido a las distintas fases existe un pequeño momento flector negativo que debe recoger la sección cajón abierta con 2 barras macalloy $\phi 40$ arriba (MAE)

$M_{u+} = 703$ mt. > $M_{g+} = 144'86 \times 1'5 = 217'29$ mt

$M_{u-} = -647$ mt. > $M_{g-} = -196'67 \times 1'5 \times 1'12 = 330'41$ mt

Estos momentos últimos se alcanzan con 2 barras Macalloy arriba y 4 barras abajo.

A continuación se incluye los esfuerzos en esta fase así como el calculo del momento último con CSEC.



[redacted] r1o F=1

Peso de losa hormigonada en fase 2

[1; 1]PPLF2

Coef. exc:

			PPLF2	GRADF2
Barra	Nudo	X	Mz (Tm)	Mz (Tm)
12	10013	33.50	-196.18	144.71
13	13	33.50	-196.18	144.71
24	10025	73.50	-181.44	139.99
25	25	73.50	-181.44	139.99
110	10111	27.40	-180.69	139.82
111	111	27.40	-180.69	139.82
122	10123	67.40	-196.67	144.86
123	123	67.40	-196.67	144.86

Proyecto:
Viaducto V-1.Santa Oliva

Seccion:MAC

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{ff}1$	$J_{ff}2$
1(HO)	350.0	1.50	285770	2.60	1.45
2(HO)	550.0	1.50	338219	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1950000		
5(PR)	8300.0	1.15	2100000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) $_{ff}$(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	5	4.0	40.0	220.5	*T	0
6	4	0.0	0.0	0.0	*T	0
7	4	0.0	0.0	0.0	*T	0
8	4	0.0	0.0	0.0	*T	0
9	5	2.0	40.0	43.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	4	105.0	13.4	18.0	*T	0
13	2	130.0	64.8	193.2	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9
4	PS	9
5	PI	6 7 8 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2084.5	15.04	2319436.3
	(1)	1230.3	21.87	2186835.4
	(2)	1423.0	19.84	2224163.1
F.pura -	(0)	3061.6	196.98	26256436.8
	(1)	1433.4	140.87	17220192.5
	(2)	1755.9	159.67	20069042.8
C.Simple	(0)	7227.4	108.33	79357419.7
	(1)	2478.3	93.76	25758226.2
	(2)	3335.7	99.46	35603485.5
T.Simple	(0)	651.7	31.58	2033133.5
	(1)	651.7	31.58	2033133.5
	(2)	651.7	31.58	2033133.5

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2511.25Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1034.2 Xu(cm.): 21.7

Nu(Tn.): 1.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00109 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -9887.9 Xu(cm.): 176.8

Nu(Tn.): -.8 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00545
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -13310.3 aplicado en Yo(cm)= 111.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 4680.1 aplicado en Yo(cm)= 33.1

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2511.25Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 703.9 Xu(cm.): 56.2

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -647.3 Xu(cm.): 262.3

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00100 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -4569.3 aplicado en Yo(cm)= 175.1

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 544.2 aplicado en Yo(cm)= 163.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

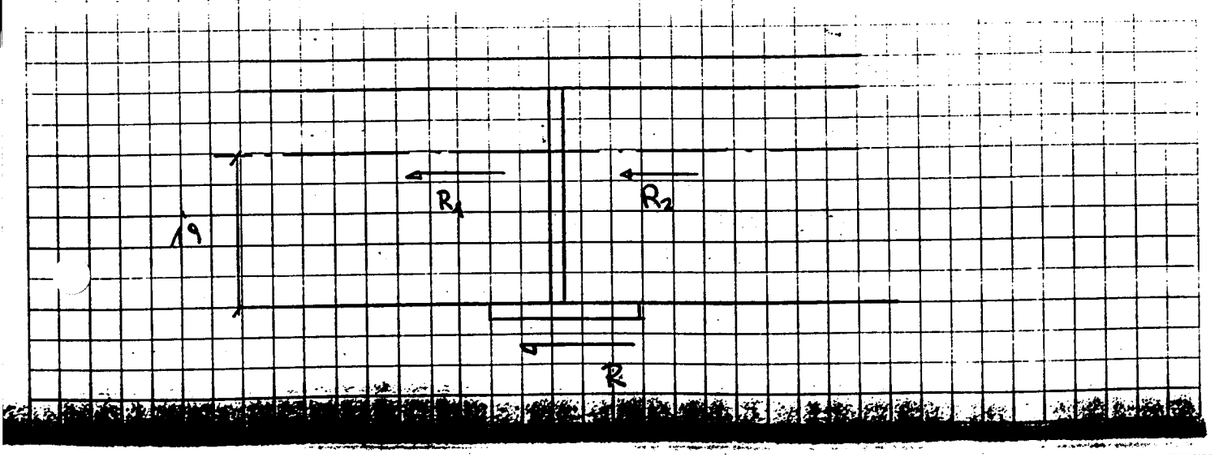
B) La sección completa con losa y cajón, junto con las barras Macalloy definidas en el apartado anterior deben resistir un momento último el momento positivo máximo en junta, de valor:

$$M_{cd}^{+} = 655'07 \text{ mt.}$$

El momento último con 2 barras Macalloy arriba y 4 barras abajo vale:

$$M_{ut} = 1034'2 \text{ mt} > 655'07 \text{ mt.}$$

No obstante a dicho momento habrá que sumar el momento positivo y tracción local debido a frenado, térmica y reológica.



Se estiman las reacciones en:

$$R = 2\ t/m \times 12 \times 102 + (262'98 + 844'36 - 21'68) \times 0'05 + 1'10 \times 0'6$$

$$R_1 = 2 \times 12 \times 24'38 + (262'98 + 844'36) \times 0'05 + 1'10 \times 0'6 \times 0'8$$

$$R_2 = 2 \times 12 \times 27'62 + (-21'68) \times 0'05 + 0'2 \times 1'10 \times 0'6 =$$

$$R = 244'8 + 44'48 + 6'6 = 355'28\ t$$

$$R_1 = 178'51 + 55'37 + 52'8 = 286'68\ t$$

$$R_2 = 66'29 - 10'88 + 13'2 = 68'6\ t$$

Los valores de cálculo serán:

$$R_{cd} = 532'92\ t.$$

$$R_{1d} = 430'02\ t.$$

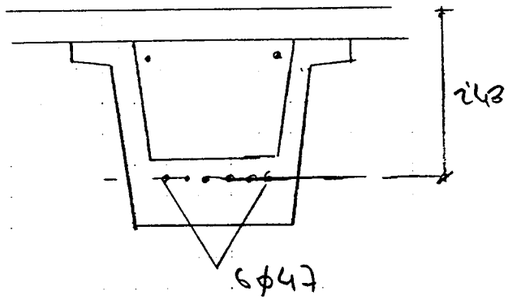
El momento y axil de cálculo para la sección derecha del apoyo resulta:

$M_d = 655'07 + 1'9 \times 430'02 \times 0'7 = 1472'74$ mt.

reparto entre
la dos secciones

$N_d = 430'2$ t.

Con 6 ϕ 47 abajo (a 9500 kp/cm² de límite elástico)



$N_u = 534$ tn. ⇒ $M_u = 1447'3$ mt ⇒ no es admisible

Con 8 ϕ 47 abajo (a 8300 el límite elástico)

$N_u = 791$ tn

$M_u = 1851$ mt > $M_d = 1472'74$ mt ⇒ válido

Barra	Nudo	X	Mz+ (Tm)	Mz- (Tm)
12	10013	33.50	548.68	-7225.54
13	13	33.50	546.59	-7217.66
24	10025	73.50	587.16	-6255.99
25	25	73.50	584.65	-6247.36
110	10111	27.40	389.72	-6669.57
111	111	27.40	391.54	-6677.60
122	10123	67.40	651.77	-7804.37
123	123	67.40	655.07	-7811.24

Proyecto:
Viaducto V-1.Santa Oliva

Seccion:MAC

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	350.0	1.50	285770	2.60	1.45
2(HO)	550.0	1.50	338219	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1950000		
5(PR)	8300.0	1.15	2100000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	5	4.0	40.0	220.5	*T	0
6	4	0.0	0.0	0.0	*T	0
7	4	0.0	0.0	0.0	*T	0
8	4	0.0	0.0	0.0	*T	0
9	5	2.0	40.0	43.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	4	105.0	13.4	18.0	*T	0
13	2	130.0	64.8	193.2	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2084.5	15.04	2319436.3
	(1)	1230.3	21.87	2186835.4
	(2)	1423.0	19.84	2224163.1
F.pura -	(0)	3061.6	196.98	26256436.8
	(1)	1433.4	140.87	17220192.5
	(2)	1755.9	159.67	20069042.8
C.Simple	(0)	7227.4	108.33	79357419.7
	(1)	2478.3	93.76	25758226.2
	(2)	3335.7	99.46	35603485.5
T.Simple	(0)	651.7	31.58	2033133.5
	(1)	651.7	31.58	2033133.5
	(2)	651.7	31.58	2033133.5

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Titulo Seccion: MAC

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2511.25Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1034.2 Xu(cm.): 21.7

Nu(Tn.): 1.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00109 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -9887.9 Xu(cm.): 176.8

Nu(Tn.): -.8 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00545
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -13310.3 aplicado en Yo(cm)= 111.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 4680.1 aplicado en Yo(cm)= 33.1

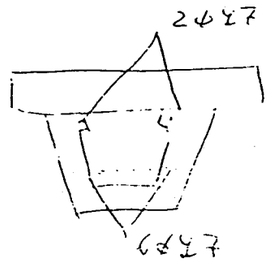
CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/

Proyecto:

Seccion:MAC



MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\pi 1$	$J_\pi 2$
1(HO)	350.0	1.50	285770	2.60	1.45
2(HO)	550.0	1.50	338219	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1950000		
5(PR)	8300.0	1.15	2100000		

Cable pretens. Ø0

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	5	6.0	47.0	243.0	*T	0
6	4	0.0	0.0	0.0	*T	0
7	4	0.0	0.0	0.0	*T	0
8	4	0.0	0.0	0.0	*T	0
9	5	2.0	47.0	43.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	4	105.0	13.4	18.0	*T	0
13	2	130.0	64.8	193.2	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2692.8	20.76	5604833.5
	(1)	1514.3	31.34	5237776.3
	(2)	1806.2	28.06	5345391.3
F.pura -	(0)	3105.1	197.72	26682981.9
	(1)	1490.5	144.80	18084288.2
	(2)	1813.2	162.25	20745901.8
C.Simple	(0)	7290.8	109.42	80684902.6
	(1)	2541.7	97.24	27308164.9
	(2)	3399.1	101.96	37064133.1
T.Simple	(0)	715.1	49.47	4731124.4
	(1)	715.1	49.47	4731124.4
	(2)	715.1	49.47	4731124.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS

Analisis SIN FISURACION
Pretensado: 2932.21Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1604.5 Xu(cm.): 77.4

Nu(Tn.): -.3 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00136 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -805.7 Xu(cm.): 256.7

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00136 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -4569.3 aplicado en Yo(cm)= 175.1

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1001.7 aplicado en Yo(cm)= 195.4

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS

Analisis SIN FISURACION
Pretensado: 2932.21Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2117.8 Xu(cm.): 24.8

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00122 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -9933.4 Xu(cm.): 174.8

Nu(Tn.): -.5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00516
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -13310.3 aplicado en Yo(cm)= 111.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 5137.7 aplicado en Yo(cm)= 51.0

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

INTERACCION ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2932.21Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[ϕ*(Cperm./Ctot.)]: 0.00

INTERACCION M-N-V

Flexion POSITIVA Axil de TRACCION
Fibra referencia Momentos: Yo(cm)= 108.33

DIAGRAMA Mu-Nu:
Cortante Total(Tn)= 0.0(0.0 + 0.0)

MOMENTO(m.T.)	AXIL(Tn.)	Xn(cm)	Ecmx	Etmx	Fibra Rot.	Spar.
-2787.73	5137.66	-75.6	.00186	.01000	Inferior	4
-2538.71	4880.77	-58.8	.00147	.01000	Inferior	4
-2297.02	4623.89	-48.9	.00122	.01000	Inferior	4
-2052.67	4367.01	-39.4	.00097	.01000	Inferior	4
-1811.07	4110.12	-30.5	.00072	.01000	Inferior	4
-1570.57	3853.24	-22.3	.00047	.01000	Inferior	4
-1336.47	3596.36	-14.6	.00023	.01000	Inferior	4
-1103.88	3339.48	-7.4	-0.00000	.01000	Inferior	4
-846.35	3082.59	-1.9	-.00019	.01000	Inferior	4
-597.07	2825.71	1.7	-.00032	.01000	Inferior	4
-338.59	2568.83	4.8	-.00043	.01000	Inferior	4
-83.21	2311.94	7.5	-.00053	.01000	Inferior	4
169.86	2055.06	10.0	-.00062	.01000	Inferior	4
420.76	1798.18	12.2	-.00071	.01000	Inferior	4
663.69	1541.30	14.2	-.00079	.01000	Inferior	4
912.79	1284.41	16.2	-.00086	.01000	Inferior	4
1158.98	1027.53	18.0	-.00094	.01000	Inferior	4
1402.26	770.65	19.8	-.00101	.01000	Inferior	4
1642.77	513.77	21.5	-.00108	.01000	Inferior	4
1881.10	256.88	23.2	-.00115	.01000	Inferior	4
2117.82	0.00	24.8	-.00122	.01000	Inferior	4

INTERACCION M-N-V

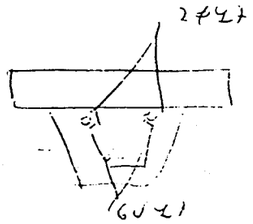
Flexion POSITIVA Axil de COMPRESION
Fibra referencia Momentos: Yo(cm)= 108.33

DIAGRAMA Mu-Nu:
Cortante Total(Tn)= 0.0(0.0 + 0.0)

MOMENTO(m.T.)	AXIL(Tn.)	Xn(cm)	Ecmx	Etmx	Fibra Rot.	Spar.
-1168.07	-11488.14	1585.1	-.00223	-.00170	Superior	1
-776.65	-11313.68	706.0	-.00246	-.00139	Superior	1
441.79	-10648.17	396.2	-.00288	-.00082	Superior	1
1564.99	-9982.66	326.2	-.00316	-.00045	Superior	1
2653.52	-9317.15	290.8	-.00339	-.00015	Superior	1
3642.12	-8651.64	269.8	-.00350	.00010	Superior	1
4463.30	-7986.13	251.5	-.00350	.00035	Superior	1
5180.37	-7320.62	231.7	-.00348	.00066	Superior	1
5819.06	-6655.11	207.5	-.00350	.00113	Superior	1
6251.26	-5989.60	163.5	-.00350	.00233	Superior	1
6339.32	-5324.08	109.5	-.00350	.00511	Superior	1
6131.19	-4658.57	69.5	-.00350	.00998	Superior	1
5639.00	-3993.06	57.0	-.00278	.01000	Inferior	4
5100.15	-3327.55	49.0	-.00235	.01000	Inferior	4
4525.24	-2662.04	43.3	-.00206	.01000	Inferior	4
3933.22	-1996.53	38.1	-.00182	.01000	Inferior	4
3335.66	-1331.02	33.5	-.00160	.01000	Inferior	4
2728.06	-665.51	29.0	-.00140	.01000	Inferior	4
2117.82	0.00	24.8	-.00122	.01000	Inferior	4

Proyecto:

Seccion:MAC



MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\pi 1$	$J_\pi 2$
1(HO)	350.0	1.50	285770	2.60	1.45
2(HO)	550.0	1.50	338219	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1950000		
5(RD)	8300.0	1.15	2100000		

Cambiar aquí

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	5	6.0	47.0	243.0	*T	0
6	4	0.0	0.0	0.0	*T	0
7	4	0.0	0.0	0.0	*T	0
8	4	0.0	0.0	0.0	*T	0
9	5	2.0	47.0	43.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	4	105.0	13.4	18.0	*T	0
13	2	130.0	64.8	193.2	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2692.8	20.76	5604833.5
	(1)	1514.3	31.34	5237776.3
	(2)	1806.2	28.06	5345391.3
F.pura -	(0)	3044.9	196.08	26438462.8
	(1)	1398.5	137.28	16952835.0
	(2)	1721.0	157.20	19983120.9
C.Simple	(0)	7152.0	107.75	78598935.6
	(1)	2402.9	91.57	24853774.0
	(2)	3260.3	97.98	34760745.4
T.Simple	(0)	715.1	49.47	4731124.4
	(1)	715.1	49.47	4731124.4
	(2)	715.1	49.47	4731124.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2010.61Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1924.4 Xu(cm.): 23.8

Nu(Tn.): .8 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00116 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -10039.7 Xu(cm.): 179.4

Nu(Tn.): -.5 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00579
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -13310.3 aplicado en Yo(cm)= 111.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 5137.7 aplicado en Yo(cm)= 51.0

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 2010.61Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1507.4 Xu(cm.): 69.4

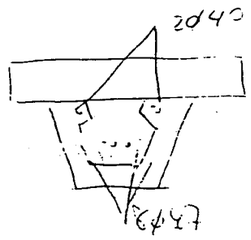
Nu(Tn.): -0.0 Qu(Tn.): 0.0

Proyecto:

Seccion:MAC

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\pi 1$	$J_\pi 2$
1(HO)	350.0	1.50	285770	2.60	1.45
2(HO)	550.0	1.50	338219	2.60	1.45
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.15	1950000		
5(PR)	8300.0	1.15	2100000		



SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	700.0	30.0	0.0	C*	0
2	2	90.0	30.0	30.0	C*	0
3	2	36.0	198.0	60.0	C*	0
4	2	179.0	27.0	258.0	C*	0
5	5	4.0	47.0	239.8	*T	0
6	5	4.0	47.0	217.8	*T	0
7	4	0.0	0.0	0.0	*T	0
8	4	0.0	0.0	0.0	*T	0
9	5	2.0	40.0	43.0	*T	0
10	3	70.0	20.0	5.0	CT	0
11	3	70.0	20.0	19.0	CT	0
12	4	105.0	13.4	18.0	*T	0
13	2	130.0	64.8	193.2	C*	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	CAJ	2 3 4
2	LOS	1
3	C+P	2 3 4 5 6 7 8 9
4	PS	9
5	PI	6 7 8 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2906.9	22.75	6497166.1
	(1)	1553.2	34.77	6007872.9
	(2)	1912.1	30.93	6153214.0
F.pura -	(0)	3120.6	198.08	26398953.0
	(1)	1513.0	146.42	17986719.4
	(2)	1835.7	163.35	20571889.6
C.Simple	(0)	7315.9	109.88	80795365.4
	(1)	2566.8	98.66	27500289.4
	(2)	3424.2	102.99	37223880.9
T.Simple	(0)	740.2	56.04	5303187.4
	(1)	740.2	56.04	5303187.4
	(2)	740.2	56.04	5303187.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

INTERACCION ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS

Analisis SIN FISURACION

Pretensado: 3099.09Tn.

(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS

Def. Ultima Acero Estructural(COMPRESION)(%): 2.50

Def. Ultima Acero Estructural(TRACCION)(%): 2.50

Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon

Deformacion Ultima Hormigon(TRACCION)(%): 1.00

Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

INTERACCION M-N-V

Flexion POSITIVA Axil de TRACCION

Fibra referencia Momentos: Yo(cm)= 108.00

DIAGRAMA Mu-Nu:

Cortante Total(Tn)= 0.0(0.0 + 0.0)

MOMENTO(m.T.)	AXIL(Tn.)	Xn(cm)	Ecmx	Etmx	Fibra Rot.	Spar.
-2498.51	5319.05	-74.0	.00183	.01000	Inferior	4
-2242.69	5053.09	-57.5	.00144	.01000	Inferior	4
-1993.99	4787.14	-47.3	.00118	.01000	Inferior	4
-1745.31	4521.19	-37.7	.00093	.01000	Inferior	4
-1494.07	4255.24	-28.6	.00067	.01000	Inferior	4
-1246.68	3989.28	-20.2	.00041	.01000	Inferior	4
-1007.96	3723.33	-12.5	.00017	.01000	Inferior	4
-754.25	3457.38	-5.1	-.00008	.01000	Inferior	4
-493.01	3191.43	-.4	-.00024	.01000	Inferior	4
-235.16	2925.48	3.1	-.00037	.01000	Inferior	4
30.21	2659.52	6.1	-.00048	.01000	Inferior	4
292.60	2393.57	8.8	-.00058	.01000	Inferior	4
552.64	2127.62	11.2	-.00067	.01000	Inferior	4
803.16	1861.67	13.3	-.00075	.01000	Inferior	4
1061.46	1595.71	15.4	-.00083	.01000	Inferior	4
1316.65	1329.76	17.4	-.00091	.01000	Inferior	4
1568.68	1063.81	19.2	-.00099	.01000	Inferior	4
1815.91	797.86	21.0	-.00106	.01000	Inferior	4
2064.07	531.90	22.7	-.00113	.01000	Inferior	4
2308.57	265.95	24.4	-.00120	.01000	Inferior	4
2552.16	0.00	26.1	-.00127	.01000	Inferior	4

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS

Analisis SIN FISURACION

Pretensado: 3099.09Tn.

(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS

Def. Ultima Acero Estructural(COMPRESION)(%): 2.50

Def. Ultima Acero Estructural(TRACCION)(%): 2.50

Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon

Deformacion Ultima Hormigon(TRACCION)(%): 1.00

Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2552.2 Xu(cm.): 26.1

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00127 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -9789.7 Xu(cm.): 171.0

Nu(Tn.): -.7 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .00482
Rompe la fibra inferior de la S.parcial 4

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -13310.3 aplicado en Yo(cm)= 111.2

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 5319.1 aplicado en Yo(cm)= 57.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: MAC

* PRESOLICITACIONES ELASTICAS
Analisis SIN FISURACION
Pretensado: 3099.09Tn.
(Todas las Armaduras activas a .80*Fyk)

ESTUDIO SECCION C+P

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[α*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 1919.2 Xu(cm.): 91.3

Nu(Tn.): -.7 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00350 Etmx= .01000
Rompe la fibra inferior de la S.parcial 4

FLEXION PURA NEGATIVA:

Mu(m.T): -823.4 Xu(cm.): 253.4

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00157 Etmx= .01000
Rompe la fibra superior de la S.parcial 2

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -4569.3 aplicado en Yo(cm)= 175.1

TRACCION SIMPLE(Rigido/Plastico):

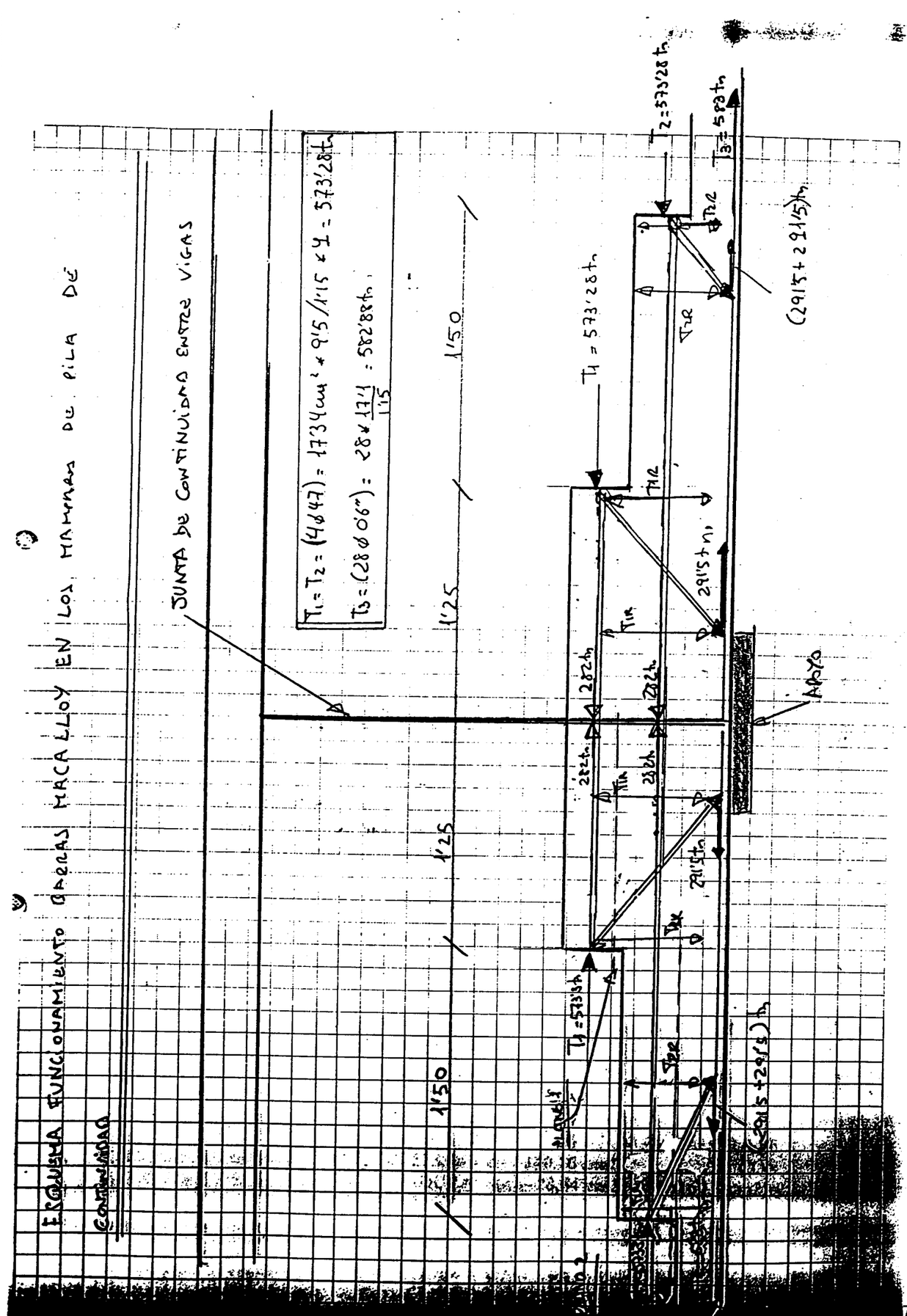
Nu(Tn.): 1183.1 aplicado en Yo(cm)= 202.6

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

A continuación se adjunta el esquema detallado de funcionamiento del modelo de bielas y tirantes en los manguitos de continuidad de pilas con las barras Macalloy.



Funcionamiento de las barras Macalloy en los mamparos de continuidad de pila:

- La fuerza máxima que pueden recoger las barras Macalloy son las que aparecen como $T_1 = 573'28$ tn y $T_2 = 573'28$ tn

Dichas fuerzas deben solaparse con los 28 ϕ 0'6" inferiores cuya fuerza máxima de dimensionamiento es de 582'88 tn el resto de las fuerzas de las barras Macalloy son nodales fuerzas autocompensadas.

Para realizar dicho solape es necesario recoger las fuerzas $T_{1R} = 29'15$ tn. y $T_{2R} = 29'15$ tn por lo que en cada caso.

Se necesitan $29'15/4'09 = 7'127$ cm² perfectamente admisible con la armadura ya dispuesta E1 ($30'4$ cm²) y E3 ($12'64$ cm²) junto con E4 ($12'64$ cm²) y E6 ($16'0'8$ cm²)

Finalmente se comprueba que se tiene cosidos los planos indicados como 1 y 2 en el croquis con la armadura dispuesta:

- Plano 1: Rasante = 573'28

$A_{necesaria} = 573'28/4'09 = 140'16$ cm²

$A_{dispuesta} =$ E1 ($30'4$ cm²) + E3 ($12'64$ cm²) = 209 cm² VALIDO.

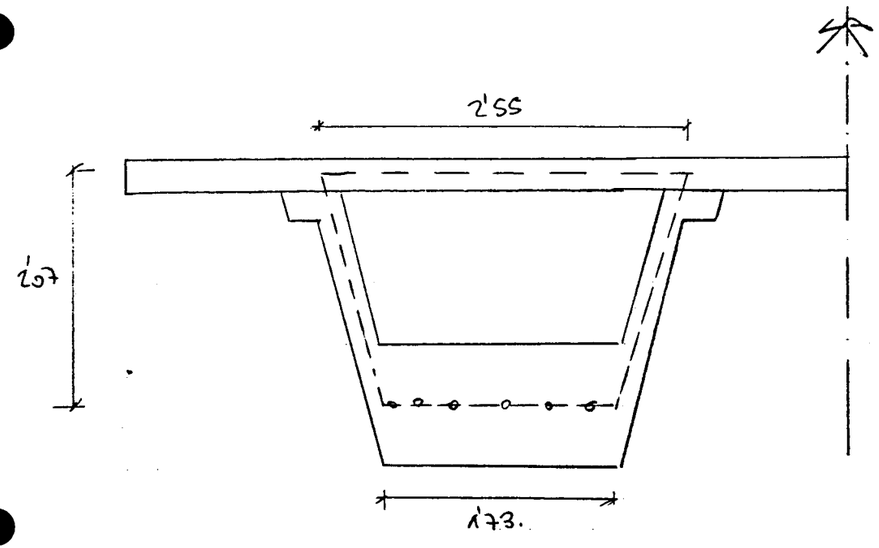
- Plano 2: Rasante = 573'28 tn

$A_{necesaria} = 573'27/4'09 = 140'16$ cm²

$A_{dispuesta} =$ E4 ($12'64$ cm²) + E6 ($16'0'8$ cm²) = $29'44$ cm² VALIDO.

c) La torsión tiene que ser capaz de pasar de una viga a otra debido a la inexistencia de armadura pasante entre las almas

La sección a comprobar es:



Sin considerar la colaboración en longitudinal a torsión de las almas:

$$A_e = \frac{(2'55 + 1'72)}{2} \times 2'07 = 4'42\ m^2$$

$$T_d = \frac{A_e}{r_e} \times A_t\ f_{yd}\ \text{tg}\theta = 589'8\ mt$$

Entonces:

$$\frac{A_l}{u_e} = \frac{T_d}{A_e\ t_g\theta\ f_{yd}} = \frac{589'8}{4'42 \times 1 \times 4} = 30'53\ cm^2/$$

Arriba (losa) $\Rightarrow$ $\phi 20$ a 10 $\Rightarrow$ valido.

Abajo: $170\ tn/m \times 1'73 = 294'1\ tn$

A esto hay que añadir la tracción debida al frenado, reológico y térmico.

$$294'1\ tn + R_{1d} = 294'1 + 430'02 = 724'03\ tn.$$

Se necesita: $724'03 / 8'35/1'15 = 99'7\ cm^2$ de Macalloy.

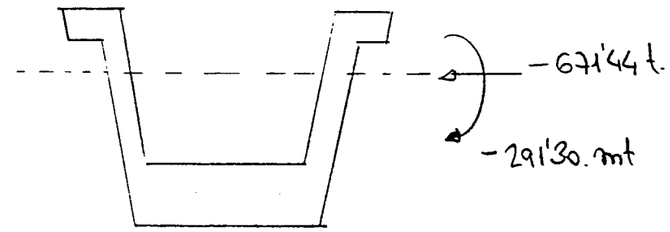
$\Downarrow$

$8\phi 47$ $(128'79\ cm^2)$

ENVOLVENTE MX,d

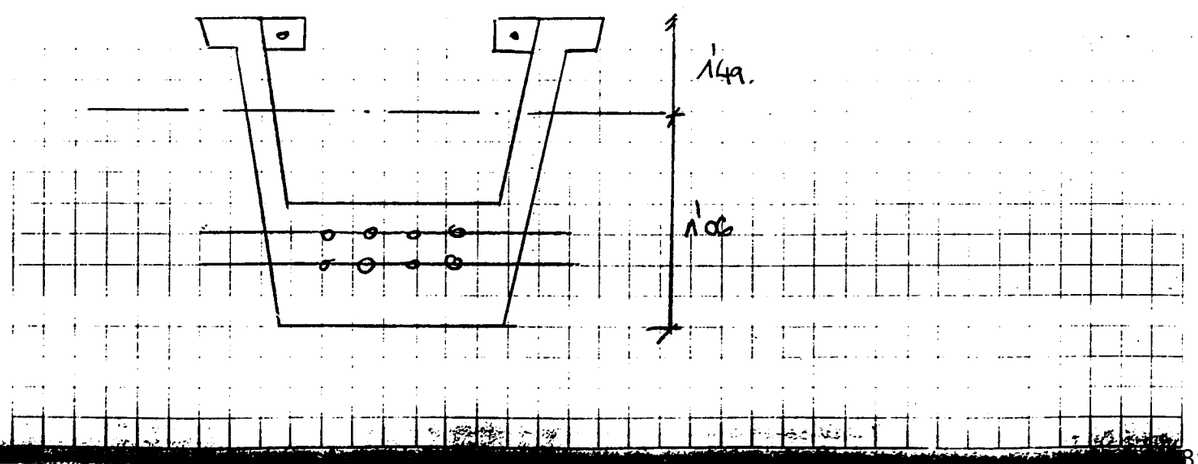
Barra	Nudo	X	Mx (Tm)	Vy (T)
12	10013	33.50	-483.4	698.8
13	13	33.50	-474.8	-560.4
24	10025	73.50	-539.8	597.2
25	25	73.50	-504.1	-287.7
110	10111	27.40	409.0	544.0
111	111	27.40	511.4	-565.4
122	10123	67.40	-405.0	588.5
123	123	67.40	557.6	-607.9

D) En la sección de continuidad en pila no existe continuidad del pretensado, por ello la fibra inferior del cajón habrá que restarle en el cálculo de tensiones la tensión producida por el pretensado del cajón.



A $t=0 \Rightarrow \sigma_{inf} = -671'44/1'779 - 2913'0 \times 106/139 = 59'96\ Kp/cm^2$

El tesado de las barras Macalloy produce:



Si se toma al $0'70 f_{pu} = 0'70 \times 10500 = 7350$ kp/cm² con un 10% de pérdidas instantáneas

$F = 17'35 \text{ cm}^2/\text{barra} \times 7350 \times 10^{-3} = 127'52 \text{ t/barra} \times 0'9 =$

$= 115 \text{ t/torón}$

$N = (9+2) \times 127'52 \times 0'9 = 1150$ t.

$M = -(1'06 - 0'567) \times 8 \times 115 + (1'49 - 0'15) \times 2 \times 115 =$

$= -453'56 + 308'2 = -145'36$ mt.

$\sigma_{sup} = -1150/1779 - 145'36 \times 106/139 = 75'73$ kp/cm².

La falta de continuidad de pretensado puede recogido por las barras Macalloy : $75'73 - 59'96 < 15'57$ kp/cm² (compresión)

A continuación se estudia la introducción de las fuerzas transmitidas desde las grúas, esta fuerza se recoge con unas LL que colgan en el anclaje de tensión

Respecto a la fuerza horizontal a Longitudinal se comprueba que con un esquema de bielas es recogida en la anclaje y su disposición. Además se comprueba una difusión local de la pretensión y esta difusión queda cubierta con la armadura y su disposición

A falta de datos de reacciones horizontales en apoyos se tomarán del lado de la Seguridad (Longitud mayor) los del Viaducto V-2 de Santa Olga.

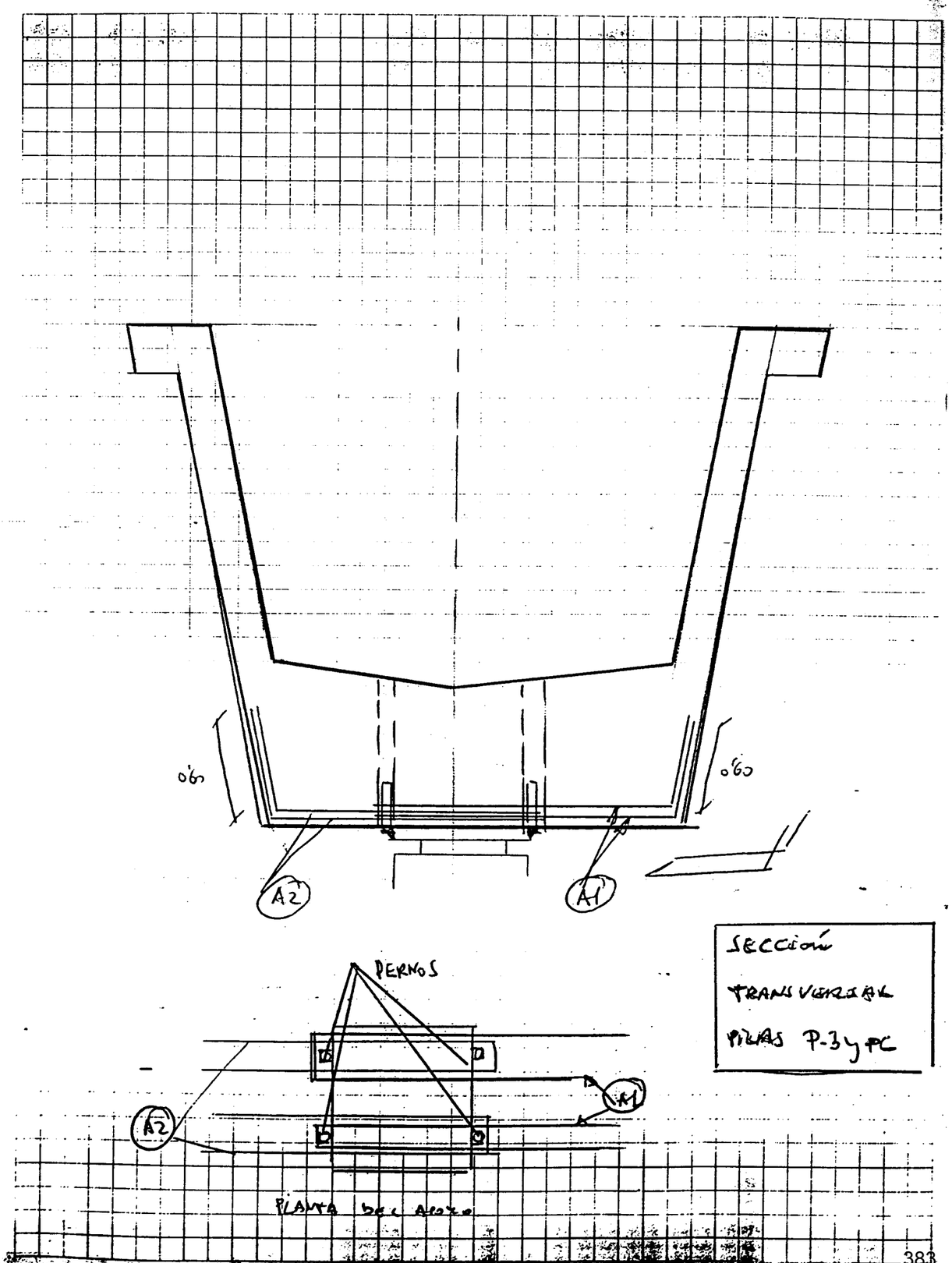
ARMADURA DE REFUERZO EN LOS APOYOS PERMANENTES. VIADUCTO V-2. VIADUCTO DE SANTA OLIVA.

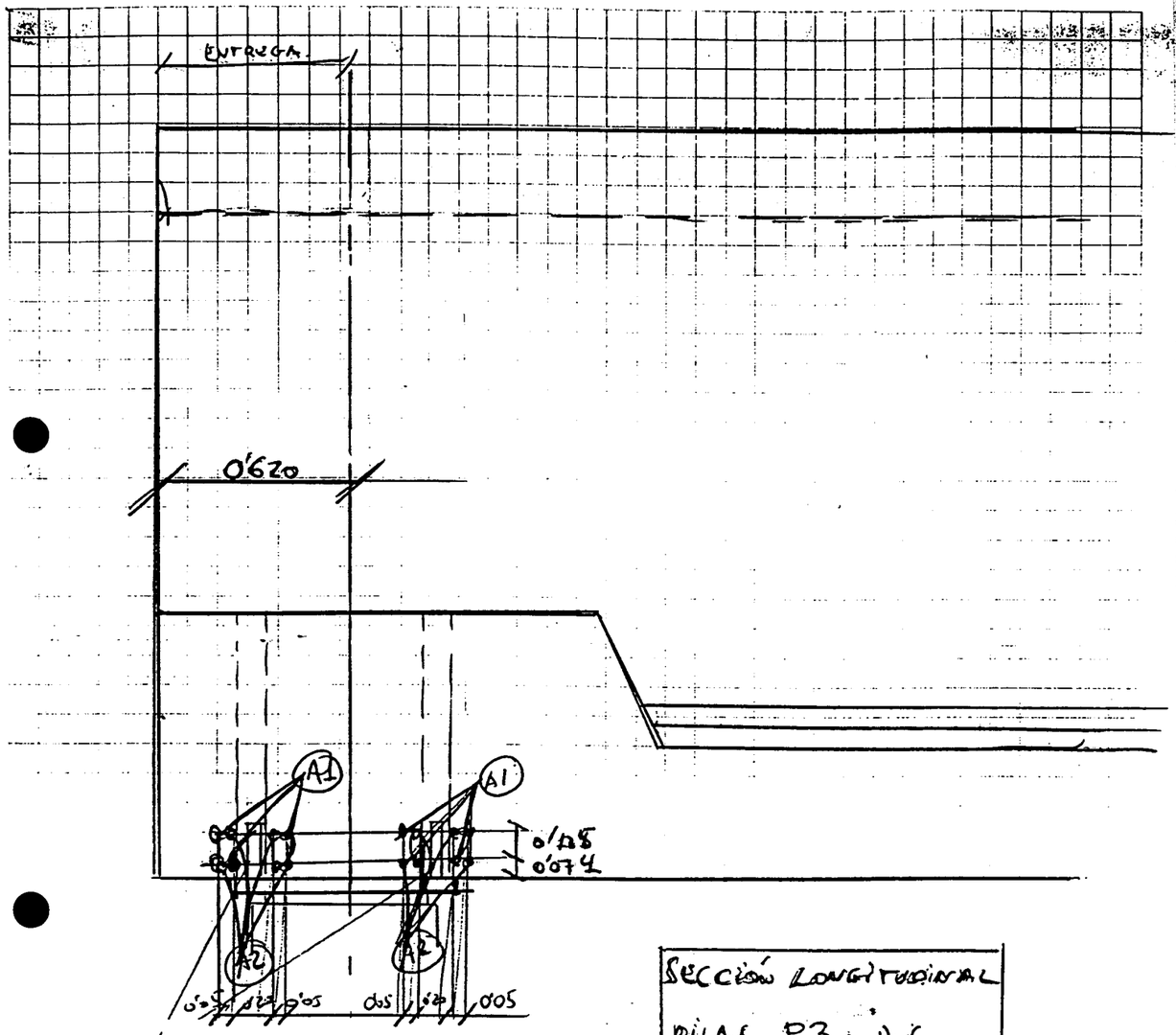
- LA ARMADURA INDICADA ES A SUPLEMENTAR A LA GENERAL DE ARMADO Y A LA INDICADA EN LOS PLANOS DE ARMADO DE MAMPAROS.

- SE DEBERÁ PREVEER VAINAS PARA LA ENTRADA DE LOS PERNOS EN EL CAJÓN QUE POSTEIORMENTE SE RELLENARÁN CON GROUT, EL REPLANTEO SE REALIZARÁ CON LOS DATOS SUMINISTRADOS POR EL FABRICANTE DE LOS APOYOS.

- LA HOLGURA ENTRE ESTE TRAMO Y LOS ISOSTÁTICOS CONTIGUOS TENDRÁ QUE SER LA SUFICIENTE PARA QUE SE PUEDAN PRODUCIR LOS MOVIMIENTOS LONGITUDINALES CON LOS COEFICIENTES DE SEGURIDAD PERTINENTES.

- LAS REACCIONES TRANSVERSALES UTILIZADAS SON LA PROVENIENTES DEL CÁLCULO DE LA SUBESTRUCTURA Y PREVIAMENTE A LA EJECUCIÓN DE LAS VIGAS DEBERÁ SER CONFIRMADAS POR PARTE DEL CÁLCULISTA DE ESTA:
  - PARA LAS PILAS P16 y P20 SE HA CONSIDERADO UNA FUERZA HORIZONTAL EN TRANSVERSAL DE 35 tn/apoyo (EN SERVICIO)
  - EN EL CASO DE LAS PILAS P17 y P18 SE HA CONSIDERADO UNA FUERZA HORIZONTAL EN TRANSVERSAL DE 50 tn/apoyo (EN SERVICIO).
  - LAS PILA P19 SE HAN ADOPTADO COMO PUNTO FIJO EN TRANSVERSAL CON UNA FUERZA LONGITUDINAL DE 200 tn/apoyo (EN SERVICIO) Y DE 45 tn/apoyo EN TRANSVERSAL (EN SERVICIO)





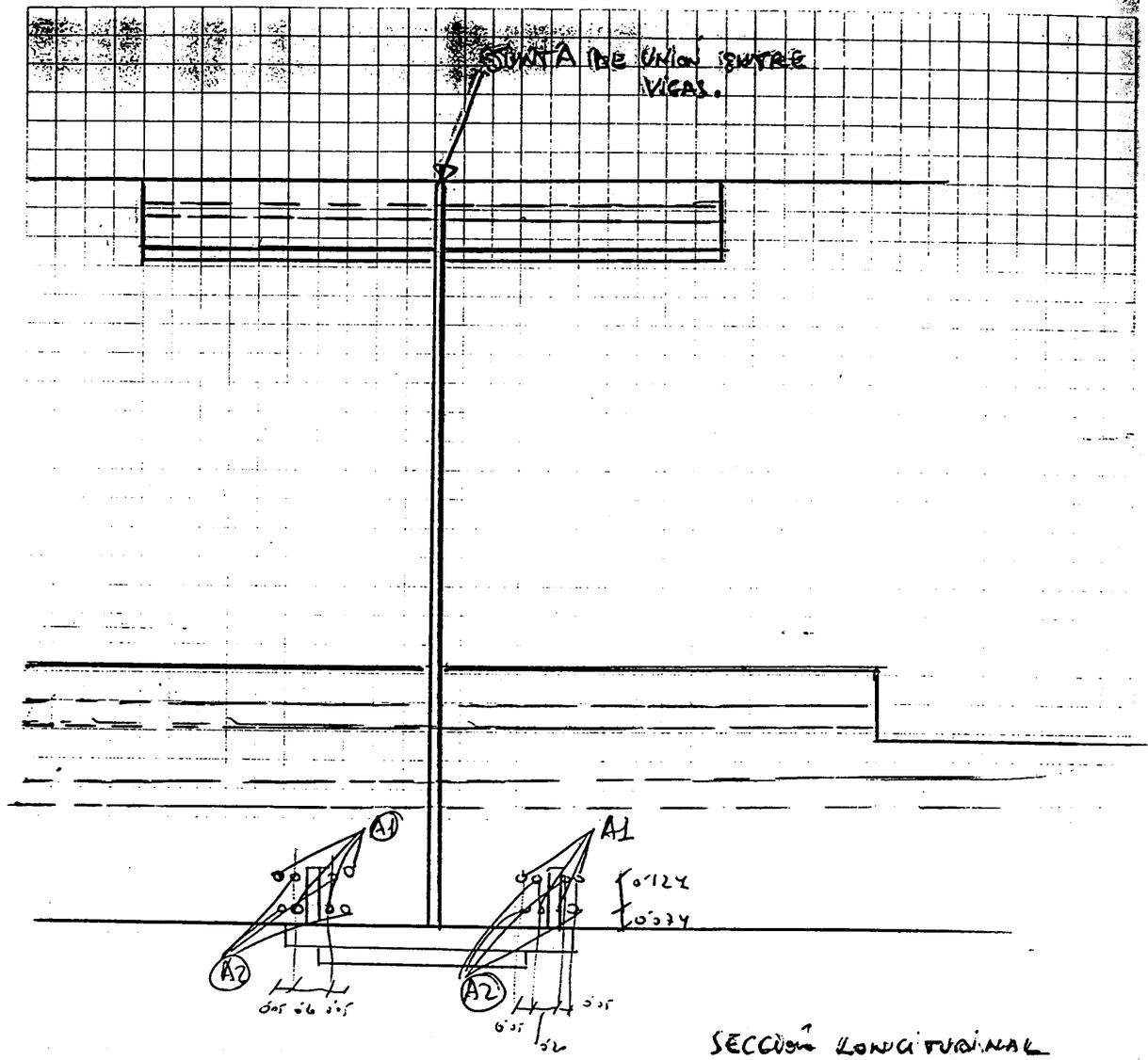
Deben dejarse vainas para el pretensado de las vigas.

SECCIÓN LONGITUDINAL
PILAS P3 y P-6

Para 35tn: (EN SENTIDO) (EN TRANSVERSAL) POR PILA

A1 2 LI ϕ16 pn perno

A2 2 LI ϕ16 pn perno

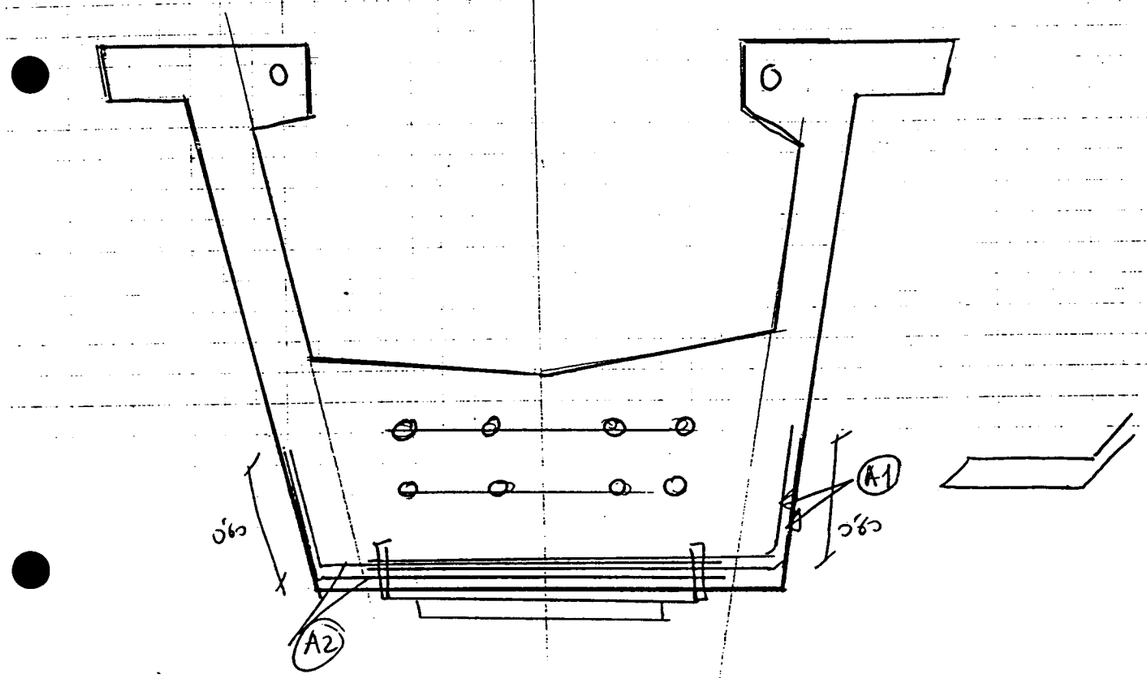


SECCIÓN LONGITUDINAL
PILAS P4

Para 50tn (en sentido): (EN TRANSVERSAL POR PILA)

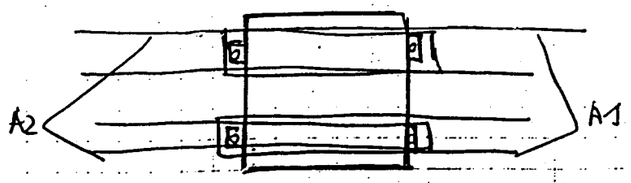
A1 2 LI ϕ20 pn perno

A2 2 LI ϕ20 pn perno

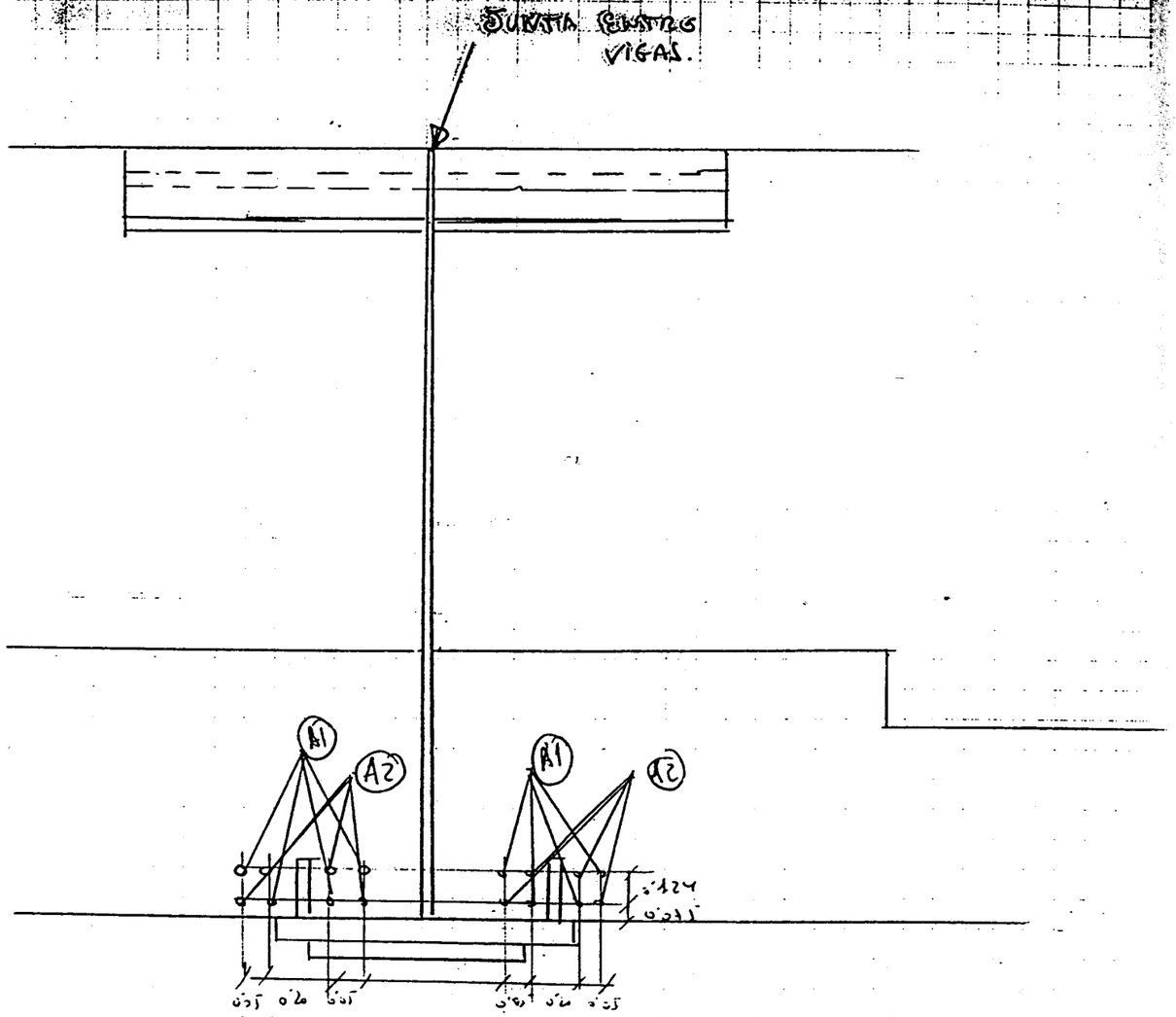


SECCIÓN TRANSVERSAL

PILAS P4



PLANTA



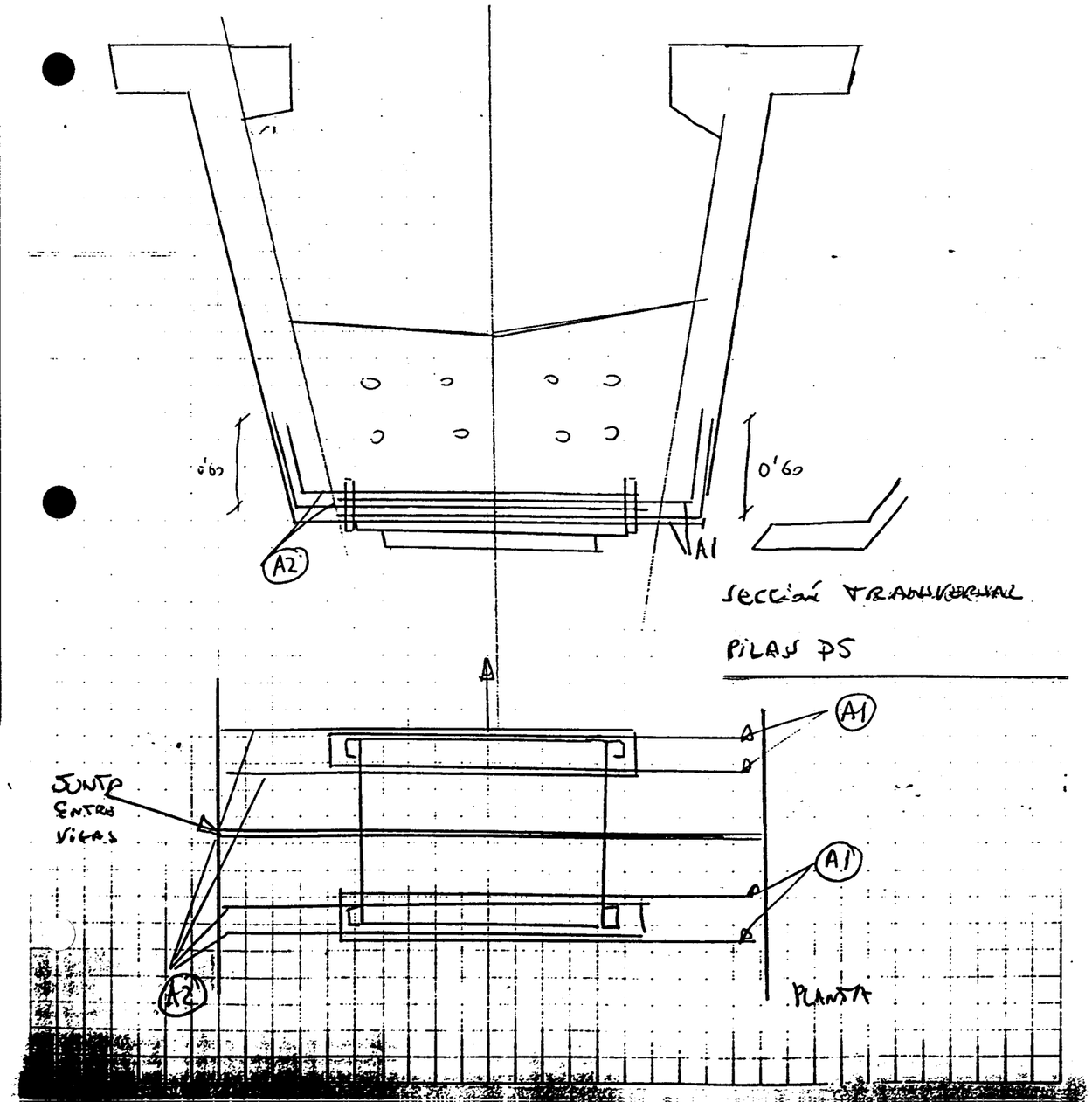
SECCIÓN LONGITUDINAL

PILAS P5

Para 50th en transversal y 200th en longitudinal por pila (en ambos

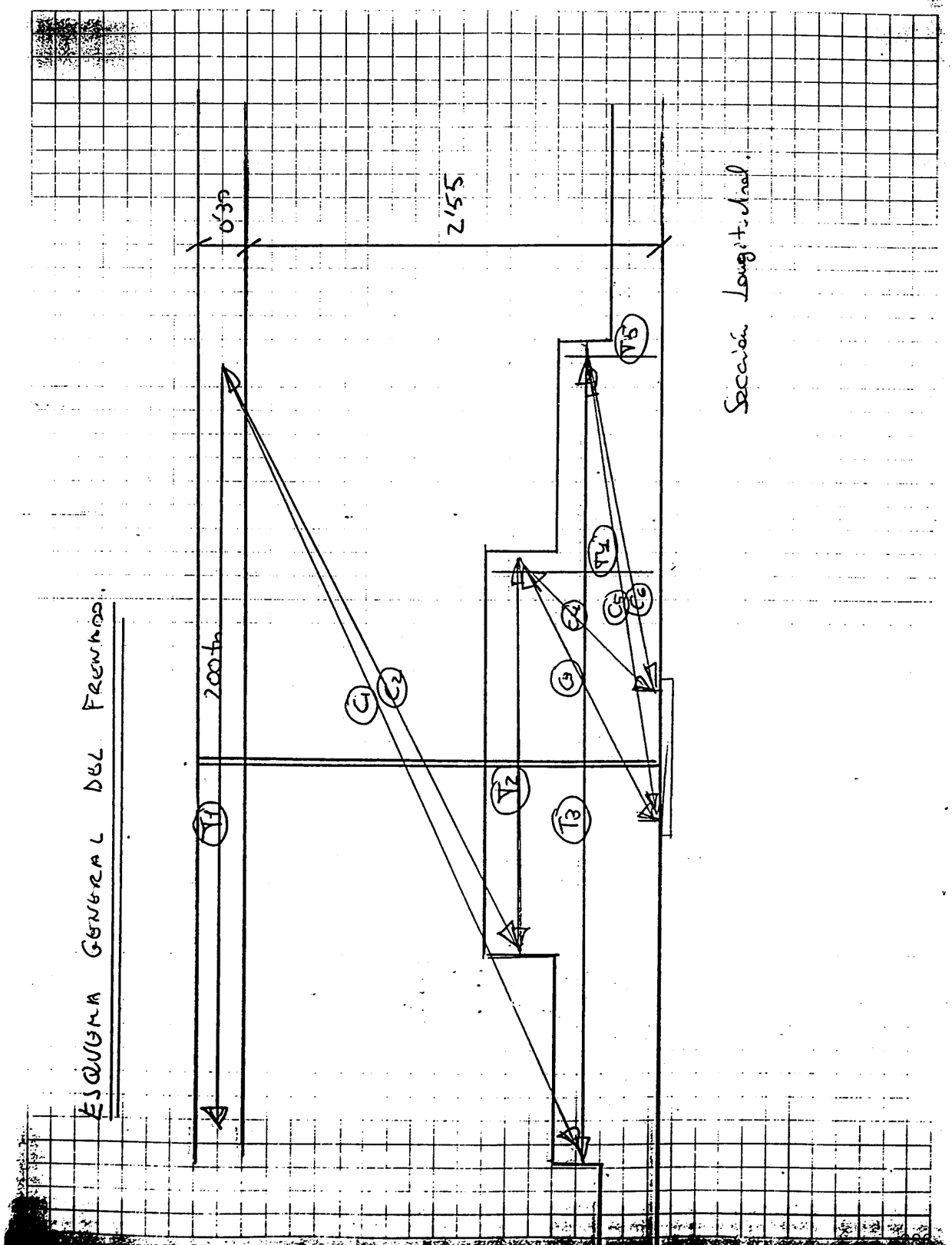
A1 24 ø20 p. pasivo

A2 24 ø20 p. pasivo



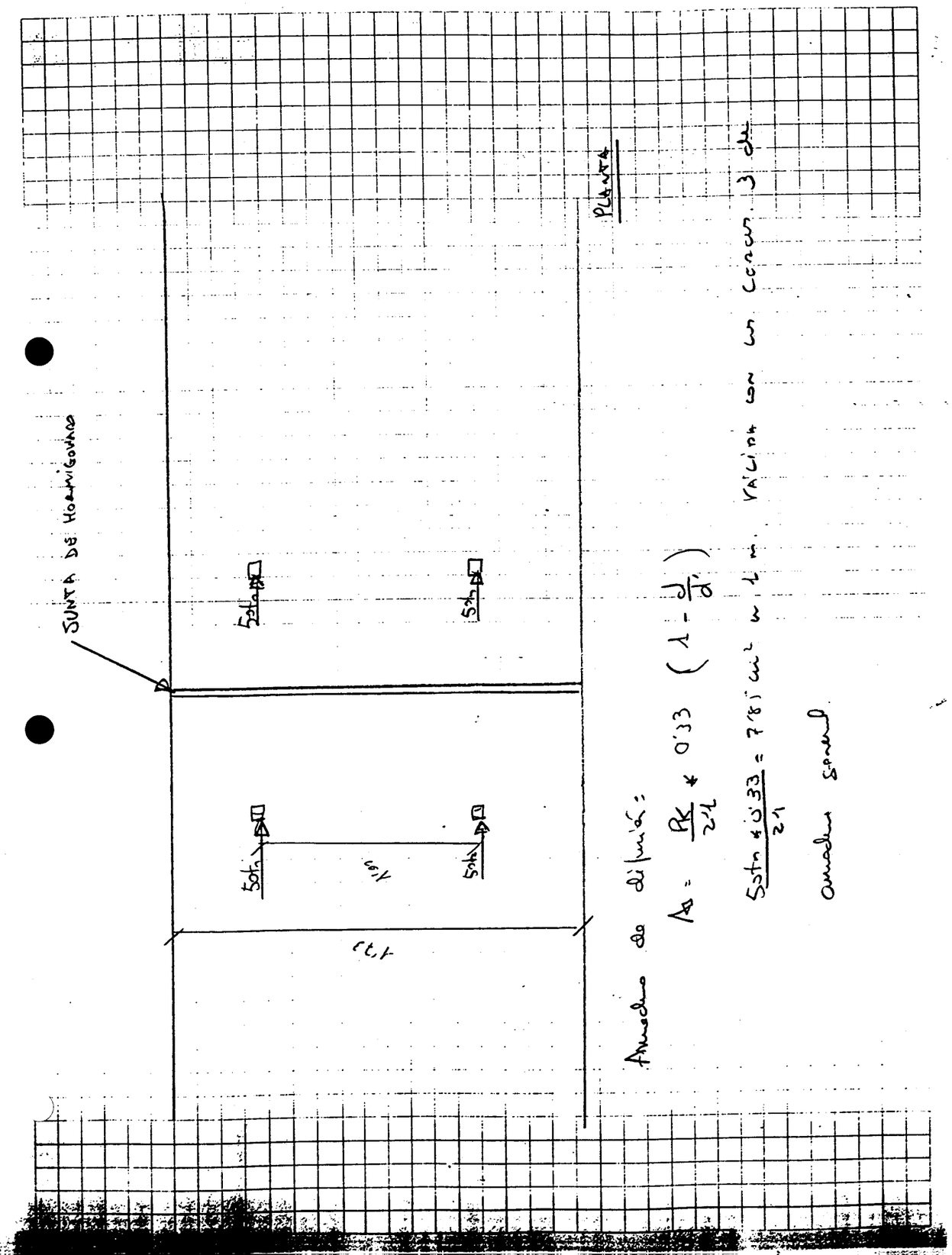
SECCIÓN TRANSVERSAL

PILAS P5



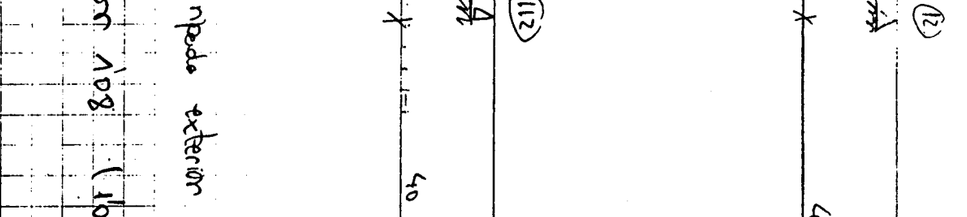
2.2.5. **Reacciones**

A continuación se adjuntan los listados de reacciones sobre pilas y estribos así como un resumen de cada estado de carga y cada apoyo junto a un croquis indicativo de los mismos.

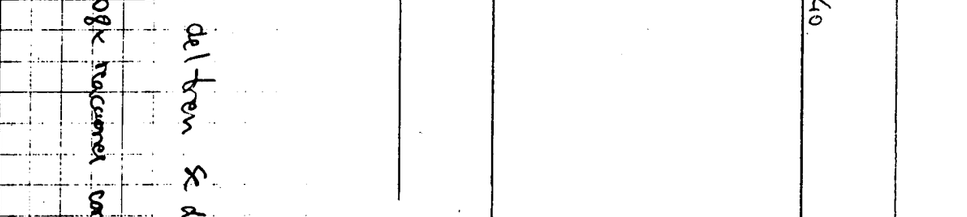


ESQUEMA DE APOYOS

CALZADA IZQUIERDA



CALZADA DERECHA



Para considerar el apoyo exterior del tren se deben multiplicar las reacciones de este por 1'08 (1'08 x reacciones con apoyo interior)

RESUMEN DE REACCIONES VERTICALES. VIADUCTO V-3 DE SANTA OLIVA

LOS VALORES DE TREN INCLUIDOS SON PARA TRENES RIPADOS HACIA DENTRO, PARA CONSIDERAR EL RIPADO HACIA EL EXTERIOR HAY QUE MULTIPLICAR DICHOS VALORES POR 1.08

UNIDADES=tn

NUDO	1	12	23	34	101	112	123	134
PILA	P-29-1	P-30-1	P-31-1	E-2	P-29-2	P-30-2	P-31-2	E-2
FASE 1. COLOCACIÓN DE VIGAS	64.17	140.67	141.92	65.43	64.17	140.67	141.92	65.43
FASE 2. HORMIGONADO LOSA EN PILAS	-0.07	105.29	106.25	0.09	-0.07	105.29	106.25	0.09
FASE 3. HORMIGONADO LOSA RESTO LOSA	62.82	112.38	114.94	64.04	62.82	112.38	114.94	64.04
SUMA PESO PROPIO T=0	126.92	358.34	363.11	129.56	126.92	358.34	363.11	129.56
FASE 4. ESTRUCTURA IDEAL								
PESO PROPIO VIGAS	48.75	155.74	157.79	49.91	48.75	155.74	157.79	49.91
PESO PROPIO LOSA	66.75	213.55	216.55	68.5	66.75	213.55	216.55	68.5
SUMA PESO PROPIO T=INF	117.213	367.6475	372.6555	120.0825	117.213	367.6475	372.6555	120.0825
CARGA MUERTA MAXIMA	148.47	473.33	479.7	152.07	167.61	536.41	543.36	171.52
GRADIENTE	10.97	-10.94	-10.83	10.8	10.97	-10.94	-10.83	10.8
SC PASEOS								
FY+	15.46	48.91	49.37	15.69	15.46	48.91	49.37	15.69
FY-	-5.27	-16.34	15.53	-5.25	-5.27	-16.34	-16.37	-5.25
TREN IPF75B IZDO								
FY+	137.98	384.51	387.8	140.02	39.15	94.14	94.82	39.79
FY-	-8.52	8.33	9.6	-7.72	-6.67	-0.86	0.03	-6.33
TREN IPF75B DCHO								
FY+	35.82	81.11	81.59	36.41	151.81	425.9	429.53	154.07
FY-	-8.34	-3.66	-2.6	-7.99	-7.4	12.72	14.08	-6.55
REACCION MAXIMA EN SERVICIO	475.62	1355.5075	1371.1155	484.55	511.92	1473.0075	1489.7355	521.43
REACCION MINIMA EN SERVICIO	95.083	346.67	385.64	99.1225	97.873	353.86	360.85	101.9525

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
PPCF1

Peso propio de los cajones en fase 1.

[1; 1]PPCF1

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	64.17	0.00
12	0.00	140.67	0.00
23	0.00	141.92	0.00
34	0.00	65.43	0.00
101	0.00	64.17	0.00
112	0.00	140.67	0.00
123	0.00	141.92	0.00
134	0.00	65.43	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
PPLF2

Peso de losa hormigonada en fase 2

[1; 1]PPLF2

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	-0.07	3.22
12	0.00	105.29	48.53
23	0.00	106.25	48.93
34	0.00	0.09	3.28
101	0.00	-0.07	-3.22
112	0.00	105.29	-48.53
123	0.00	106.25	-48.93
134	0.00	0.09	-3.28

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
GRADF2

Gradiente en fase 2

[1; 1]GRADF2

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	4.28	0.00
12	0.00	-4.27	0.00
23	0.00	-4.22	0.00
34	0.00	4.21	0.00
101	0.00	4.28	0.00
112	0.00	-4.27	0.00
123	0.00	-4.22	0.00
134	0.00	4.21	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
PPLF3

Peso propio de losa hormigonada en fase 3.

[1; 1]PPLF3

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	62.82	31.56
12	0.00	112.38	52.54
23	0.00	114.94	53.12
34	0.00	64.04	32.18
101	0.00	62.82	-31.56
112	0.00	112.38	-52.54
123	0.00	114.94	-53.12
134	0.00	64.04	-32.18

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
GRADF3

Gradiente en fase 3

[1; 1]GRADF3

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	6.44	0.00
12	0.00	-6.41	0.00
23	0.00	-6.37	0.00
34	0.00	6.34	0.00
101	0.00	6.44	0.00
112	0.00	-6.41	0.00
123	0.00	-6.37	0.00
134	0.00	6.34	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
CMmin

Carga muerta mínima

[1; 1]CMmin

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	102.64	0.00
12	0.00	327.36	-0.57
23	0.00	331.74	0.58
34	0.00	105.11	0.00
101	0.00	113.01	0.00
112	0.00	361.54	2.31
123	0.00	366.24	3.34
134	0.00	115.65	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
CMmax

Carga muerta maxima

[1; 1]CMmax

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	148.47	0.00
12	0.00	473.33	4.50
23	0.00	479.70	6.41
34	0.00	152.07	0.00
101	0.00	167.61	0.00
112	0.00	536.41	-1.31
123	0.00	543.36	0.82
134	0.00	171.52	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
PPVIGAS

Peso propio de vigas sobre estructura final

[1; 1]PPVIGAS

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	48.75	0.00
12	0.00	155.74	0.00
23	0.00	157.79	0.00
34	0.00	49.91	0.00
101	0.00	48.75	0.00
112	0.00	155.74	0.00
123	0.00	157.79	0.00
134	0.00	49.91	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
PPLOSA

Peso propio de losa sobre estructura final

[1; 1]PPLOSA

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	66.75	0.00
12	0.00	213.55	-6.59
23	0.00	216.55	-5.53
34	0.00	68.50	0.00
101	0.00	67.07	0.00
112	0.00	213.96	5.99
123	0.00	216.59	5.48
134	0.00	68.50	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
GRAD

Gradiente termico

[1; 1]GRAD

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	10.97	0.00
12	0.00	-10.94	0.00
23	0.00	-10.83	0.00
34	0.00	10.80	0.00
101	0.00	10.97	0.00
112	0.00	-10.94	0.00
123	0.00	-10.83	0.00
134	0.00	10.80	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.FY+
Envolvente de tren de cargas plano genérico. FY+

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Bar

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	15.32	0.00
12	0.00	48.91	-0.67
23	0.00	49.37	-10.93
34	0.00	15.56	0.00
101	0.00	0.14	0.00
112	0.00	0.00	0.00
123	0.00	0.00	0.00
134	0.00	0.13	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
SCUPASEOIZQUI.ENV_TREN_GENERICO.FY-
Envolvente de tren de cargas plano genérico. FY-

[0; 1]SCUPASEOIZQUISCuniTneg.Barra1.Mx- + [0; 1]SCUPASEOIZQUISCuniTneg.Bar

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	-0.45	0.00
12	0.00	-0.45	-4.57
23	0.00	-0.42	3.87
34	0.00	-0.42	0.00
101	0.00	-4.82	0.00
112	0.00	-15.89	-0.62
123	0.00	-15.95	-2.62
134	0.00	-4.83	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.FY+

Envolvente de tren de cargas plano genérico. FY+

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	0.14	0.00
12	0.00	0.00	0.00
23	0.00	0.00	0.00
34	0.00	0.13	0.00
101	0.00	15.32	0.00
112	0.00	48.91	0.67
123	0.00	49.37	10.93
134	0.00	15.56	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
SCUPASEODERE.ENV_TREN_GENERICO.FY-

Envolvente de tren de cargas plano genérico. FY-

[0; 1]SCUPASEODERE.SCuniTpos.Barra101.Mx+ + [0; 1]SCUPASEODERE.SCuniTpos

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	-4.82	0.00
12	0.00	-15.89	0.62
23	0.00	-15.95	2.62
34	0.00	-4.83	0.00
101	0.00	-0.45	0.00
112	0.00	-0.45	4.57
123	0.00	-0.42	-3.87
134	0.00	-0.42	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
CUNIFI

Carga uniforme 1t/m via izda

[1; 1]CUNIFI

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	9.91	0.00
12	0.00	32.07	2.06
23	0.00	32.46	1.07
34	0.00	10.13	0.00
101	0.00	2.58	0.00
112	0.00	7.84	-0.30
123	0.00	7.97	-1.19
134	0.00	2.66	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.FY+

Envolvente de tren de cargas plano genérico. FY+

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]S

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	104.73	0.00
12	0.00	308.55	-17.93
23	0.00	311.35	38.44
34	0.00	106.22	0.00
101	0.00	30.94	0.00
112	0.00	77.80	9.50
123	0.00	78.36	-21.39
134	0.00	31.41	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
SCUNIFI.ENV_TREN_GENERICO.FY-

Envolvente de tren de cargas plano genérico. FY-

[0; 1]SCUNIFI.SCuniTpos.Barra1.Mx+ + [0; 1]SCUNIFI.SCuniTpos.Barra2.Mx+ + [0; 1]S

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	-15.53	0.00
12	0.00	-19.97	36.49
23	0.00	-19.22	-28.76
34	0.00	-15.04	0.00
101	0.00	-7.73	0.00
112	0.00	-7.28	-12.17
123	0.00	-6.65	10.64
134	0.00	-7.51	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
TRENI.EnvTrenGen.FY+

Envolvente de tren de cargas plano genérico. FY+

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ +

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	23.34	0.00
12	0.00	43.89	-1.39
23	0.00	43.99	4.70
34	0.00	23.67	0.00
101	0.00	5.63	0.00
112	0.00	8.50	-2.21
123	0.00	8.49	2.24
134	0.00	5.72	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
TRENI.EnvTrenGen.FY-

Envolvente de tren de cargas plano genérico. FY-

[0; 1]TRENI.PaseoTren.Nudo1.Pos2.Mx+ + [0; 1]TRENI.PaseoTren.Nudo1.Pos3.Mx+ +

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	-2.90	0.00
12	0.00	-3.77	8.11
23	0.00	-3.64	-7.10
34	0.00	-2.81	0.00
101	0.00	-1.52	0.00
112	0.00	-1.42	-2.89
123	0.00	-1.29	2.28
134	0.00	-1.48	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
CUNIFD

Carga uniforme 1t/m via derecha

[1; 1]CUNIFD

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	2.19	0.00
12	0.00	6.52	0.34
23	0.00	6.64	1.40
34	0.00	2.26	0.00
101	0.00	11.06	0.00
112	0.00	35.83	-1.63
123	0.00	36.26	-0.50
134	0.00	11.30	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.FY+

Envolvente de tren de cargas plano genérico. FY+

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [(

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	28.52	0.00
12	0.00	67.18	-8.63
23	0.00	67.58	22.89
34	0.00	28.95	0.00
101	0.00	115.12	0.00
112	0.00	341.77	12.77
123	0.00	344.87	-26.09
134	0.00	116.78	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
SCUNIFD.ENV_TREN_GENERICO.FY-

Envolvente de tren de cargas plano genérico. FY-

[0; 1]SCUNIFDSCuniTneg.Barra101.Mx- + [0; 1]SCUNIFDSCuniTneg.Barra102.Mx- + [(

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	-8.81	0.00
12	0.00	-8.51	11.74
23	0.00	-7.78	-10.29
34	0.00	-8.57	0.00
101	0.00	-15.54	0.00
112	0.00	-19.34	-27.45
123	0.00	-18.55	21.58
134	0.00	-15.03	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
TREND.EnvTrenGen.FY+

Envolvente de tren de cargas plano genérico. FY+

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.M

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	5.11	0.00
12	0.00	7.41	7.61
23	0.00	7.37	-7.29
34	0.00	5.20	0.00
101	0.00	25.63	0.00
112	0.00	48.30	1.15
123	0.00	48.40	-3.59
134	0.00	25.99	0.00

CÁLCULO DE REACCIONES

Hipótesis de cálculo:
TREND.EnvTrenGen.FY-

Envolvente de tren de cargas plano genérico. FY-

[0; 1]TREND.PaseoTren.Nudo101.Pos2.Mx- + [0; 1]TREND.PaseoTren.Nudo101.Pos3.M

Coef. exc:

Nudo	X	Fy (T)	Mx (Tm)
1	0.00	-1.72	0.00
12	0.00	-1.67	2.26
23	0.00	-1.53	-2.01
34	0.00	-1.68	0.00
101	0.00	-2.92	0.00
112	0.00	-3.77	-6.95
123	0.00	-3.63	6.09
134	0.00	-2.82	0.00