AXIAL

structural solutions

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Burgemeester en wethouders
van de gemeente Etten-Leur
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ETTEN LEUR

PV STRUCTURE BOLLENDONK SOLAR POWER PLANT (NETHERLANDS)

TECHNICAL REPORT

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TECHNICAL REPORT

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1. DESCRIPTIVE REPORT

INTRODUCTION

This report "Photovoltaic Structure" is done by the company Axial Structural Solutions in May 2021 for the installation of a solar energy park by the company Statkraft.

The report consists of the description, calculation and justification of the structure that supports photovoltaic panels, designed for a maximum permissible slope of 5% in East-West direction. The PV installation is located north of Etten-Leur, in the municipality of Etten-Leur.

Longitude: 4°37'28"E

Latitude: 51°36'22" N

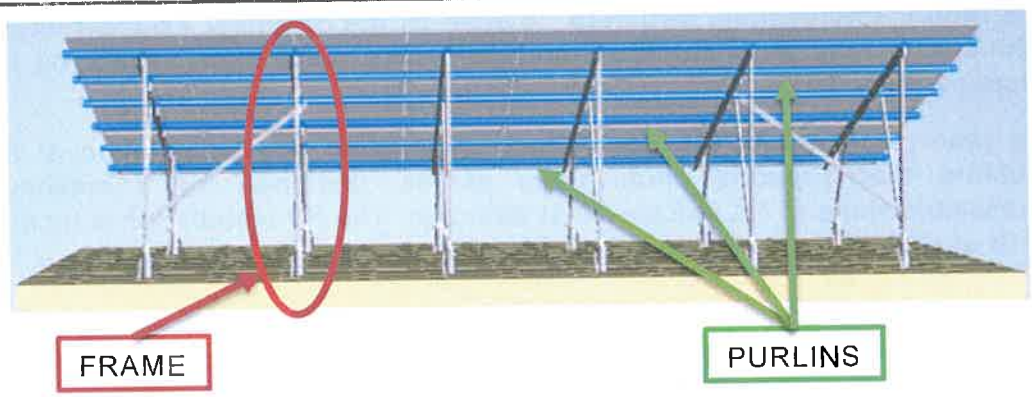
Altitude: 10 m



DESCRIPTION

The structure described in the present technical report has been designed for a maximum permissible slope of 5% in E/W direction. There are four types of structures for this project:

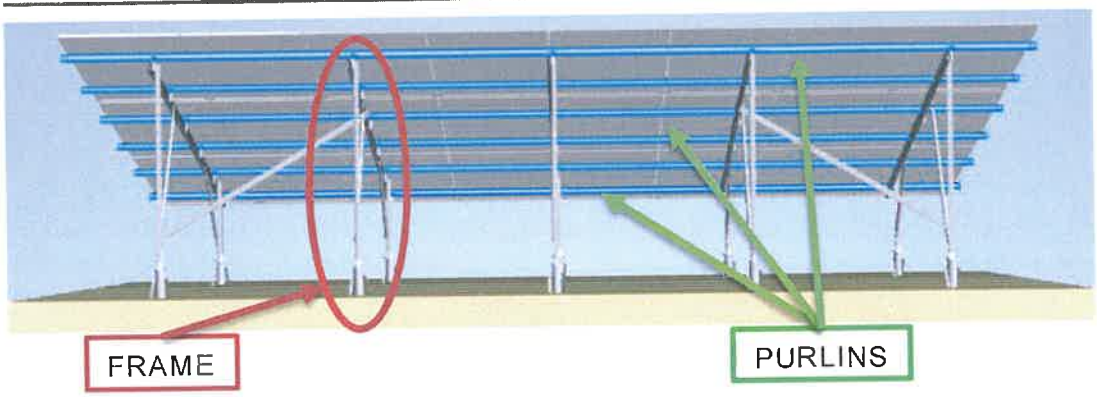
TYPE A: STRUCTURES 3X8 EXT (REAR VIEW)



The description of the structure is the following: The structure supports 24 PV modules *"JAM72S30 525-550/MR"* which dimensions are 2279X1134X35 mm. They are arranged in portrait position, in 3 rows by 8 columns and tilted 13° on the horizontal, with a minimum height between the modules and the ground of 600 ±100 mm.

Photovoltaic modules are joined by clamps (four clamps per module) to the purlins of the structure (six purlins, in blue). Purlins are fixed to the frames (six frames) by means of a component called "lintel-purlin union". Each structure has as well two cross struts.

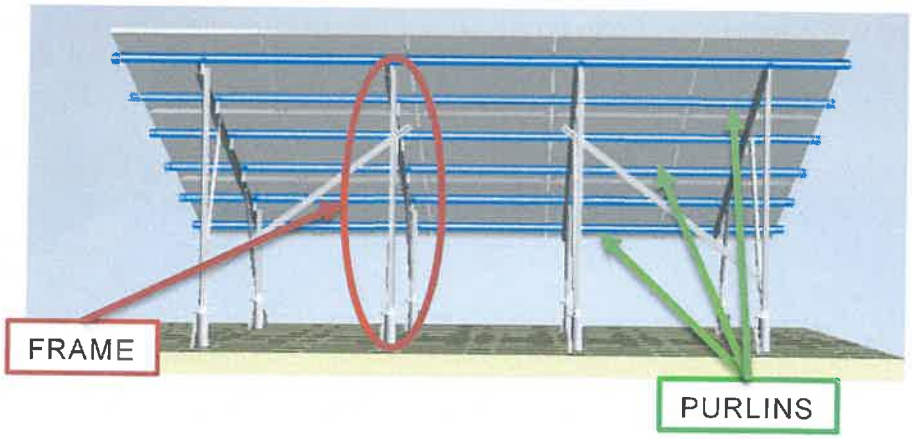
TYPE B: STRUCTURES 3X8 INT (REAR VIEW)



The description of the structure is the following: The structure supports 24 PV modules *"JAM72S30 525-550/MR"* which dimensions are 2279X1134X35 mm. They are arranged in portrait position, in 3 rows by 8 columns and tilted 13° on the horizontal, with a minimum height between the modules and the ground of 600 ±100 mm.

Photovoltaic modules are joined by clamps (four clamps per module) to the purlins of the structure (six purlins, in blue). Purlins are fixed to the frames (five frames) by means of a component called "lintel-purlin union". Each structure has as well two cross struts.

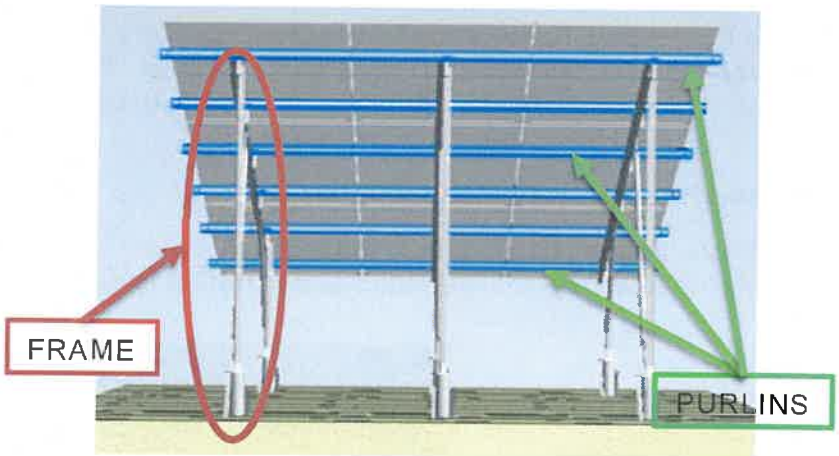
TYPE C: STRUCTURES 3X5 (REAR VIEW)



The description of the structure is the following: The structure supports 15 PV modules *"JAM72S30 525-550/MR"* which dimensions are 2279X1134X35 mm. They are arranged in portrait position, in 3 rows by 5 columns and tilted 13° on the horizontal, with a minimum height between the modules and the ground of 600 ±100 mm.

Photovoltaic modules are joined by clamps (four clamps per module) to the purlins of the structure (six purlins, in blue). Purlins are fixed to the frames (four frames) by means of a component called "lintel-purlin union". Each structure has as well two cross struts.

TYPE D: STRUCTURES 3X3 (REAR VIEW)

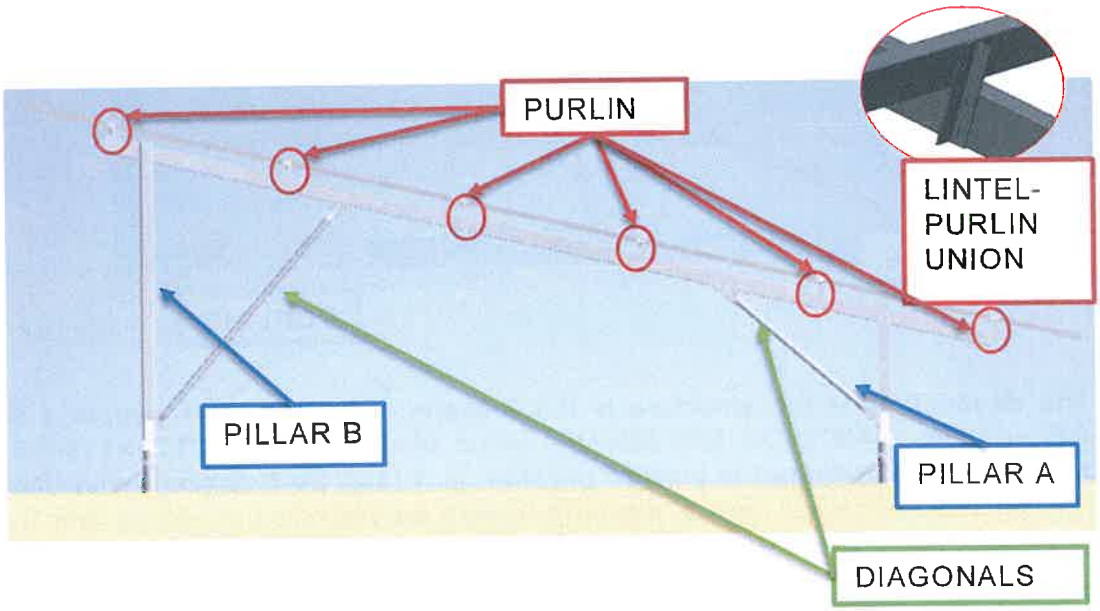


The description of the structure is the following: The structure supports 9 PV modules *"JAM72S30 525-550/MR"* which dimensions are 2279X1134X35 mm. They are arranged in portrait position, in 3 rows by 3 columns and tilted 13° on the horizontal, with a minimum height between the modules and the ground of 600 ±100 mm.

Photovoltaic modules are joined by clamps (four clamps per module) to the purlins of the structure (six purlins, in blue). Purlins are fixed to the frames (three frames) by means of a component called "lintel-purlin union". Each structure has as well two cross struts.

FRAME VIEW (RAMMING PILES)

Each frame is composed of one lintel, two pillars, two diagonals and six lintel-purlin union. The following picture shows the profile view of the structure:



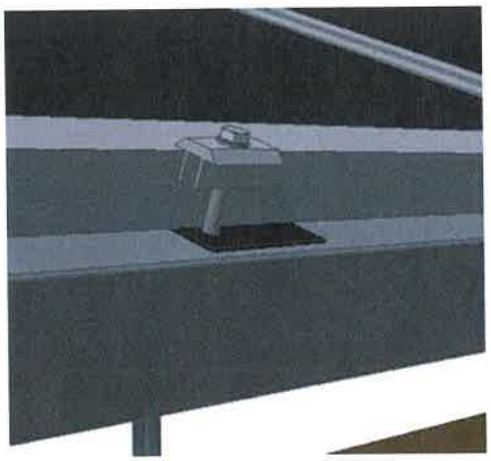
PV MODULE FIXING SYSTEM

Panels are fixed to the purlins of the structure by means of aluminum clamps and polyamide insulations. The insulation is installed between the aluminum exposed part of the PV module frame and the galvanized steel profiles of the structure, to prevent the occurrence of galvanic couples between the dissimilar materials. Fixation of these elements is provided by a screwed connection.

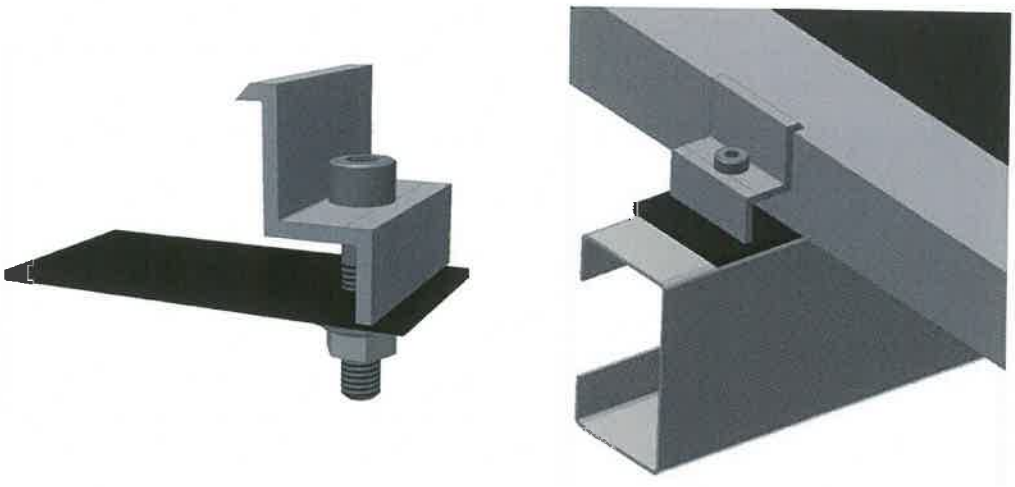
There are two types of clamps, external and internal:

Internal PV clamps are installed between PV panel columns. The following images show the internal clamp pre-assembled and installed between panels:





External PV clamps are installed at the external side of the first and last panel of the row. The following images show the external clamp pre-assembled and installed:



According to the JA SOLAR photovoltaic module installation manual *"1. JA Solar Single-glass modules standard installation manual_A12_20201118"*, internal clamps must be at least 38 mm long, and external clamps must be at least 50 mm long. They must be installed at ¼ L ±50 mm from the long side of the module, being L the length of the module. The position of the clamps is detailed in Annex I. The clamp datasheet can be found in Annex VIII.

GROUND ANCHOR

It has been projected a ground anchor by means of foundations screws for the whole project area with two L reinforcements. The depth of the ramming profiles has been determined according to the test performed on site, 0.8m/NT. More information of these tests and its conclusions can be found in Annex VI.

Here below you will find a picture showing the assembly.

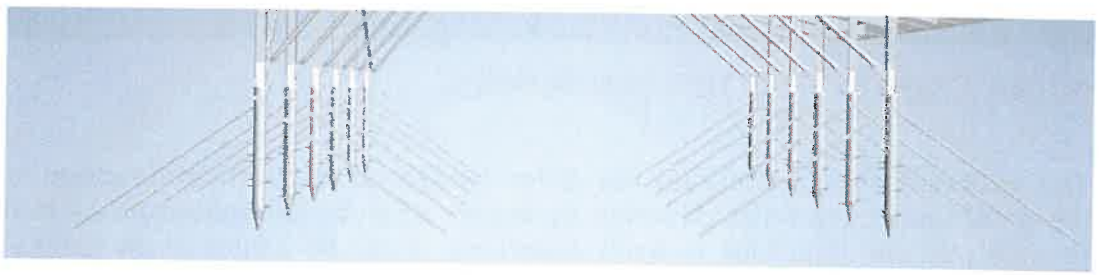
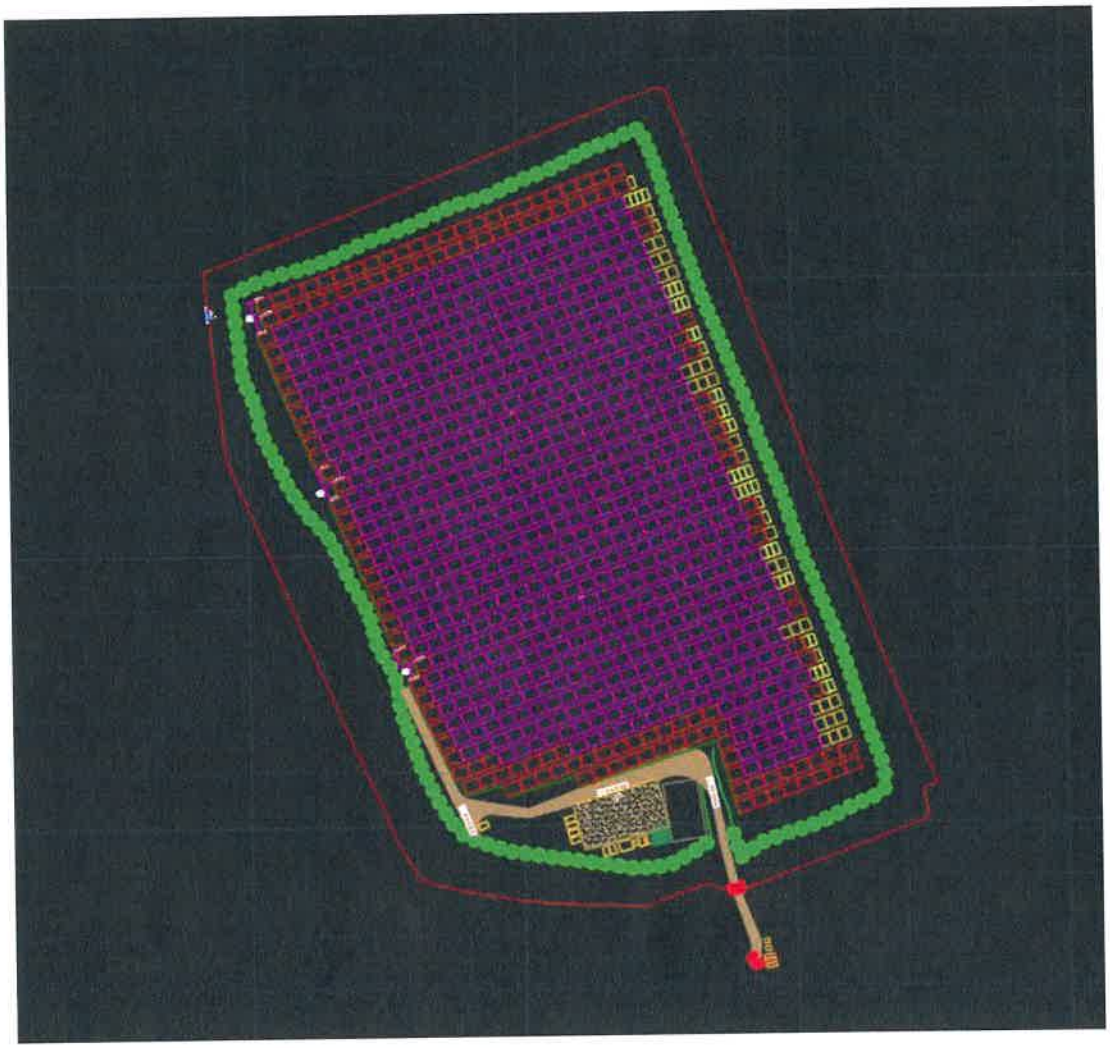


TABLE LAYOUT

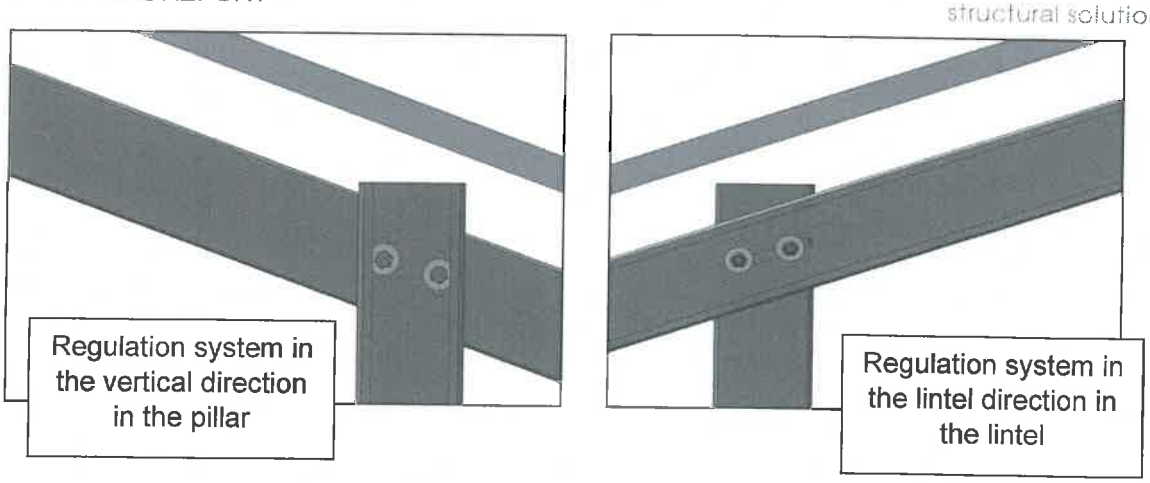
The following image shows the table layout over the site:

The red ones are Type A, purple ones are Type B, orange ones are Type C and yellow ones are Type D.



REGULATION OF THE TERRAIN SLOPES

The structure has an accurate regulation system in the vertical direction in the pillar and in the lintel direction by means of slots (elongated holes that provide ±20 mm tolerance in each direction). It can be achieved an optimal position of the components of the structure with these regulations, absorbing the unevenness of the ramming process:



Cross struts are also provided with various slots (elongated holes) at both ends so that they can be installed absorbing E/W slopes.

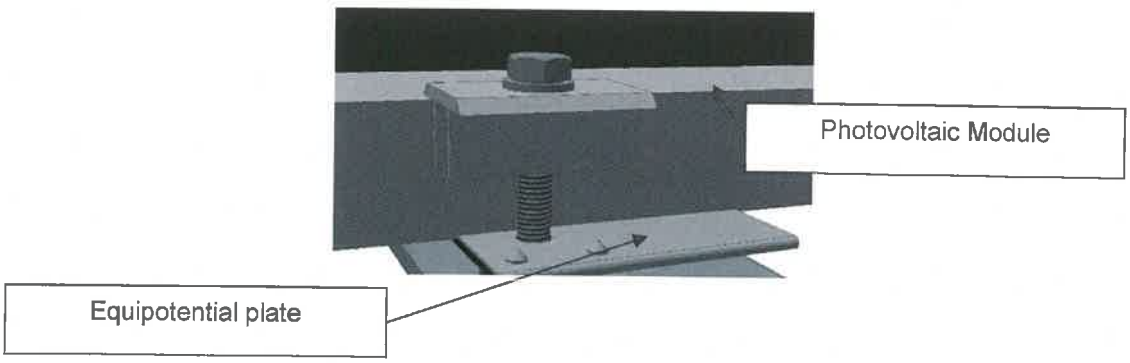
EQUIPOTENTIAL BONDING

CONNECTION TO AN UNDERGROUND EARTHING NETWORK

Front and rear pillars of the structure include an extra hole to connect the structure to an underground earthing network.

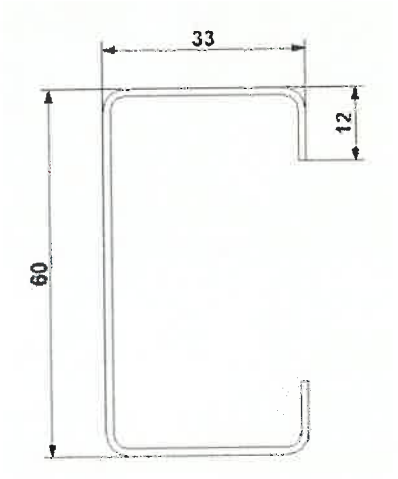
EQUIPOTENTIAL PLATE

Stainless steel equipotential plates are installed together with some internal clamps to provide equipotential bonding between all the exposed metal components of the mounting structure and the exposed metal components of the PV modules. The following figure serves as an illustrative example:



CABLE MANAGEMENT SYSTEM

Due to the C section of the profiles, it is possible to increase the functionality of the structural components by proposing a cable management system which uses the purlins of the structure as a supporting system for the routing of power cables.



DRAINAGE HOLES

The purlins will have a 9 mm hole in every middle point between pillars in order to drain accumulated water.

ELECTRICAL BOXES SUPPORT STRUCTURE

It is in definition process.

MATERIALS

Pillars shall be of steel quality S355JR hot dip galvanized according to UNE-EN/ISO 1464 standard in coating thickness and UNE-EN/ISO 14713 standard for duration of corrosion. The steel quality of diagonals and lintel-purlin unions is subjected to the availability of materials at the moment of production.

The rest of structural components shall be of stainless-steel quality S280GD and S350GD with ZM310 Magnelis type coatings, according to UNE-EN/ISO 10346 standard in coating thickness.

Internal and External Photovoltaic Clamps shall be of Aluminum 6060 T6.

Screw connections shall be in stainless steel A2-70. All the information related to the screws is attached in Annex III.

DURABILITY OF THE CORROSION PROTECTION

HOT DIP GALVANIZED COATING

The zinc used to galvanize the material complies with the Zinc quality standard UNE-EN 1179, according to UNE-EN ISO 1461, which satisfies with the galvanizing process. This standard indicates a minimum galvanized thickness depending on sheet width. For cases where a higher galvanized coating is required, the profile remains more time on zinc bath, increasing the galvanized coating. The quantity of galvanized coating depending on time in zinc bath is not included in UNE-EN ISO 1461 and is not possible to ensure an average coating, due some areas will have higher galvanized coating, and other areas will have a lower galvanized coating, being the minimum coating always higher than the values from the following table:

Part type and thickness	*Average thickness of the coating in µm (minimum value)*
Steel ≥ 1.5 mm ≤ to 3 mm	*55*
Steel > 3 mm to ≥ 6 mm	*70*

Considering the area where the installation is located an environment C3 - Medium corrosion rate – "Exterior: medium atmosphere pollution, urban and coastal zones with low chloride deposition", and taking the corrosion range of 0,7-2 microns/year, according to UNE-EN/ISO 14713 standard; the minimum coating thickness will provide protection during the life of the project.

In reference to the rammed pillars of the structure, the corrosivity analysis of the Bollendonk Solar Park provided by Statkraft, shows that it can be concluded, according to the DIN 50929-3, the coating on hot-dip galvanized steels has a rating of -7, that corresponds to II aggressive. Nevertheless, at the summary report of GEOBES "CORROSIE VAN METALEN VOLGENS DIN 50929 – DEEL 3" appears at the local parameters that the electrochemical potential has a value between -0.4V and -0.3V. Following the galvanic series, it is potentially corrosive and at the DIN 50929-3 has a value of -8. So, the probability of corrosion in the case of cell formation in the presence of impressed current cathodes is Very high in case of pitting corrosion and Increased in general corrosion.

ZM310 COATING

ZM310 coating is a metallic steel coating (zinc with 3.5% aluminum and 3% magnesium) which provides surface protection against corrosion according

to UNE-EN 10346 standard in coating thickness. It is produced on a classic industrial hot dip galvanization line but dipped in a molten bath with the composition indicated above. It is a continuous automated process directly applied to the steel strip which can be then directly used for fabrication of final structural parts. This leads to important savings in time in comparison to post-galvanized procedure.

According to the following graph from UNE-EN 10346 standard, Z310 it is coated with 310 g/m2 in both sides; this is 155 g/m2 per side. Considering the indicated density, it is obtained a coating thickness ranging from 23µm to 25µm per side (normally 24µm), in a tolerance range from 18µm to 31µm:

Designation of the coating	Minimum total coating mass, both surfaces (g/m2)		Theoretical indicative values for the thickness of the surface coating in the one point test (µm)		Density (g/cm3)
	Three points test	One point test	Usual value	Range	
ZM190	190	160	15	10 to 20	6,2 to 6,6
ZM200	200	170	15	10 to 20	
ZM250	250	215	19	13 to 25	
ZM300	300	255	23	17 to 30	
ZM310	310	265	24	18 to 31	
ZM350	350	300	27	19 to 33	
ZM430	430	365	35	26 to 46	

Considering the area where the installation is located, it is guaranteed that the coating can provide protection against corrosion during the lifetime of the project (25 years). Additional information about ZM310 coating is attached in Annex IV.

2. REGULATORY COMPLIANCE

STRUCTURAL SAFETY

It has been considered Eurocode 1 as a reference document with the considerations indicated in the present Technical Report. Load combinations and safety factors are calculated taking Eurocode 3 as a reference document with the considerations indicated in the present Technical Report, checking that the resistance of the material does not exceeds its elastic limit while verifying that the maximum deformations are admissible.

Wind and snow loads have been obtained from the Netherlands National Annexes to Eurocode 1: NEN-EN 1991-1-4+A1+C2/NB and NEN-EN 1991-1-3+C1/NB, respectively. It has not been considered Note (6) of section 7.3

from EN 1991-1-4 in calculations. In place, it has been considered a triangular pressure distribution.

3. CALCULATIONS

STRUCTURAL MODEL CALCULATION

The calculation model must identify situations that are decisive for dimensioning, i.e.:

- Set the actions to be considered and appropriate models for the structure.
- Perform structural analysis, adopting the calculation method to this structure.
- Verify that for the corresponding dimensioning situations, the limit states are not exceeded.

To this purpose, for this calculation, the model created for obtaining the stresses and strains is a **global linear elastic model.**

CALCULATION PROGRAM

A finite element calculation program based on the Picard method is used, among others, for the resolution of differential equations that consider the effects of second orders and 7 degrees of freedom by incorporating the concept of warping torsion. This program is a powerful tool that adapts perfectly to the calculation requirements. In the absence of limitations by module manufacturer's side, the permissible deflections are considered at L/250. The maximum permissible displacement is 2cm at the base of the pillars. This displacement is considered on the manufacturing tolerances of the structure.

According to paragraph 5.2.2 (7a) of the EN 1993-1-1, the effects of second order in the bars and the adequate local imperfections of the bars being fully considered in the global analysis of the structure, it is not necessary to perform an individual stability check of the bars according to paragraph 6.3 (Bucking, overturning, etc.).

ACTIONS CONSIDERED

OWN WEIGHT

It is a permanent action that includes the wight of structural elements and panels. The weight of structural elements is automatically considered by the calculation program. The PV panels dimensions are 2279x1134x35 mm, it is considered a weight of 28.5 kg. The death weight actions of the panels are:

$$q_{pp} = \frac{28.5 \cdot 9.81}{2.279 \cdot 1.134} = 108.2\ N/m^2$$

WIND

The basic wind velocity is determined from the Netherlands National Annex to Eurocode 1-4, NEN-EN 1991-1-4, according to the following expression:

$$V_b = C_{dir} \cdot C_{season} \cdot V_{b,0}$$

Where V_b is the basic wind speed, $V_{b,0}$ is the value of the fundamental basic wind speed, C_{dir} is the directional factor and C_{season} is the season factor.

Fundamental basic wind speed is obtained from clause 4.2 (1)P, from the National Annex. According to figure NB.1 which is included in the next page, and table NB.1 the value to consider is $V_{b,0}$ = 24.5 m/s for the area where the project is located (Zone III).

Directional coefficient is obtained from clause 4.2 (2P) NOTE 2 of the National Annex, which define C_{dir} = 1.

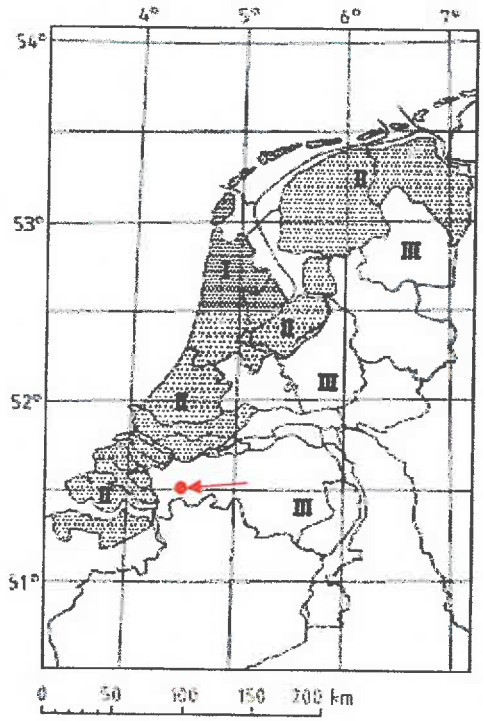
According to Clause 4.2 (2)P NOTE 3, the season factor takes the value 1, as the structure is going to be installed permanently, during winter and summer months.

As the return period of the wind load has been established in 30 years, it is used formula 4.2 from Clause 4.2 (2)P NOTE 4 and the recommended values from National Annex (K=0.234 and n=0.5), to determine the probability factor:

$$c_{\text{prob}} = 0.9678 \approx 1$$

With all this, the suction and pressure basic wind speed are:

$$V_b = c_{dir} \cdot c_{season} \cdot V_{b,0} \cdot c_{\text{prob}} = 1 \cdot 1 \cdot 24.5 m/s \cdot 1 = 24.5\ m/s$$



Figuur NB.1 — Indeling van Nederland in windgebieden

Tabel NB.1 — $v_{b,0}$ voor toepassing in Nederland

Windgebied	I	II	III
$v_{b,0}$ [m/s]	29.5	27.0	24,5

BASIC PRESSURE AND MEAN WIND SPEED

The basic pressure is defined according to the following equation:

$$q_b = \frac{1}{2} \cdot \rho \cdot V_b^2 = 0.5 \cdot 1.25 \cdot 24.5^2 = 375.2\ N/m^2$$

Where ρ is the air density (according to Clause 4.5 (1) NOTE 2 of National Annex, it should be considered 1,25 kg/m3) and V_b is the basic wind speed defined previously (m/s).

Once the basic wind speed has been calculated, the mean wind velocity could be evaluated as:

$$v_m(z) = C_r(z) \cdot C_0(z) \cdot v_b$$

Where, C_r is the terrain category, obtained from the expression 4.4, Clause 4.3.2 of the National Annex:

$C_r(z) = k_r \cdot \ln\left(\frac{z}{z_0}\right)$ for zmin ≤ z ≤ zmax

Where k_r is the terrain factor depending on the roughness length, according to the expression 4.5:

$$k_r = 0.19 \cdot \left(\frac{z_0}{0.05}\right)^{0.07}$$

Where the roughness length z_0 is 0.5 for a terrain category III, according to Table NB.3-4.1. So, k_r results:

$$k_r = 0.19 \cdot \left(\frac{0.2}{0.05}\right)^{0.07} = 0.209361972$$

And then, the C_r value is obtained as follows:

$$C_r(z) = k_r \cdot \ln\left(\frac{z}{z_0}\right) = 0.627$$

For this project, an exposure category of II can be justified since it is an "Unbuilt area".

C_0 is the orographic coefficient and takes the value of 1, because the terrain is mainly flat with no significant slopes.

Once the terrain category and orographic coefficient, has been calculated, the following mean wind velocity has been obtained for both cases (pression and suction):

$$v_m(z) = C_r(z) \cdot C_0(z) \cdot v_b = 15.366\ m/s$$

WIND PRESSURE

The peak dynamic pressure q_p has been calculated according to the following expression (Expression 4.8, Point 4.5 Peak Velocity pressure, EN 1991-1-4):

$$q_p(z) = [1 + 7 \cdot I_V(z)] \cdot \frac{1}{2} \cdot \rho \cdot v_m^2(z) = q_b \cdot c_e(z) = \frac{1}{2} \cdot v_b^2 \cdot c_e(z)$$

Where:

I_V is the wind turbulence intensity, that results as follows according to Expression 4.7 of the EN 1991-1-4:

$$I_V = 0.33$$

So $q_p(z)$:

$$q_p(z) = [1 + 7 \cdot I_V(z)] \cdot \frac{1}{2} \cdot \rho \cdot v_m^2(z) = 492.41\ N/m^2$$

Pressure coefficients are obtained from Table 7.6 in Eurocode 1. As the structure is 13° to the horizontal, by linear interpolation, the global coefficients to pressure and suction are:

$$C_{p,p} = 0.62$$

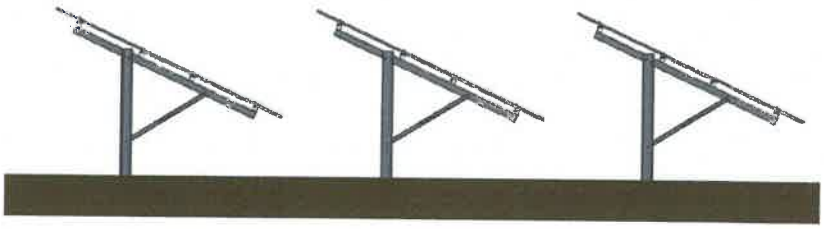
$$C_{p,s} = -1.02$$

The wind pressure and suction actions are:

$$w_p = q_p \cdot c_{pp} = 492.41 \cdot 0.5 = 246.205\ N/m^2$$

$$w_s = q_p \cdot c_{ps} = 492.41 \cdot (-1.02) = -502.258\ N/m^2$$

In photovoltaic projects, PV structures are aligned forming long rows one after the other, as it is shown in the following figure:



In this way, they are similar to multibay canopies as they are described in Figure 7.18 from the Eurocode *EN 1991-1-4 Actions on structures. Wind actions.*

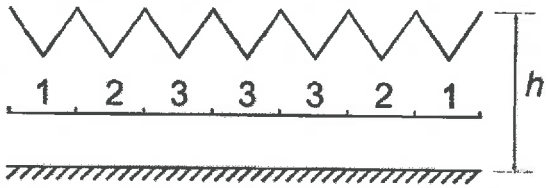


Figure 7.18 — Multibay canopies

According to this similarity, it is described in section *7.3 Canopies (9)* from Eurocode that it is possible to apply reduction factors to the calculated wind loads. This is because as table rows are located next to each other, they protect among them from the action of the wind.

The mentioned reduction factors are given in Table 7.8 from EN 1991-1-4:

Table 7.8 — Reduction factors ψ_{mc} for multibay canopies

Bay	Location	ψ_{mc} factors for all φ	
		on maximum (downward) force and pressure coefficients	on minimum (upward) force and pressure coefficients
1	End bay	1,0	0,8
2	second bay	0,9	0,7
3	third and subsequent bays	0,7	0,7

These reduction factors could be applied to the overall force coefficients calculated before for the table located inside the layout. In the Annex, it is attached a layout showing the location of the different tables.

The wind pressure and suction actions are:

$$q_p = \varphi \cdot w_p = 0.7 \cdot 246.205 = 172.35\ N/m^2$$

$$q_s = \varphi \cdot w_s = 0.7 \cdot (-502.258) = -351.58\ N/m^2$$

SNOW

The characteristic value of snow load on the ground, S_k, is determined from the Netherlands National Annex to Eurocode 1-3, NEN-EN 1991-1-3+C1/NB.

According to Clause 4.1 (1)P, the characteristic value of the snow load must be taken as 0.7 N/m² for the location of the project.

$$S_k = 0.7\ N/m^2$$

According to the Eurocode EN 1991-1-3 Clause 5.2 (4): "It should be considered that the load acts vertically and that it refers to the projection area of the roof". Moreover, from EN 1991-1-3 Annex D and NEN-EN-1991-1-3+C1_NB Section 4.1 (1), we adjust the ground snow load according to a return period of 30 years.

$$C_{prob} = 0.895 \approx 1$$

So, the snow load obtained is:

$$s = s_k \cdot \mu_1 \cdot \cos(\alpha) \cdot C_{prob} = 700 \cdot 0.8 \cdot \cos(13º) \cdot 1 = 545.65\ N/m^2$$

SEISM

It has not been considered seismic load in calculations.

SERVICE OVERLOAD

It is not considered any service overload since no one must be over the photovoltaic panels under no circumstances. The maintenance personnel should perform the maintenance from the ground, without getting on the structure.

CALCULATION PROCESS

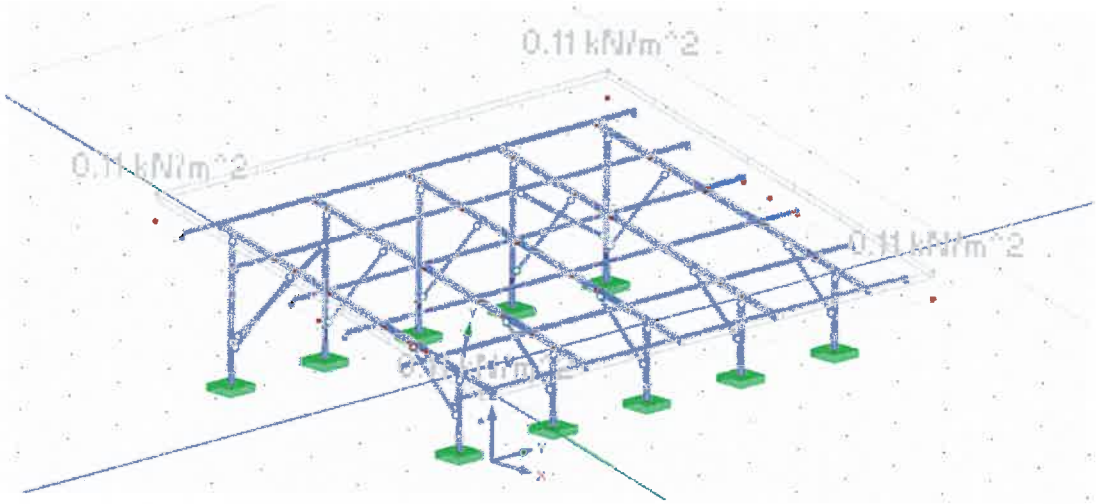
The calculation process consists of working with RFEM by entering the model, defining boundary conditions, sections, and materials, loads and combinations, solving and testing different ULS not reaching the maximum resistance of the material and in the SLS not reaching the maximum deflection of L/250 in purlins, lintels and vertical components.

LOADS ON PURLINS

The purlins receive the loads from the PV modules and transmit them to the lintels of the frames. The loads transmitted from the PV modules to the purlins are modeled as equally distributed linear loads over the purlins. Each row of modules is attached to two purlins; therefore, every purlin will receive half of the load of the modules row. Since the modules will be installed in a portrait configuration, and the length of the module is 2279 mm, the linear loads over the purlins are as follows:

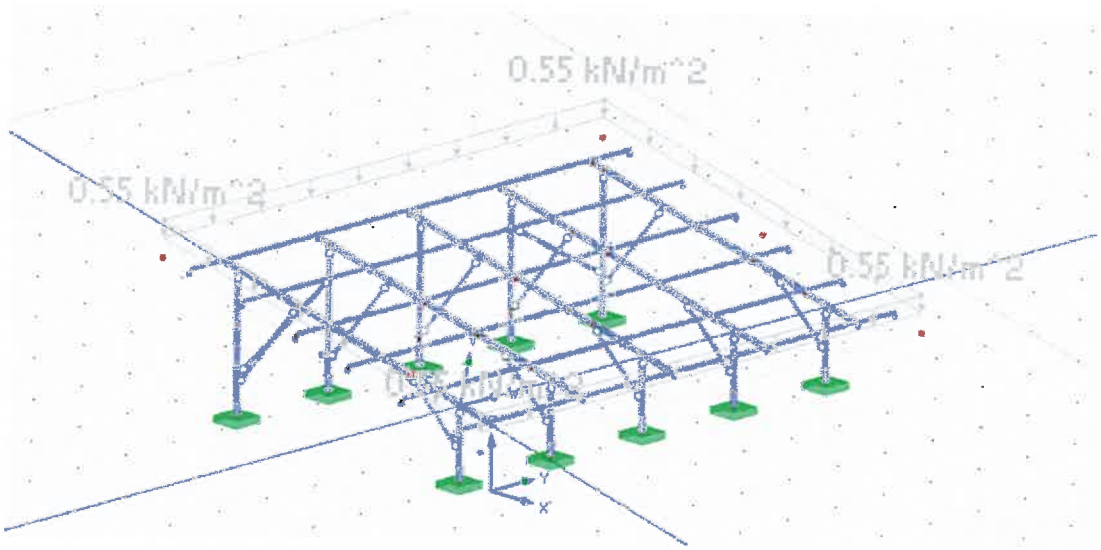
- Death Weight:

$$q_{pp} = \frac{108.2 \cdot 2.279}{2} = 123.29\ N/m$$

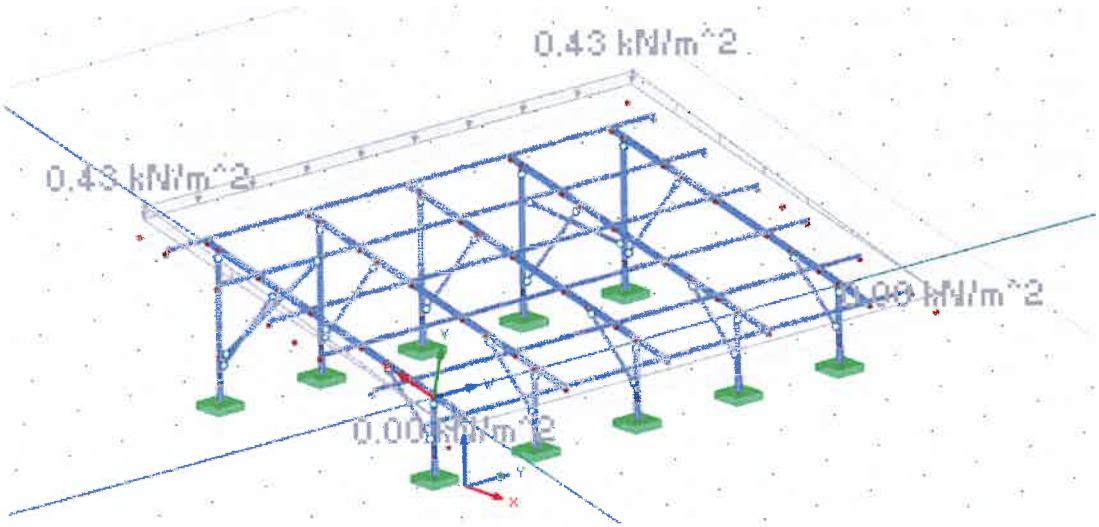


- Snow Load:

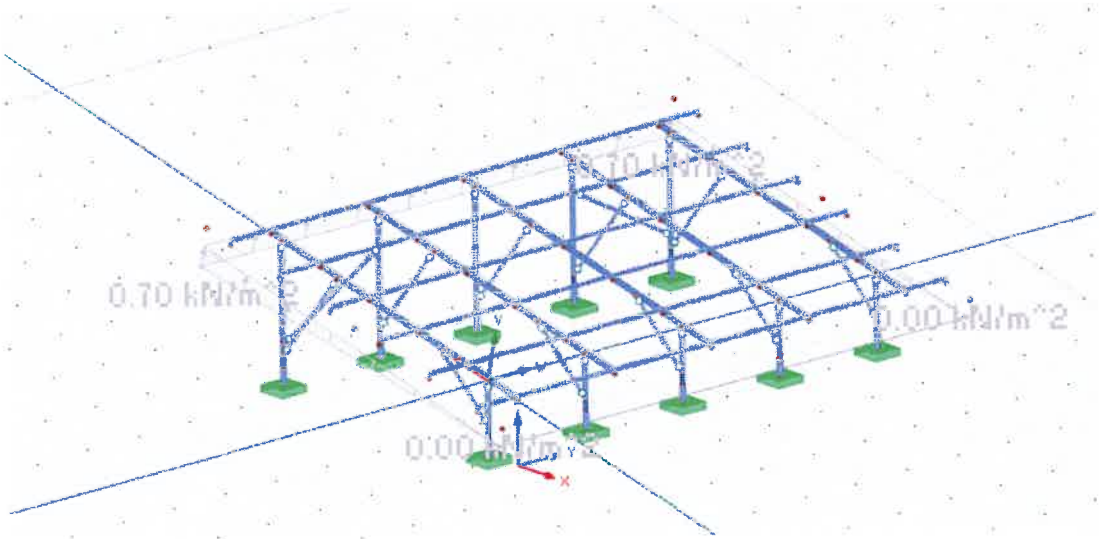
$$s = \frac{545.65 \cdot 2.279}{2} = 621.768\ N/m$$



- Wind Loads:
  - Modules facing windward (downwards pressure):



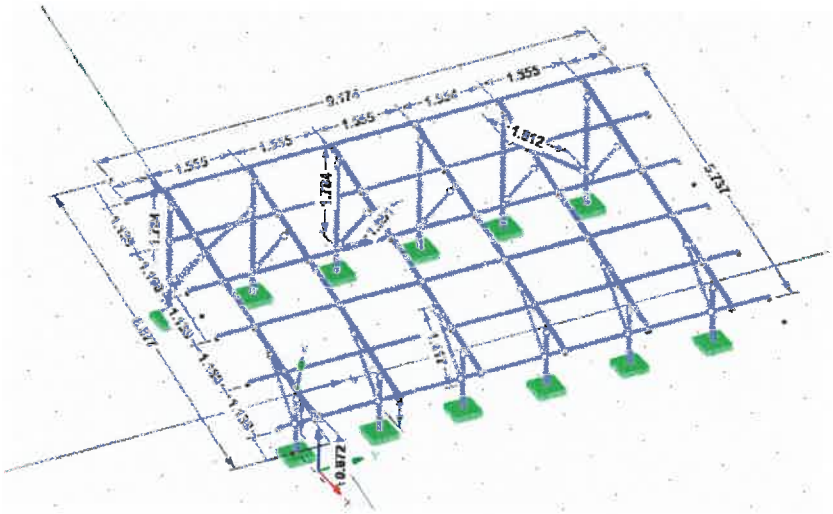
  - Modules facing leeward (upwards pressure):



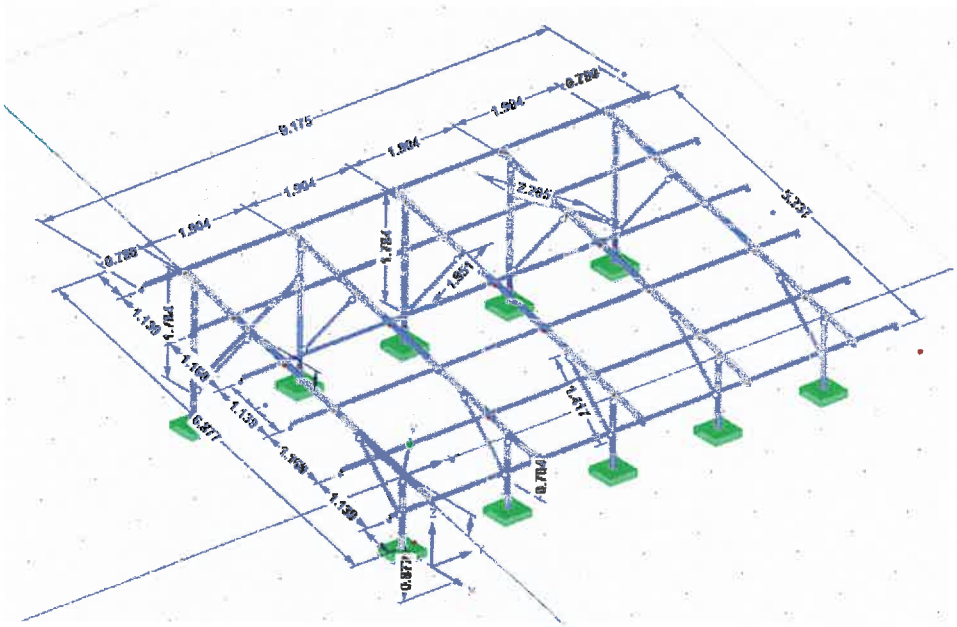
MODELING

At this point, the complete structures are modeled. All structures are modeled by means of a continuous beam. Both structures have the same dimensions, except for the number of frames and the distance between them.

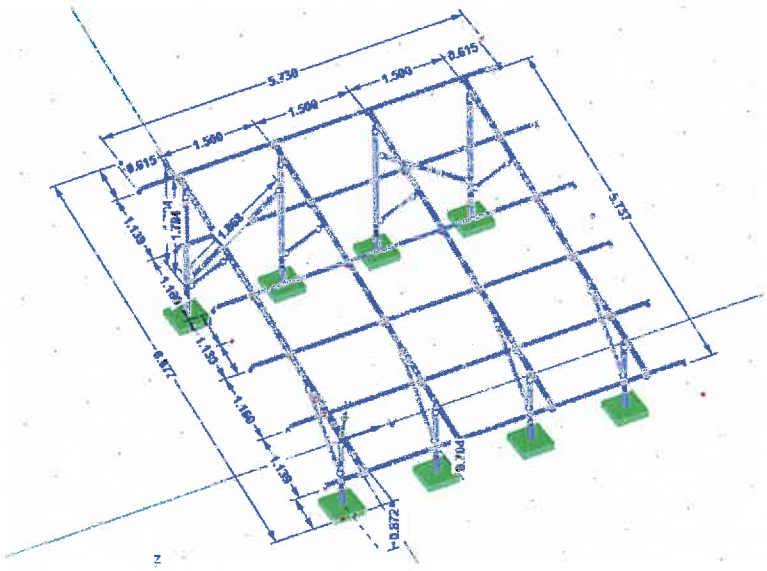
- General dimmensions:
  - BP_3x8_V13° EXT



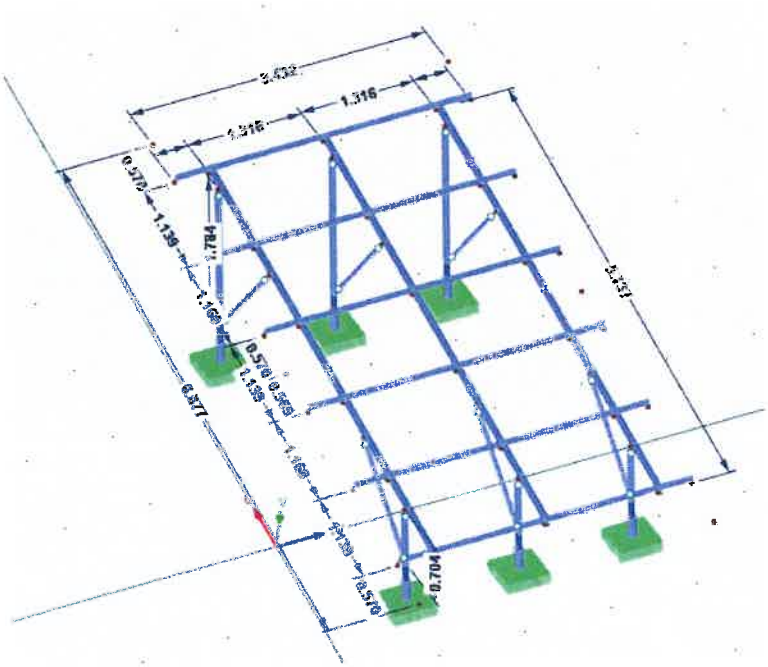
  - BP_3x8_V13° INT



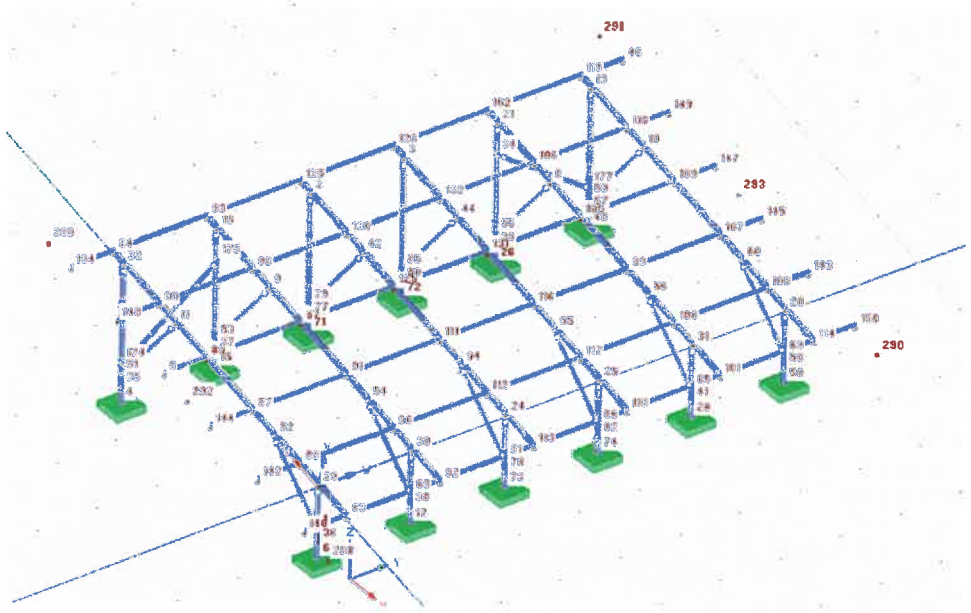
- BP_3x5_V13°



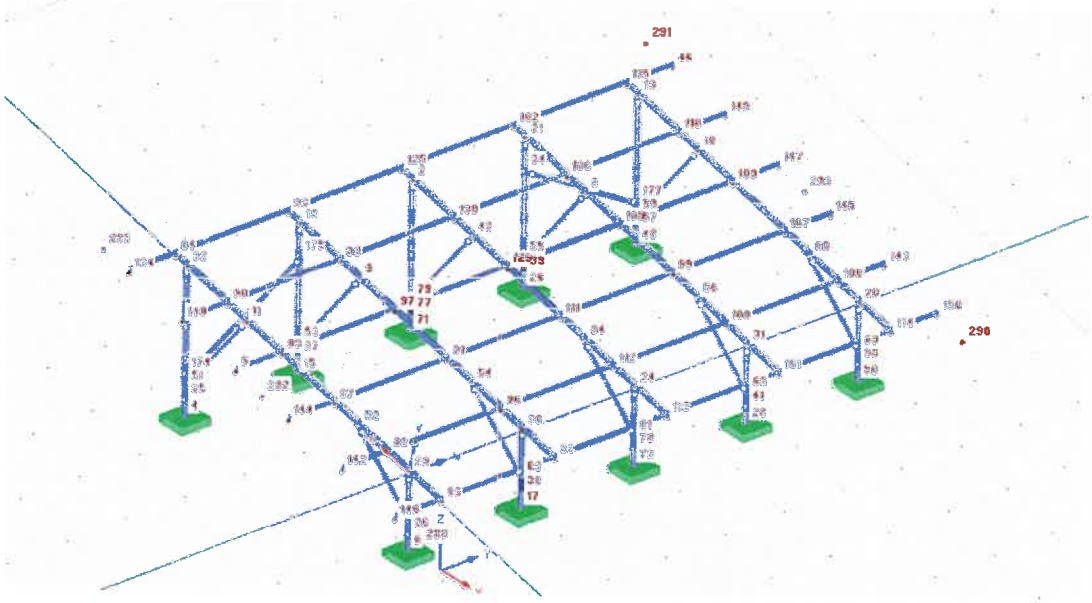
- BP_3x3_V13°



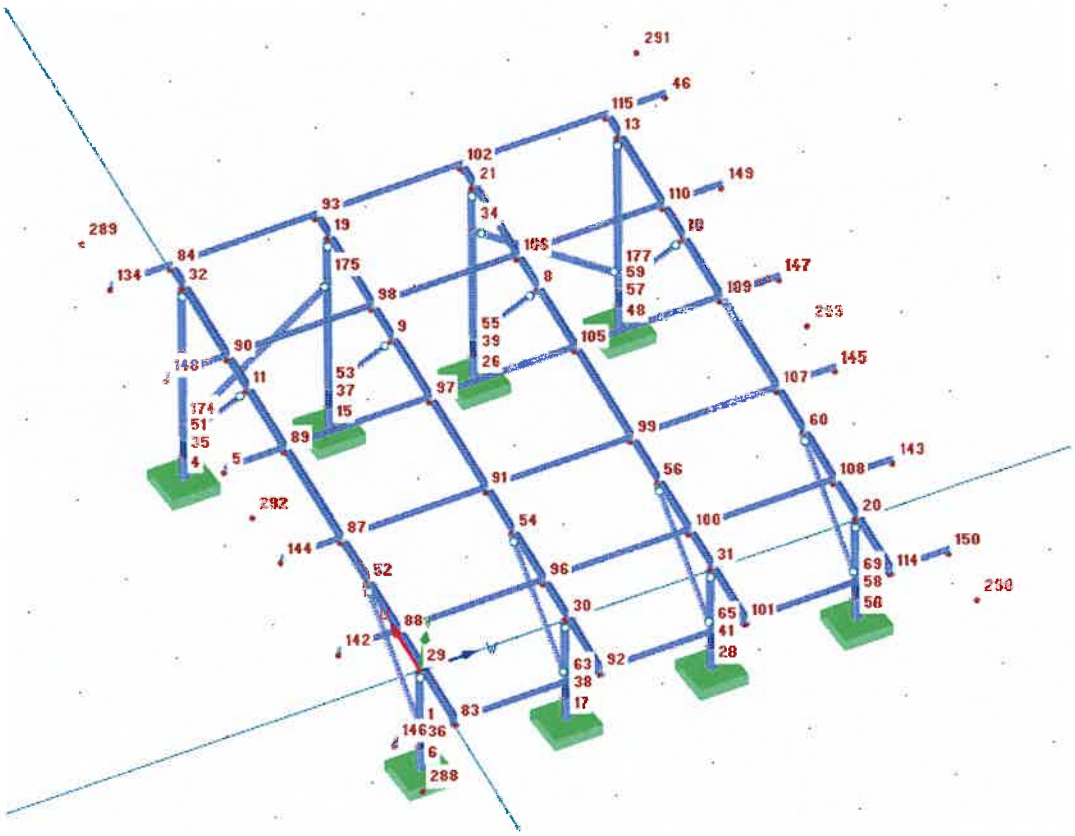
- Nodes numbering:
  - BP_3x8_V13° EXT



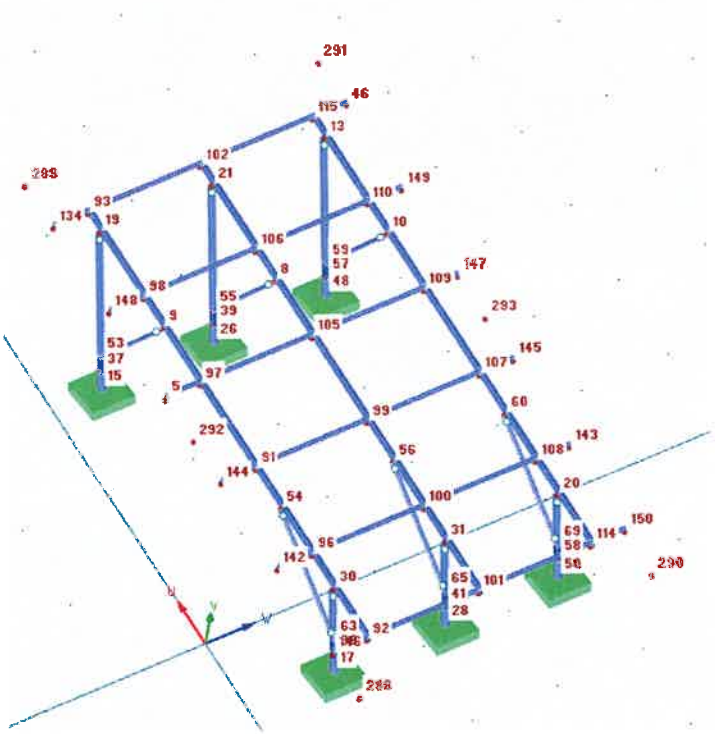
  - BP_3x8_V13° INT



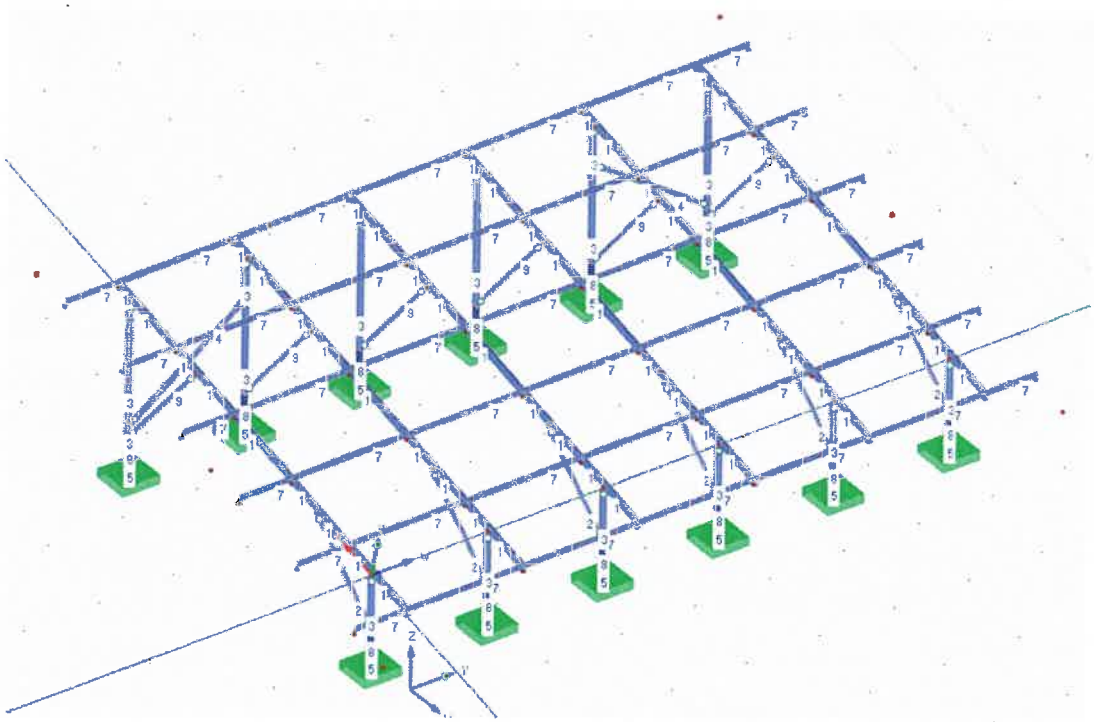
- BP_3x5_V13°



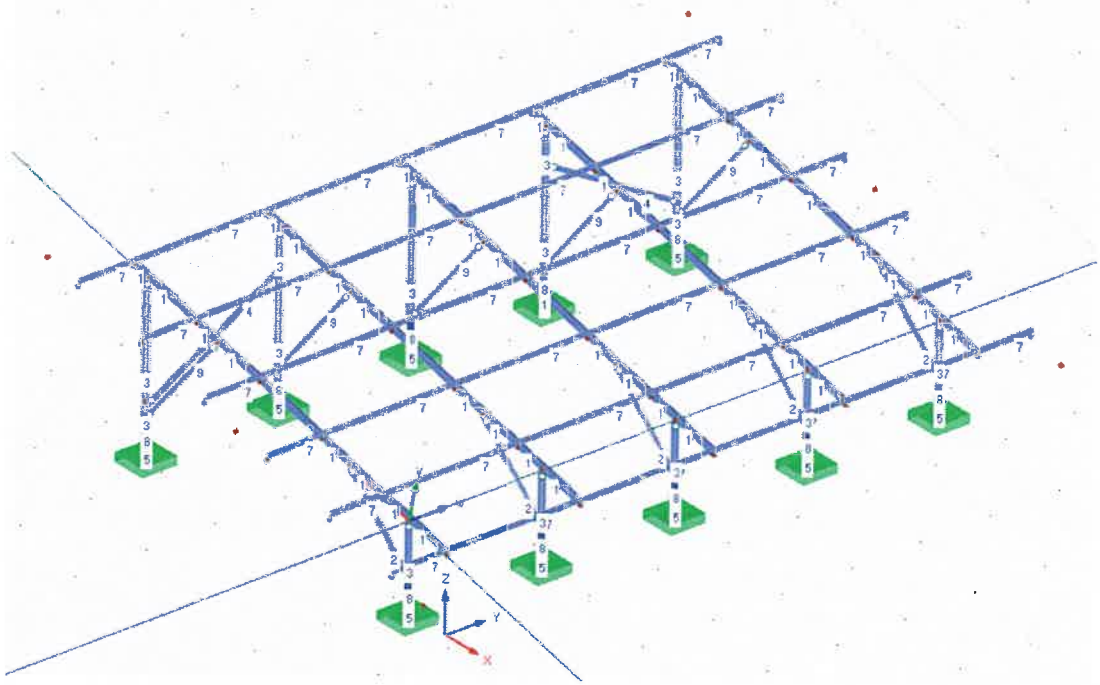
- BP_3x3_V13°



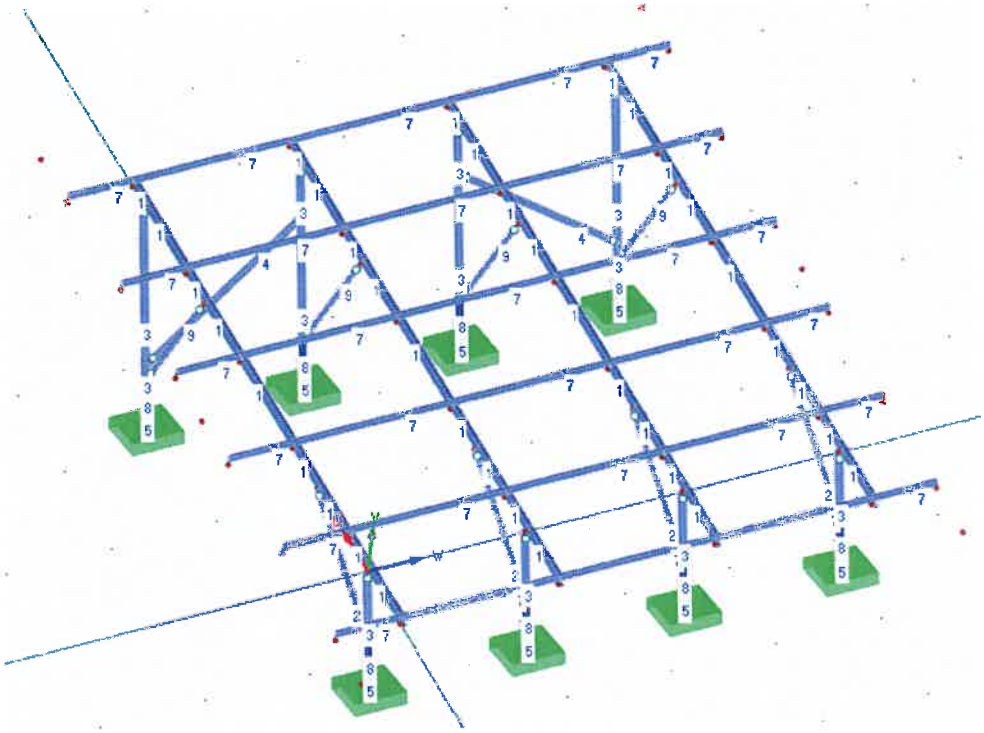
- Section numbers:
  - BP_3x8_V13° EXT



  - BP_3x8_V13° INT

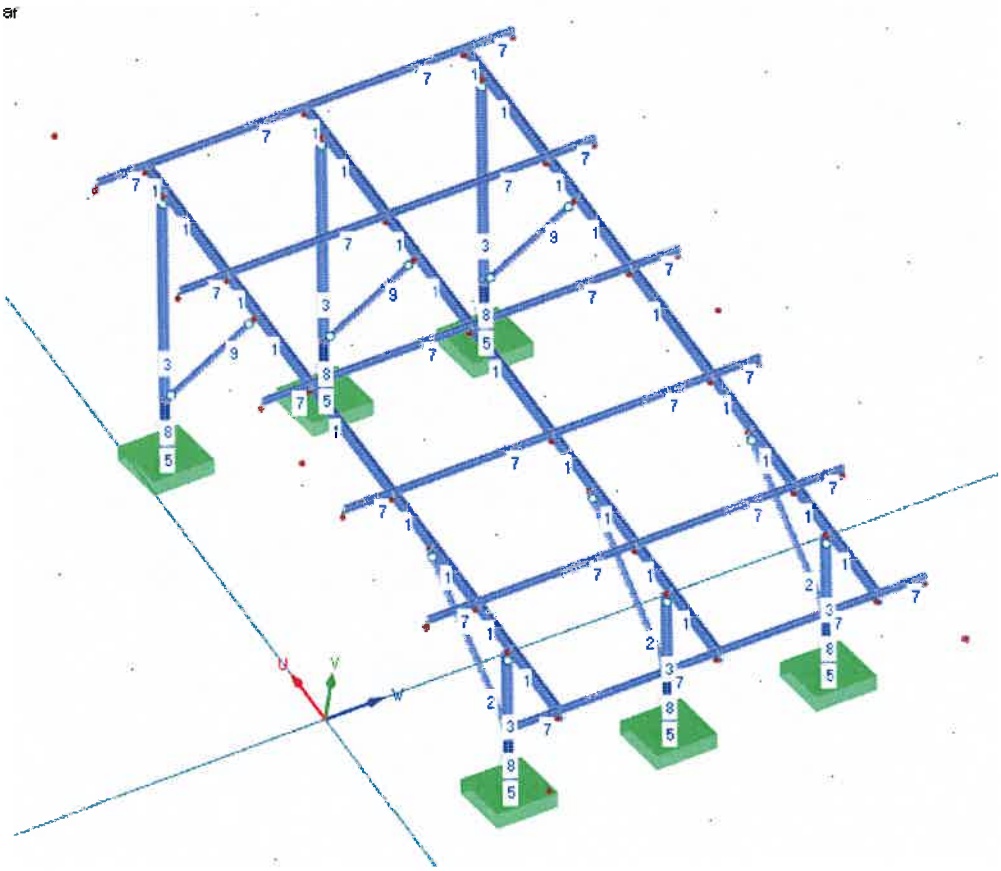


- BP_3x5_V13°



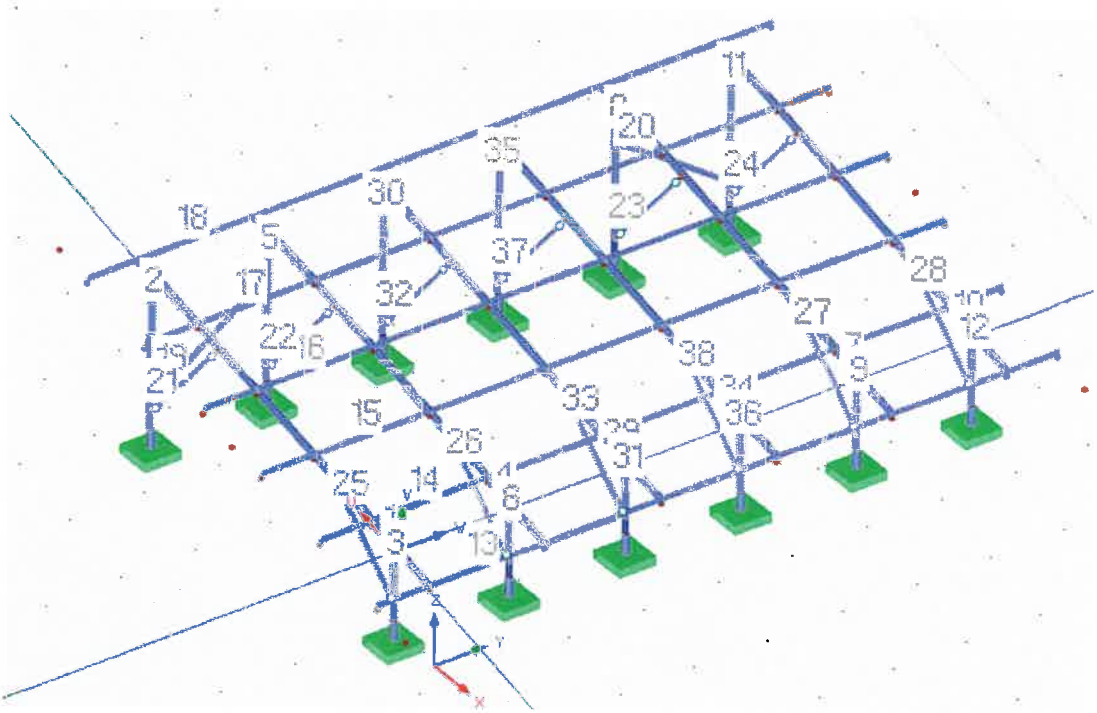
- BP_3x3_V13°

ar

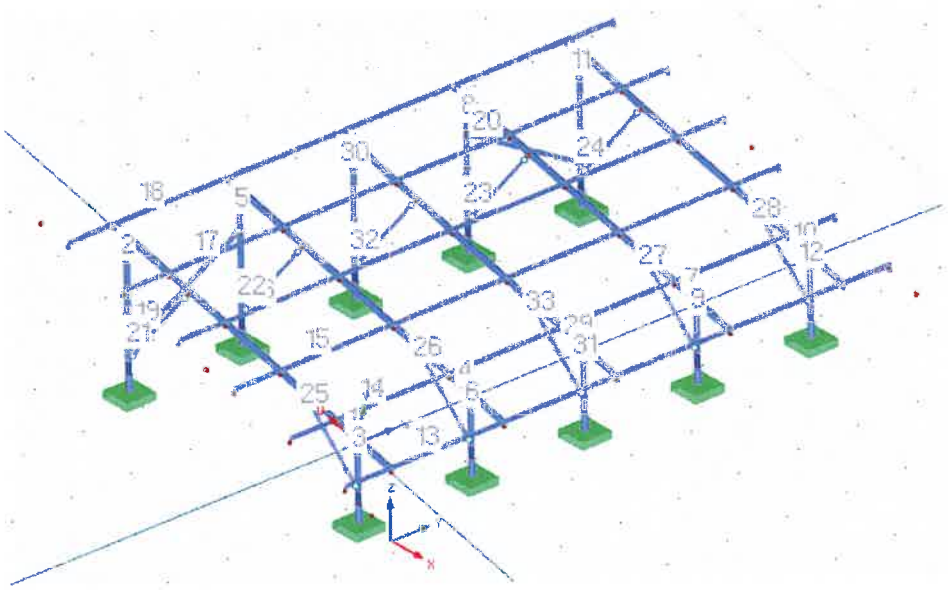


Section No.	A Cross-Section Description [mm]	B Material No.
1	C-PAR 98/38/1.5/12/1.5	4
2	Pipe 40/1.5/K	2
3	C-PAR 76/46/1.5/12/3	4
4	C-PAR 58/31/1.2/12/2.4	4
5	Pipe 90/1/K	1
6	KU-PAR 30/15/1.5/3	2
7	C-PAR 58/31/1.2/12/2.4	4
8	C-PAR 70/40/3/12/3	5
9	Pipe 40/1.5/K	2

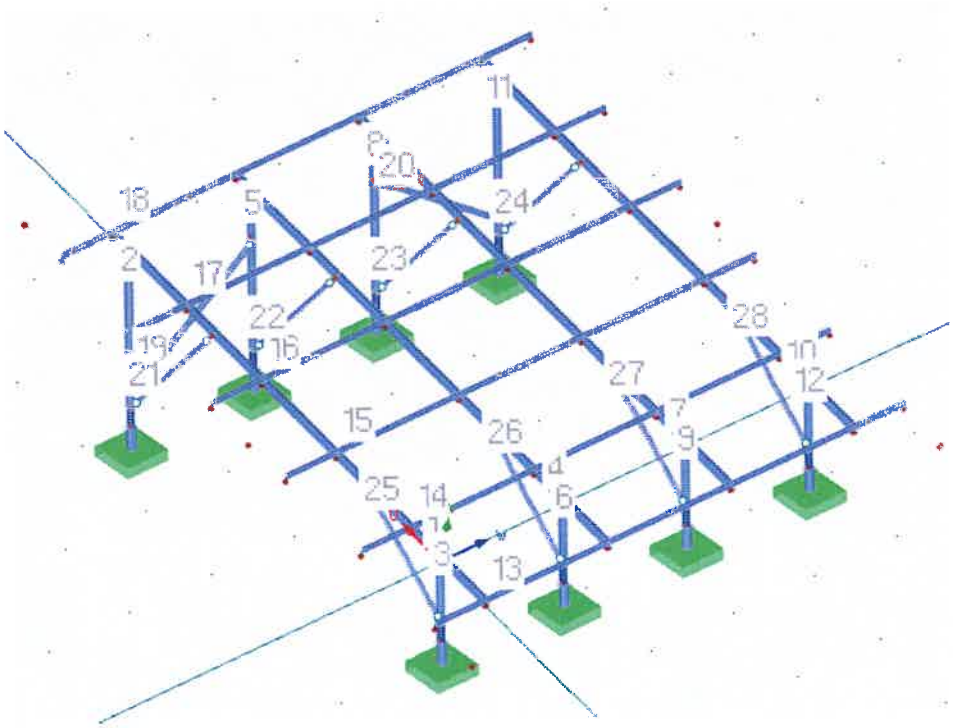
- Beam set numbers:
  - BP_3x8_V13° EXT



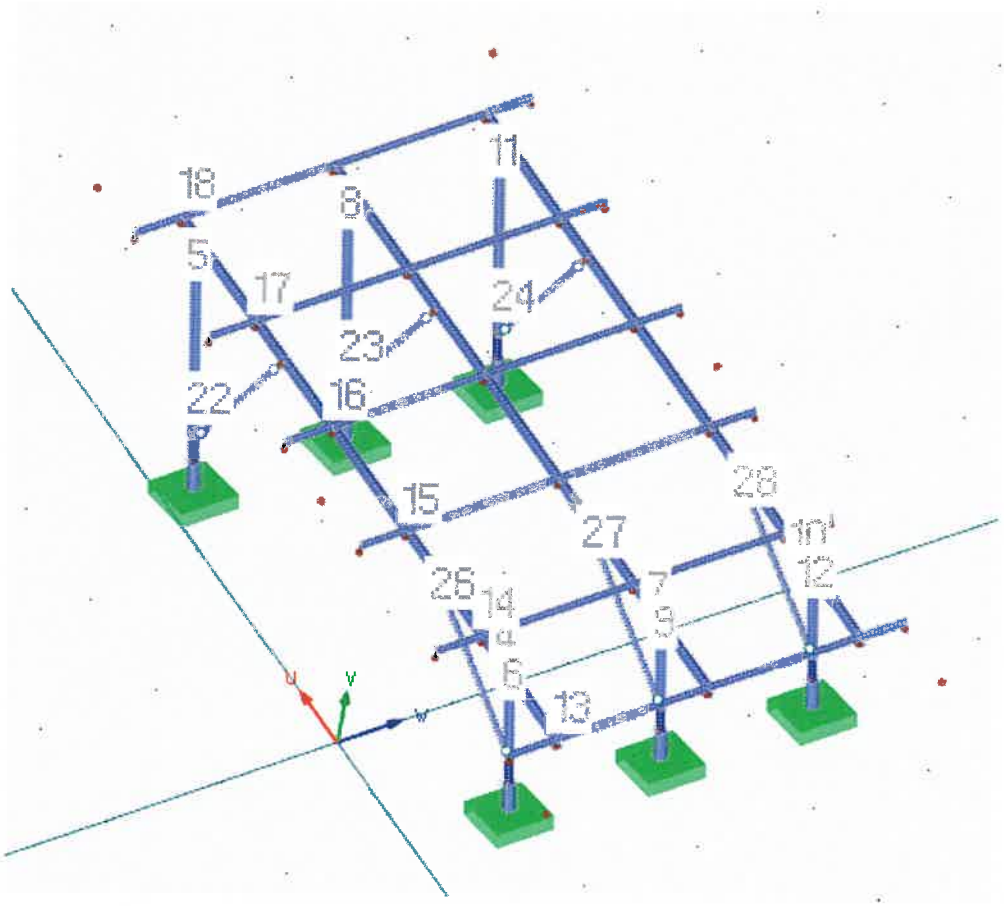
- BP_3x8_V13° INT



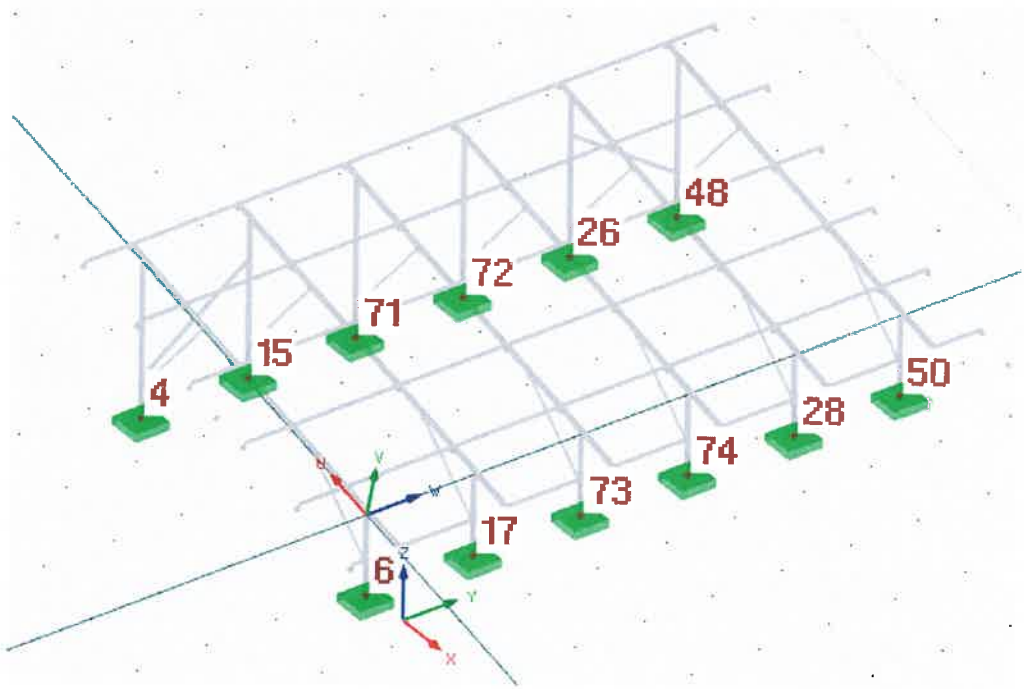
- BP_3x5_V13°



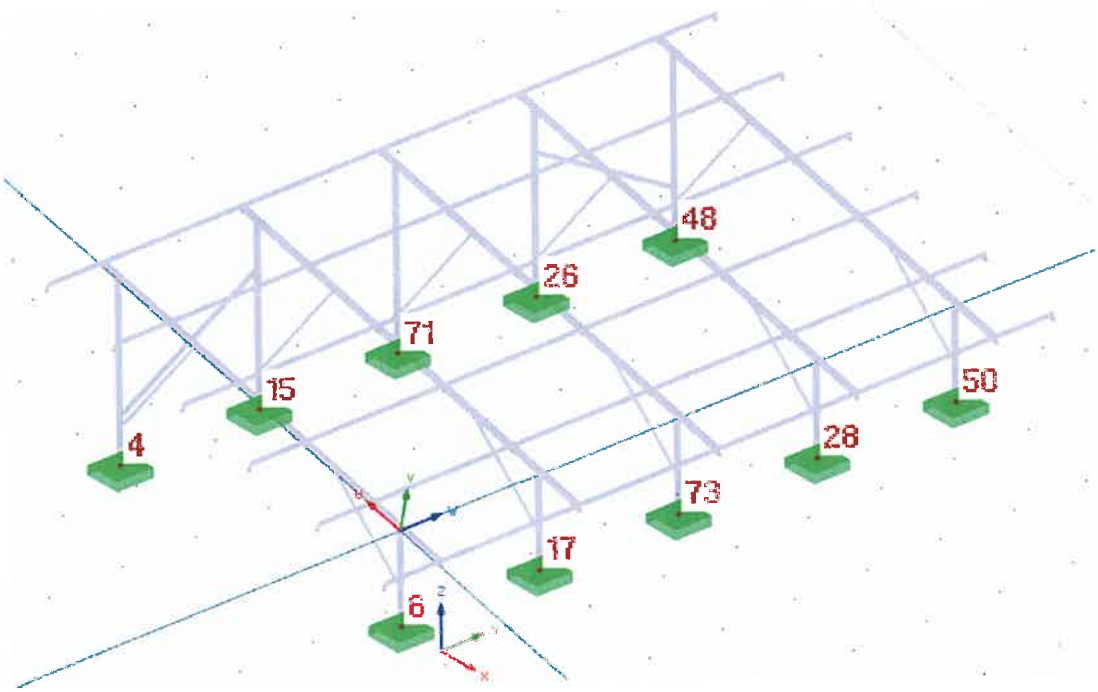
- BP_3x3_V13°



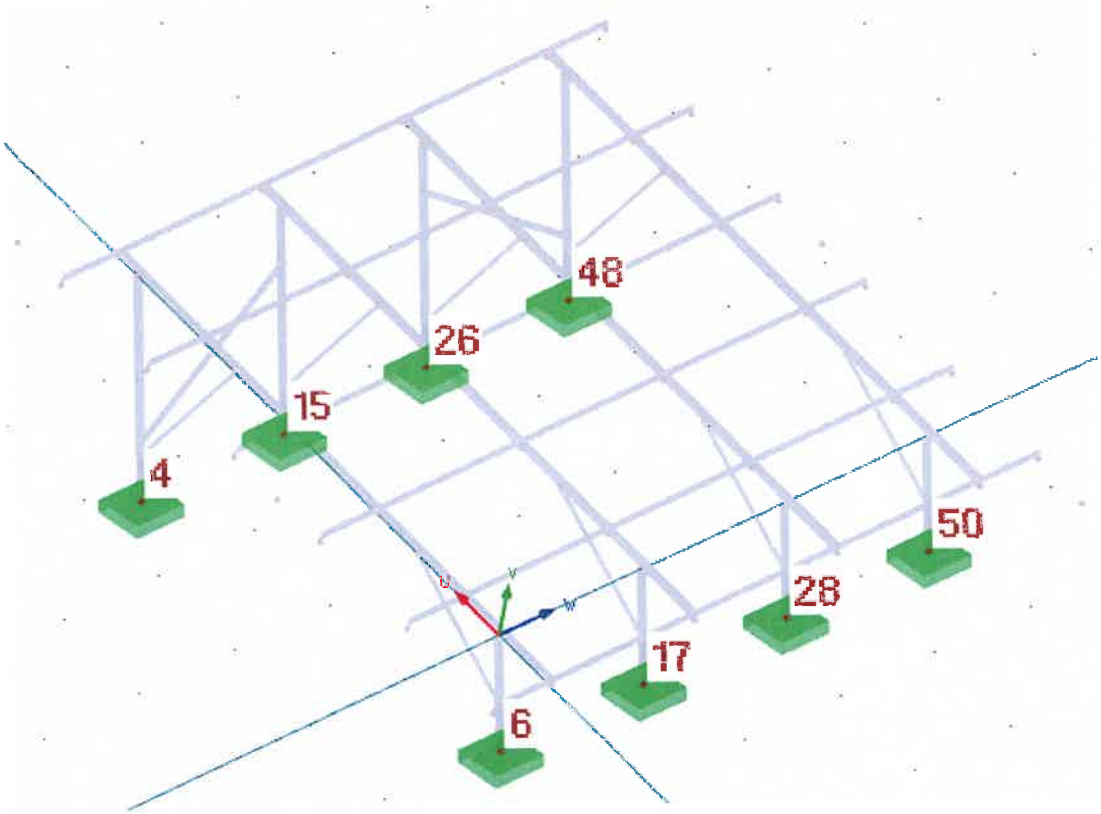
- Support nodes numbers:
  - BP_3x8_V13° EXT



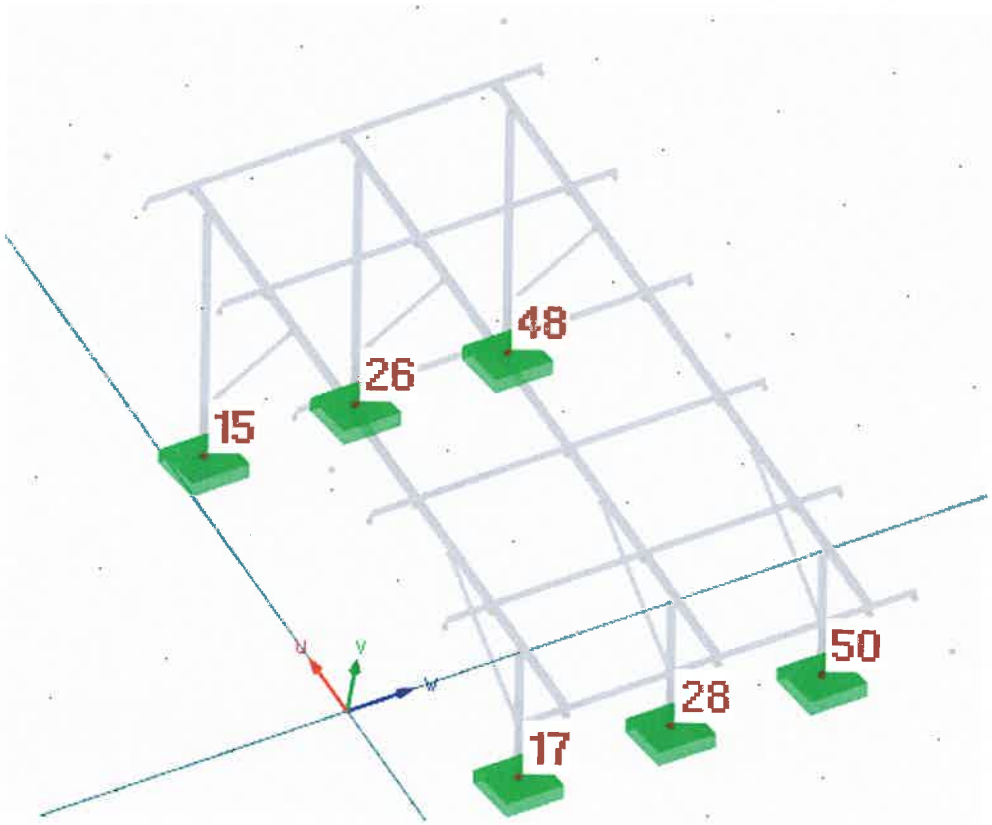
- BP_3x8_V13° INT



- BP_3x5_V13°



- BP_3x3_V13°



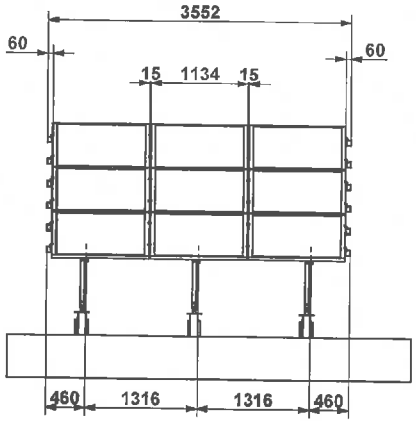
AXIAL
structural solutions

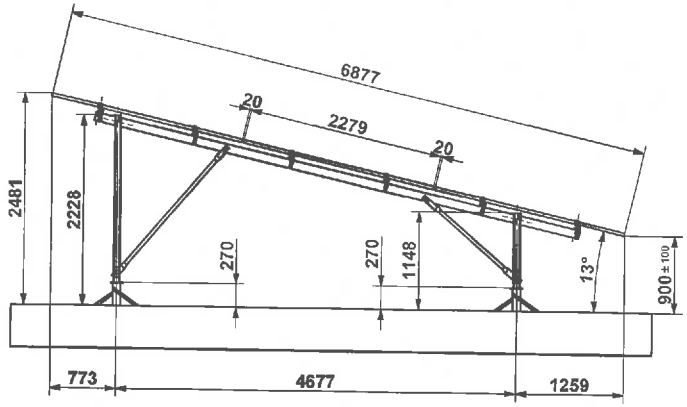
ANNEX I

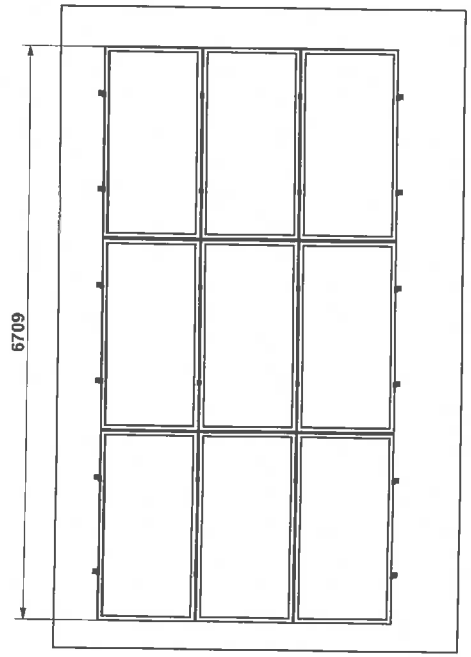
STRUCTURE DRAWINGS

TÜVRheinland CERTIFIED
Management System ISO 9001:2015
TÜVRheinland CERTIFIED
EN 1090-1 Factory Production Control

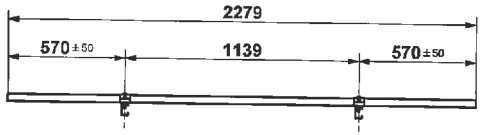
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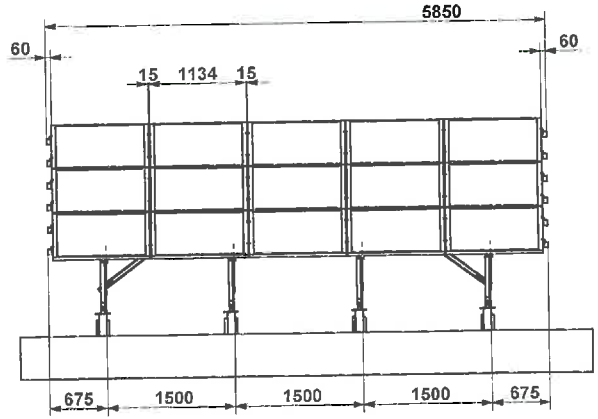
CLAMPS POSITION (1:25)

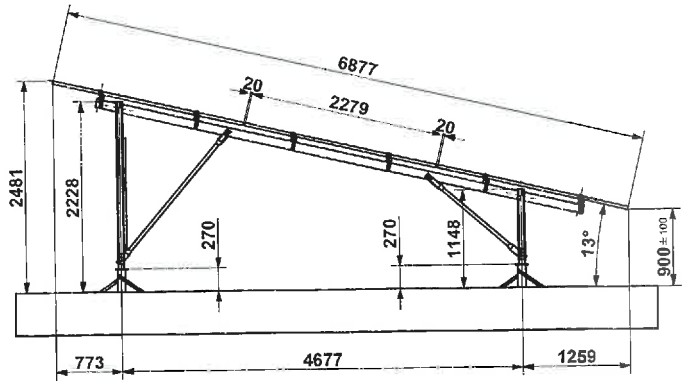


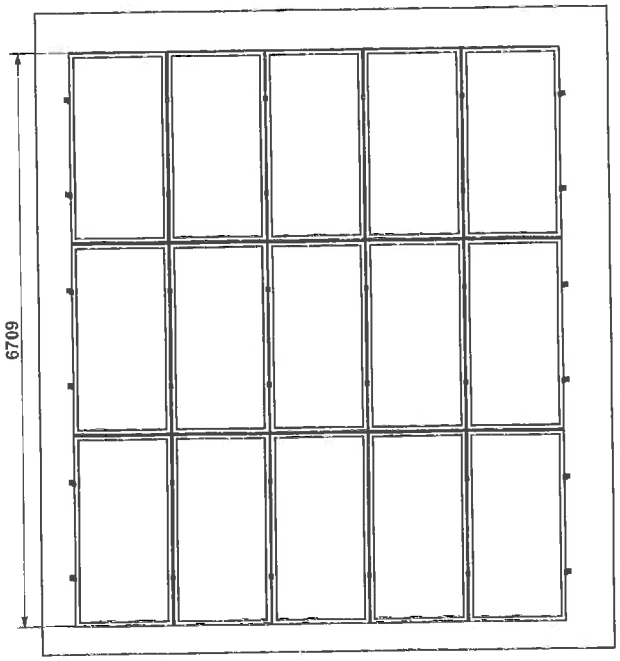
Rev.:	By:	Date:	Change:
0	Alberto	14/05/2021	Base

CUSTOMER: **Statkraft**	Drawn by: Alberto	Date: 14/05/2021	AXIAL structural solutions
Project: **NL-1191-63 // Bollendonk**	Quality: N/D		NOTE: DIMENSIONAL TOLERANCE ACCORDING TO UNE_EN 1090 STANDARD AND ISO 2768-m STANDARD
System: **BP_3x3_V13°**	Treatement: N/D		F105-Rev.2
00 Structure Assembly 3x3 Int.idw	Material: N/D	Code:	View System:
	Weight: N/D		

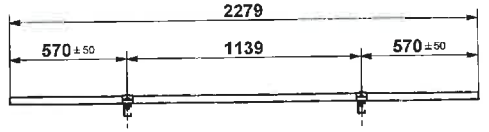
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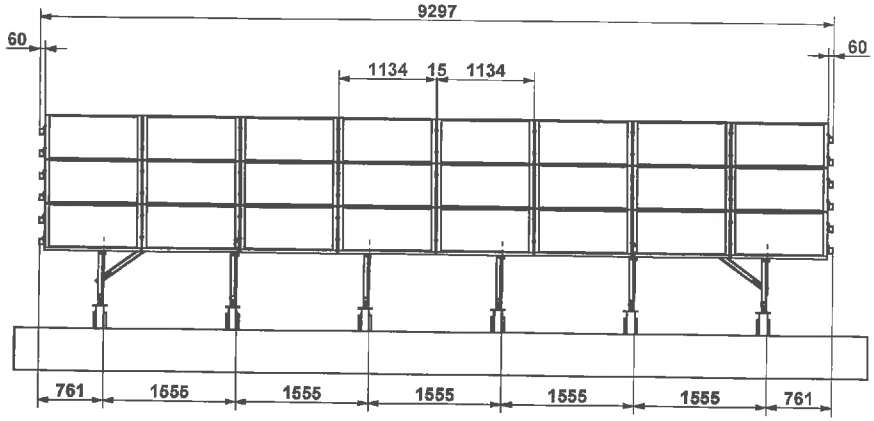
CLAMPS POSITION (1:25)

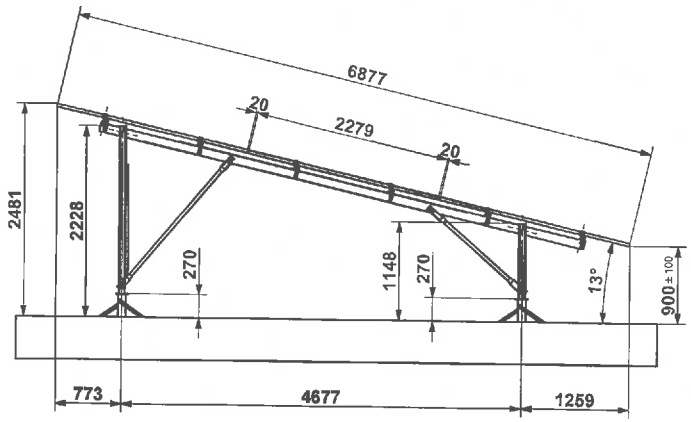


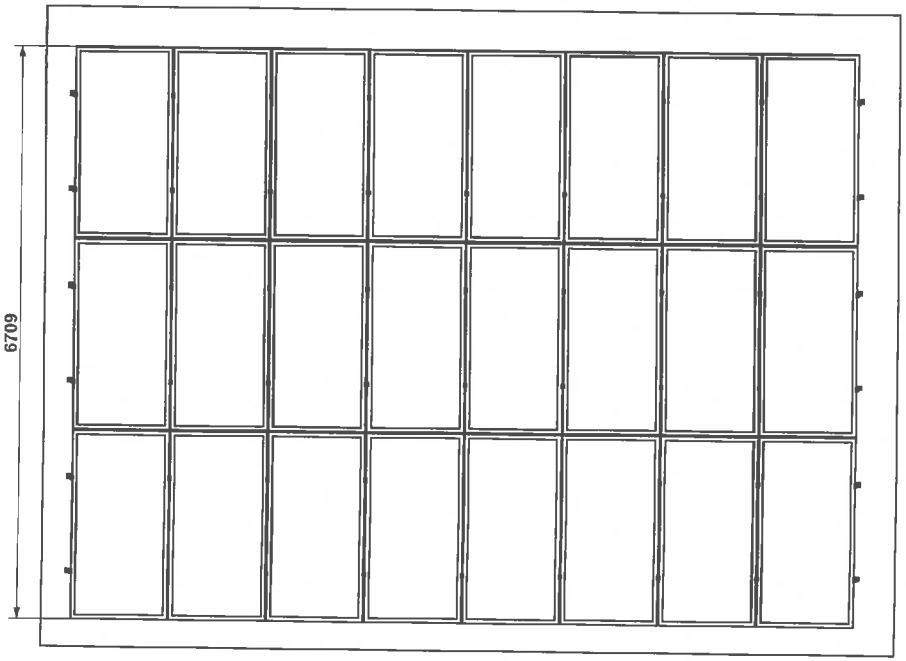
Rev.:	By:	Date:	Change:
0	Alberto	14/05/2021	Base

CUSTOMER: **Statkraft**	Drawn by: Alberto	Date: 14/05/2021	AXIAL structural solutions
Project: **NL-1191-63 // Bollendonk**	Quality: N/D		NOTE: DIMENSIONAL TOLERANCE ACCORDING TO UNE_EN 1090 STANDARD AND ISO 2768-m STANDARD
System: **BP_3x5_V13°**	Treatement: N/D		
00 Structure Assembly 3x5 Int.idw	Material: N/D	Code:	View System:
	Weight: N/D		

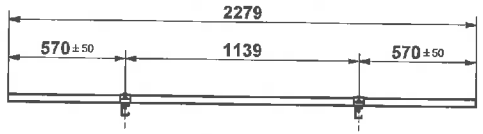
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CLAMPS POSITION (1:25)



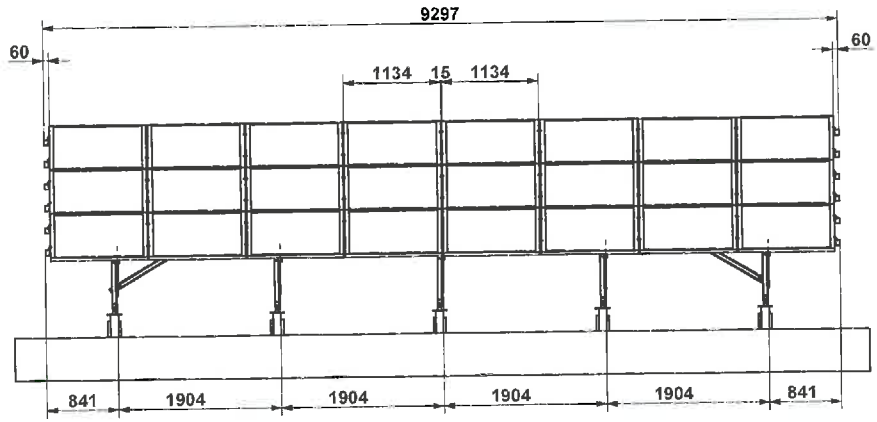
Rev.:	By:	Date:	Change:
0	Alberto	14/05/2021	Base

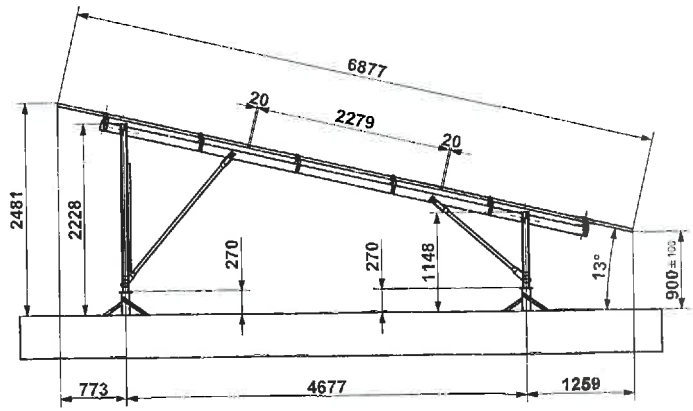
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Project: **NL-1191-63 // Bollendonk**	Quality: N/D	
System: **BP_3x8_V13°**	Treatement: N/D	
00 Structure Assembly 3x8 Ext.idw	Material: N/D	Code:
	Weight: N/D	View System:

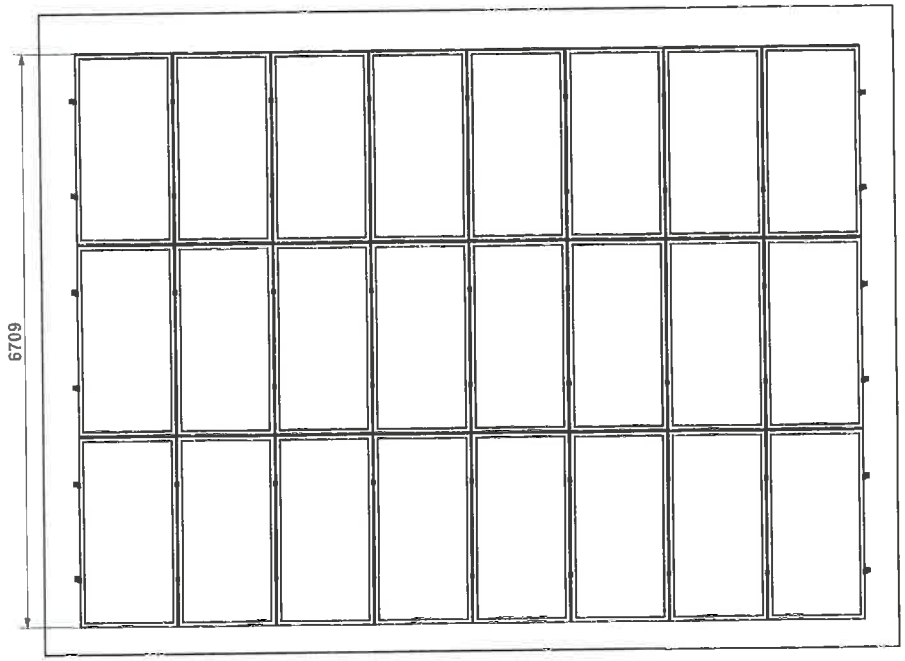
AXIAL structural solutions

NOTE:
DIMENSIONAL TOLERANCE ACCORDING TO UNE_EN 1090 STANDARD AND ISO 2768-m STANDARD

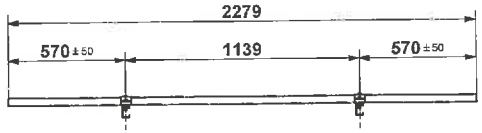
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CLAMPS POSITION (1:25)



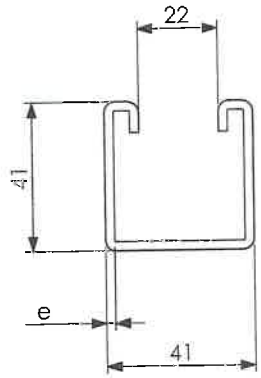
Rev :	By:	Date:	Change:
0	Alberto	14/05/2021	Base

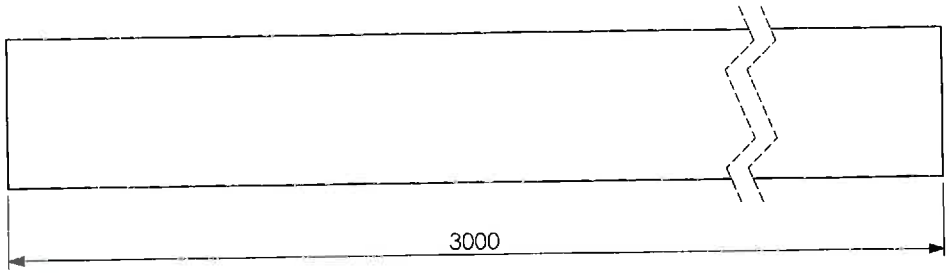
CUSTOMER: **Statkraft**	Drawn by: Alberto	Date: 14/05/2021	AXIAL structural solutions
Project: **NL-1191-63 // Bollendonk**	Quality: N/D		NOTE: DIMENSIONAL TOLERANCE ACCORDING TO UNE_EN 1090 STANDARD AND ISO 2768-m STANDARD
System: **BP_3x8_V13°**	Treatement: N/D		F109-Rev3
00 Structure Assembly 3x8 Int.idw	Material: N/D	Code:	View System:
	Weight: N/D		

ANNEX II

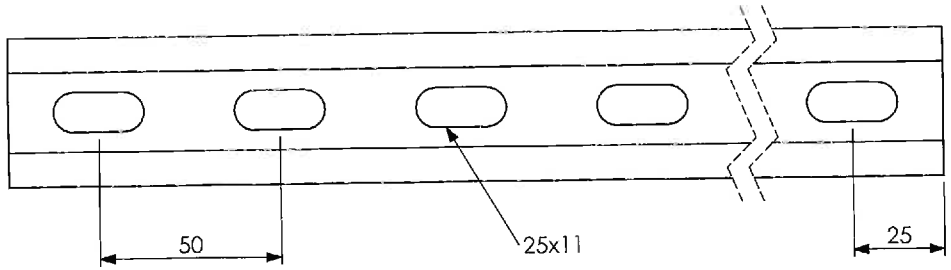
STRING BOXES

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e (mm)	
1,5	☐
2	☐
2,5	☒



PERFIL 41x41		ACC - BASORPERFIL 41/82
Fecha: 10/09/2010	Referencia:	Material:
Espesor:	Escala: S. E.	Autor: t.montoro
		Revisado por: M. Alfaro

AXIAL
structural solutions

Behoort bij besluit van
Burgemeester en wethouders
van de gemeente Etten-Leur
Int. kenmerk:
2021OG0373-01

ETTEN LEUR GEMEENTE

ANNEX III

SCREW DATASHEET

TÜVRheinland CERTIFIED
Management System ISO 9001:2015
www.tuv.com ID 9105081637
TÜVRheinland CERTIFIED
EN 1090-1 Factory Production Control
www.tuv.com ID 9105071259

TECHNICAL DELIVERY CONDITIONS

MECHANICAL CONNECTING ELEMENTS

OXIDATION AND ACID RESISTANT STEELS

In strict accordance to DIN 267, part 11, ISO 3506-79

CHEMICAL COMPOSITION OF THE MATERIALS AISI-304 (A-2) AISI-316 (A-4)

MATERIAL GROUP	STEEL GROUP	CHEMICAL COMPOSITION IN % MAX.							
		C.	Si.	Mn.	P.	S.	Cr.	Mo.	Ni.
AUSTENITIC	A-2	0.08	1.0	2.0	0.05	0.03	17.0 20.0		8.0 13.0
	A-4	0.08	1.0	2.0	0.05	0.03	16.0 18.5	2.0 3.0	10.0 14.0

MECHANICAL PROPERTIES

STEEL GROUP	TYPES OF RESISTANCE	DIAMETERS	SCREWS			NUTS
			Tensile strength Rm (1) N/mm2 Min.	Elongation limit of 0.2% Rp 0.2 (1) N/mm2 Min.	Breaking elongation AL (2) mm. Min.	Test stress Sp. N/mm2
A-2	50	<=M 39	500	210	0.6 d	500
A-2	70	<= M 20	700	450	0.4 d	700
		> M 20 <= M 30	500	250	0.4 d	500
A-4	80	<= M 20	800	600	0.3 d	800

(1) All values are calculated and refer to the section of thread tension
(2) The break elongation is determined by the corresponding screw length, not in turned test tube, with a measuring length of 5 d.

AXIAL
structural solutions

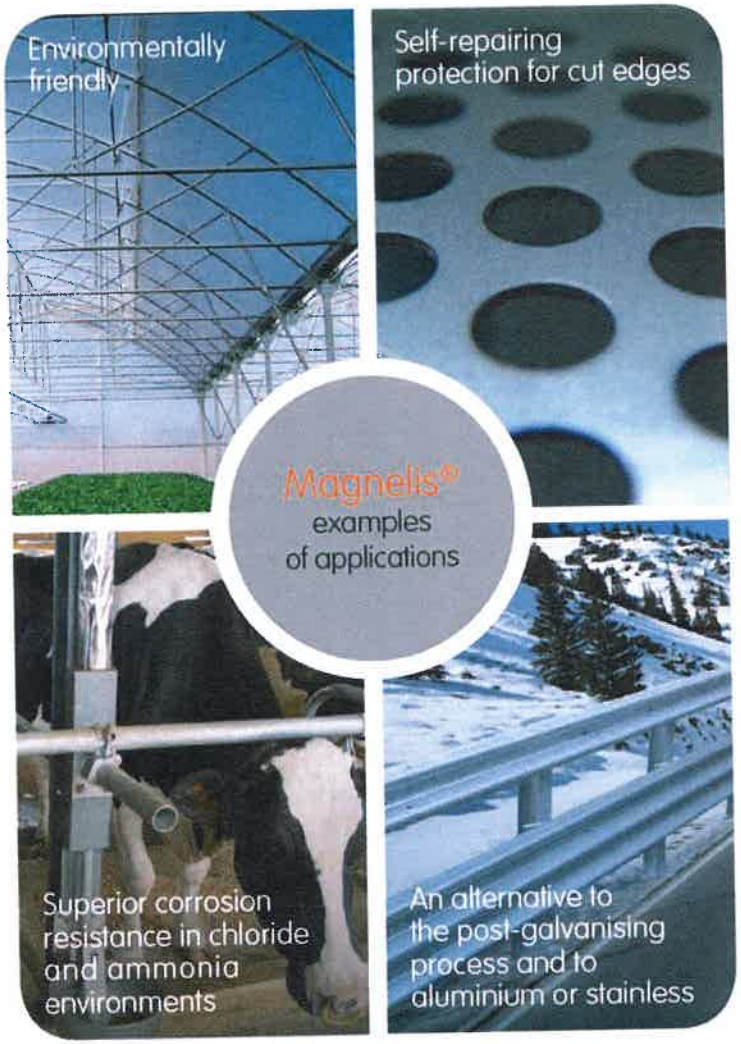
ANNEX IV-A

MAGNELIS

TÜVRheinland CERTIFIED
Management System ISO 9001:2015
www.tuv.com ID 9105085637
TÜVRheinland CERTIFIED
EN 1090-1 Factory Production Control
www.tuv.com ID 9105071259

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- What is Magnelis
- Advantages of Magnelis
- Feasibility
- Magnelis the cost effective alternative for post galvanisation

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What is Magnelis

Advantages of Magnelis

Feasibility

Magnelis the cost effective alternative for post galvanisation

Product description | MA NELIS

ArcelorMittal

hat is Magnelis

- A metallic inc coating with 3,5% Aluminium, 3% Magnesium that offers ultimate corrosion resistance in aggressive environments (e.g. chloride highly alkaline)



hat is uni ue about Magnelis

- Improved cut-edge protection
- eduction of inc coating mass



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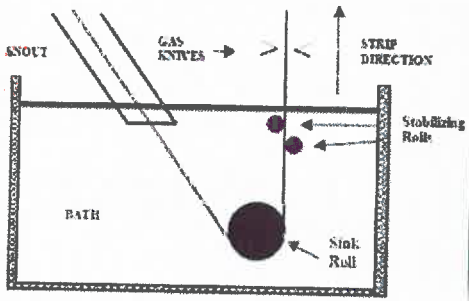
Magnelis® :
Production Process

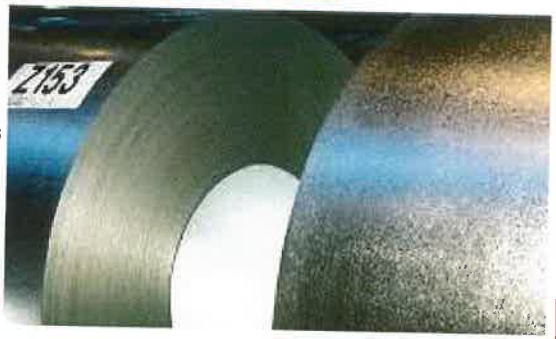
ArcelorMittal

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Continuous galvanization







- ✓ Continuous Automated process
- ✓ Online control
- ✓ Optimized coating layer

Batch galvanization





- ✓ Discontinuous process
- ✓ Manual visual control
- ✓ Thick layer
- ✓ Shaped product, Coated edges

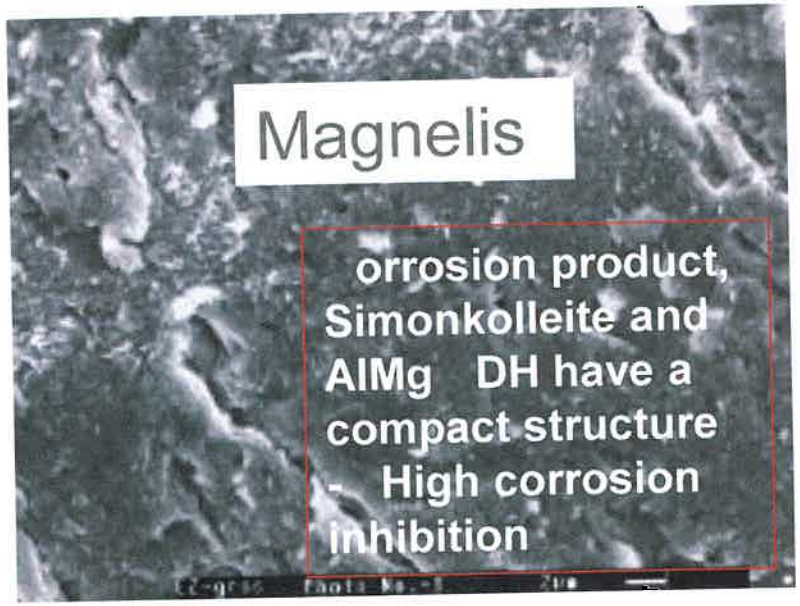
Confidential

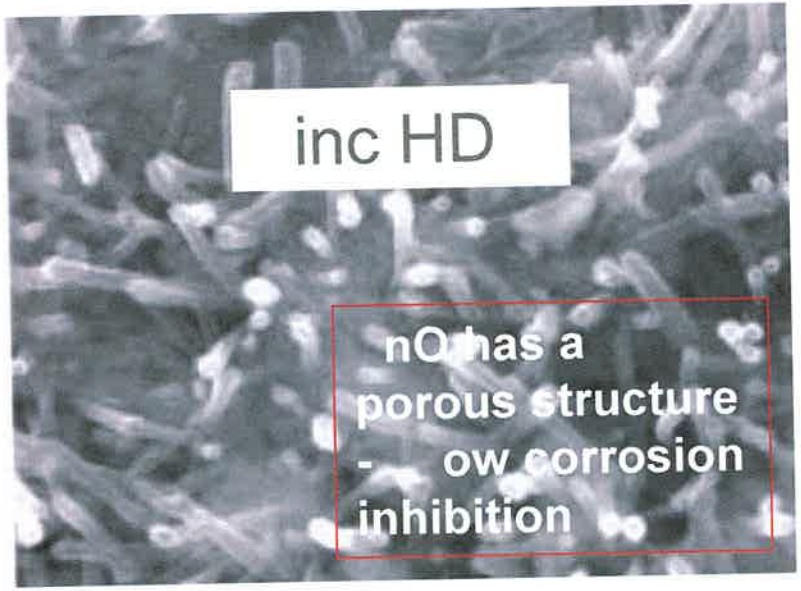
The right choice | MAGNE IS

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Key role of Magnesium

3 of Mg in the composition of the metallic coated steel ensures a stable barrier effect on the whole surface against corrosive factors





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- What is Magnelis
- Advantages of Magnelis
- Feasibility
- Magnelis the cost effective alternative for post galvanisation

Corrosion Performance | MA NELIS

Plane Surface (accelerated test)

ArcelorMittal

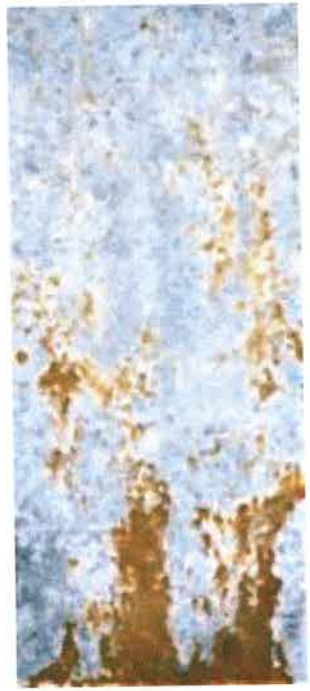
- Corrosion performances in salt spray test on flat samples



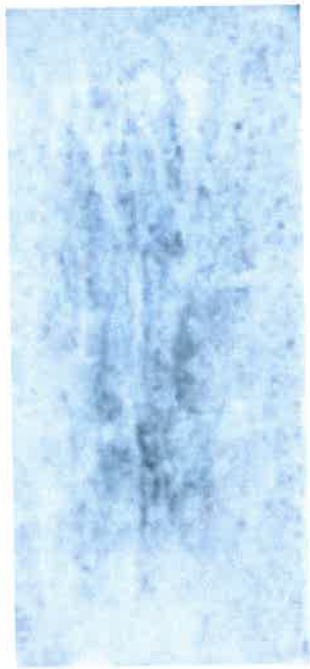
after 6 weeks



A after 28 weeks



A after 34 weeks



Magnelis after 34 weeks

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Natural exposure sites

Marine sites







ArcelorMittal Site

Continental sites

ArcelorMittal





ArcelorMittal Sites

Mobile exposure on truck in Sweden



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Corrosion Performance | MA NELIS

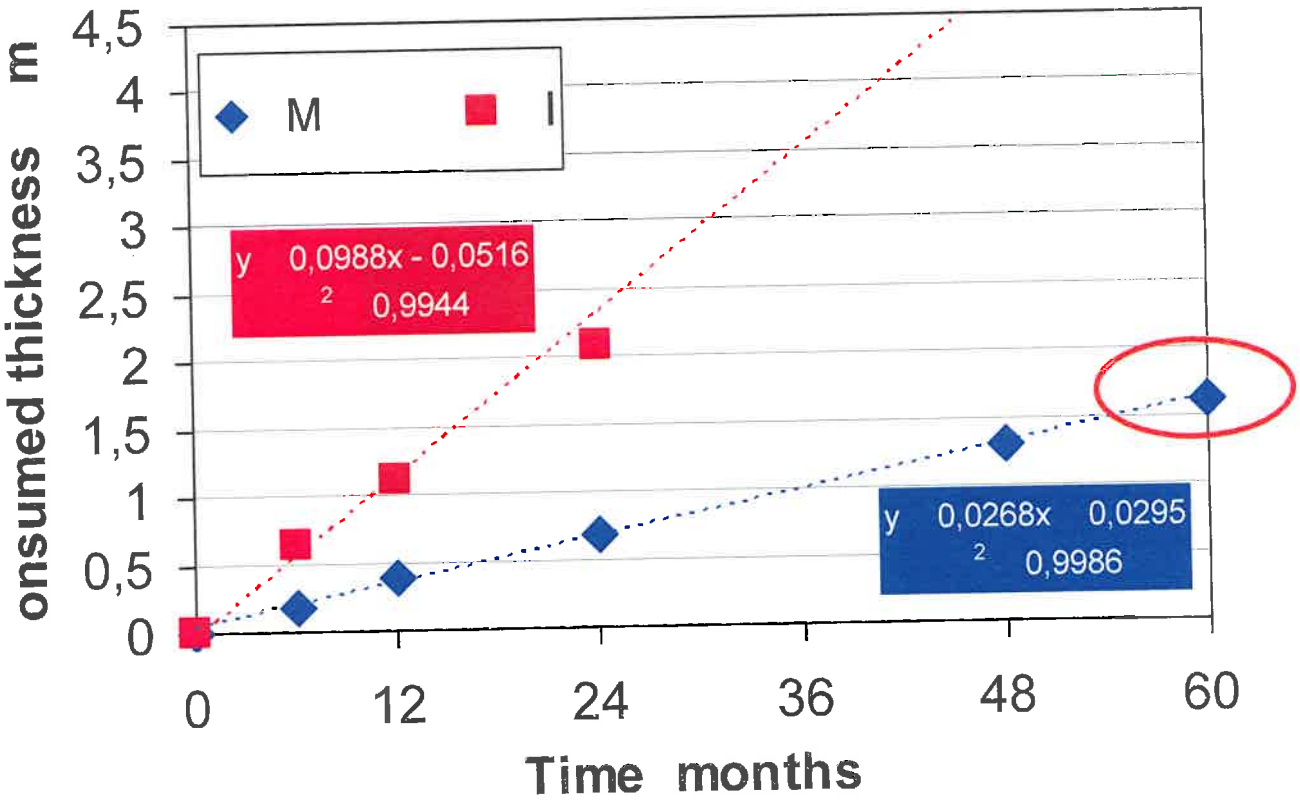
Outdoor exposure (Brest) – complementary data after 5 years

ArcelorMittal



In C5M environment (marine, 2 meters from the sea in Brest).

In marine environment galvanised coating GI corrodes 3 x faster than Magnelis This ratio is confirmed after ears exposure



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Corrosion Performance | MA NELIS

Outdoor exposure – Reminder in low chlorides environments

ArcelorMittal



East hicago SA - 2 urban



Mai i res F - 2 rural

Site corrosiveness related to steel	Pollutants class	Site	Exposure duration	Mean consumed oating for GI g m	Mean consumed coating for Magnelis g m
C2	ural	Mai i res	2	7.1	1.9
C2	Urban	East Chicago	2	9.9	3.1

Also in low chlorides environments,
GI corrodes 3 x faster than Magnelis

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Corrosion Performance | MA NELIS

Deformed area (accelerated test)

ArcelorMittal

- On T-bend area on Magnelis M120

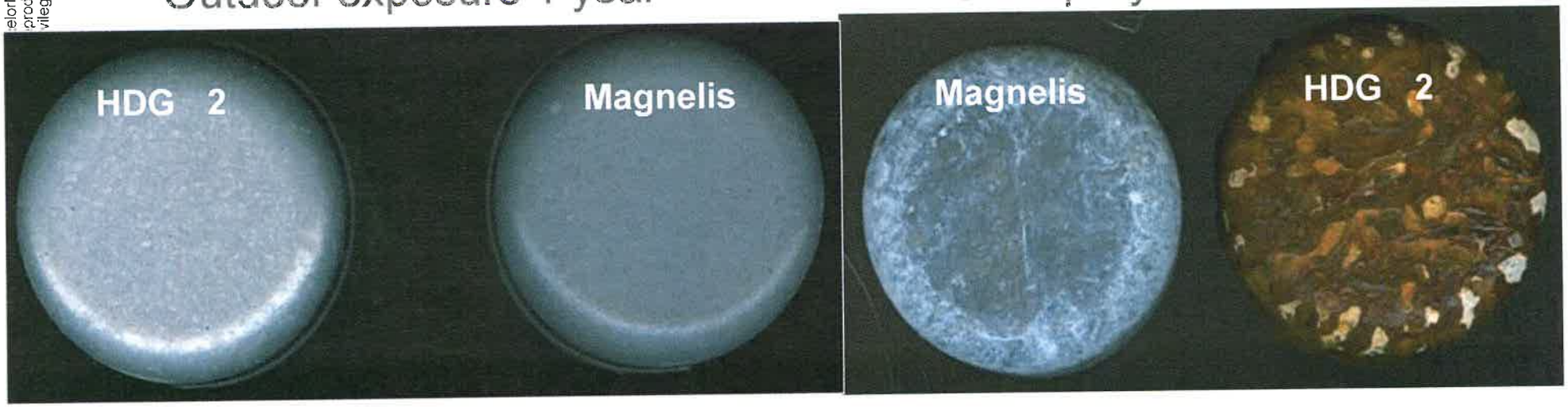




- On cup sample

Outdoor exposure 1 year

Salt spray test 1440 h



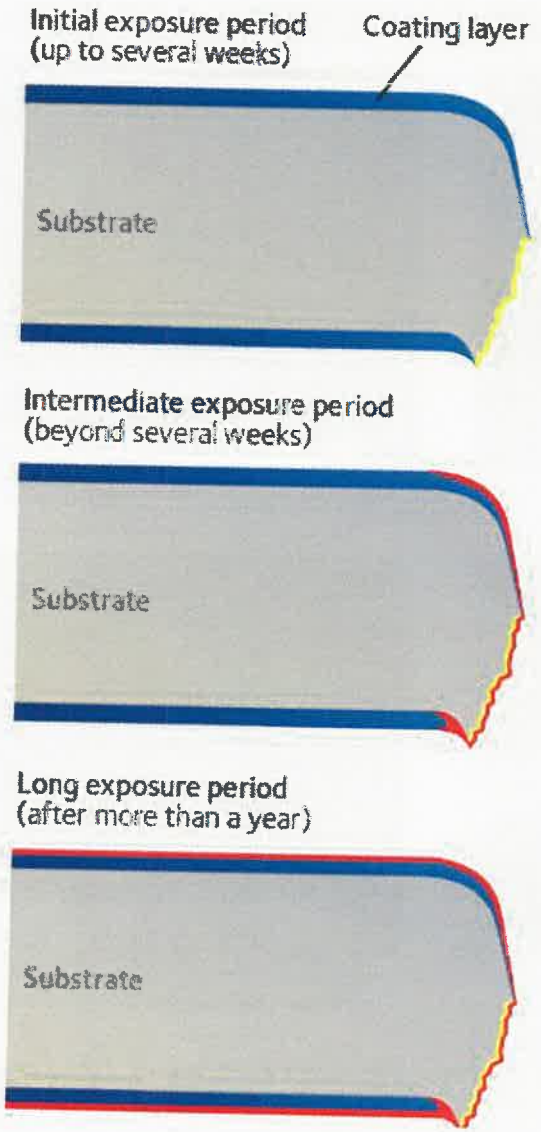
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Cut edge behaviour | MA NELIS

Edge protection Mechanism

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The exposed cut end of substrate is oxidyzed

↓

Subjected to rain and condensation

↓

The thin zinc-based film containing Mg on the coating layer flows over the cut end

↓

Disappearing of red rust and increasing of white rust



Outdoor exposure in marine environment in Brest/France

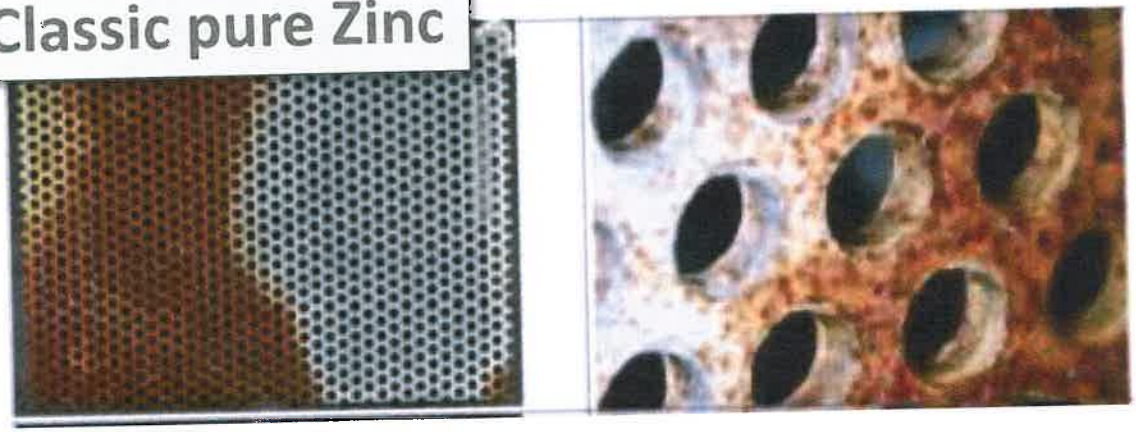
Exceptional Properties:

Corrosion Resistance: *Self Healing properties*

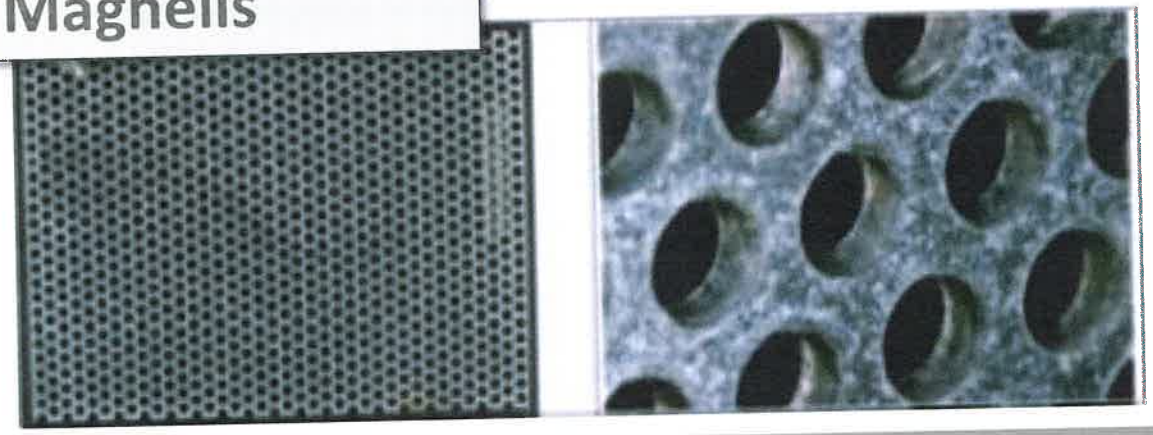
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Classic pure Zinc



Magnelis



- ✓ Samples (2mm) perforated (R04T06) after galvanization
- ✓ exposed 4 years in marine environment (Brest)

- ➢ Cut edges of galvanised material rust
- ➢ Cut edges of Magnelis coated steel are reprotected

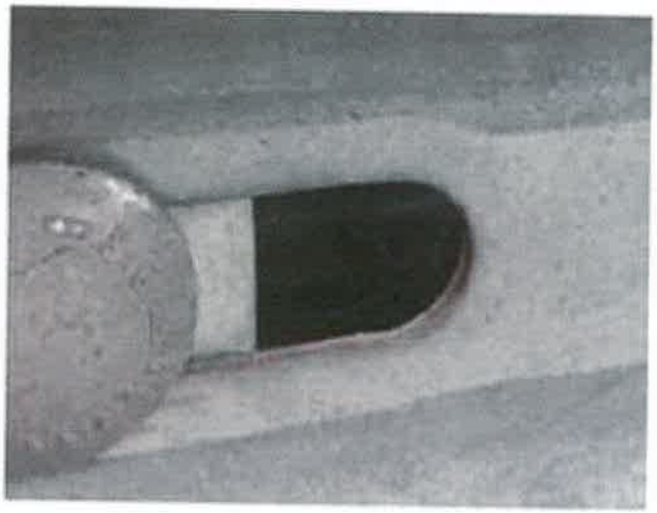
Due to the self healing effect of Magnelis cut edges are re-protected by the Magnelis Coating

A customer feedback | MA NELIS

ArcelorMittal







After 1 week ***After 15 months*** ***After 25 months***

➲ **Self healing effect confirmed**

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Behaviour in concrete | MA NELIS

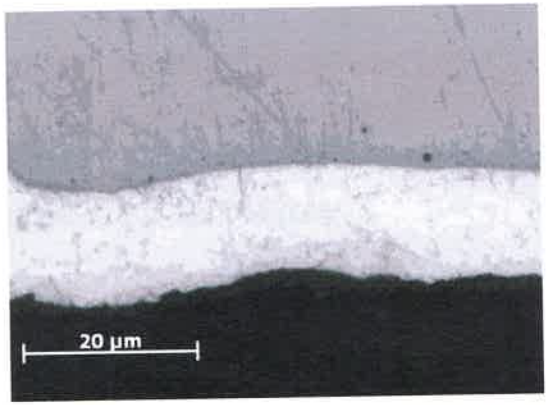
ArcelorMittal

Contact with concrete

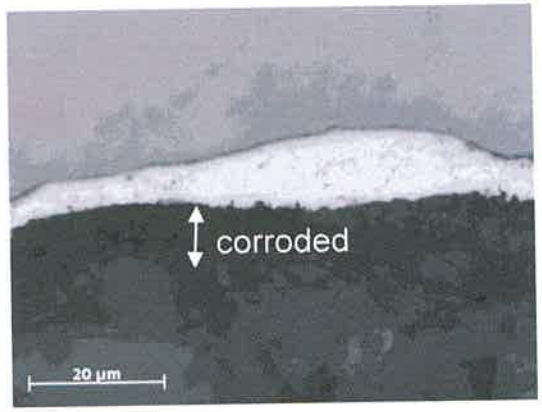
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Before corrosion



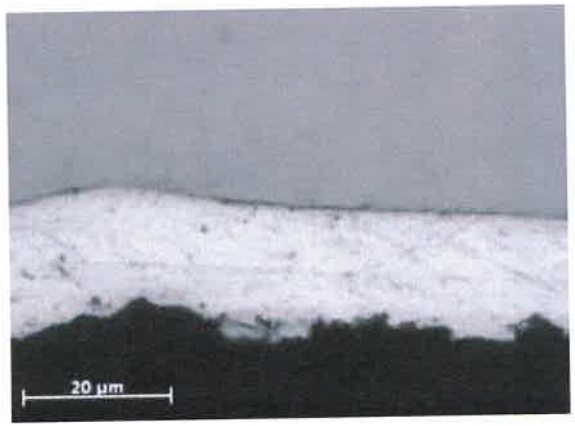
After corrosion



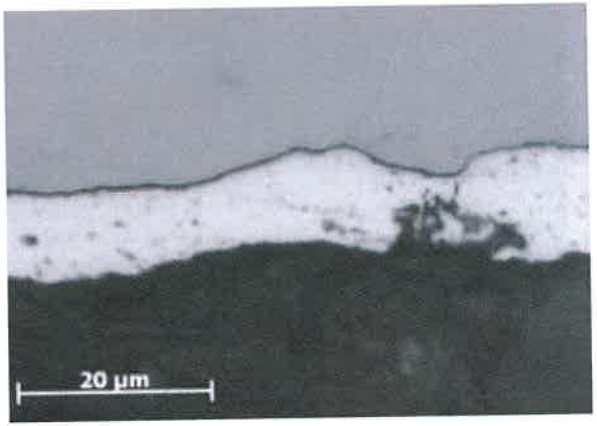
Galva grey *corroded* parts



Before corrosion



After corrosion



Magnelis some white rust, *some corrosion*

Welding Properties | MA NELIS

Summary

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- Thanks to its higher corrosion resistance, lower coating weight can be used with Magnelis , improving weldability
- Positive trials done with
  - Spot welding
  - CO_2 laser welding
  - High fre uency induction welding
  - MA welding
  - SMAW welding
- For spot welding, electrode life time is e uivalent to HD
- No issue regarding fumes
- Welded area can be re-protected with inc or aluminium/ inc alloy

Application for tubes | MA NELIS

orrosion behaviour

ArcelorMittal

Samples description

1 Magnelis with 85% n-15% Al reprotection

2 Magnelis with Alu - Alu reprotection

3 Magnelis without reprotection

4 HD without reprotection

HD with Alu – Alu reprotection

The samples were tested in salt spray test till 5% .



The salt spra test of Magnelis tubes with recovered weld was stopped after 2688h, almost not showing red rust et

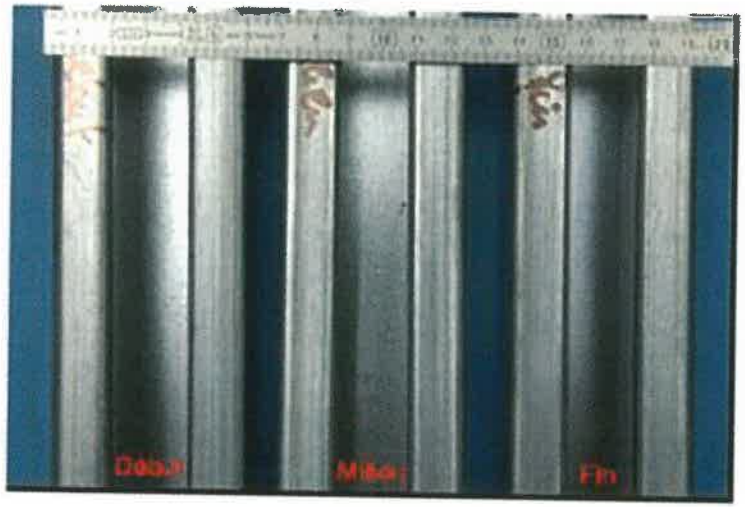
It can be clearl seen that the Magnelis tubes samples 1 to 3, 10 m coating are more corrosion resistant than the hot dip galvani ed ones samples 4 , 20 m coating

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Forming Properties | MA NELIS

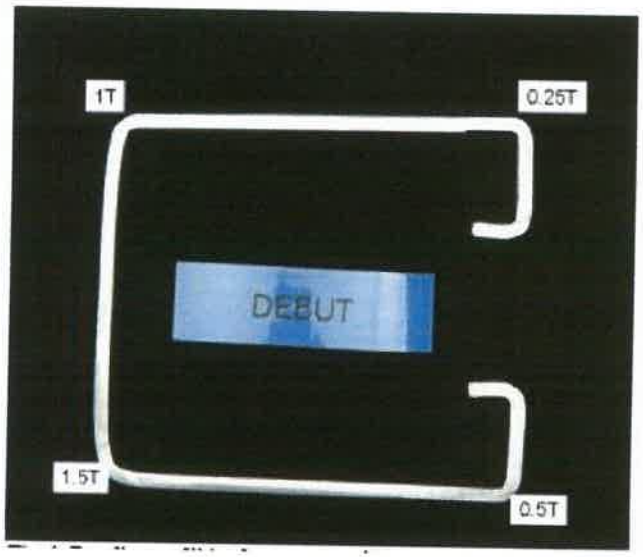
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Very good behaviour in profiling
No powdering
ood adhesion of the coating
Thin organic coating not necessary

Profiled on 2mm thick



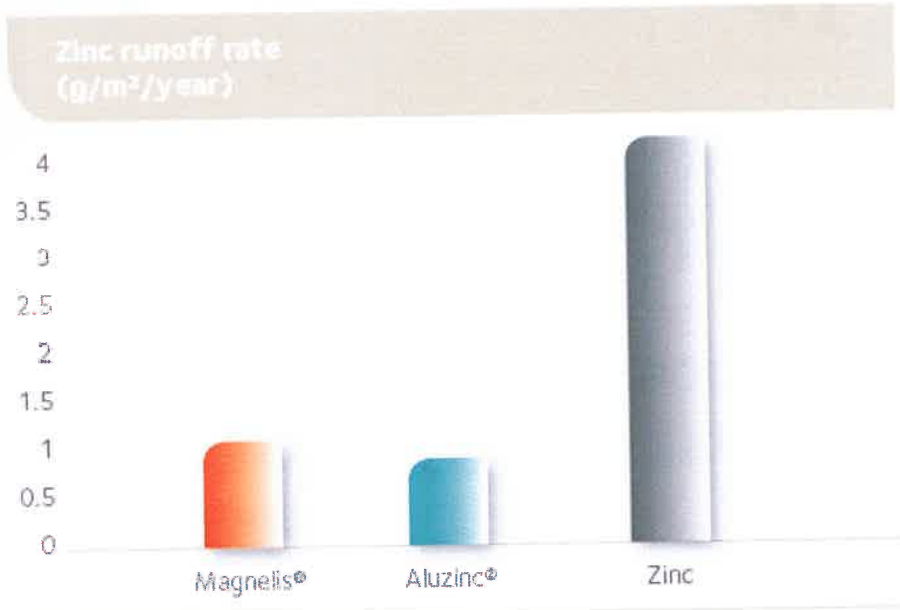


Environmental friendly | MA NELIS

ArcelorMittal

The application of Magnelis® ensures the preservation of natural resources since it uses less zinc than pure zinc coatings. Magnelis® reduces considerably the zinc runoff in soils





Brest (France)
Maritime category C3 (average)
French Corrosion Institute (independent laboratory)

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Warranty for solar applications | MAGNELIS

ArcelorMittal



ArcelorMittal

Magnelis®

ArcelorMittal Flat Carbon Europe S.A. provides this warranty to

hereafter referred to as the "Client"

relating to the quality of its Magnelis® ZM310-type coated flat carbon steel. Subject to the conditions of this document, this warranty covers the structural integrity, in other words the non-perforation and non-rupture due to corrosion, of Magnelis® steel sheet coated with 310 g/m² on both sides, used for solar applications, for a period of up to 25 years, from the date of shipping by ArcelorMittal.

ArcelorMittal Flat Carbon Europe S.A.

The Client

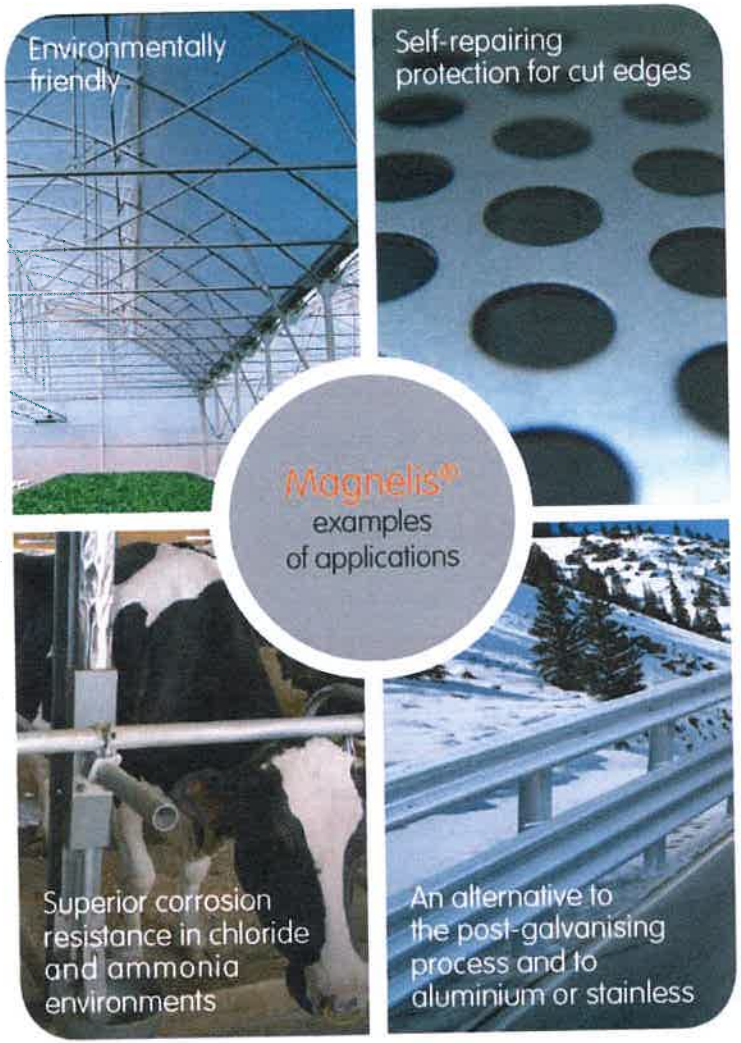
Magnelis® - Date

25 year warranty
in Solar Applications

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What is Magnelis

Advantages of Magnelis

Feasibility

Magnelis the cost effective alternative for post galvanisation

Feasibility | Magnelis

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Thickness

0.45 mm → to 6 mm

idth

→ 1680 mm

oating weights

M 90	(7 m)
M 120	(10 m)
M 175	(14 m)
M 195	(16 m)
M 250	(20 m)
M 310	(25 m)
M430	(35 m)

Grades

Steels for cold forming and deep drawing applications

from D 51D to D 57D M

Structural steels

from S220 D to S390 D M
and S550 D

High strength low allo

H 260LAD to H 500LAD M

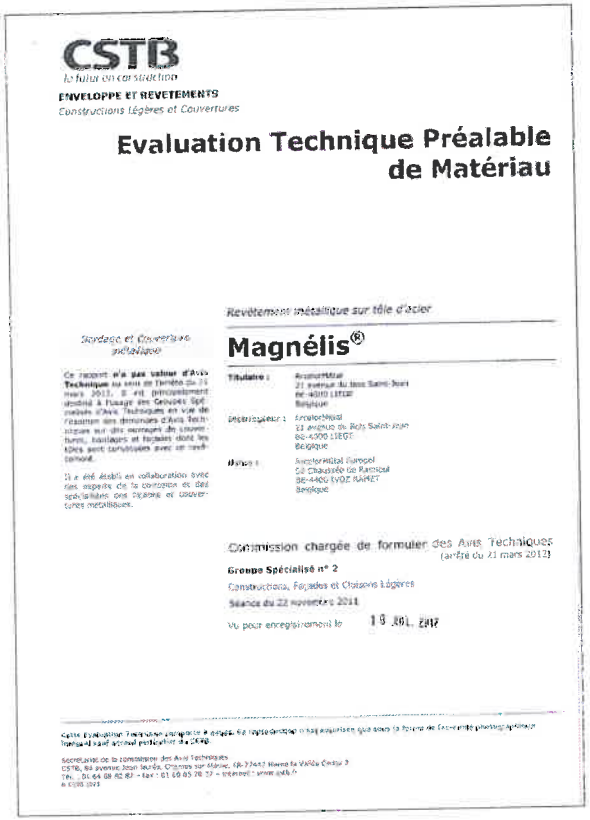
22

Product Certification | MA NELIS

First metallic coating C5 certified

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France



CSTB
le futur en construction
ENVELOPPE ET REVETEMENTS
Constructions légères et Couvertures

Evaluation Technique Préalable de Matériau

Revêtement métallique sur tôle d'acier

Bardage et Couvertures métalliques

Magnélis®

Titulaire : ArcelorMittal
21 avenue du bois Saint-Jean
BE-4000 LIEGE
Belgique

Distributeur : ArcelorMittal
21 avenue du Bois Saint-Jean
BE-4000 LIEGE
Belgique

Usine : ArcelorMittal Europol
58 Chaussée de Ramioul
BE-4480 ENGIS RAMET
Belgique

Commission chargée de formuler des Avis Techniques
(arrêté du 21 mars 2012)

Groupe Spécialisé n° 2

Constructions, Façades et Cloisons Légères

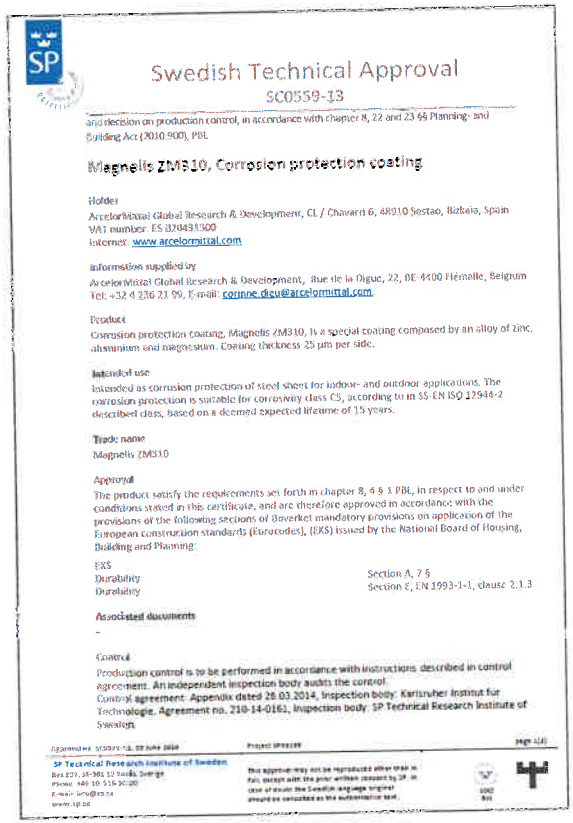
Séance du 22 novembre 2011

Vu pour enregistrement le 19 JUIL. 2012

Sweden

Magnelis M310 for C5

environment



Swedish Technical Approval
SC0559-13

and decision on production control, in accordance with chapter 8, 22 and 23 §§ Planning- and Building Act (2010:900), PBL

Magnelis ZM310, Corrosion protection coating

Holder
ArcelorMittal Global Research & Development, CL / Chavarri 6, 48910 Sestao, Bizkaia, Spain
VAT number: ES B70483300
Internet: www.arcelormittal.com

Information supplied by
ArcelorMittal Global Research & Development, Rue de la Digue, 22, BE-4400 Flémalle, Belgium
Tel: +32 4 236 23 99, E-mail: corinne.digu@arcelormittal.com

Product
Corrosion protection coating, Magnelis ZM310, is a special coating composed by an alloy of zinc, aluminium and magnesium. Coating thickness 25 µm per side.

Intended use
Intended as corrosion protection of steel sheet for indoor- and outdoor applications. The corrosion protection is suitable for corrosivity class C5, according to in SS-EN ISO 12944-2 described class, based on a deemed expected lifetime of 15 years.

Trade name
Magnelis ZM310

Approval
The product satisfy the requirements set forth in chapter 8, 4 § 1 PBL, in respect to and under conditions stated in this certificate, and are therefore approved in accordance with the provisions of the following sections of Boverket mandatory provisions on application of the European construction standards (Eurocodes), (EKS) issued by the National Board of Housing, Building and Planning:

EKS	Section A, 7 §
Durability	Section E, EN 1993-1-1, clause 2.1.3
Durability	

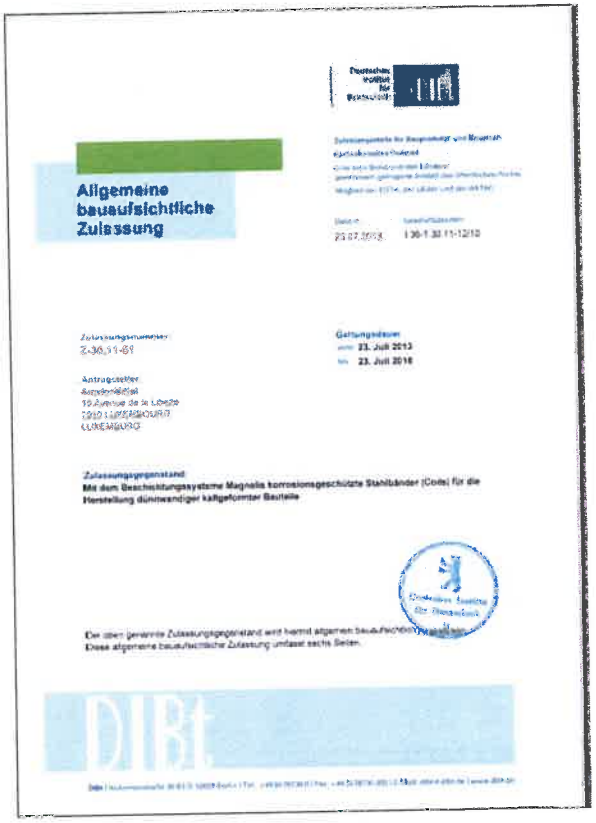
Associated documents
-

Control
Production control is to be performed in accordance with instructions described in control agreement. An independent inspection body audits the control.
Control agreement: Appendix dated 26.03.2014, Inspection body: Karlsruher Institut für Technologie. Agreement no. 210-14-0161, Inspection body: SP Technical Research Institute of Sweden.

SP Technical Research Institute of Sweden

ermany

- Magnelis M120 is KII
- Magnelis M250 / M310 are KIII



Allgemeine bauaufsichtliche Zulassung

Zulassungsnummer: Z-36.11-61

Antragsteller: ArcelorMittal, 19 Avenue de la Liberté, 2930 LUXEMBOURG, LUXEMBURG

Geltungsdauer: vom 23. Juli 2013 bis 23. Juli 2018

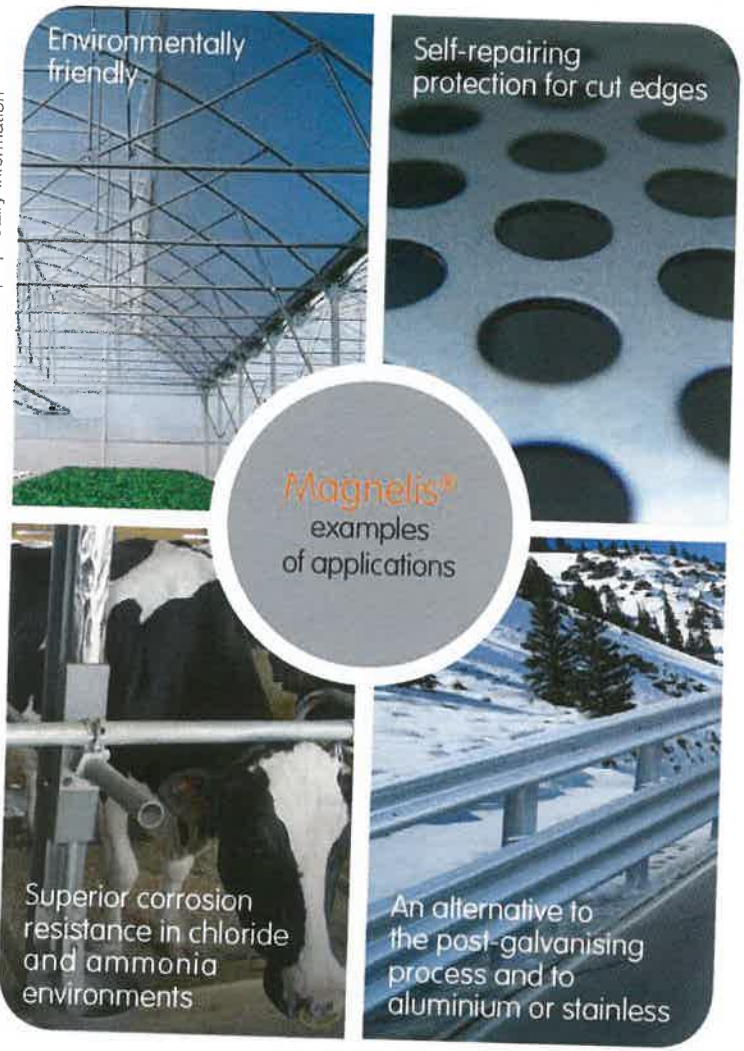
Zulassungsgegenstand: Mit dem Beschichtungssysteme Magnelis korrosionsgeschützte Stahlbänder (Coils) für die Herstellung dünnwandiger kaltgeformter Bauteile

Diese allgemeine bauaufsichtliche Zulassung umfasst sechs Seiten.

DIBt

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- What is Magnelis
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- Feasibility
- Magnelis the cost effective alternative for post galvanisation

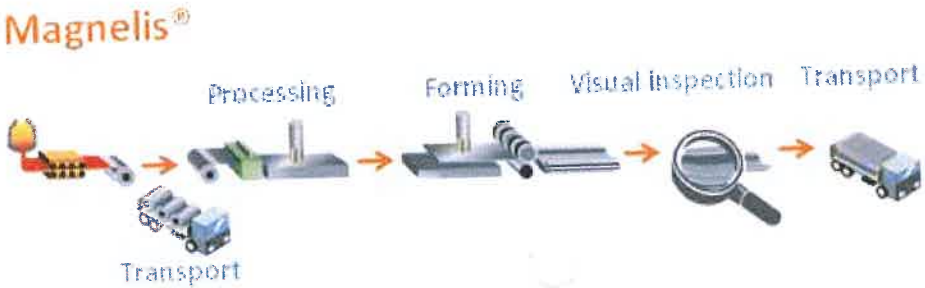
MA NELIS

ArcelorMittal

More economical than batch galvanised steel

- Savings on the optimum inc coating weight thanks
  - the perfect control of the inc uantity deposition on our Magnelis industrial lines
  - on-line controls of the inc coating weight
- Same level of corrosion performances as hot dip galvani ed using up to 3 times less inc coating
- Continuous and integrated process leads to cost savings





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26

STRUCTURAL ANALYSIS

PROJECT

NL-1191-63 BOLLENDONK

Behoort bij besluit van
Burgemeester en wethouders
van de gemeente Etten-Leur
Int. kenmerk:
2021OG0373-01

ETTEN LEUR GEMEENTE

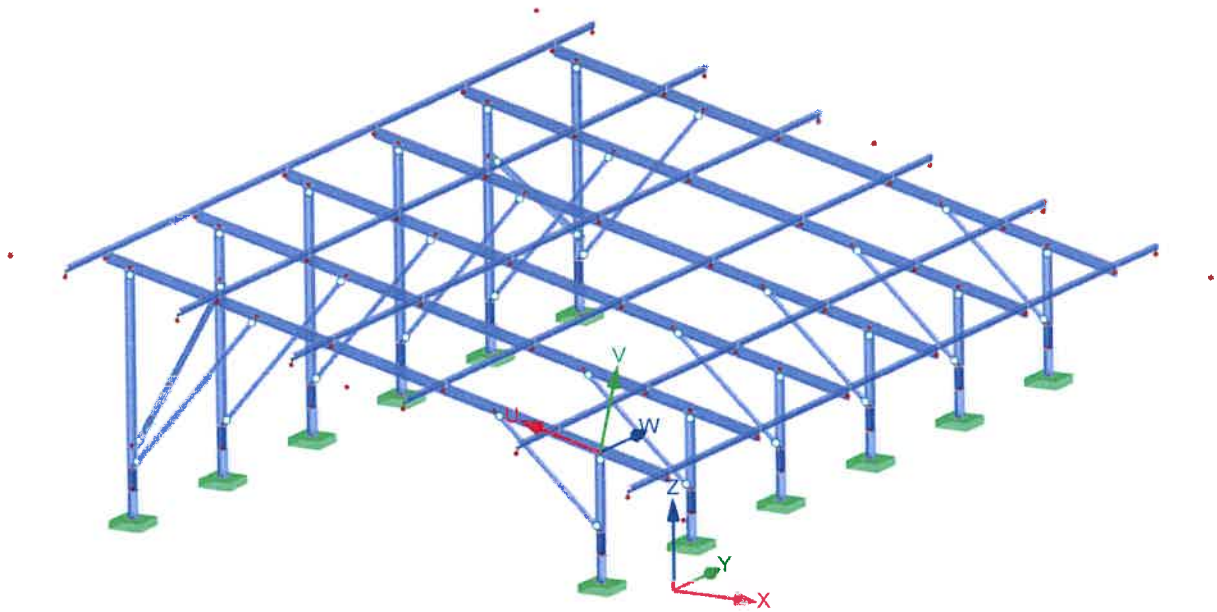
CLIENT

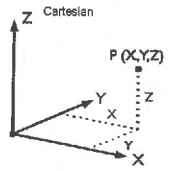
SOLARCENTURY

CREATED BY

AXIAL STRUCTURAL SOLUTIONS

Isometric





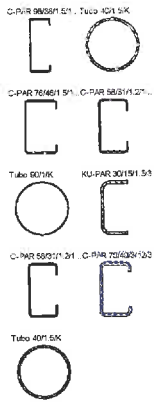
1.1 NODES

Node No.	Node Type	Reference Node	Coordinate System	Node Coordinates X [m]	Y [m]	Z [m]	Comment
1	Standard	-	Cartesian	-0.676	-0.070	0.460	
2	Standard	-	Cartesian	-5.353	3.040	2.244	
3	Standard	-	Cartesian	-5.353	4.595	2.244	
4	Standard	-	Cartesian	-5.353	-0.070	0.000	Primer pórtico - Final pilar trasero
5	Standard	-	Cartesian	-3.356	-0.770	1.783	
6	Standard	-	Cartesian	-0.676	-0.070	0.000	Primer pórtico - Final pilar delantero
8	Standard	-	Cartesian	-4.100	6.149	1.955	
9	Standard	-	Cartesian	-4.100	1.485	1.955	
10	Standard	-	Cartesian	-4.100	7.704	1.955	
11	Standard	-	Cartesian	-4.100	-0.070	1.955	
13	Standard	-	Cartesian	-5.353	7.704	2.244	
15	Standard	-	Cartesian	-5.353	1.485	0.000	Segundo pórtico - Final pilar trasero
17	Standard	-	Cartesian	-0.676	1.485	0.000	Segundo pórtico - Final pilar delantero
19	Standard	-	Cartesian	-5.353	1.485	2.244	
20	Standard	-	Cartesian	-0.676	7.704	1.164	
21	Standard	-	Cartesian	-5.353	6.149	2.244	
24	Standard	-	Cartesian	-0.676	3.040	1.164	
25	Standard	-	Cartesian	-0.676	4.595	1.164	
26	Standard	-	Cartesian	-5.353	6.149	0.000	Tercer pórtico - Final pilar trasero
28	Standard	-	Cartesian	-0.676	6.149	0.000	Tercer pórtico - Final pilar delantero
29	Standard	-	Cartesian	-0.676	-0.070	1.164	
30	Standard	-	Cartesian	-0.676	1.485	1.164	
31	Standard	-	Cartesian	-0.676	6.149	1.164	
32	Standard	-	Cartesian	-5.353	-0.070	2.244	
34	Standard	-	Cartesian	-5.353	6.149	1.763	
35	Standard	-	Cartesian	-5.353	-0.070	0.250	Primer pórtico - Final pilar trasero
36	Standard	-	Cartesian	-0.676	-0.070	0.250	Primer pórtico - Final pilar delantero
37	Standard	-	Cartesian	-5.353	1.485	0.250	Segundo pórtico - Final pilar trasero
38	Standard	-	Cartesian	-0.676	1.485	0.250	Segundo pórtico - Final pilar delantero
39	Standard	-	Cartesian	-5.353	6.149	0.250	Tercer pórtico - Final pilar trasero
41	Standard	-	Cartesian	-0.676	6.149	0.250	Tercer pórtico - Final pilar delantero
42	Standard	-	Cartesian	-4.100	3.040	1.955	
44	Standard	-	Cartesian	-4.100	4.595	1.955	
46	Standard	-	Cartesian	-5.596	8.404	2.300	Quinto pórtico - Final dintel
48	Standard	-	Cartesian	-5.353	7.704	0.000	Quinto pórtico - Final pilar trasero
50	Standard	-	Cartesian	-0.676	7.704	0.000	Quinto pórtico - Final pilar delantero
51	Standard	-	Cartesian	-5.353	-0.070	0.460	
52	Standard	-	Cartesian	-1.730	-0.070	1.408	
53	Standard	-	Cartesian	-5.353	1.485	0.460	
54	Standard	-	Cartesian	-1.730	1.485	1.408	
55	Standard	-	Cartesian	-5.353	6.149	0.460	
56	Standard	-	Cartesian	-1.730	6.149	1.408	
57	Standard	-	Cartesian	-5.353	7.704	0.250	Quinto pórtico - Final pilar trasero
58	Standard	-	Cartesian	-0.676	7.704	0.250	Quinto pórtico - Final pilar delantero
59	Standard	-	Cartesian	-5.353	7.704	0.460	
60	Standard	-	Cartesian	-1.730	7.704	1.408	
63	Standard	-	Cartesian	-0.676	1.485	0.460	
65	Standard	-	Cartesian	-0.676	6.149	0.460	
69	Standard	-	Cartesian	-0.676	7.704	0.460	
71	Standard	-	Cartesian	-5.353	3.040	0.000	Tercer pórtico - Final pilar trasero
72	Standard	-	Cartesian	-5.353	4.595	0.000	Tercer pórtico - Final pilar trasero
73	Standard	-	Cartesian	-0.676	3.040	0.000	Tercer pórtico - Final pilar delantero
74	Standard	-	Cartesian	-0.676	4.595	0.000	Tercer pórtico - Final pilar delantero
77	Standard	-	Cartesian	-5.353	3.040	0.250	Tercer pórtico - Final pilar trasero
78	Standard	-	Cartesian	-0.676	3.040	0.250	Tercer pórtico - Final pilar delantero
79	Standard	-	Cartesian	-5.353	3.040	0.460	
80	Standard	-	Cartesian	-5.353	4.595	0.250	Tercer pórtico - Final pilar trasero
81	Standard	-	Cartesian	-0.676	3.040	0.460	
82	Standard	-	Cartesian	-0.676	4.595	0.250	Tercer pórtico - Final pilar delantero
83	Standard	-	Cartesian	-0.006	-0.070	1.010	Primer pórtico - Inicio dintel
84	Standard	-	Cartesian	-5.596	-0.070	2.300	Primer pórtico - Final dintel
85	Standard	-	Cartesian	-5.353	4.595	0.460	
86	Standard	-	Cartesian	-0.676	4.595	0.460	
87	Standard	-	Cartesian	-2.246	-0.070	1.527	
88	Standard	-	Cartesian	-1.116	-0.070	1.266	
89	Standard	-	Cartesian	-3.356	-0.070	1.783	
90	Standard	-	Cartesian	-4.486	-0.070	2.044	

1.1 NODES

Node No.	Node Type	Reference Node	Coordinate System	Node Coordinates X [m]	Y [m]	Z [m]	Comment
91	Standard	-	Cartesian	-2.246	1.485	1.527	
92	Standard	-	Cartesian	-0.006	1.485	1.010	Segundo pórtico - Inicio dintel
93	Standard	-	Cartesian	-5.596	1.485	2.300	Segundo pórtico - Final dintel
94	Standard	-	Cartesian	-1.730	3.040	1.408	
95	Standard	-	Cartesian	-1.730	4.595	1.408	
96	Standard	-	Cartesian	-1.116	1.485	1.266	
97	Standard	-	Cartesian	-3.356	1.485	1.783	
98	Standard	-	Cartesian	-4.486	1.485	2.044	
99	Standard	-	Cartesian	-2.246	6.149	1.527	
100	Standard	-	Cartesian	-1.116	6.149	1.266	
101	Standard	-	Cartesian	-0.006	6.149	1.010	Tercer pórtico - Inicio dintel
102	Standard	-	Cartesian	-5.596	6.149	2.300	Tercer pórtico - Final dintel
105	Standard	-	Cartesian	-3.356	6.149	1.783	
106	Standard	-	Cartesian	-4.486	6.149	2.044	
107	Standard	-	Cartesian	-2.246	7.704	1.527	
108	Standard	-	Cartesian	-1.116	7.704	1.266	
109	Standard	-	Cartesian	-3.356	7.704	1.783	
110	Standard	-	Cartesian	-4.486	7.704	2.044	
111	Standard	-	Cartesian	-2.246	3.040	1.527	
112	Standard	-	Cartesian	-1.116	3.040	1.266	
113	Standard	-	Cartesian	-0.006	3.040	1.010	Tercer pórtico - Inicio dintel
114	Standard	-	Cartesian	-0.006	7.704	1.010	Quinto pórtico - Inicio dintel
115	Standard	-	Cartesian	-5.596	7.704	2.300	Quinto pórtico - Final dintel
116	Standard	-	Cartesian	-2.246	4.595	1.527	
117	Standard	-	Cartesian	-1.116	4.595	1.266	
118	Standard	-	Cartesian	-0.006	4.595	1.010	Tercer pórtico - Inicio dintel
125	Standard	-	Cartesian	-5.596	3.040	2.300	Tercer pórtico - Final dintel
126	Standard	-	Cartesian	-5.596	4.595	2.300	Tercer pórtico - Final dintel
129	Standard	-	Cartesian	-3.356	3.040	1.783	
130	Standard	-	Cartesian	-4.486	3.040	2.044	
131	Standard	-	Cartesian	-3.356	4.595	1.783	
132	Standard	-	Cartesian	-4.486	4.595	2.044	
134	Standard	-	Cartesian	-5.596	-0.770	2.300	Primer pórtico - Final dintel
142	Standard	-	Cartesian	-1.116	-0.770	1.266	Correas 2
143	Standard	-	Cartesian	-1.116	8.404	1.266	Correas 2
144	Standard	-	Cartesian	-2.246	-0.770	1.527	Correas 3
145	Standard	-	Cartesian	-2.246	8.404	1.527	Correas 3
146	Standard	-	Cartesian	-0.006	-0.770	1.010	Correas 2
147	Standard	-	Cartesian	-3.356	8.404	1.783	Correas 4
148	Standard	-	Cartesian	-4.486	-0.770	2.044	Correas 5
149	Standard	-	Cartesian	-4.486	8.404	2.044	Correas 5
150	Standard	-	Cartesian	-0.006	8.404	1.010	Correas 2
174	Standard	-	Cartesian	-5.353	-0.070	0.650	Riostras estabilidad
175	Standard	-	Cartesian	-5.353	1.485	1.763	Riostras estabilidad
177	Standard	-	Cartesian	-5.353	7.704	0.650	Riostras estabilidad
288	Standard	-	Cartesian	0.547	-0.770	0.872	Nudo aux
289	Standard	-	Cartesian	-6.151	-0.770	2.429	Nudo aux
290	Standard	-	Cartesian	0.547	8.404	0.872	Nudo aux
291	Standard	-	Cartesian	-6.151	8.404	2.429	Nudo aux
292	Standard	-	Cartesian	-2.801	-0.770	1.655	Nudo aux
293	Standard	-	Cartesian	-2.801	8.404	1.655	Nudo aux

1.13 CROSS-SECTIONS



Section No.	Matl No.	J [cm⁴] / A [cm²]	I_y [cm⁴] / A_y [cm²]	I_z [cm⁴] / A_z [cm²]	Principal Axes α [°]	Rotation α' [°]	Overall Dimensions [mm] Width b	Height h
1	C-PAR 98/38/1.5/12/1.5							
	4	0.02	41.51	5.51	0.00	0.00	38.0	98.0
		2.82	0.72	1.18				
	Dintel							
2	Tubo 40/1.5/K							
	2	6.73	3.37	3.37	0.00	0.00	40.0	40.0
		1.81	0.90	0.90				
	Diagonal							
3	C-PAR 76/48/1.5/12/3							
	4	0.02	25.71	7.78	0.00	0.00	46.0	76.0
		2.69	1.02	0.82				
	Pilar sup							
4	C-PAR 58/31/1.2/12/2.4							
	4	0.01	8.52	2.27	0.00	0.00	31.0	58.0
		1.61	0.54	0.49				
	Riostra							
5	Tubo 90/1/K							
	1	55.38	27.69	27.69	0.00	0.00	90.0	90.0
		2.80	1.39	1.39				
	Pilar inf							
6	KU-PAR 30/15/1.5/3							
	2	0.01	1.05	0.17	0.00	0.00	15.0	30.0
		0.81	0.27	0.36				
7	C-PAR 58/31/1.2/12/2.4							
	4	0.01	8.52	2.27	0.00	0.00	31.0	58.0

1.13 CROSS-SECTIONS

Section No.	Matl No.	J [cm⁴] / A [cm²]	I_y [cm⁴] / A_y [cm²]	I_z [cm⁴] / A_z [cm²]	Principal Axes α [°]	Rotation α' [°]	Overall Dimensions [mm] Width b	Height h
	Correa	1.61	0.54	0.49				
8	C-PAR 70/40/3/12/3							
	5	0.12	34.79	9.31	0.00	0.00	40.0	70.0
	Pilar inf 2	4.63	1.67	1.50				
9	Tubo 40/1.5/K							
	2	6.73	3.37	3.37	0.00	0.00	40.0	40.0
		1.81	0.90	0.90				

1.21 SETS OF MEMBERS

Set No.	Set of Members Description	Type	Member No.	Length [m]	Comment
1	Dintel	Contin. member	1,133,136,6,10,94,158, 16,143	5.737	
2	Pilar trasero	Contin. member	134,22,95,43	2.244	
3	Pilar delantero	Contin. member	135,5,20	1.164	
4	Dintel	Contin. member	7,137,147,12,30,97, 160,32,148	5.737	
5	Pilar trasero	Contin. member	138,34,98,44	2.244	
6	Pilar delantero	Contin. member	139,17,21	1.164	
7	Dintel	Contin. member	13,140,149,14,37,101, 162,39,150	5.737	
8	Pilar trasero	Contin. member	141,19,100,45	2.244	
9	Pilar delantero	Contin. member	142,29,41	1.164	
10	Dintel	Contin. member	25,144,152,15,50,106, 165,52,153	5.737	
11	Pilar trasero	Contin. member	145,54,107,46	2.244	
12	Pilar delantero	Contin. member	146,116,42	1.164	
13	Correas	Contin. member	73,55,56,123,2,58,59	9.174	
14	Correas	Contin. member	74,60,61,124,3,63,64	9.174	
15	Correas	Contin. member	75,65,66,125,4,68,69	9.174	
16	Correas	Contin. member	76,70,71,126,8,79,80	9.174	
17	Correas	Contin. member	77,81,82,127,9,84,85	9.174	
18	Correas	Contin. member	78,86,87,129,11,131, 130	9.174	
19	Riostras	Contin. member	90	1.913	
20	Riostras	Contin. member	91	1.912	
21	Diagonal B	Contin. member	93	1.951	
22	Diagonal B	Contin. member	96	1.951	
23	Diagonal B	Contin. member	99	1.951	
24	Diagonal B	Contin. member	105	1.951	
25	Diagonal B	Contin. member	108	1.417	
26	Diagonal B	Contin. member	109	1.417	
27	Diagonal B	Contin. member	110	1.417	
28	Diagonal B	Contin. member	112	1.417	
29	Dintel	Contin. member	47,151,156,18,102,120, 171,104,163	5.737	
30	Pilar trasero	Contin. member	155,119,114	2.244	
31	Pilar delantero	Contin. member	154,72,113	1.164	
32	Diagonal B	Contin. member	118	1.951	
33	Diagonal B	Contin. member	121	1.417	
34	Dintel	Contin. member	48,161,167,23,103,157, 172,111,168	5.737	
35	Pilar trasero	Contin. member	166,132,122	2.244	
36	Pilar delantero	Contin. member	164,83,117	1.164	
37	Diagonal B	Contin. member	128	1.951	
38	Diagonal B	Contin. member	159	1.417	

2.1 LOAD CASES

Load Case	Load Case Description	EN 1990 | NEN 2011 Action Category	Self-Weight - Factor in Direction Active	X	Y	Z
LC1	PP	Permanent	☑	0.000	0.000	-1.000
LC2	CM Paneles	Permanent	☐			
LC3	V Presión sup	Wind	☐			
LC4	V Succión sup	Wind	☐			
LC7	Imp X	Imperfection	☐			
LC8	Imp Y	Imperfection	☐			
LC9	V Presión inf	Wind	☐			
LC10	V Succión inf	Wind	☐			
LC11	Nieve	Snow (H ≤ 1000 m a.s.l.)	☐			

2.1.1 LOAD CASES - CALCULATION PARAMETERS

Load Case	Load Case Description	Calculation Parameters	
LC1	PP	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	Consider favorable effects due to tension
			Refer internal forces to deformed system for:
			Normal forces N
			Shear forces V_y and V_z
			Moments M_y, M_z and M_T
		Activate stiffness factors of	Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC2	CM Paneles	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	Consider favorable effects due to tension
			Refer internal forces to deformed system for:
			Normal forces N
			Shear forces V_y and V_z
			Moments M_y, M_z and M_T
		Activate stiffness factors of	Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC3	V Presión sup	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	Consider favorable effects due to tension
			Refer internal forces to deformed system for:
			Normal forces N
			Shear forces V_y and V_z
			Moments M_y, M_z and M_T
		Activate stiffness factors of:	Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC4	V Succión sup	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	Consider favorable effects due to tension
			Refer internal forces to deformed system for:
			Normal forces N
			Shear forces V_y and V_z
			Moments M_y, M_z and M_T
		Activate stiffness factors of	Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC7	Imp X	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	Consider favorable effects due to tension
			Refer internal forces to deformed system for:
			Normal forces N
			Shear forces V_y and V_z
			Moments M_y, M_z and M_T
		Activate stiffness factors of:	Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC8	Imp Y	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	Consider favorable effects due to tension
			Refer internal forces to deformed system for:
			Normal forces N
			Shear forces V_y and V_z
			Moments M_y, M_z and M_T
		Activate stiffness factors of:	Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC9	V Presión inf	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	Consider favorable effects due to tension
			Refer internal forces to deformed system for:
			Normal forces N
			Shear forces V_y and V_z
			Moments M_y, M_z and M_T
		Activate stiffness factors of:	Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC10	V Succión inf	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	Consider favorable effects due to tension
			Refer internal forces to deformed system for:
			Normal forces N

2.1.1 LOAD CASES - CALCULATION PARAMETERS

Load Case	Load Case Description	Calculation Parameters	
			☒ Shear forces V_y and V_z ☒ Moments M_x, M_z and M_T
		Activate stiffness factors of:	☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC11	Nieve	Method of analysis	◉ Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	◉ Picard
		Options	☒ Consider favorable effects due to tension ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_x, M_z and M_T
		Activate stiffness factors of:	☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)

2.2 ACTIONS

Action	Action Description	EN 1990 | NEN:2011 Action Category	Acting	Load Cases in Action	
A1	Permanente/Sobrecarga de uso	Permanent	Simultaneously	LC2	CM Paneles
				LC1	PP
A2	Viento	Wind	Alternative	LC3	V Presión sup
				LC4	V Succión sup
				LC10	V Succión inf
				LC9	V Presión inf
A3	Nieve	Snow (H ≤ 1000 m a.s.l.)		LC11	Nieve

2.3 COMBINATION EXPRESSIONS

CE No.	Description	EN 1990 | NEN:2011 Design Situation	Settings	
CE1	ELU	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	Consider	☒ Imperfection load cases
			Numbering of Generated Combinations	First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations	☒ Generate additionally Either/Or result combination (result envelopes) ☒ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations	
			Method of analysis	: Second-order analysis (P-Delta)
CE2	ELS	SLS - Characteristic	Consider	☐ Favorable permanent actions
			Numbering of Generated Combinations	First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations	☒ Generate additionally Either/Or result combination (result envelopes) ☒ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations	
			Method of analysis	: Second-order analysis (P-Delta)
CE3	EQU	ULS (EQU) - Permanent / transient	Consider	☒ Favorable permanent actions
			Numbering of Generated Combinations	First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations	☒ Generate additionally Either/Or result combination (result envelopes) ☒ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations	
			Method of analysis	: Second-order analysis (P-Delta)

2.4 ACTION COMBINATIONS

Action Combin.	Action Combination Description	EN 1990 | NEN:2011 Design Situation	No.	Factor	Action	
AC1	1.35G	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
AC2	1.35G + 0.00Qw	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
AC3	1.35G + 0.00Qw + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	0.00	A3	Nieve
AC4	1.35G + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A3	Nieve

2.4 ACTION COMBINATIONS

Action Combin.	Action Combination Description	EN 1990	NEN 2011 Design Situation	No	Factor	Action	
AC5	1.20G	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b		1	1.2015	A1	Permanente/Sobrecarga de uso
AC6	1.20G + 1.50Qw	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b		1	1.2015	A1	Permanente/Sobrecarga de uso
				2	1.50	A2	Viento
AC7	1.20G + 1.50Qw + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b		1	1.2015	A1	Permanente/Sobrecarga de uso
				2	1.50	A2	Viento
				3	0.00	A3	Nieve
AC8	1.20G + 1.50Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b		1	1.2015	A1	Permanente/Sobrecarga de uso
				2	1.50	A3	Nieve
AC9	1.20G + 0.00Qw + 1.50Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b		1	1.2015	A1	Permanente/Sobrecarga de uso
				2	0.00	A2	Viento
				3	1.50	A3	Nieve
AC10	1.00G	SLS - Characteristic		1	1.00	A1	Permanente/Sobrecarga de uso
AC11	1.00G + 1.00Qw	SLS - Characteristic		1	1.00	A1	Permanente/Sobrecarga de uso
				2	1.00	A2	Viento
AC12	1.00G + 1.00Qw + 0.00Qs	SLS - Characteristic		1	1.00	A1	Permanente/Sobrecarga de uso
				2	1.00	A2	Viento
				3	0.00	A3	Nieve
AC13	1.00G + 1.00Qs	SLS - Characteristic		1	1.00	A1	Permanente/Sobrecarga de uso
				2	1.00	A3	Nieve
AC14	1.00G + 0.00Qw + 1.00Qs	SLS - Characteristic		1	1.00	A1	Permanente/Sobrecarga de uso
				2	0.00	A2	Viento
				3	1.00	A3	Nieve
AC15	1.10G	ULS (EQU) - Permanent / transient		1	1.10	A1	Permanente/Sobrecarga de uso
AC16	1.10G + 1.50Qw	ULS (EQU) - Permanent / transient		1	1.10	A1	Permanente/Sobrecarga de uso
				2	1.50	A2	Viento
AC17	1.10G + 1.50Qw + 0.00Qs	ULS (EQU) - Permanent / transient		1	1.10	A1	Permanente/Sobrecarga de uso
				2	1.50	A2	Viento
				3	0.00	A3	Nieve
AC18	1.10G + 1.50Qs	ULS (EQU) - Permanent / transient		1	1.10	A1	Permanente/Sobrecarga de uso
				2	1.50	A3	Nieve
AC19	1.10G + 0.00Qw + 1.50Qs	ULS (EQU) - Permanent / transient		1	1.10	A1	Permanente/Sobrecarga de uso
				2	0.00	A2	Viento
				3	1.50	A3	Nieve
AC20	0.90G	ULS (EQU) - Permanent / transient		1	0.90	A1	Permanente/Sobrecarga de uso
AC21	0.90G + 1.50Qw	ULS (EQU) - Permanent / transient		1	0.90	A1	Permanente/Sobrecarga de uso
				2	1.50	A2	Viento
AC22	0.90G + 1.50Qw + 0.00Qs	ULS (EQU) - Permanent / transient		1	0.90	A1	Permanente/Sobrecarga de uso
				2	1.50	A2	Viento
				3	0.00	A3	Nieve
AC23	0.90G + 1.50Qs	ULS (EQU) - Permanent / transient		1	0.90	A1	Permanente/Sobrecarga de uso
				2	1.50	A3	Nieve
AC24	0.90G + 0.00Qw + 1.50Qs	ULS (EQU) - Permanent / transient		1	0.90	A1	Permanente/Sobrecarga de uso
				2	0.00	A2	Viento
				3	1.50	A3	Nieve

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
AC1	1.35G	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
AC2	1.35G + 0.00Qw	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
AC3	1.35G + 0.00Qw + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin	Action Combination Description	Parameters		
		Load Cases	:	CC11
AC4	1.35G + 0.00Qs	Design Situation	:	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1 Factor	:	1.35
		Action	:	A1 - Permanente/Sobrecarga de uso
		Factor γ	:	1.35
		Load Cases	:	CC1 CC2
		Action 2 Factor	:	0.00
		Action	:	A3 - Nieve
		Factor γ	:	1.50
		Factor ψ	:	0.00
		Load Cases	:	CC11
AC5	1.20G	Design Situation	:	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1 Factor	:	1.2015
		Action	:	A1 - Permanente/Sobrecarga de uso
		Factor ξ	:	0.89
		Factor γ	:	1.35
		Load Cases	:	CC1 CC2
AC6	1.20G + 1.50Qw	Design Situation	:	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1 Factor	:	1.2015
		Action	:	A1 - Permanente/Sobrecarga de uso
		Factor ξ	:	0.89
		Factor γ	:	1.35
		Load Cases	:	CC1 CC2
		Action 2 Factor	:	1.50
		Action	:	A2 - Viento
		Factor γ	:	1.50
		Load Cases	:	CC3 CC4 CC9 CC10
AC7	1.20G + 1.50Qw + 0.00Qs	Design Situation	:	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1 Factor	:	1.2015
		Action	:	A1 - Permanente/Sobrecarga de uso
		Factor ξ	:	0.89
		Factor γ	:	1.35
		Load Cases	:	CC1 CC2
		Action 2 Factor	:	1.50
		Action	:	A2 - Viento
		Factor γ	:	1.50
		Load Cases	:	CC3 CC4 CC9 CC10
		Action 3 Factor	:	0.00
		Action	:	A3 - Nieve
		Factor γ	:	1.50
		Factor ψ	:	0.00
		Load Cases	:	CC11
AC8	1.20G + 1.50Qs	Design Situation	:	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1 Factor	:	1.2015
		Action	:	A1 - Permanente/Sobrecarga de uso
		Factor ξ	:	0.89
		Factor γ	:	1.35
		Load Cases	:	CC1 CC2
		Action 2 Factor	:	1.50
		Action	:	A3 - Nieve
		Factor γ	:	1.50
		Load Cases	:	CC11
AC9	1.20G + 0.00Qw + 1.50Qs	Design Situation	:	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1 Factor	:	1.2015
		Action	:	A1 - Permanente/Sobrecarga de uso
		Factor ξ	:	0.89
		Factor γ	:	1.35
		Load Cases	:	CC1 CC2
		Action 2 Factor	:	0.00
		Action	:	A2 - Viento
		Factor γ	:	1.50
		Factor ψ	:	0.00
		Load Cases	:	CC3 CC4 CC9 CC10
		Action 3 Factor	:	1.50
		Action	:	A3 - Nieve
		Factor γ	:	1.50
		Load Cases	:	CC11
AC10	1.00G	Design Situation	:	SLS - Characteristic
		Action 1 Factor	:	1.00
		Action	:	A1 - Permanente/Sobrecarga de uso
		Load Cases	:	CC1 CC2
AC11	1.00G + 1.00Qw	Design Situation	:	SLS - Characteristic
		Action 1 Factor	:	1.00
		Action	:	A1 - Permanente/Sobrecarga de uso
		Load Cases	:	CC1 CC2
		Action 2 Factor	:	1.00
		Action	:	A2 - Viento
		Load Cases	:	CC3 CC4 CC9 CC10
AC12	1.00G + 1.00Qw + 0.00Qs	Design Situation	:	SLS - Characteristic
		Action 1 Factor	:	1.00
		Action	:	A1 - Permanente/Sobrecarga de uso
		Load Cases	:	CC1 CC2
		Action 2 Factor	:	1.00
		Action	:	A2 - Viento
		Load Cases	:	CC3 CC4 CC9 CC10
		Action 3 Factor	:	0.00
		Action	:	A3 - Nieve
		Factor ψ	:	0.00

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
			Load Cases	: CC11
AC13	1.00G + 1.00Qs	Design Situation		: SLS - Characteristic
		Action 1	Factor	: 1.00
			Action	: A1 - Permanente/Sobrecarga de uso
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.00
			Action	: A3 - Nieve
			Load Cases	: CC11
AC14	1.00G + 0.00Qw + 1.00Qs	Design Situation		: SLS - Characteristic
		Action 1	Factor	: 1.00
			Action	: A1 - Permanente/Sobrecarga de uso
			Load Cases	: CC1 CC2
		Action 2	Factor	: 0.00
			Action	: A2 - Viento
			Factor ψ	: 0.00
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 1.00
			Action	: A3 - Nieve
			Load Cases	: CC11
AC15	1.10G	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
AC16	1.10G + 1.50Qw	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
AC17	1.10G + 1.50Qw + 0.00Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 0.00
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC11
AC18	1.10G + 1.50Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC19	1.10G + 0.00Qw + 1.50Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 0.00
			Action	: A2 - Viento
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC20	0.90G	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
AC21	0.90G + 1.50Qw	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
AC22	0.90G + 1.50Qw + 0.00Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 0.00

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
		Action	:	A3 - Nieve
		Factor γ	:	1.50
		Factor ψ	:	0.00
		Load Cases	:	CC11
AC23	0.90G + 1.50Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC24	0.90G + 0.00Qw + 1.50Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11

2.5 LOAD COMBINATIONS

Load Combin.	DS	Load Combination Description	No.	Factor	Load Case	
CO1	ULS'	1.35*CC1 + 1.35*CC2 + CC7	1	1.35	LC1	PP
			2	1.35	LC2	CM Paneles
			3	1.00	LC7	Imp X
CO2	ULS'	1.35*CC1 + 1.35*CC2 + CC7 + CC8	1	1.35	LC1	PP
			2	1.35	LC2	CM Paneles
			3	1.00	LC7	Imp X
			4	1.00	LC8	Imp Y
CO3	ULS'	1.35*CC1 + 1.35*CC2 + CC8	1	1.35	LC1	PP
			2	1.35	LC2	CM Paneles
			3	1.00	LC8	Imp Y
CO4	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC7	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC3	V Presión sup
			4	1.00	LC7	Imp X
CO5	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC7 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC3	V Presión sup
			4	1.00	LC7	Imp X
			5	1.00	LC8	Imp Y
CO6	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC3	V Presión sup
			4	1.00	LC8	Imp Y
CO7	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC7	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC4	V Succión sup
			4	1.00	LC7	Imp X
CO8	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC7 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC4	V Succión sup
			4	1.00	LC7	Imp X
			5	1.00	LC8	Imp Y
CO9	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC4	V Succión sup
			4	1.00	LC8	Imp Y
CO10	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC7	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC9	V Presión inf
			4	1.00	LC7	Imp X
CO11	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC7 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC9	V Presión inf
			4	1.00	LC7	Imp X
			5	1.00	LC8	Imp Y
CO12	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC9	V Presión inf
			4	1.00	LC8	Imp Y
CO13	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC7	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC10	V Succión inf
			4	1.00	LC7	Imp X
CO14	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC7 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC10	V Succión inf
			4	1.00	LC7	Imp X
			5	1.00	LC8	Imp Y
CO15	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles

2.5 LOAD COMBINATIONS

Load Combin.	DS	Load Combination Description	No.	Factor	Load Case
			3	1.50	LC10 V Succión inf
			4	1.00	LC8 Imp Y
CO16	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC7 Imp X
CO17	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO18	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC8 Imp Y
CO19	S Ch	CC1 + CC2	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
CO20	S Ch	CC1 + CC2 + CC3	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC3 V Presión sup
CO21	S Ch	CC1 + CC2 + CC4	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC4 V Succión sup
CO22	S Ch	CC1 + CC2 + CC9	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC9 V Presión inf
CO23	S Ch	CC1 + CC2 + CC10	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC10 V Succión inf
CO24	S Ch	CC1 + CC2 + CC11	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC11 Nieve
CO25	EQU	1.1*CC1 + 1.1*CC2	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
CO26	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC3	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
CO27	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC4	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
CO28	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC9	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
CO29	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC10	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
CO30	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC11	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC11 Nieve
CO31	EQU	0.9*CC1 + 0.9*CC2	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
CO32	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC3	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
CO33	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC4	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
CO34	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC9	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
CO35	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC10	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
CO36	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC11	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC11 Nieve

2.7 RESULT COMBINATIONS

Result Combin	Description	Loading
RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b	CO1/p or CO2/p or CO3/p or CO4/p or CO5/p or CO6/p or CO7/p or CO8/p or CO9/p or CO10/p or CO11/p or CO12/p or CO13/p or CO14/p or CO15/p or CO16/p or CO17/p or CO18/p
RC2	ELS - Característica	CO19/p or CO20/p or CO21/p or CO22/p or CO23/p or CO24/p
RC3	ELU (EQU) - Permanente / transitoria	CO25/p or CO26/p or CO27/p or CO28/p or CO29/p or CO30/p or CO31/p or CO32/p or CO33/p or CO34/p or CO35/p or CO36/p

4.1 NODES - SUPPORT FORCES

Result Combinations

Node No	RC		Support Forces [kN] P_X	P_Y	P_Z	Support Moments [kNm] M_X	M_Y	M_Z	
4	RC1	Max	2.41	0.37	5.99	0.14	0.90	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.14	-0.18	-4.88	-0.27	-0.79	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.55	0.19	3.84	0.10	0.58	0.00	ELS - Característica
		Min	-1.48	-0.13	-3.41	-0.15	-0.54	0.00	ELS - Característica
6	RC1	Max	2.06	0.03	6.02	0.18	0.75	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

4.1 NODES - SUPPORT FORCES

Result Combinations

Node No.	RC		Support Forces [kN] P_X	P_Y	P_Z	Support Moments [kNm] M_X	M_Y	M_Z	
6		Min	-0.52	-0.03	-5.86	-0.27	-0.32	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
6	RC2	Max	1.42	0.02	3.85	0.12	0.52	0.00	ELS - Característica
		Min	-0.28	-0.02	-4.06	-0.16	-0.19	0.00	ELS - Característica
15	RC1	Max	2.28	0.19	6.06	0.15	0.85	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.01	-0.29	-5.20	-0.09	-0.74	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.46	0.13	3.91	0.07	0.54	0.00	ELS - Característica
		Min	-1.39	-0.15	-3.56	-0.06	-0.51	0.00	ELS - Característica
17	RC1	Max	2.06	0.04	5.66	0.17	0.77	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.53	-0.03	-5.63	-0.27	-0.33	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.43	0.02	3.61	0.11	0.53	0.00	ELS - Característica
		Min	-0.29	-0.02	-3.91	-0.15	-0.20	0.00	ELS - Característica
26	RC1	Max	2.34	0.20	5.82	0.15	0.87	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.07	-0.30	-4.75	-0.09	-0.76	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.50	0.14	3.74	0.07	0.56	0.00	ELS - Característica
		Min	-1.43	-0.16	-3.32	-0.06	-0.52	0.00	ELS - Característica
28	RC1	Max	2.09	0.04	5.85	0.17	0.78	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.55	-0.03	-5.77	-0.27	-0.34	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.45	0.02	3.73	0.11	0.54	0.00	ELS - Característica
		Min	-0.31	-0.02	-4.00	-0.15	-0.20	0.00	ELS - Característica
48	RC1	Max	2.20	0.38	5.96	0.15	0.81	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-1.96	-0.21	-5.12	-0.27	-0.72	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.41	0.21	3.84	0.10	0.52	0.00	ELS - Característica
		Min	-1.36	-0.14	-3.51	-0.15	-0.50	0.00	ELS - Característica
50	RC1	Max	1.98	0.04	5.50	0.17	0.79	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.57	-0.03	-5.50	-0.27	-0.36	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.37	0.02	3.51	0.11	0.54	0.00	ELS - Característica
		Min	-0.33	-0.02	-3.81	-0.15	-0.22	0.00	ELS - Característica
71	RC1	Max	2.39	0.10	6.22	0.03	0.88	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.11	-0.13	-5.15	-0.02	-0.78	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.53	0.07	4.00	0.02	0.57	0.00	ELS - Característica
		Min	-1.46	-0.07	-3.57	-0.01	-0.53	0.00	ELS - Característica
72	RC1	Max	2.38	0.09	6.14	0.03	0.98	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.10	-0.13	-5.08	-0.02	-0.78	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.52	0.06	3.95	0.02	0.57	0.00	ELS - Característica
		Min	-1.46	-0.07	-3.53	-0.01	-0.53	0.00	ELS - Característica
73	RC1	Max	2.11	0.03	5.98	0.16	0.79	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.56	-0.03	-5.88	-0.26	-0.34	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.46	0.02	3.82	0.11	0.54	0.00	ELS - Característica
		Min	-0.31	-0.02	-4.08	-0.15	-0.21	0.00	ELS - Característica
74	RC1	Max	2.10	0.03	5.94	0.16	0.79	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.56	-0.03	-5.85	-0.26	-0.35	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.45	0.02	3.79	0.11	0.54	0.00	ELS - Característica
		Min	-0.31	-0.02	-4.06	-0.15	-0.21	0.00	ELS - Característica

RF-STEEL EC3
CA1
Cálculo de barras de acero según Eurocódigo 3

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	All	
National Annex:	NEN	
Ultimate Limit State Design		
Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC3	ELU (EQU) - Permanente / transitoria
Serviceability Limit State Design		
Result combinations to design:	RC2	ELS - Característica

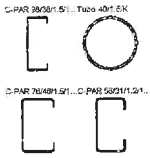
1.2 MATERIALS

Matl No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
1	Acero S 235 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	23.50	16.0
					22.50	40.0
					21.50	100.0
					19.50	150.0
					18.50	200.0
					17.50	250.0

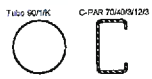
1.2 MATERIALS

Matl. No	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
2	S280GD 1.0244 | EN 10346:2009-03	21000.00	8076.92	0.300	28.00	
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	
5	Acero S 355 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	35.50	3.0
					35.50	16.0
					34.50	40.0
					33.50	63.0
					32.50	80.0
					31.50	100.0
					29.50	150.0
					28.50	200.0

1.3 CROSS-SECTIONS



Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
1	4	C-PAR 98/38/1.5/12/1.5	General	0.64	Dintel
2	2	Tubo 40/1.5/K	Pipe	0.23	Diagonal
3	4	C-PAR 76/46/1.5/12/3	General	0.37	Pilar sup
4	4	C-PAR 58/31/1.2/12/2.4	General	0.19	Riostra
5	1	Tubo 90/1/K	Pipe	0.74	Pilar inf
7	4	C-PAR 58/31/1.2/12/2.4	General	0.66	Correa
8	5	C-PAR 70/40/3/12/3	General	0.27	Pilar inf 2
9	2	Tubo 40/1.5/K	Pipe	0.53	



2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
1	**Dintel (Member No. 1,133,136,6,10,94,158,16,143)**						
	94	0.153	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	6	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	1	0.550	CR3	0.34	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	143	0.225	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	133	0.451	CR3	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	94	0.763	CR3	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	133	0.000	CR3	0.13	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	133	0.000	CR3	0.27	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	133	0.000	CR3	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	1	0.550	CR3	0.34	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	158	0.198	CR1	0.27	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	143	0.225	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	133	0.000	CR1	0.46	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	1	0.688	CR3	0.63	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	6	0.371	CR1	0.36	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	133	0.090	CR3	0.48	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	6	0.285	CR1	0.03	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	158	0.397	CR3	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	133	0.000	CR1	0.48	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	133	0.000	CR3	0.59	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	1	0.688	CR3	0.64	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	1	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	6	0.477	CR2	0.22	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	10	0.911	CR2	0.14	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
2	**Pilar trasero (Member No. 134,22,95,43)**						
	43	0.000	CR3	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	43	0.250	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	134	1.594	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	134	0.000	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	43	0.250	CR3	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	43	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	43	0.250	CR3	0.13	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	22	0.190	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	95	0.000	CR3	0.14	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	22	0.190	CR1	0.12	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	134	1.594	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	134	0.000	CR1	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	95	0.210	CR3	0.11	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	43	0.250	CR3	0.40	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	22	0.057	CR3	0.12	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	22	0.019	CR1	0.10	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	134	0.000	CR3	0.11	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	95	0.084	CR1	0.08	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	22	0.190	CR3	0.14	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	43	0.250	CR3	0.74	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	95	0.210	CR1	0.17	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	95	0.210	CR1	0.20	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	134	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	134	1.275	CR2	0.11	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	134	0.797	CR2	0.12	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
3	**Pilar delantero (Member No. 135,5,20)**						
	20	0.000	CR3	0.10	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	20	0.250	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	20	0.150	CR3	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	20	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	135	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	20	0.250	CR1	0.01	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	135	0.564	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	5	0.210	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	135	0.564	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	20	0.150	CR3	0.02	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	5	0.000	CR3	0.07	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	20	0.000	CR3	0.06	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	135	0.704	CR3	0.10	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	135	0.000	CR1	0.15	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	20	0.075	CR1	0.08	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	135	0.000	CR3	0.20	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	135	0.704	CR3	0.37	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	20	0.250	CR1	0.63	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	135	0.704	CR1	0.34	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - G

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							General cross-section
	135	0.704	CR1	0.36	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	135	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	135	0.634	CR2	0.19	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	135	0.564	CR2	0.30	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
4	**Dintel (Member No. 7,137,147,12,30,97,160,32,148)**						
	97	0.153	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	12	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	7	0.550	CR1	0.34	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	148	0.225	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	137	0.451	CR3	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	148	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	137	0.000	CR3	0.12	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	137	0.000	CR3	0.25	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	137	0.000	CR3	0.12	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	7	0.550	CR1	0.34	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	160	0.159	CR3	0.28	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	148	0.225	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	137	0.000	CR1	0.43	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	7	0.688	CR3	0.59	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	97	0.000	CR3	0.26	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	137	0.090	CR3	0.45	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	12	0.212	CR1	0.06	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	160	0.397	CR1	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	137	0.000	CR1	0.46	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	137	0.000	CR3	0.56	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	7	0.688	CR3	0.60	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	7	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	12	0.477	CR2	0.22	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	30	0.911	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
5	**Pilar trasero (Member No. 138,34,98,44)**						
	44	0.000	CR3	0.10	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	44	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	34	1.173	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	138	0.481	CR1	0.06	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	44	0.250	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	44	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	44	0.250	CR3	0.12	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	98	0.000	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	98	0.000	CR1	0.13	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	98	0.000	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	34	1.173	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	138	0.481	CR1	0.06	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	98	0.210	CR1	0.09	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	44	0.250	CR1	0.39	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	98	0.210	CR3	0.07	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	98	0.000	CR3	0.10	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial f

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							force acc. to 6.2.9.2 - Class 3 - General cross-section
	138	0.048	CR3	0.11	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	98	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	138	0.481	CR1	0.26	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	44	0.250	CR3	0.70	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	98	0.210	CR1	0.15	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	98	0.210	CR1	0.18	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	138	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	34	0.782	CR2	0.11	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	34	0.391	CR2	0.30	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
6	**Pilar delantero (Member No. 139,17,21)**						
	21	0.000	CR3	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	21	0.250	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	21	0.150	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	21	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	139	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	139	0.634	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	17	0.210	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	139	0.564	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	21	0.150	CR1	0.02	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	17	0.000	CR3	0.07	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	21	0.250	CR3	0.06	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	139	0.704	CR3	0.09	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	139	0.000	CR1	0.14	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	21	0.050	CR3	0.07	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	139	0.000	CR3	0.19	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	139	0.704	CR3	0.35	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	21	0.250	CR1	0.63	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	139	0.704	CR1	0.33	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	139	0.704	CR1	0.34	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	139	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	139	0.634	CR2	0.18	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	139	0.564	CR2	0.28	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**						
	101	0.153	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	14	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	13	0.550	CR1	0.34	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	150	0.225	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	140	0.451	CR3	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	150	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	140	0.000	CR3	0.12	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	140	0.000	CR3	0.26	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	140	0.000	CR3	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	13	0.550	CR1	0.34	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	13	0.550	CR1	0.34	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	150	0.225	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	140	0.000	CR1	0.44	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	13	0.688	CR3	0.61	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	101	0.000	CR3	0.26	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	140	0.090	CR3	0.47	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	14	0.212	CR1	0.07	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	162	0.397	CR1	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	140	0.000	CR1	0.47	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	140	0.000	CR3	0.58	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	13	0.688	CR3	0.62	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	13	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	14	0.477	CR2	0.23	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	37	0.911	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
8	**Pilar trasero (Member No. 141,19,100,45)**						
	45	0.000	CR3	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	45	0.250	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	141	0.481	CR1	0.06	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	45	0.250	CR3	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	45	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	45	0.250	CR3	0.13	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	100	0.000	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	100	0.000	CR1	0.14	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	100	0.000	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	141	0.481	CR1	0.06	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	100	0.210	CR1	0.09	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	45	0.250	CR3	0.40	≤ 1	CS154)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	100	0.210	CR3	0.07	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	100	0.000	CR3	0.10	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	141	0.048	CR3	0.11	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	100	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	19	0.000	CR1	0.27	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	45	0.250	CR3	0.72	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	100	0.210	CR1	0.15	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	100	0.210	CR1	0.18	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	141	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	19	0.782	CR2	0.11	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	19	0.391	CR2	0.31	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
9	**Pilar delantero (Member No. 142,29,41)**						
	41	0.000	CR3	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	41	0.250	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	41	0.125	CR3	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	41	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	142	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	41	0.250	CR1	0.01	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	142	0.634	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	29	0.210	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	142	0.564	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	41	0.125	CR3	0.02	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	29	0.000	CR3	0.07	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	41	0.250	CR3	0.07	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	142	0.704	CR3	0.09	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	142	0.000	CR1	0.15	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	41	0.050	CR3	0.07	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	142	0.000	CR3	0.20	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	142	0.704	CR3	0.36	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	41	0.250	CR1	0.64	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	142	0.704	CR1	0.33	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	142	0.704	CR1	0.35	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	142	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	142	0.634	CR2	0.19	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	142	0.564	CR2	0.29	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
10	**Dintel (Member No. 25,144,152,15,50,106,165,52,153)**						
	106	0.153	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	15	0.000	CR1	0.02	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	25	0.481	CR1	0.29	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	153	0.250	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	144	0.451	CR3	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	106	0.763	CR3	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	144	0.000	CR3	0.11	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	144	0.000	CR3	0.25	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	144	0.000	CR3	0.12	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	25	0.481	CR1	0.29	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	165	0.198	CR3	0.27	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	153	0.250	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	144	0.000	CR1	0.43	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	25	0.688	CR3	0.58	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	15	0.053	CR3	0.23	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	144	0.090	CR3	0.44	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	15	0.212	CR1	0.06	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	165	0.357	CR1	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	144	0.000	CR1	0.45	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	144	0.000	CR3	0.55	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	25	0.688	CR3	0.59	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	25	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	15	0.477	CR2	0.22	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	50	0.911	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
11	**Pilar trasero (Member No. 145,54,107,46)**						
	46	0.000	CR3	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	46	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	54	0.019	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3

2.3 DESIGN BY SET OF MEMBERS

Set No	Member No	Location x [m]	LC/CO/ RC	Design		Equation No	Description
	145	0.159	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	46	0.250	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	46	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	46	0.250	CR3	0.12	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	54	0.190	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	107	0.000	CR3	0.13	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	54	0.190	CR1	0.12	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	54	0.019	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	145	0.159	CR1	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	107	0.210	CR3	0.10	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	46	0.250	CR1	0.39	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	54	0.057	CR3	0.11	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	54	0.019	CR1	0.10	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	145	0.000	CR3	0.10	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	107	0.084	CR1	0.08	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	54	0.190	CR3	0.14	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	46	0.250	CR3	0.69	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	107	0.210	CR1	0.16	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	107	0.210	CR1	0.19	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	145	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	145	1.275	CR2	0.10	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	145	0.797	CR2	0.11	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
12	**Pilar delantero (Member No. 146,116,42)**						
	42	0.000	CR3	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	42	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	42	0.100	CR3	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	42	0.000	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	146	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	146	0.634	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	116	0.210	CR1	0.11	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	146	0.564	CR1	0.08	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	42	0.100	CR3	0.02	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	116	0.000	CR3	0.07	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	42	0.250	CR3	0.07	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	146	0.704	CR3	0.09	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	146	0.000	CR1	0.14	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	42	0.025	CR1	0.08	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	146	0.000	CR3	0.19	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	146	0.704	CR3	0.35	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	42	0.250	CR1	0.64	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	146	0.704	CR1	0.33	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	146	0.704	CR1	0.34	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	146	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	146	0.634	CR2	0.18	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	146	0.564	CR2	0.28	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							y-direction
13	**Correas (Member No. 73,55,56,123,2,58,59)**						
	73	0.140	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	55	0.000	CR3	0.46	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	56	0.311	CR3	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	55	0.000	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	55	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	55	0.000	CR3	0.46	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	56	0.311	CR3	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	55	0.000	CR3	0.47	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	73	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	55	0.155	CR2	0.66	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	73	0.700	CR2	0.24	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
14	**Correas (Member No. 74,60,61,124,3,63,64)**						
	74	0.140	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	63	1.555	CR1	0.23	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	63	1.244	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	60	0.000	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	63	1.555	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	74	0.700	CR1	0.05	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	60	0.000	CR1	0.13	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	74	0.700	CR1	0.07	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	63	1.555	CR1	0.23	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	63	1.244	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	60	0.000	CR3	0.50	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	74	0.700	CR1	0.39	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	74	0.700	CR1	0.39	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	74	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	60	0.155	CR2	0.64	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	63	1.400	CR2	0.30	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
15	**Correas (Member No. 75,65,66,125,4,68,69)**						
	75	0.140	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	66	0.000	CR3	0.34	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	68	1.244	CR1	0.05	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	65	0.000	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	68	1.555	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	75	0.700	CR1	0.06	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	65	0.000	CR1	0.14	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	75	0.700	CR1	0.07	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	66	0.000	CR3	0.34	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	68	1.244	CR1	0.05	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	65	0.000	CR3	0.48	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	75	0.700	CR1	0.38	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	75	0.700	CR1	0.39	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	75	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	65	0.155	CR2	0.66	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	68	1.400	CR2	0.32	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
16	**Correas (Member No. 76,70,71,126,8,79,80)**						
	76	0.140	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	71	0.622	CR3	0.14	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	79	1.244	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	70	0.000	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	70	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	71	0.622	CR3	0.14	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	79	1.244	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	70	0.000	CR3	0.52	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	76	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	70	0.155	CR2	0.66	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	76	0.700	CR2	0.25	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
17	**Correas (Member No. 77,81,82,127,9,84,85)**						
	85	0.560	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	81	0.000	CR3	0.47	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	84	0.311	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	81	0.000	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	81	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	81	0.000	CR3	0.47	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	84	0.311	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	81	0.000	CR1	0.51	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	77	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	81	0.155	CR2	0.65	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	81	0.155	CR2	0.35	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
18	**Correas (Member No. 78,86,87,129,11,131,130)**						
	78	0.140	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	129	0.000	CR3	0.37	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	131	1.244	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	86	0.000	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	129	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	129	0.000	CR3	0.37	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	131	1.244	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	86	0.000	CR1	0.49	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	78	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	86	0.155	CR2	0.64	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	86	0.155	CR2	0.36	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
19	**Riostras (Member No. 90)**						
	90	1.913	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	90	1.913	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	90	0.000	CR3	0.01	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	90	0.383	CR1	0.00	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	90	1.913	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	90	0.383	CR1	0.00	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	0.000	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	0.956	CR1	0.01	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	1.913	CR1	0.05	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	90	1.148	CR1	0.05	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	90	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	90	0.956	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	90	0.956	CR2	0.17	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
20	**Riostras (Member No. 91)**						
	91	0.000	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	91	0.000	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	91	1.912	CR1	0.01	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	91	0.956	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	91	0.191	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	91	1.912	CR1	0.00	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	91	0.956	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	91	0.191	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	91	0.956	CR1	0.02	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	91	0.191	CR1	0.05	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	91	0.956	CR1	0.06	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	91	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	91	0.956	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	91	0.956	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
21	**Diagonal B (Member No. 93)**						
	93	1.951	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	93	0.000	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	93	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	93	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	93	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	93	1.951	CR1	0.11	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	93	1.951	CR3	0.05	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	93	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	93	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	93	1.170	CR2	0.53	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
22	**Diagonal B (Member No. 96)**						
	96	1.951	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	96	0.000	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	96	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	96	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	96	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	96	1.951	CR1	0.10	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	96	1.951	CR3	0.04	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	96	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	96	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	96	0.975	CR2	0.51	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
23	**Diagonal B (Member No. 99)**						
	99	1.951	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	99	0.000	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	99	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	99	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	99	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	99	1.951	CR1	0.11	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	99	1.951	CR3	0.04	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	99	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	99	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	99	0.975	CR2	0.53	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
24	**Diagonal B (Member No. 105)**						
	105	1.951	CR3	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	105	0.000	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	105	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	105	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	105	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	105	1.951	CR1	0.10	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	105	1.951	CR3	0.04	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	105	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	105	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	105	1.170	CR2	0.48	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
25	**Diagonal B (Member No. 108)**						
	108	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	108	1.417	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	108	0.709	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	108	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	108	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	108	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	108	0.709	CR1	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	108	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	108	0.000	CR1	0.08	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	108	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	108	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	108	0.709	CR1	0.23	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	108	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	108	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	108	0.709	CR2	0.21	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
26	**Diagonal B (Member No. 109)**						
	109	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	109	1.417	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	109	0.709	CR1	0.01	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	109	0.000	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	109	0.709	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	109	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	109	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	109	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	109	0.709	CR1	0.01	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	109	0.000	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	109	0.283	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	109	0.709	CR3	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	109	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	109	0.000	CR1	0.08	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	109	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	109	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	109	0.709	CR1	0.23	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	109	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	109	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	109	0.709	CR2	0.21	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
27	**Diagonal B (Member No. 110)**						
	110	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	110	1.417	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	110	0.709	CR1	0.01	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	110	0.000	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	110	0.709	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	110	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	110	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	110	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	110	0.709	CR1	0.01	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	110	0.000	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	110	0.283	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	110	0.709	CR3	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	110	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	110	0.000	CR1	0.08	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	110	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	110	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	110	0.709	CR1	0.23	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	110	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	110	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	110	0.709	CR2	0.21	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
28	Diagonal B (Member No. 112)						
	112	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	112	1.417	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	112	0.850	CR1	0.01	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	112	0.000	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	112	0.709	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	112	0.000	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	112	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	112	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	112	0.850	CR1	0.01	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	112	0.000	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	112	0.283	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	112	0.709	CR3	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	112	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	112	0.000	CR1	0.07	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	112	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	112	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	112	0.709	CR1	0.22	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	112	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	112	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	112	0.709	CR2	0.20	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
29	Dintel (Member No. 47,151,156,18,102,120,171,104,163)						
	120	0.153	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	18	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	47	0.550	CR1	0.35	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	163	0.250	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	151	0.451	CR3	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	120	0.763	CR3	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	151	0.000	CR3	0.13	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	151	0.000	CR3	0.27	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	151	0.000	CR3	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	47	0.550	CR1	0.35	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	47	0.550	CR1	0.35	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	163	0.250	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	151	0.000	CR1	0.45	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	47	0.688	CR3	0.63	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	18	0.106	CR3	0.26	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	151	0.090	CR3	0.47	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	18	0.212	CR1	0.07	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	171	0.397	CR3	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	151	0.000	CR1	0.48	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	151	0.000	CR3	0.59	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	47	0.688	CR3	0.64	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	47	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	18	0.477	CR2	0.23	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	102	0.911	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
30	**Pilar trasero (Member No. 155,119,114)**						
	114	0.000	CR3	0.10	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	114	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	155	0.535	CR1	0.00	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	155	0.000	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	114	0.250	CR3	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	114	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	114	0.250	CR3	0.13	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	119	0.210	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	119	0.000	CR3	0.14	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	119	0.168	CR1	0.08	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	155	0.535	CR1	0.00	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	155	0.000	CR1	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	119	0.210	CR3	0.10	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	114	0.250	CR1	0.40	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	155	1.427	CR1	0.03	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	114	0.225	CR3	0.69	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	155	0.000	CR3	0.11	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	119	0.084	CR1	0.05	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	155	1.784	CR3	0.13	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	114	0.250	CR3	0.73	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	119	0.210	CR3	0.13	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	119	0.210	CR3	0.17	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	155	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	155	1.249	CR2	0.11	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	155	0.892	CR2	0.17	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
31	**Pilar delantero (Member No. 154,72,113)**						
	113	0.000	CR3	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	113	0.250	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	113	0.125	CR3	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	113	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	154	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	113	0.250	CR1	0.01	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	154	0.634	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	72	0.210	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	154	0.564	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	113	0.125	CR3	0.02	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	72	0.000	CR3	0.07	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	113	0.250	CR3	0.07	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	154	0.704	CR3	0.10	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	154	0.000	CR1	0.15	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and a

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	113	0.050	CR3	0.07	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	154	0.000	CR3	0.20	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	154	0.704	CR3	0.37	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	113	0.250	CR1	0.65	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	154	0.704	CR1	0.34	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	154	0.704	CR1	0.35	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	154	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	154	0.634	CR2	0.19	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	154	0.564	CR2	0.29	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
32	**Diagonal B (Member No. 118)**						
	118	1.951	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	118	0.000	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	118	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	118	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	118	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	118	1.951	CR1	0.11	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	118	1.951	CR3	0.05	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	118	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	118	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	118	1.170	CR2	0.53	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
33	**Diagonal B (Member No. 121)**						
	121	0.000	CR3	0.03	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	121	1.417	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	121	0.709	CR1	0.01	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	121	0.142	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	121	0.709	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	121	0.000	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	121	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	121	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	121	0.709	CR1	0.01	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	121	0.142	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	121	0.283	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	121	0.709	CR1	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	121	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	121	0.000	CR1	0.08	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	121	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	121	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	121	0.709	CR1	0.23	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	121	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	121	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	121	0.709	CR2	0.22	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
34	**Dintel (Member No. 48,161,167,23,103,157,172,111,168)**						
	157	0.153	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	23	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	48	0.550	CR1	0.35	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	168	0.250	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	161	0.451	CR3	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	157	0.763	CR3	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	161	0.000	CR3	0.13	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	161	0.000	CR3	0.27	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	161	0.000	CR3	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	48	0.550	CR1	0.35	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
							6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	48	0.550	CR1	0.35	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	168	0.250	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	161	0.000	CR1	0.45	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	48	0.688	CR3	0.62	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	157	0.000	CR1	0.26	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	161	0.000	CR3	0.47	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	23	0.212	CR1	0.07	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	172	0.397	CR3	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	161	0.000	CR1	0.48	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	161	0.000	CR3	0.59	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	48	0.688	CR3	0.63	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
35	**Pilar trasero (Member No. 166,132,122)**						
	122	0.000	CR3	0.10	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	122	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	166	0.714	CR1	0.00	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	122	0.250	CR3	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	122	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	122	0.250	CR3	0.13	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	132	0.210	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	132	0.000	CR3	0.14	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	132	0.168	CR1	0.08	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	166	0.714	CR1	0.00	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	132	0.210	CR3	0.10	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	122	0.250	CR1	0.40	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	166	1.427	CR1	0.03	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	122	0.250	CR3	0.73	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	166	0.000	CR3	0.11	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	132	0.084	CR1	0.05	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	166	1.784	CR3	0.13	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	122	0.250	CR1	0.70	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	132	0.210	CR3	0.13	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	132	0.210	CR3	0.17	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
36	**Pilar delantero (Member No. 164,83,117)**						
	117	0.000	CR3	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	117	0.250	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	117	0.125	CR3	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	117	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	164	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	117	0.250	CR1	0.01	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	164	0.634	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	83	0.210	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	164	0.564	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	117	0.125	CR3	0.02	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	83	0.000	CR3	0.07	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	117	0.250	CR3	0.07	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	164	0.704	CR3	0.10	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	164	0.000	CR1	0.15	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	117	0.050	CR1	0.08	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	164	0.000	CR3	0.20	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	164	0.704	CR3	0.37	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	117	0.250	CR1	0.65	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	164	0.704	CR1	0.34	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	164	0.704	CR1	0.35	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
37	**Diagonal B (Member No. 128)**						
	128	1.951	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	128	0.000	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	128	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	128	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	128	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	128	1.951	CR1	0.11	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	128	1.951	CR3	0.04	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
38	**Diagonal B (Member No. 159)**						
	159	0.000	CR3	0.03	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	159	1.417	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	159	0.709	CR1	0.01	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	159	0.000	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	159	0.709	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	159	0.000	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	159	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	159	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	159	0.709	CR1	0.01	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	159	0.000	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	159	0.283	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	159	0.709	CR3	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	159	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	159	0.000	CR1	0.08	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	159	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	159	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	159	0.709	CR1	0.23	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
1	**Dintel (Member No. 1,133,136,6,10,94,158,16,143)**								
	0.153	CR3	1.06	0.00	1.03	0.00	0.31	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.57	0.07	1.79	0.00	-0.36	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.550	CR3	0.05	-0.01	-1.83	0.00	-1.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.225	CR1	-0.04	-0.01	0.25	0.00	0.00	-0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.69	0.00	-3.60	0.00	0.10	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR3	0.90	-0.11	1.87	0.00	0.66	0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.67	0.06	-3.59	0.00	1.72	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	0.67	0.06	-3.59	0.00	1.72	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	0.67	0.06	-3.59	0.00	1.72	0.01	CS138)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.550	CR3	0.05	-0.01	-1.83	0.00	-1.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.198	CR1	0.20	0.04	-0.57	0.00	0.80	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.225	CR1	-0.04	-0.01	0.25	0.00	0.00	-0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.06	1.79	0.00	-1.18	0.05	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR3	0.03	-0.04	2.49	0.00	1.72	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.371	CR1	0.88	0.01	-1.20	0.00	-1.04	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.68	0.05	-3.59	0.00	1.39	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.265	CR1	-1.08	0.02	0.66	0.00	0.00	-0.03	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.397	CR3	0.52	-0.04	1.38	0.00	0.00	0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.34	0.03	2.59	0.00	-1.31	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR3	0.67	0.06	-3.59	0.00	1.72	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR3	0.03	-0.04	2.49	0.00	1.72	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
2	**Pilar trasero (Member No. 134,22,95,43)**								
	0.000	CR3	6.21	-0.19	2.48	0.01	0.31	0.10	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-4.88	0.24	-2.06	-0.01	-0.78	-0.18	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	1.594	CR1	0.15	0.00	0.01	0.00	0.02	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.19	0.00	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR3	6.20	-0.19	2.50	0.01	0.93	0.15	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.43	0.37	-2.15	-0.01	-0.26	-0.18	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR3	6.20	-0.19	2.50	0.01	0.93	0.15	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.190	CR1	-1.75	0.44	0.10	0.00	0.20	-0.08	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	6.22	-0.22	2.48	0.01	-0.21	0.06	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.190	CR1	-1.75	0.44	0.10	0.00	0.20	-0.08	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.594	CR1	0.15	0.00	0.01	0.00	0.02	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.00	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR3	0.24	-0.06	1.21	0.00	0.30	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.09	-0.06	1.15	0.00	0.59	0.05	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.057	CR3	3.10	-0.23	-0.13	0.00	-0.20	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.019	CR1	-1.81	0.38	0.08	0.00	0.18	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	3.36	0.10	-0.12	0.00	0.00	0.12	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.81	0.29	-2.06	-0.01	0.00	-0.11	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.190	CR3	3.10	-0.23	-0.13	0.00	-0.21	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR3	6.20	-0.19	2.50	0.01	0.93	0.15	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-4.43	0.37	-2.15	-0.01	-0.26	-0.18	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-4.43	0.37	-2.15	-0.01	-0.26	-0.18	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.275	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.797	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
3	**Pilar delantero (Member No. 135,5,20)**								
	0.000	CR3	6.28	0.01	0.48	0.00	0.60	0.19	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.86	0.01	2.03	0.00	0.55	-0.24	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.150	CR3	0.10	-0.03	-0.60	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.85	0.01	2.06	0.00	0.04	-0.23	CS122)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.45	0.16	-0.58	0.00	0.00	-0.13	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-5.26	-0.05	0.24	0.00	-0.31	-0.23	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.564	CR1	-3.47	0.08	-0.57	0.00	-0.32	-0.20	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.84	0.01	2.05	0.00	0.03	-0.27	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.47	0.08	-0.57	0.00	-0.32	-0.20	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.150	CR3	0.10	-0.03	-0.60	0.00	0.00	0.03	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR3	0.11	-0.03	-0.60	0.00	0.21	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.10	-0.03	-0.60	0.00	0.09	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.704	CR3	-0.70	-0.03	0.30	0.00	0.21	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-4.49	0.05	-0.60	0.00	0.00	-0.17	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.075	CR1	-1.48	0.03	0.85	0.00	0.00	-0.09	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	6.08	0.10	0.70	0.00	0.00	0.23	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR3	6.06	0.04	0.73	0.00	0.50	0.18	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	6.02	0.01	0.59	0.00	0.75	0.18	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.47	0.06	-0.57	0.00	-0.40	-0.21	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.47	0.06	-0.57	0.00	-0.40	-0.21	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
4	**Dintel (Member No. 7,137,147,12,30,97,160,32,148)**								
	0.153	CR3	0.98	0.01	1.02	0.00	0.31	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.49	0.08	1.74	0.00	-0.38	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.550	CR1	0.06	-0.02	-1.81	0.00	-0.99	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.225	CR1	-0.05	0.05	0.23	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.67	0.03	-3.45	0.00	0.08	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.37	0.19	1.58	0.00	-0.37	0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.65	0.07	-3.44	0.00	1.63	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	0.65	0.07	-3.44	0.00	1.63	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	0.65	0.07	-3.44	0.00	1.63	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.550	CR1	0.06	-0.02	-1.81	0.00	-0.99	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.159	CR3	0.15	0.05	-0.62	0.00	0.83	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.225	CR1	-0.05	0.05	0.23	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.06	1.67	0.00	-1.12	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR3	0.04	-0.03	2.37	0.00	1.63	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.83	-0.04	1.79	0.00	-0.73	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.66	0.06	-3.44	0.00	1.32	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.48	0.06	1.74	0.00	-0.01	-0.06	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.397	CR1	0.51	-0.01	1.32	0.00	0.00	-0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.33	0.02	2.48	0.00	-1.24	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR3	0.65	0.07	-3.44	0.00	1.63	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR3	0.04	-0.03	2.37	0.00	1.63	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
5	**Pilar trasero (Member No. 138,34,98,44)**								
	0.000	CR3	6.29	0.19	2.35	0.00	0.29	-0.04	CS101)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.20	-0.30	-1.93	-0.01	-0.72	0.15	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	1.173	CR1	0.03	-0.04	0.01	0.00	0.02	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.481	CR1	0.18	0.13	0.01	0.00	0.00	-0.05	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR3	6.28	0.20	2.36	0.00	0.88	-0.09	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.92	-0.32	-2.01	-0.01	-0.23	0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR3	6.28	0.20	2.36	0.00	0.88	-0.09	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.000	CR1	-5.18	-0.35	-1.94	-0.01	0.17	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-5.17	-0.35	-1.98	-0.01	0.17	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-5.18	-0.35	-1.94	-0.01	0.17	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.173	CR1	0.03	-0.04	0.01	0.00	0.02	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.481	CR1	0.18	0.13	0.01	0.00	0.00	-0.05	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.11	-0.01	1.11	0.00	0.29	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.10	0.00	1.11	0.00	0.66	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.210	CR3	-1.26	-0.06	-1.15	0.00	-0.23	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	6.29	0.16	2.35	0.00	-0.21	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.048	CR3	3.17	-0.12	-0.11	0.00	-0.01	0.12	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-5.18	-0.31	-1.96	-0.01	0.00	0.04	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.481	CR1	-1.96	0.35	0.12	0.00	0.06	-0.24	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR3	6.28	0.20	2.36	0.00	0.88	-0.09	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-5.18	-0.29	-1.97	-0.01	-0.25	0.08	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-5.18	-0.29	-1.97	-0.01	-0.25	0.08	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.782	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.391	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
6	**Pilar delantero (Member No. 139,17,21)**								
	0.000	CR3	5.90	0.02	0.56	0.00	0.60	0.17	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.63	-0.01	2.04	0.01	0.58	-0.27	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.150	CR1	-9.12	-0.04	-0.53	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.62	0.02	2.07	0.00	0.07	-0.23	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.5(4) - Class 3 or 4								
	0.000	CR1	-3.25	0.16	-0.54	0.00	0.00	-0.12	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.634	CR1	-3.27	0.08	-0.53	0.00	-0.34	-0.20	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.63	0.02	2.07	0.00	0.07	-0.27	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.27	0.09	-0.53	0.00	-0.30	-0.19	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.150	CR1	-0.12	-0.04	-0.53	0.00	0.00	0.02	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR3	0.13	-0.03	-0.62	0.00	0.20	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.12	-0.03	-0.62	0.00	-0.08	0.04	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.704	CR3	-0.77	-0.04	0.27	0.00	0.19	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-4.28	0.05	-0.58	0.00	0.00	-0.16	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.050	CR3	-1.22	0.03	0.80	0.00	0.00	-0.07	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	5.80	0.10	0.68	0.00	0.00	0.22	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR3	5.79	0.04	0.70	0.00	0.49	0.17	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.65	0.01	0.67	0.00	0.77	0.17	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.27	0.07	-0.53	0.00	-0.37	-0.20	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.27	0.07	-0.53	0.00	-0.37	-0.20	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**								
	0.153	CR3	1.02	0.01	1.03	0.00	0.32	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.54	0.09	1.77	0.00	-0.38	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.550	CR1	0.06	-0.02	-1.86	0.00	-1.02	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.225	CR1	-0.06	0.00	0.24	0.00	0.00	-0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.68	0.03	-3.54	0.00	0.08	-0.03	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.39	0.20	1.64	0.00	-0.38	0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.66	0.08	-3.54	0.00	1.68	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	0.66	0.08	-3.54	0.00	1.68	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	0.66	0.08	-3.54	0.00	1.68	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.550	CR1	0.06	-0.02	-1.86	0.00	-1.02	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.550	CR1	0.06	-0.02	-1.86	0.00	-1.02	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.225	CR1	-0.06	0.00	0.24	0.00	0.00	-0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.06	1.73	0.00	-1.16	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR3	0.04	-0.03	2.44	0.00	1.68	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.85	-0.04	1.84	0.00	-0.76	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.67	0.07	-3.54	0.00	1.36	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.53	0.06	1.77	0.00	0.00	-0.06	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.397	CR1	0.52	-0.01	1.36	0.00	0.00	-0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.33	0.02	2.55	0.00	-1.28	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR3	0.66	0.08	-3.54	0.00	1.68	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR3	0.04	-0.03	2.44	0.00	1.68	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
8	**Pilar trasero (Member No. 141,19,100,45)**								
	0.000	CR3	6.04	0.21	2.41	0.01	0.29	-0.04	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-4.75	-0.24	-2.00	-0.01	-0.76	0.12	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.481	CR1	0.18	0.13	0.01	0.00	0.00	-0.05	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR3	6.03	0.21	2.43	0.01	0.90	-0.10	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.32	-0.32	-2.07	-0.01	-0.24	0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR3	6.03	0.21	2.43	0.01	0.90	-0.10	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.000	CR1	-4.68	-0.35	-1.99	-0.01	0.18	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-4.67	-0.35	-2.03	-0.01	0.17	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-4.68	-0.35	-1.99	-0.01	0.18	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.481	CR1	0.18	0.13	0.01	0.00	0.00	-0.05	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.07	-0.01	1.13	0.00	0.29	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.11	0.01	1.16	0.00	0.58	0.01	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.210	CR3	-1.10	-0.06	-1.18	0.00	-0.24	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	6.05	0.17	2.41	0.00	-0.21	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.048	CR3	3.29	-0.13	-0.12	0.00	-0.01	0.12	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.67	-0.31	-2.01	-0.01	0.00	0.04	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-1.69	-0.19	0.12	0.00	0.06	-0.25	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR3	6.03	0.21	2.43	0.01	0.90	-0.10	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-4.68	-0.30	-2.02	-0.01	-0.25	0.08	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General c								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	cross-section								
	0.210	CR1	-4.68	-0.30	-2.02	-0.01	-0.25	0.08	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.782	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.391	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
9	**Pilar delantero (Member No. 142,29,41)**								
	0.000	CR3	6.10	0.02	0.55	0.00	0.61	0.18	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.77	0.01	2.06	0.00	0.58	-0.24	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.125	CR3	-0.04	-0.03	-0.58	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.76	0.02	2.09	0.00	0.06	-0.23	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.35	0.16	-0.55	0.00	0.00	-0.13	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-5.12	-0.05	0.18	0.00	-0.33	-0.23	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-3.37	0.07	-0.54	0.00	-0.35	-0.20	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.76	0.01	2.09	0.00	0.06	-0.27	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.37	0.08	-0.55	0.00	-0.31	-0.20	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.125	CR3	-0.04	-0.03	-0.58	0.00	0.00	0.03	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR3	0.13	-0.03	-0.64	0.00	0.20	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.12	-0.03	-0.64	0.00	-0.09	0.04	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.704	CR3	-0.70	-0.04	0.29	0.00	0.20	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-4.41	0.05	-0.59	0.00	0.00	-0.16	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.050	CR3	-1.25	0.03	0.62	0.00	0.00	-0.07	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	5.97	0.10	0.70	0.00	0.00	0.22	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR3	5.95	0.04	0.72	0.00	0.50	0.17	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.84	0.02	0.67	0.00	0.78	0.16	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.37	0.06	-0.54	0.00	-0.39	-0.21	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.37	0.06	-0.54	0.00	-0.39	-0.21	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
10	**Dintel (Member No. 25,144,152,15,50,106,165,52,153)**								
	0.153	CR3	0.84	0.00	1.01	0.00	0.31	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.37	0.05	1.69	0.00	-0.36	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.481	CR1	0.05	-0.02	-1.77	0.00	-0.85	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	-0.03	-0.02	0.23	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.66	0.01	-3.39	0.00	0.07	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR3	0.78	-0.10	1.71	0.00	0.59	0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.64	0.05	-3.38	0.00	1.59	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	0.64	0.05	-3.38	0.00	1.59	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	0.64	0.05	-3.38	0.00	1.59	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.481	CR1	0.05	-0.02	-1.77	0.00	-0.85	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.198	CR3	0.12	0.04	-0.61	0.00	0.80	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.03	-0.02	0.23	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.18	0.05	1.65	0.00	-1.10	0.05	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.698	CR3	0.05	-0.03	2.32	0.00	1.59	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.053	CR3	0.82	0.01	-1.13	0.00	-0.66	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.65	0.05	-3.38	0.00	1.29	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.37	0.03	1.69	0.00	0.00	-0.05	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.357	CR1	-0.92	0.02	-1.57	0.00	0.01	-0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.33	0.03	2.45	0.00	-1.21	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR3	0.64	0.05	-3.38	0.00	1.59	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR3	0.05	-0.03	2.32	0.00	1.59	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
11	**Pilar trasero (Member No. 145,54,107,46)**								
	0.000	CR3	6.18	-0.21	2.27	0.00	0.27	0.10	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.12	0.32	-1.86	-0.01	-0.69	-0.23	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.019	CR1	0.03	0.15	0.01	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.159	CR1	0.19	0.00	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR3	6.17	-0.21	2.28	0.00	0.84	0.16	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.84	0.38	-1.97	-0.01	-0.23	-0.18	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR3	6.17	-0.21	2.28	0.00	0.84	0.16	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.190	CR1	-2.38	0.45	0.09	0.00	0.19	-0.08	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	6.18	-0.23	2.26	0.01	-0.20	0.06	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.190	CR1	-2.38	0.45	0.09	0.00	0.19	-0.08	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.019	CR1	0.03	0.15	0.01	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.159	CR1	0.19	0.00	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR3	0.20	-0.05	1.12	0.00	0.29	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.10	-0.03	1.10	0.00	0.56	0.04	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.057	CR3	3.33	-0.25	-0.12	0.00	-0.19	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.019	CR1	-2.38	0.45	0.08	0.00	0.17	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	3.14	0.09	-0.11	0.00	0.00	0.11	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-5.09	0.31	-1.89	-0.01	0.00	-0.11	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.190	CR3	3.33	-0.25	-0.13	0.00	-0.20	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR3	6.17	-0.21	2.28	0.00	0.84	0.16	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-4.84	0.38	-1.97	-0.01	-0.23	-0.18	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-4.84	0.38	-1.97	-0.01	-0.23	-0.18	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.275	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.797	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
12	**Pilar delantero (Member No. 146,116,42)**								
	0.000	CR3	5.74	0.01	0.61	0.00	0.61	0.18	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.50	-0.01	1.95	0.00	0.55	-0.27	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.100	CR3	-0.02	-0.03	-0.60	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.49	0.02	1.98	0.00	0.05	-0.26	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.20	0.16	-0.53	0.00	0.00	-0.12	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.634	CR1	-3.22	0.08	-0.52	0.00	-0.33	-0.20	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.49	0.02	1.98	0.00	0.05	-0.26	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.22	0.09	-0.52	0.00	-0.29	-0.19	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.100	CR3	-0.02	-0.03	-0.60	0.00	0.00	0.03	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR3	0.15	-0.03	-0.65	0.00	0.19	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	-0.02	-0.03	-0.60	0.00	-0.09	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.704	CR3	-0.68	-0.03	0.27	0.00	0.19	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR1	-4.21	0.06	-0.57	0.00	0.00	-0.16	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.025	CR1	-1.45	0.04	0.91	0.00	0.00	-0.08	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	5.69	0.09	0.67	0.00	0.00	0.21	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR3	5.69	0.03	0.69	0.00	0.48	0.17	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.50	0.01	0.72	0.00	0.79	0.17	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.22	0.07	-0.52	0.00	-0.37	-0.20	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.22	0.07	-0.52	0.00	-0.37	-0.20	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
13	**Correas (Member No. 73,55,56,123,2,58,59)**								
	0.140	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	0.00	-0.02	1.36	0.00	-0.48	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.311	CR3	-0.01	-0.02	-0.06	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.00	-0.02	1.39	0.00	-0.48	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.01	-0.21	-0.93	0.00	0.32	-0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.00	-0.02	1.36	0.00	-0.48	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.311	CR3	-0.01	-0.02	-0.06	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.00	-0.02	1.39	0.00	-0.48	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.155	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.700	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
14	**Correas (Member No. 74,60,61,124,3,63,64)**								
	0.140	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	1.555	CR1	-0.01	0.02	0.92	0.00	0.23	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.244	CR1	-0.01	0.05	0.07	0.00	0.00	-0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	-0.01	0.01	1.40	0.00	-0.49	0.01	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.555	CR1	-0.01	0.22	0.82	0.00	0.21	-0.08	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.700	CR1	0.00	0.17	0.75	0.00	0.26	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.01	-0.16	-0.93	0.00	0.32	-0.03	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.700	CR1	0.00	0.17	0.75	0.00	0.26	-0.06	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.555	CR1	-0.01	0.02	0.92	0.00	0.23	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.244	CR1	-0.01	0.05	0.07	0.00	0.00	-0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	-0.01	0.01	1.40	0.00	-0.49	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.700	CR1	0.00	0.17	0.75	0.00	0.26	-0.06	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.700	CR1	0.00	0.17	0.75	0.00	0.26	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.155	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.400	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
15	**Correas (Member No. 75,65,66,125,4,68,69)**								
	0.140	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	-0.01	-0.01	1.30	0.00	-0.36	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.244	CR1	0.00	0.05	0.07	0.00	0.00	-0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	-0.02	-0.01	1.40	0.00	-0.49	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.555	CR1	0.00	0.23	0.82	0.00	0.21	-0.08	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.700	CR1	0.00	0.17	0.75	0.00	0.26	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-0.02	-0.16	-0.93	0.00	0.33	-0.02	CS133)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.700	CR1	0.00	0.17	0.75	0.00	0.26	-0.06	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	-0.01	-0.01	1.30	0.00	-0.35	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.244	CR1	0.00	0.06	0.07	0.00	0.00	-0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	-0.02	-0.01	1.40	0.00	-0.49	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.700	CR1	0.00	0.17	0.75	0.00	0.26	-0.06	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.700	CR1	0.00	0.17	0.75	0.00	0.26	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.155	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.400	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
16	**Correas (Member No. 76,70,71,126,8,79,80)**								
	0.140	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.622	CR3	0.00	-0.02	0.29	0.00	0.15	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.244	CR1	0.00	0.04	0.07	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	-0.01	-0.04	1.40	0.00	-0.49	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.01	-0.21	-0.93	0.00	0.33	-0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.622	CR3	0.00	-0.02	0.29	0.00	0.15	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.244	CR1	0.00	0.04	0.07	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	-0.01	-0.04	1.40	0.00	-0.49	-0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.155	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.700	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
17	**Correas (Member No. 77,81,82,127,9,84,85)**								
	0.560	CR3	0.00	0.00	-0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	0.03	-0.02	1.40	0.00	-0.49	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.311	CR1	0.02	-0.05	-0.08	0.00	0.00	-0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.03	-0.02	1.40	0.00	-0.49	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.07	-0.24	-0.94	0.00	0.33	-0.09	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.03	-0.02	1.40	0.00	-0.49	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.311	CR1	0.02	-0.05	-0.08	0.00	0.00	-0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.07	-0.24	-0.94	0.00	0.33	-0.09	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.155	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.155	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
18	**Correas (Member No. 78,86,87,129,11,131,130)**								
	0.140	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	0.00	-0.01	1.31	0.00	-0.38	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.244	CR1	0.10	0.09	0.48	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.06	-0.02	1.39	0.00	-0.49	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.01	-0.23	-0.88	0.00	0.26	-0.08	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.00	-0.01	1.31	0.00	-0.38	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.244	CR1	0.10	0.09	0.48	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.07	-0.22	-0.93	0.00	0.33	-0.08	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.155	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.155	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
19	**Riostras (Member No. 90)**								
	1.913	CR1	-0.02	0.00	-0.01	0.00	0.00	0.00	CS100)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Negligible internal forces								
	1.913	CR1	0.66	0.00	-0.01	0.00	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR3	-0.39	0.00	0.01	0.00	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.383	CR1	-0.04	0.00	0.01	0.00	0.00	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.913	CR1	0.11	0.00	-0.01	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.383	CR1	-0.04	0.00	0.01	0.00	0.00	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.09	0.00	0.01	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.956	CR1	0.10	0.00	0.00	0.00	0.01	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.913	CR1	0.66	0.00	-0.01	0.00	0.00	0.02	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.148	CR1	0.65	0.00	0.00	0.00	0.01	0.02	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.956	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.956	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
20	**Riostras (Member No. 91)**								
	0.000	CR1	0.04	0.00	0.01	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	0.41	0.00	0.01	0.00	0.00	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.912	CR1	-0.66	0.00	-0.01	0.00	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.956	CR1	0.03	0.00	0.00	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.191	CR1	-0.09	0.00	0.01	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	1.912	CR1	-0.66	-0.01	-0.02	0.00	0.00	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.956	CR1	0.03	0.00	0.00	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.191	CR1	-0.09	0.00	0.01	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.956	CR1	-0.10	0.00	0.00	0.00	0.01	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.191	CR1	-0.64	0.01	0.01	0.00	0.00	-0.03	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.956	CR1	-0.65	0.00	0.00	0.00	0.01	-0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.956	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.956	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
21	**Diagonal B (Member No. 93)**								
	1.951	CR3	4.08	-0.11	-0.01	0.02	0.00	0.13	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.50	0.10	0.01	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.48	0.14	0.07	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.50	0.14	0.01	-0.02	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.48	0.14	0.07	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.98	0.01	-0.01	-0.01	0.00	-0.07	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR3	4.08	-0.11	-0.01	0.02	0.00	0.13	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
22	**Diagonal B (Member No. 96)**								
	1.951	CR3	3.87	-0.10	-0.01	0.03	0.00	0.13	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.29	0.09	0.01	-0.02	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.27	0.13	0.07	-0.02	0.00	-0.02	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.29	0.13	0.01	-0.02	0.00	-0.02	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.27	0.13	0.07	-0.02	0.00	-0.02	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.93	0.01	-0.01	-0.01	0.00	-0.06	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR3	3.87	-0.10	-0.01	0.03	0.00	0.13	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
23	**Diagonal B (Member No. 99)**								
	1.951	CR3	3.97	-0.11	-0.01	0.03	0.00	0.13	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.39	0.09	0.01	-0.02	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.37	0.13	0.07	-0.02	0.00	-0.02	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.39	0.13	0.01	-0.02	0.00	-0.02	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.37	0.13	0.07	-0.02	0.00	-0.02	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.97	0.01	-0.01	-0.01	0.00	-0.07	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR3	3.97	-0.11	-0.01	0.03	0.00	0.13	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
24	**Diagonal B (Member No. 105)**								
	1.951	CR3	3.74	-0.10	-0.01	0.02	0.00	0.12	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.21	0.09	0.01	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.19	0.13	0.07	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.21	0.13	0.01	-0.02	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.19	0.13	0.07	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.91	0.01	-0.01	-0.01	0.00	-0.06	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR3	3.74	-0.10	-0.01	0.02	0.00	0.12	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
25	**Diagonal B (Member No. 108)**								
	0.000	CR3	1.23	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.57	-0.02	-0.02	0.05	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	-3.56	0.00	0.00	0.05	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-3.57	-0.07	-0.06	0.05	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.57	-0.07	-0.06	0.05	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.57	-0.07	-0.06	0.05	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.20	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.63	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.56	0.01	0.06	0.05	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.62	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.56	0.00	0.00	0.05	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.56	0.00	0.00	0.05	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
26	**Diagonal B (Member No. 109)**								
	0.000	CR3	1.22	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.53	-0.02	-0.02	0.05	0.00	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	0.04	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR1	0.05	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-3.53	0.00	0.00	0.05	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-3.53	-0.07	-0.06	0.05	0.00	-0.04	CS132)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.53	-0.07	-0.06	0.05	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.53	-0.07	-0.06	0.05	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.04	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR1	0.05	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR1	0.05	-0.01	0.01	0.00	0.00	0.00	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.709	CR3	0.10	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.63	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.52	0.01	0.06	0.05	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.64	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.53	0.00	0.00	0.05	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.53	0.00	0.00	0.05	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
27	**Diagonal B (Member No. 110)**								
	0.000	CR3	1.25	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.59	-0.02	-0.02	0.05	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	0.09	-0.01	0.00	-0.01	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR1	0.09	-0.01	0.01	-0.01	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-3.58	0.00	0.00	0.05	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-3.59	-0.07	-0.06	0.05	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.59	-0.07	-0.06	0.05	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.59	-0.07	-0.06	0.05	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.09	-0.01	0.00	-0.01	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR1	0.09	-0.01	0.01	-0.01	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR1	0.09	-0.01	0.01	-0.01	0.00	0.00	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.709	CR3	0.14	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.67	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.57	0.01	0.06	0.05	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.67	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.58	0.00	0.00	0.05	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.58	0.00	0.00	0.05	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
28	**Diagonal B (Member No. 112)**								
	0.000	CR3	1.25	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.41	-0.02	-0.02	0.05	0.00	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.850	CR1	-0.03	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR1	-0.02	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-3.40	0.00	0.00	0.05	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.39	0.06	0.06	0.05	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.41	-0.07	-0.06	0.05	0.00	-0.03	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.41	-0.07	-0.06	0.05	0.00	-0.03	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.850	CR1	-0.03	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR1	-0.02	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR1	-0.03	-0.01	0.01	0.00	0.00	-0.01	CS161)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.709	CR3	0.13	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.64	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.39	0.01	0.06	0.04	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.66	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.40	0.00	0.00	0.05	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.40	0.00	0.00	0.05	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
29	**Dintel (Member No. 47,151,156,18,102,120,171,104,163)**								
	0.153	CR3	1.04	0.01	1.05	0.00	0.32	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.57	0.08	1.80	0.00	-0.38	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.550	CR1	0.06	-0.02	-1.90	0.00	-1.04	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	-0.06	-0.03	0.25	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.70	0.02	-3.62	0.00	0.08	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR3	0.87	-0.12	1.86	0.00	0.65	0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.68	0.08	-3.61	0.00	1.71	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	0.68	0.08	-3.61	0.00	1.71	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	0.68	0.08	-3.61	0.00	1.71	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.550	CR1	0.06	-0.02	-1.90	0.00	-1.04	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.550	CR1	0.06	-0.02	-1.90	0.00	-1.04	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.06	-0.03	0.25	0.00	0.00	0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.06	1.77	0.00	-1.18	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR3	0.04	-0.04	2.49	0.00	1.71	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.106	CR3	0.95	0.02	-1.23	0.00	-0.74	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.69	0.07	-3.61	0.00	1.39	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.56	0.06	1.80	0.00	0.00	-0.06	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.397	CR3	0.54	-0.03	1.37	0.00	0.01	0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.34	0.02	2.61	0.00	-1.31	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR3	0.68	0.08	-3.61	0.00	1.71	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR3	0.04	-0.04	2.49	0.00	1.71	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
30	**Pilar trasero (Member No. 155,119,114)**								
	0.000	CR3	6.44	0.10	2.46	0.01	0.30	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.15	-0.15	-2.02	-0.01	-0.76	0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.535	CR1	0.17	0.01	0.01	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.19	0.01	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR3	6.43	0.10	2.48	0.01	0.92	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.14	-0.16	-2.03	-0.01	-0.25	-0.02	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR3	6.43	0.10	2.48	0.01	0.92	0.00	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.210	CR1	-5.14	-0.14	-2.03	-0.01	-0.25	-0.02	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	6.45	0.07	2.46	0.01	-0.22	0.04	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.168	CR1	-5.14	-0.14	-2.03	-0.01	-0.16	-0.03	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.535	CR1	0.17	0.01	0.01	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR1	0.19	0.01	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR3	0.31	0.00	1.23	0.00	0.30	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.09	-0.01	1.14	0.00	0.58	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.427	CR1	-1.19	-0.04	0.02	0.00	0.05	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.225	CR3	6.43	0.10	2.47	0.01	0.85	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	3.39	0.08	-0.12	0.00	0.00	0.12	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-5.13	-0.15	-2.03	-0.01	0.01	-0.04	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.784	CR3	3.35	0.06	-0.13	0.00	-0.22	0.01	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR3	6.43	0.10	2.48	0.01	0.92	0.00	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR3	6.44	0.10	2.46	0.01	0.30	0.02	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR3	6.44	0.10	2.46	0.01	0.30	0.02	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.249	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.892	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
31	**Pilar delantero (Member No. 154,72,113)**								
	0.000	CR3	6.23	0.03	0.56	0.00	0.62	0.18	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.88	-0.02	2.07	0.01	0.58	-0.25	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.125	CR3	-0.04	-0.03	-0.59	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.87	0.01	2.11	0.00	0.06	-0.23	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.44	0.15	-0.57	0.00	0.00	-0.13	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-5.23	-0.06	0.18	0.00	-0.34	-0.22	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-3.45	0.07	-0.56	0.00	-0.35	-0.20	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.87	0.01	2.11	0.00	0.05	-0.27	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.45	0.08	-0.56	0.00	-0.32	-0.20	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.125	CR3	-0.04	-0.03	-0.59	0.00	0.00	0.03	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR3	0.13	-0.04	-0.65	0.00	0.21	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.12	-0.03	-0.65	0.00	-0.09	0.04	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.704	CR3	-0.71	-0.04	0.30	0.00	0.21	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-4.50	0.04	-0.60	0.00	0.00	-0.17	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.050	CR3	-1.27	0.03	0.83	0.00	0.00	-0.07	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	6.09	0.11	0.71	0.00	0.00	0.23	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR3	6.08	0.05	0.73	0.00	0.51	0.17	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.97	0.02	0.67	0.00	0.79	0.16	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.45	0.06	-0.56	0.00	-0.39	-0.21	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.46	0.06	-0.56	0.00	-0.39	-0.21	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
32	**Diagonal B (Member No. 118)**								
	1.951	CR3	4.05	-0.11	-0.01	0.02	0.00	0.13	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.46	0.09	0.01	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.43	0.14	0.07	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.46	0.14	0.01	-0.02	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.43	0.14	0.07	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-2.00	0.01	-0.01	-0.01	0.00	-0.07	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR3	4.05	-0.11	-0.01	0.02	0.00	0.13	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
33	**Diagonal B (Member No. 121)**								
	0.000	CR3	1.28	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.63	-0.02	-0.02	0.05	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	0.09	-0.01	0.00	-0.01	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.142	CR1	0.10	-0.01	0.01	-0.01	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-3.62	0.00	0.00	0.05	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.61	0.07	0.06	0.05	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.63	-0.07	-0.06	0.05	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.63	-0.07	-0.06	0.05	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.09	-0.01	0.00	-0.01	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.142	CR1	0.10	-0.01	0.01	-0.01	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR1	0.10	-0.01	0.01	-0.01	0.00	0.00	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.709	CR1	0.10	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.69	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.61	0.01	0.06	0.05	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.69	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.62	0.00	0.00	0.05	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.62	0.00	0.00	0.05	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
34	**Dintel (Member No. 48,161,167,23,103,157,172,111,168)**								
	0.153	CR3	1.03	0.01	1.05	0.00	0.32	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.56	0.08	1.80	0.00	-0.38	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.550	CR1	0.06	-0.02	-1.89	0.00	-1.04	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	-0.05	-0.03	0.24	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.70	0.03	-3.59	0.00	0.08	-0.03	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR3	0.87	-0.12	1.85	0.00	0.65	0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.67	0.08	-3.59	0.00	1.71	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	0.67	0.08	-3.59	0.00	1.71	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	0.67	0.08	-3.59	0.00	1.71	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.550	CR1	0.06	-0.02	-1.89	0.00	-1.04	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.550	CR1	0.06	-0.02	-1.89	0.00	-1.04	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.05	-0.03	0.24	0.00	0.00	0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.06	1.76	0.00	-1.18	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR3	0.04	-0.03	2.48	0.00	1.70	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.78	-0.03	1.81	0.00	-0.75	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.68	0.07	-3.59	0.00	1.38	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.55	0.06	1.80	0.00	0.01	-0.06	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.397	CR3	0.54	-0.03	1.36	0.00	0.00	0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.34	0.02	2.59	0.00	-1.30	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR3	0.67	0.08	-3.59	0.00	1.71	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR3	0.04	-0.03	2.48	0.00	1.70	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
35	**Pilar trasero (Member No. 166,132,122)**								
	0.000	CR3	6.37	0.10	2.45	0.01	0.30	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.08	-0.13	-2.01	-0.01	-0.75	0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.714	CR1	0.18	0.01	0.01	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR3	6.35	0.10	2.46	0.01	0.91	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.07	-0.16	-2.02	-0.01	-0.25	-0.02	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR3	6.35	0.10	2.46	0.01	0.91	0.00	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.210	CR1	-5.07	-0.13	-2.02	-0.01	-0.25	-0.02	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR3	6.37	0.06	2.45	0.01	-0.22	0.04	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.168	CR1	-5.06	-0.14	-2.02	-0.01	-0.16	-0.03	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.714	CR1	0.18	0.01	0.01	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR3	0.31	0.00	1.23	0.00	0.30	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.10	-0.01	1.14	0.00	0.58	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.427	CR1	-1.19	-0.04	0.02	0.00	0.05	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.250	CR3	6.35	0.10	2.46	0.01	0.91	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	3.33	0.08	-0.12	0.00	0.00	0.12	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	6.16	0.08	2.36	0.01	-0.01	0.03	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.784	CR3	3.29	0.05	-0.13	0.00	-0.21	0.01	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	6.14	0.09	2.38	0.01	0.88	0.00	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR3	6.37	0.10	2.45	0.01	0.30	0.02	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR3	6.37	0.10	2.45	0.01	0.30	0.02	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
36	**Pilar delantero (Member No. 164,83,117)**								
	0.000	CR3	6.19	0.03	0.56	0.00	0.62	0.18	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.86	-0.02	2.07	0.01	0.57	-0.26	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.125	CR3	-0.04	-0.03	-0.59	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.94	0.01	2.10	0.00	0.05	-0.23	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.42	0.15	-0.57	0.00	0.00	-0.13	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-5.20	-0.06	0.18	0.00	-0.34	-0.22	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-3.43	0.07	-0.56	0.00	-0.35	-0.20	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.94	0.01	2.10	0.00	0.05	-0.27	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.43	0.08	-0.56	0.00	-0.32	-0.20	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.125	CR3	-0.04	-0.03	-0.59	0.00	0.00	0.03	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR3	0.14	-0.03	-0.65	0.00	0.21	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.13	-0.03	-0.65	0.00	-0.09	0.04	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.704	CR3	-0.71	-0.04	0.30	0.00	0.21	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-4.48	0.04	-0.60	0.00	0.00	-0.17	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.050	CR1	-1.51	0.04	0.91	0.00	0.00	-0.09	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	6.06	0.11	0.71	0.00	0.00	0.23	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR3	6.04	0.05	0.73	0.00	0.50	0.17	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.93	0.02	0.67	0.00	0.79	0.16	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.44	0.06	-0.56	0.00	-0.39	-0.21	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.44	0.06	-0.56	0.00	-0.39	-0.21	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
37	**Diagonal B (Member No. 128)**								
	1.951	CR3	4.03	-0.11	-0.01	0.02	0.00	0.13	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.44	0.09	0.01	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.42	0.14	0.07	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.44	0.14	0.01	-0.02	0.00	-0.01	CS123)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.42	0.14	0.07	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-2.00	0.01	-0.01	-0.01	0.00	-0.07	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR3	4.03	-0.11	-0.01	0.02	0.00	0.13	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
38	**Diagonal B (Member No. 159)**								
	0.000	CR3	1.28	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.62	-0.02	-0.02	0.05	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	0.09	-0.01	0.00	-0.01	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR1	0.09	-0.01	0.01	-0.01	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-3.61	0.00	0.00	0.05	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.60	0.07	0.06	0.05	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.62	-0.07	-0.06	0.05	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.62	-0.07	-0.06	0.05	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.09	-0.01	0.00	-0.01	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR1	0.09	-0.01	0.01	-0.01	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR1	0.09	-0.01	0.01	-0.01	0.00	0.00	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.709	CR3	0.14	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.69	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.60	0.01	0.06	0.05	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.69	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.61	0.00	0.00	0.05	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.61	0.00	0.00	0.05	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								

RF-STEEL EC3
CA2
Verificación correa

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	15	
National Annex:	NEN	
Ultimate Limit State Design		
Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	

C-PAR 58/31/1.2/1...

1.3 CROSS-SECTIONS

Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
7	4	C-PAR 58/31/1.2/12/2.4	General	0.51	Correa

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
15	**Correas (Member No. 75,65,66,125,4,68,69)**						
	65	0.000	CR1	0.51	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
15	**Correas (Member No. 75,65,66,125,4,68,69)**								
	0.000	CR1	-0.94	-0.04	1.34	0.02	-0.41	0.00	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

RF-STEEL EC3
CA3
Verificación dintel

1.1 GENERAL DATA

Members to design: Sets of members to design:	7	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	

1.3 CROSS-SECTIONS

C-PAR 98/38/1.5/1...

Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
1	4	C-PAR 98/38/1.5/12/1.5	General	0.72	Dintel

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**						
	14	0.424	CR1	0.72	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**								
	0.424	CR1	0.14	0.00	-1.15	0.00	-1.10	0.01	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

RF-STEEL EC3
CA4
verificacion pilar

1.1 GENERAL DATA

Members to design: Sets of members to design:	5,9	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
1	Acero S 235 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	23.50	16.0
					22.50	40.0
					21.50	100.0
					19.50	150.0
					18.50	200.0
					17.50	250.0
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	
5	Acero S 355 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	35.50	3.0
					35.50	16.0
					34.50	40.0
					33.50	63.0
					32.50	80.0
					31.50	100.0
					29.50	150.0
					28.50	200.0

C-PAR 70/40/3/12/3...Tubo 90/1/K

1.3 CROSS-SECTIONS

Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
3	4	C-PAR 76/46/1.5/12/3	General	0.28	Pilar sup
5	1	Tubo 90/1/K	Pipe	0.69	Pilar inf
8	5	C-PAR 70/40/3/12/3	General	0.22	Pilar inf 2

C-PAR 70/40/3/12/3

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
5	**Pilar trasero (Member No. 138,34,98,44)**						
	44	0.250	CR1	0.69	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis
9	**Pilar delantero (Member No. 142,29,41)**						
	41	0.250	CR1	0.63	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

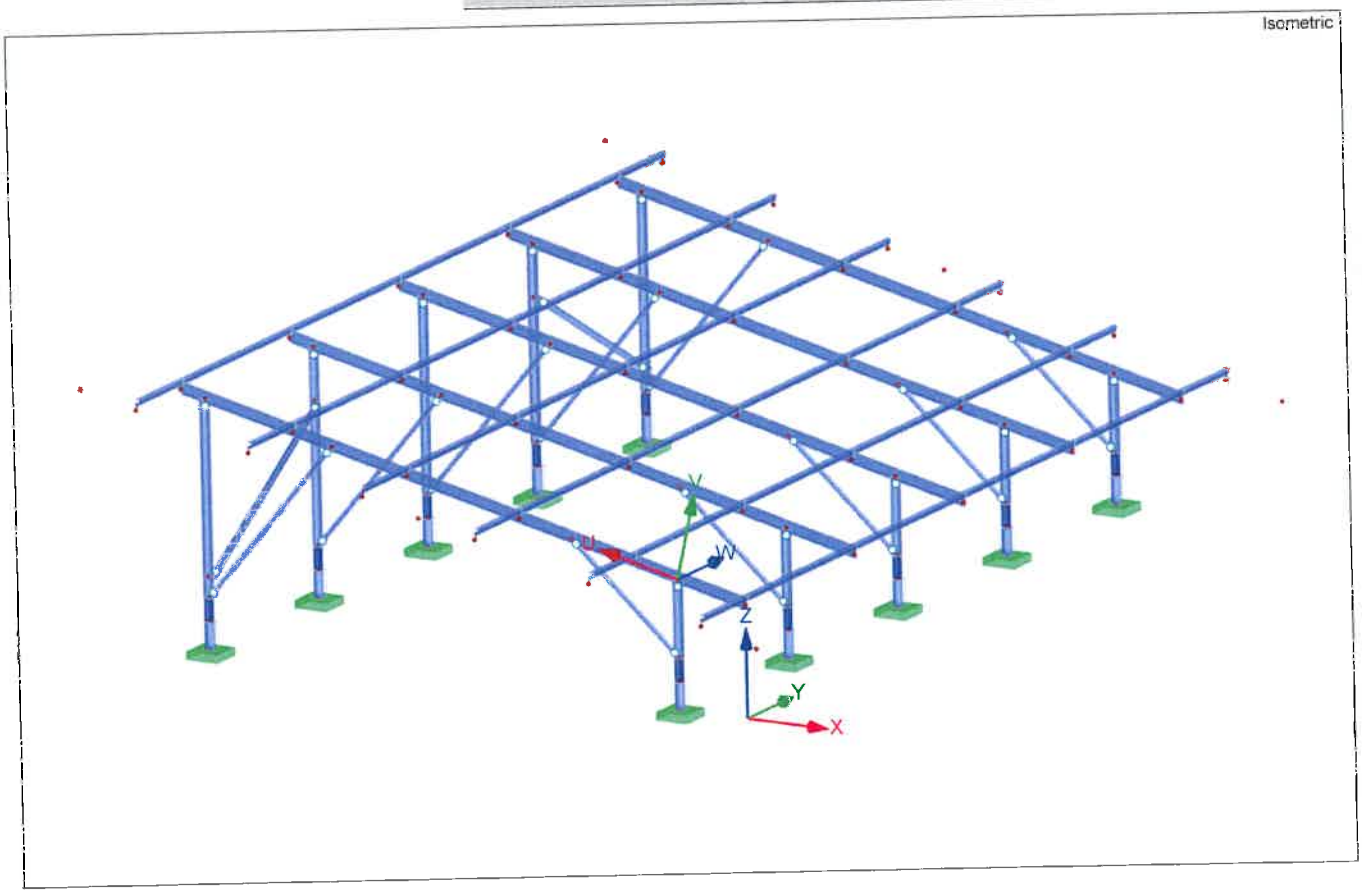
Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
5	**Pilar trasero (Member No. 138,34,98,44)**								
	0.250	CR1	6.06	0.19	2.28	-0.07	0.85	-0.16	CS272)
	Cross-section check - Elastic design with warping torsion analysis								
9	**Pilar delantero (Member No. 142,29,41)**								
	0.250	CR1	5.84	0.02	0.67	-0.02	0.78	-0.02	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

STRUCTURAL ANALYSIS

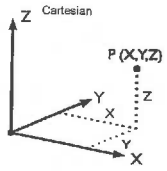
PROJECT **NL-1191-63 BOLLENDONK**

CLIENT **SOLARCENTURY**

CREATED BY **AXIAL STRUCTURAL SOLUTIONS**



Behoort bij besluit van
Burgemeester en wethouders
van de gemeente Etten-Leur
Int. kenmerk:
2021OG0373-01



1.1 NODES

Node No.	Node Type	Reference Node	Coordinate System	Node Coordinates X [m]	Y [m]	Z [m]	Comment
1	Standard	-	Cartesian	-0.676	0.006	0.460	
2	Standard	-	Cartesian	-5.353	3.813	2.244	
4	Standard	-	Cartesian	-5.353	0.006	0.000	Primer pórtico - Final pilar trasero
5	Standard	-	Cartesian	-3.356	-0.774	1.783	
6	Standard	-	Cartesian	-0.676	0.006	0.000	Primer pórtico - Final pilar delantero
8	Standard	-	Cartesian	-4.100	5.717	1.955	
9	Standard	-	Cartesian	-4.100	1.910	1.955	
10	Standard	-	Cartesian	-4.100	7.621	1.955	
11	Standard	-	Cartesian	-4.100	0.006	1.955	
13	Standard	-	Cartesian	-5.353	7.621	2.244	
15	Standard	-	Cartesian	-5.353	1.910	0.000	Segundo pórtico - Final pilar trasero
17	Standard	-	Cartesian	-0.676	1.910	0.000	Segundo pórtico - Final pilar delantero
19	Standard	-	Cartesian	-5.353	1.910	2.244	
20	Standard	-	Cartesian	-0.676	7.621	1.164	
21	Standard	-	Cartesian	-5.353	5.717	2.244	
24	Standard	-	Cartesian	-0.676	3.813	1.164	
26	Standard	-	Cartesian	-5.353	5.717	0.000	Tercer pórtico - Final pilar trasero
28	Standard	-	Cartesian	-0.676	5.717	0.000	Tercer pórtico - Final pilar delantero
29	Standard	-	Cartesian	-0.676	0.006	1.164	
30	Standard	-	Cartesian	-0.676	1.910	1.164	
31	Standard	-	Cartesian	-0.676	5.717	1.164	
32	Standard	-	Cartesian	-5.353	0.006	2.244	
34	Standard	-	Cartesian	-5.353	5.717	1.763	
35	Standard	-	Cartesian	-5.353	0.006	0.250	Primer pórtico - Final pilar trasero
36	Standard	-	Cartesian	-0.676	0.006	0.250	Primer pórtico - Final pilar delantero
37	Standard	-	Cartesian	-5.353	1.910	0.250	Segundo pórtico - Final pilar trasero
38	Standard	-	Cartesian	-0.676	1.910	0.250	Segundo pórtico - Final pilar delantero
39	Standard	-	Cartesian	-5.353	5.717	0.250	Tercer pórtico - Final pilar trasero
41	Standard	-	Cartesian	-0.676	5.717	0.250	Tercer pórtico - Final pilar delantero
42	Standard	-	Cartesian	-4.100	3.813	1.955	
46	Standard	-	Cartesian	-5.596	8.401	2.300	Quinto pórtico - Final dintel
48	Standard	-	Cartesian	-5.353	7.621	0.000	Quinto pórtico - Final pilar trasero
50	Standard	-	Cartesian	-0.676	7.621	0.000	Quinto pórtico - Final pilar delantero
51	Standard	-	Cartesian	-5.353	0.006	0.460	
52	Standard	-	Cartesian	-1.730	0.006	1.408	
53	Standard	-	Cartesian	-5.353	1.910	0.460	
54	Standard	-	Cartesian	-1.730	1.910	1.408	
55	Standard	-	Cartesian	-5.353	5.717	0.460	
56	Standard	-	Cartesian	-1.730	5.717	1.408	
57	Standard	-	Cartesian	-5.353	7.621	0.250	Quinto pórtico - Final pilar trasero
58	Standard	-	Cartesian	-0.676	7.621	0.250	Quinto pórtico - Final pilar delantero
59	Standard	-	Cartesian	-5.353	7.621	0.460	
60	Standard	-	Cartesian	-1.730	7.621	1.408	
63	Standard	-	Cartesian	-0.676	1.910	0.460	
65	Standard	-	Cartesian	-0.676	5.717	0.460	
69	Standard	-	Cartesian	-0.676	7.621	0.460	
71	Standard	-	Cartesian	-5.353	3.813	0.000	Tercer pórtico - Final pilar trasero
73	Standard	-	Cartesian	-0.676	3.813	0.000	Tercer pórtico - Final pilar delantero
77	Standard	-	Cartesian	-5.353	3.813	0.250	Tercer pórtico - Final pilar trasero
78	Standard	-	Cartesian	-0.676	3.813	0.250	Tercer pórtico - Final pilar delantero
79	Standard	-	Cartesian	-5.353	3.813	0.460	
81	Standard	-	Cartesian	-0.676	3.813	0.460	
83	Standard	-	Cartesian	-0.006	0.006	1.010	Primer pórtico - Inicio dintel
84	Standard	-	Cartesian	-5.596	0.006	2.300	Primer pórtico - Final dintel
87	Standard	-	Cartesian	-2.246	0.006	1.527	
88	Standard	-	Cartesian	-1.116	0.006	1.266	
89	Standard	-	Cartesian	-3.356	0.006	1.783	
90	Standard	-	Cartesian	-4.486	0.006	2.044	
91	Standard	-	Cartesian	-2.246	1.910	1.527	
92	Standard	-	Cartesian	-0.006	1.910	1.010	Segundo pórtico - Inicio dintel
93	Standard	-	Cartesian	-5.596	1.910	2.300	Segundo pórtico - Final dintel
94	Standard	-	Cartesian	-1.730	3.813	1.408	
96	Standard	-	Cartesian	-1.116	1.910	1.266	
97	Standard	-	Cartesian	-3.356	1.910	1.783	
98	Standard	-	Cartesian	-4.486	1.910	2.044	
99	Standard	-	Cartesian	-2.246	5.717	1.527	
100	Standard	-	Cartesian	-1.116	5.717	1.266	
101	Standard	-	Cartesian	-0.006	5.717	1.010	Tercer pórtico - Inicio dintel

1.1 NODES

Node No.	Node Type	Reference Node	Coordinate System	Node Coordinates X [m]	Y [m]	Z [m]	Comment
102	Standard	-	Cartesian	-5.596	5.717	2.300	Tercer pórtico - Final dintel
105	Standard	-	Cartesian	-3.356	5.717	1.783	
106	Standard	-	Cartesian	-4.486	5.717	2.044	
107	Standard	-	Cartesian	-2.246	7.621	1.527	
108	Standard	-	Cartesian	-1.116	7.621	1.266	
109	Standard	-	Cartesian	-3.356	7.621	1.783	
110	Standard	-	Cartesian	-4.486	7.621	2.044	
111	Standard	-	Cartesian	-2.246	3.813	1.527	
112	Standard	-	Cartesian	-1.116	3.813	1.266	
113	Standard	-	Cartesian	-0.006	3.813	1.010	Tercer pórtico - Inicio dintel
114	Standard	-	Cartesian	-0.006	7.621	1.010	Quinto pórtico - Inicio dintel
115	Standard	-	Cartesian	-5.596	7.621	2.300	Quinto pórtico - Final dintel
125	Standard	-	Cartesian	-5.596	3.813	2.300	Tercer pórtico - Final dintel
129	Standard	-	Cartesian	-3.356	3.813	1.783	
130	Standard	-	Cartesian	-4.486	3.813	2.044	
134	Standard	-	Cartesian	-5.596	-0.774	2.300	Primer pórtico - Final dintel
142	Standard	-	Cartesian	-1.116	-0.774	1.266	Correas 2
143	Standard	-	Cartesian	-1.116	8.401	1.266	Correas 2
144	Standard	-	Cartesian	-2.246	-0.774	1.527	Correas 3
145	Standard	-	Cartesian	-2.246	8.401	1.527	Correas 3
146	Standard	-	Cartesian	-0.006	-0.774	1.010	Correas 2
147	Standard	-	Cartesian	-3.356	8.401	1.783	Correas 4
148	Standard	-	Cartesian	-4.486	-0.774	2.044	Correas 5
149	Standard	-	Cartesian	-4.486	8.401	2.044	Correas 5
150	Standard	-	Cartesian	-0.006	8.401	1.010	Correas 2
174	Standard	-	Cartesian	-5.353	0.006	0.650	Riostras estabilidad
175	Standard	-	Cartesian	-5.353	1.910	1.763	Riostras estabilidad
177	Standard	-	Cartesian	-5.353	7.621	0.650	Riostras estabilidad
288	Standard	-	Cartesian	0.547	-0.774	0.872	Nudo aux
289	Standard	-	Cartesian	-6.151	-0.774	2.429	Nudo aux
290	Standard	-	Cartesian	0.547	8.401	0.872	Nudo aux
291	Standard	-	Cartesian	-6.151	8.401	2.429	Nudo aux
292	Standard	-	Cartesian	-2.801	-0.774	1.655	Nudo aux
293	Standard	-	Cartesian	-2.801	8.401	1.655	Nudo aux

1.13 CROSS-SECTIONS

Section No.	Matl. No	J [cm⁴] / A [cm²]	i_y [cm⁴] / A_y [cm²]	i_z [cm⁴] / A_z [cm²]	Principal Axes α [°]	Rotation α' [°]	Overall Dimensions [mm] Width b	Height h
1	C-PAR 98/38/1.5/12/1.5							
	4	0.02	41.51	5.51	0.00	0.00	38.0	98.0
		2.82	0.72	1.18				
	Dintel							
2	Tubo 40/1.5/K							
	2	6.73	3.37	3.37	0.00	0.00	40.0	40.0
		1.81	0.90	0.90				
	Diagonal							
3	C-PAR 76/46/1.5/12/3							
	4	0.02	25.71	7.78	0.00	0.00	46.0	76.0
		2.69	1.02	0.92				
	Pilar sup							
4	C-PAR 58/31/1.2/12/2.4							
	4	0.01	8.52	2.27	0.00	0.00	31.0	58.0
		1.61	0.54	0.49				
	Riostra							
5	Tubo 90/1/K							
	1	55.38	27.69	27.69	0.00	0.00	90.0	90.0
		2.80	1.39	1.39				
	Pilar inf							
6	KU-PAR 30/15/1.5/3							
	2	0.01	1.05	0.17	0.00	0.00	15.0	30.0
		0.81	0.27	0.36				
7	C-PAR 58/31/1.2/12/2.4							
	4	0.01	8.52	2.27	0.00	0.00	31.0	58.0
		1.61	0.54	0.49				
	Correa							
8	C-PAR 70/40/3/12/3							
	5	0.12	34.79	9.31	0.00	0.00	40.0	70.0
		4.63	1.67	1.50				
	Pilar inf 2							
9	Tubo 40/1.5/K							
	2	6.73	3.37	3.37	0.00	0.00	40.0	40.0
		1.81	0.90	0.90				

1.21 SETS OF MEMBERS

Set No.	Set of Members Description	Type	Member No.	Length [m]	Comment
1	Dintel	Contin. member	1,133,136,6,10,94,156,16,143	5.737	
2	Pilar trasero	Contin. member	134,22,95,43	2.244	
3	Pilar delantero	Contin. member	135,5,20	1.164	

1.21 SETS OF MEMBERS

Set No.	Set of Members Description	Type	Member No.	Length [m]	Comment
4	Dintel	Contin. member	7,137,147,12,30,97, 160,32,148	5.737	
5	Pilar trasero	Contin. member	138,34,98,44	2.244	
6	Pilar delantero	Contin. member	139,17,21	1.164	
7	Dintel	Contin. member	13,140,149,14,37,101, 162,39,150	5.737	
8	Pilar trasero	Contin. member	141,19,100,45	2.244	
9	Pilar delantero	Contin. member	142,29,41	1.164	
10	Dintel	Contin. member	25,144,152,15,50,106, 165,52,153	5.737	
11	Pilar trasero	Contin. member	145,54,107,46	2.244	
12	Pilar delantero	Contin. member	146,116,42	1.164	
13	Correas	Contin. member	73,55,56,123,58,59	9.175	
14	Correas	Contin. member	74,60,61,124,63,64	9.175	
15	Correas	Contin. member	75,65,66,125,68,69	9.175	
16	Correas	Contin. member	76,70,71,126,79,80	9.175	
17	Correas	Contin. member	77,81,82,127,84,85	9.175	
18	Correas	Contin. member	78,86,87,129,131,130	9.175	
19	Riostras	Contin. member	90	2.206	
20	Riostras	Contin. member	91	2.205	
21	Diagonal B	Contin. member	93	1.951	
22	Diagonal B	Contin. member	96	1.951	
23	Diagonal B	Contin. member	99	1.951	
24	Diagonal B	Contin. member	105	1.951	
25	Diagonal B	Contin. member	108	1.417	
26	Diagonal B	Contin. member	109	1.417	
27	Diagonal B	Contin. member	110	1.417	
28	Diagonal B	Contin. member	112	1.417	
29	Dintel	Contin. member	47,151,156,18,102,120, 171,104,163	5.737	
30	Pilar trasero	Contin. member	155,119,114	2.244	
31	Pilar delantero	Contin. member	154,72,113	1.164	
32	Diagonal B	Contin. member	118	1.951	
33	Diagonal B	Contin. member	121	1.417	

2.1 LOAD CASES

Load Case	Load Case Description	EN 1990 | NEN 2011 Action Category	Self-Weight - Factor in Direction			
			Active	X	Y	Z
LC1	PP	Permanent	☑	0.000	0.000	-1.000
LC2	CM Paneles	Permanent	☐			
LC3	V Presión sup	Wind	☐			
LC4	V Succión sup	Wind	☐			
LC7	Imp X	Imperfection	☐			
LC8	Imp Y	Imperfection	☐			
LC9	V Presión inf	Wind	☐			
LC10	V Succión inf	Wind	☐			
LC11	Nieve	Snow (H ≤ 1000 m a.s.l.)	☐			

2.1.1 LOAD CASES - CALCULATION PARAMETERS

Load Case	Load Case Description	Calculation Parameters	
LC1	PP	Method of analysis	: ◉ Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	: ◉ Picard
		Options	: ☑ Consider favorable effects due to tension
			: ☑ Refer internal forces to deformed system for:
			☑ Normal forces N
			☑ Shear forces V_y and V_z
			☑ Moments M_y, M_z and M_T
		Activate stiffness factors of:	: ☑ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			: ☑ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC2	CM Paneles	Method of analysis	: ◉ Second order analysis (P-Delta)

2.1.1 LOAD CASES - CALCULATION PARAMETERS

Load Case	Load Case Description	Calculation Parameters
		Method for solving system of nonlinear algebraic equations: Picard Options: Consider favorable effects due to tension Refer internal forces to deformed system for: Normal forces N Shear forces V_y and V_z Moments M_y, M_z and M_T Activate stiffness factors of: Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC3	V Presión sup	Method of analysis: Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations: Picard Options: Consider favorable effects due to tension Refer internal forces to deformed system for: Normal forces N Shear forces V_y and V_z Moments M_y, M_z and M_T Activate stiffness factors of: Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC4	V Succión sup	Method of analysis: Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations: Picard Options: Consider favorable effects due to tension Refer internal forces to deformed system for: Normal forces N Shear forces V_y and V_z Moments M_y, M_z and M_T Activate stiffness factors of: Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC7	Imp X	Method of analysis: Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations: Picard Options: Consider favorable effects due to tension Refer internal forces to deformed system for: Normal forces N Shear forces V_y and V_z Moments M_y, M_z and M_T Activate stiffness factors of: Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC8	Imp Y	Method of analysis: Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations: Picard Options: Consider favorable effects due to tension Refer internal forces to deformed system for: Normal forces N Shear forces V_y and V_z Moments M_y, M_z and M_T Activate stiffness factors of: Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC9	V Presión inf	Method of analysis: Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations: Picard Options: Consider favorable effects due to tension Refer internal forces to deformed system for: Normal forces N Shear forces V_y and V_z Moments M_y, M_z and M_T Activate stiffness factors of: Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC10	V Succión inf	Method of analysis: Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations: Picard Options: Consider favorable effects due to tension Refer internal forces to deformed system for: Normal forces N Shear forces V_y and V_z Moments M_y, M_z and M_T Activate stiffness factors of: Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC11	Nieve	Method of analysis: Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations: Picard Options: Consider favorable effects due to tension Refer internal forces to deformed system for: Normal forces N Shear forces V_y and V_z Moments M_y, M_z and M_T Activate stiffness factors of: Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)

2.2 ACTIONS

Action	Action Description	EN 1990 | NEN 2011 Action Category	Acting	Load Cases in Action	
A1	Permanente/Sobrecarga de uso	Permanent	Simultaneously	LC2	CM Paneles
				LC1	PP
A2	Viento	Wind	Alternative	LC3	V Presión sup
				LC4	V Succión sup
				LC10	V Succión inf

2.2 ACTIONS

Action	Action Description	EN 1990 | NEN 2011 Action Category	Acting	Load Cases in Action	
A3	Nieve	Snow (H ≤ 1000 m a.s.l.)		LC9	V Presión inf
				LC11	Nieve

2.3 COMBINATION EXPRESSIONS

CE No.	Description	EN 1990 | NEN 2011 Design Situation	Settings		
CE1	ELU	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	Consider	:	☒ Imperfection load cases
			Numbering of Generated Combinations		First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations		☑ Generate additionally Either/Or result combination (result envelopes) ☒ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations		
			Method of analysis	:	Second-order analysis (P-Delta)
CE2	ELS	SLS - Characteristic	Consider	:	☐ Favorable permanent actions
			Numbering of Generated Combinations		First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations		☑ Generate additionally Either/Or result combination (result envelopes) ☑ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations		
			Method of analysis	:	Second-order analysis (P-Delta)
CE3	EQU	ULS (EQU) - Permanent / transient	Consider	:	☒ Favorable permanent actions
			Numbering of Generated Combinations		First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations		☒ Generate additionally Either/Or result combination (result envelopes) ☑ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations		
			Method of analysis	:	Second-order analysis (P-Delta)

2.4 ACTION COMBINATIONS

Action Combin.	Action Combination Description	EN 1990 | NEN 2011 Design Situation	No.	Factor	Action	
AC1	1.35G	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
AC2	1.35G + 0.00Qw	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
AC3	1.35G + 0.00Qw + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	0.00	A3	Nieve
AC4	1.35G + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A3	Nieve
AC5	1.20G	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
AC6	1.20G + 1.50Qw	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
AC7	1.20G + 1.50Qw + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC8	1.20G + 1.50Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC9	1.20G + 0.00Qw + 1.50Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve
AC10	1.00G	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
AC11	1.00G + 1.00Qw	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A2	Viento
AC12	1.00G + 1.00Qw + 0.00Qs	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A2	Viento
			3	0.00	A3	Nieve
AC13	1.00G + 1.00Qs	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A3	Nieve
AC14	1.00G + 0.00Qw +	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso

2.4 ACTION COMBINATIONS

Action Combin	Action Combination Description	EN 1990 | NEN:2011 Design Situation	No.	Factor	Action	
	+ 1.00Qs					
			2	0.00	A2	Viento
			3	1.00	A3	Nieve
AC15	1.10G	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
AC16	1.10G + 1.50Qw	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
AC17	1.10G + 1.50Qw + 0.00Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC18	1.10G + 1.50Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC19	1.10G + 0.00Qw + 1.50Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve
AC20	0.90G	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
AC21	0.90G + 1.50Qw	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
AC22	0.90G + 1.50Qw + 0.00Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC23	0.90G + 1.50Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC24	0.90G + 0.00Qw + 1.50Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin	Action Combination Description	Parameters		
AC1	1.35G	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
AC2	1.35G + 0.00Qw	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
AC3	1.35G + 0.00Qw + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC4	1.35G + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC5	1.20G	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
AC6	1.20G + 1.50Qw	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	1.50

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
			Action	A2 - Viento
			Factor γ	1.50
			Load Cases	CC3 CC4 CC9 CC10
AC7	1.20G + 1.50Qw + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A2 - Viento
			Factor γ	1.50
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC8	1.20G + 1.50Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC9	1.20G + 0.00Qw + 1.50Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC10	1.00G	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
AC11	1.00G + 1.00Qw	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
		Action 2	Factor	1.00
			Action	A2 - Viento
			Load Cases	CC3 CC4 CC9 CC10
AC12	1.00G + 1.00Qw + 0.00Qs	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
		Action 2	Factor	1.00
			Action	A2 - Viento
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor ψ	0.00
			Load Cases	CC11
AC13	1.00G + 1.00Qs	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
		Action 2	Factor	1.00
			Action	A3 - Nieve
			Load Cases	CC11
AC14	1.00G + 0.00Qw + 1.00Qs	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	1.00
			Action	A3 - Nieve
			Load Cases	CC11
AC15	1.10G	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	1.10
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.10
			Load Cases	CC1 CC2
AC16	1.10G + 1.50Qw	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	1.10
			Action	A1 - Permanente/Sobrecarga de uso

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
AC17	1.10G + 1.50Qw + 0.00Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 0.00
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC11
AC18	1.10G + 1.50Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC19	1.10G + 0.00Qw + 1.50Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 0.00
			Action	: A2 - Viento
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC20	0.90G	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
AC21	0.90G + 1.50Qw	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
AC22	0.90G + 1.50Qw + 0.00Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 0.00
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC11
AC23	0.90G + 1.50Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC24	0.90G + 0.00Qw + 1.50Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
		Action 2	Factor	: 0.00
			Action	: A2 - Viento
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11

2.5 LOAD COMBINATIONS

Load Combin	DS	Load Combination Description	No.	Factor	Load Case
CO1	ULS'	1.35*CC1 + 1.35*CC2 + CC7	1	1.35	LC1 PP
			2	1.35	LC2 CM Paneles
			3	1.00	LC7 Imp X
CO2	ULS'	1.35*CC1 + 1.35*CC2 + CC7 + CC8	1	1.35	LC1 PP
			2	1.35	LC2 CM Paneles
			3	1.00	LC7 Imp X
			4	1.00	LC8 Imp Y
CO3	ULS'	1.35*CC1 + 1.35*CC2 + CC8	1	1.35	LC1 PP
			2	1.35	LC2 CM Paneles
			3	1.00	LC8 Imp Y
CO4	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
			4	1.00	LC7 Imp X
CO5	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO6	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
			4	1.00	LC8 Imp Y
CO7	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
			4	1.00	LC7 Imp X
CO8	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO9	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
			4	1.00	LC8 Imp Y
CO10	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC7 Imp X
CO11	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO12	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC8 Imp Y
CO13	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC7 Imp X
CO14	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO15	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC8 Imp Y
CO16	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC7 Imp X
CO17	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO18	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC8 Imp Y
CO19	S Ch	CC1 + CC2	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
CO20	S Ch	CC1 + CC2 + CC3	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC3 V Presión sup
CO21	S Ch	CC1 + CC2 + CC4	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC4 V Succión sup
CO22	S Ch	CC1 + CC2 + CC9	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC9 V Presión inf
CO23	S Ch	CC1 + CC2 + CC10	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC10 V Succión inf
CO24	S Ch	CC1 + CC2 + CC11	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC11 Nieve
CO25	EQU	1.1*CC1 + 1.1*CC2	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles

2.5 LOAD COMBINATIONS

Load Combin.	DS	Load Combination Description	No.	Factor	Load Case
CO26	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC3	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
CO27	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC4	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
CO28	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC9	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
CO29	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC10	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
CO30	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC11	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC11 Nieve
CO31	EQU	0.9*CC1 + 0.9*CC2	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
CO32	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC3	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
CO33	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC4	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
CO34	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC9	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
CO35	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC10	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
CO36	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC11	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC11 Nieve

2.7 RESULT COMBINATIONS

Result Combin	Description	Loading
RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b	CO1/p or CO2/p or CO3/p or CO4/p or CO5/p or CO6/p or CO7/p or CO8/p or CO9/p or CO10/p or CO11/p or CO12/p or CO13/p or CO14/p or CO15/p or CO16/p or CO17/p or CO18/p
RC2	ELS - Característica	CO19/p or CO20/p or CO21/p or CO22/p or CO23/p or CO24/p
RC3	ELU (EQU) - Permanente / transitoria	CO25/p or CO26/p or CO27/p or CO28/p or CO29/p or CO30/p or CO31/p or CO32/p or CO33/p or CO34/p or CO35/p or CO36/p

4.1 NODES - SUPPORT FORCES

Result Combinations

Node No.	RC		Support Forces [kN] P_X	P_Y	P_Z	Support Moments [kNm] M_X	M_Y	M_Z	
4	RC1	Max	1.81	0.40	4.54	0.11	0.67	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.42	-0.14	-5.18	-0.29	-0.90	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.14	0.21	2.86	0.07	0.43	0.00	ELS - Característica
		Min	-1.68	-0.09	-3.64	-0.16	-0.61	0.00	ELS - Característica
6	RC1	Max	2.37	0.03	4.47	0.14	0.65	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.31	-0.02	-6.68	-0.38	-0.23	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.64	0.01	2.80	0.10	0.45	0.00	ELS - Característica
		Min	-0.14	-0.02	-4.33	-0.19	-0.13	0.00	ELS - Característica
15	RC1	Max	1.89	0.16	5.03	0.18	0.70	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.52	-0.36	-6.06	-0.07	-0.93	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.19	0.11	3.19	0.09	0.44	0.00	ELS - Característica
		Min	-1.74	-0.19	-4.16	-0.05	-0.64	0.00	ELS - Característica
17	RC1	Max	2.55	0.02	4.67	0.13	0.71	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.35	-0.03	-7.04	-0.32	-0.25	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.76	0.01	2.92	0.09	0.49	0.00	ELS - Característica
		Min	-0.16	-0.02	-4.88	-0.18	-0.15	0.00	ELS - Característica
26	RC1	Max	1.93	0.16	4.88	0.18	0.72	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.58	-0.36	-5.56	-0.08	-0.96	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.21	0.11	3.08	0.09	0.45	0.00	ELS - Característica
		Min	-1.79	-0.19	-3.90	-0.05	-0.66	0.00	ELS - Característica
28	RC1	Max	2.57	0.02	4.79	0.13	0.71	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.37	-0.03	-7.17	-0.32	-0.26	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.78	0.02	2.99	0.09	0.49	0.00	ELS - Característica
		Min	-0.17	-0.02	-4.97	-0.18	-0.15	0.00	ELS - Característica
48	RC1	Max	1.67	0.41	4.50	0.11	0.62	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.25	-0.15	-5.48	-0.30	-0.83	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.05	0.21	2.85	0.07	0.39	0.00	ELS - Característica
		Min	-1.56	-0.10	-3.76	-0.16	-0.57	0.00	ELS - Característica

4.1 NODES - SUPPORT FORCES

Result Combinations

Node No.	RC		Support Forces [kN] P_X	P_Y	P_Z	Support Moments [kNm] M_X	M_Y	M_Z	
50	RC1	Max	2.29	0.04	4.14	0.15	0.67	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.34	-0.02	-6.33	-0.34	-0.26	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.59	0.02	2.58	0.10	0.46	0.00	ELS - Característica
		Min	-0.16	-0.01	-4.38	-0.19	-0.15	0.00	ELS - Característica
71	RC1	Max	1.92	0.08	5.00	0.02	0.71	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.56	-0.15	-5.81	-0.02	-0.95	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.21	0.05	3.17	0.01	0.45	0.00	ELS - Característica
		Min	-1.77	-0.08	-4.04	-0.01	-0.65	0.00	ELS - Característica
73	RC1	Max	2.56	0.02	4.75	0.13	0.71	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.36	-0.03	-7.13	-0.32	-0.26	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.77	0.01	2.97	0.09	0.49	0.00	ELS - Característica
		Min	-0.17	-0.02	-4.94	-0.18	-0.15	0.00	ELS - Característica

RF-STEEL EC3
CA1
Cálculo de barras de acero según Eurocódigo 3

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	All	
National Annex:	NEN	
Ultimate Limit State Design		
Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC3	ELU (EQU) - Permanente / transitoria
Serviceability Limit State Design		
Result combinations to design:	RC2	ELS - Característica

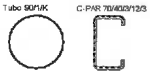
1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
1	Acero S 235 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	23.50	16.0
					22.50	40.0
					21.50	100.0
					19.50	150.0
					18.50	200.0
					17.50	250.0
2	S280GD 1.0244 | EN 10346:2009-03	21000.00	8076.92	0.300	28.00	
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	
5	Acero S 355 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	35.50	3.0
					35.50	16.0
					34.50	40.0
					33.50	63.0
					32.50	80.0
					31.50	100.0
					29.50	150.0
					28.50	200.0



1.3 CROSS-SECTIONS

Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
1	4	C-PAR 98/38/1.5/12/1.5	General	0.58	Dintel
2	2	Tubo 40/1.5/K	Pipe	0.29	Diagonal
3	4	C-PAR 76/46/1.5/12/3	General	0.44	Pilar sup
4	4	C-PAR 58/31/1.2/12/2.4	General	0.22	Riostra
5	1	Tubo 90/1/K	Pipe	0.76	Pilar inf
7	4	C-PAR 58/31/1.2/12/2.4	General	0.66	Correa
8	5	C-PAR 70/40/3/12/3	General	0.32	Pilar inf 2
9	2	Tubo 40/1.5/K	Pipe	0.69	



2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
1	Dintel (Member No. 1,133,136,6,10,94,158,16,143)						
	94	0.382	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	6	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	1	0.481	CR1	0.26	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	136	0.252	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 -

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							- Class 3
	133	0.451	CR3	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	143	0.250	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	6	0.000	CR1	0.16	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	6	0.000	CR1	0.24	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	6	0.000	CR1	0.16	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	1	0.481	CR1	0.26	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	158	0.198	CR3	0.22	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	136	0.252	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	1	0.619	CR3	0.43	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	133	0.000	CR1	0.53	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	6	0.530	CR3	0.34	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	133	0.045	CR3	0.41	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	136	0.000	CR3	0.03	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	158	0.397	CR1	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	1	0.688	CR1	0.50	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	133	0.000	CR1	0.53	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	133	0.000	CR1	0.54	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	1	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	10	0.683	CR2	0.18	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	10	0.911	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
2	**Pilar trasero (Member No. 134,22,95,43)**						
	134	0.319	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	43	0.000	CR3	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	43	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	22	0.019	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	134	0.000	CR3	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	43	0.000	CR1	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	43	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	43	0.000	CR1	0.13	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	22	0.190	CR1	0.12	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	95	0.189	CR1	0.15	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	22	0.190	CR1	0.14	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	22	0.019	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	134	0.000	CR3	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	95	0.210	CR3	0.08	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	43	0.250	CR3	0.32	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	134	1.435	CR1	0.11	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	22	0.019	CR1	0.11	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	134	0.000	CR3	0.08	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	95	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	134	1.594	CR1	0.12	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	43	0.250	CR1	0.73	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	95	0.210	CR1	0.19	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - G

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	95	0.210	CR1	0.22	≤ 1	CS271)	General cross-section Cross-section check - Axial stress and torsion - Elastic design
	134	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	134	1.275	CR2	0.13	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	134	0.957	CR2	0.12	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
3	**Pilar delantero (Member No. 135,5,20)**						
	20	0.000	CR3	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	20	0.250	CR1	0.10	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	20	0.000	CR1	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	135	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	135	0.634	CR1	0.12	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	135	0.634	CR1	0.15	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	135	0.564	CR1	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	5	0.000	CR3	0.05	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	5	0.000	CR3	0.04	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	20	0.000	CR1	0.06	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	135	0.000	CR3	0.16	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	20	0.050	CR1	0.08	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	5	0.189	CR1	0.21	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	5	0.000	CR1	0.32	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	20	0.250	CR1	0.60	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	135	0.704	CR1	0.41	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	135	0.704	CR1	0.43	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	135	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	135	0.634	CR2	0.14	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	135	0.564	CR2	0.32	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
4	**Dintel (Member No. 7,137,147,12,30,97,160,32,148)**						
	97	0.305	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	12	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	7	0.619	CR3	0.34	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	148	0.225	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	137	0.451	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	148	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	12	0.000	CR1	0.17	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	12	0.000	CR1	0.26	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	12	0.000	CR1	0.18	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	7	0.619	CR3	0.34	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	160	0.159	CR3	0.24	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	148	0.225	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	7	0.550	CR3	0.40	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	137	0.000	CR1	0.55	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	97	0.000	CR3	0.21	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	137	0.090	CR3	0.38	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	32	0.000	CR1	0.04	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	12	0.212	CR1	0.08	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	7	0.688	CR1	0.51	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General c

2.3 DESIGN BY SET OF MEMBERS

Set No	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							cross-section
	137	0.000	CR1	0.55	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	137	0.000	CR1	0.55	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	7	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	12	0.424	CR2	0.19	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	30	0.911	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
5	**Pilar trasero (Member No. 138,34,98,44)**						
	44	0.000	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	44	0.250	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	34	1.173	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	34	0.000	CR3	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	44	0.000	CR1	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	44	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	44	0.000	CR1	0.14	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	98	0.000	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	98	0.000	CR1	0.17	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	98	0.000	CR1	0.11	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	34	1.173	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	34	0.000	CR3	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	98	0.210	CR1	0.08	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	44	0.250	CR3	0.34	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	98	0.210	CR3	0.07	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	98	0.000	CR3	0.10	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	138	0.048	CR3	0.09	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	98	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	138	0.481	CR1	0.30	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	44	0.250	CR1	0.75	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	98	0.210	CR1	0.18	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	98	0.210	CR1	0.21	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	138	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	34	0.782	CR2	0.13	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	34	0.391	CR2	0.34	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
6	**Pilar delantero (Member No. 139,17,21)**						
	21	0.000	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	21	0.250	CR1	0.11	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	17	0.000	CR3	0.04	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	21	0.000	CR1	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	139	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	21	0.250	CR1	0.01	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	139	0.634	CR1	0.13	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	139	0.634	CR1	0.16	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	139	0.564	CR1	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	17	0.000	CR3	0.04	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	17	0.000	CR3	0.05	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	17	0.000	CR1	0.04	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	21	0.000	CR1	0.05	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	139	0.000	CR3	0.16	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	21	0.025	CR1	0.08	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	17	0.189	CR1	0.21	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	17	0.000	CR1	0.32	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	21	0.250	CR1	0.64	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	139	0.704	CR1	0.41	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	139	0.704	CR1	0.43	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	139	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	139	0.634	CR2	0.15	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	139	0.564	CR2	0.32	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**						
	101	0.305	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	14	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	13	0.619	CR1	0.36	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	150	0.225	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	140	0.451	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	150	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	14	0.000	CR1	0.17	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	14	0.000	CR1	0.26	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	14	0.000	CR1	0.18	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	13	0.619	CR1	0.36	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	162	0.119	CR3	0.24	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	150	0.225	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	13	0.550	CR3	0.41	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	140	0.000	CR1	0.56	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	101	0.000	CR1	0.21	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	140	0.090	CR3	0.39	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	39	0.000	CR1	0.04	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	14	0.212	CR1	0.08	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	13	0.688	CR1	0.52	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	140	0.000	CR1	0.56	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	140	0.000	CR1	0.56	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	13	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	14	0.424	CR2	0.19	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	37	0.911	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
8	**Pilar trasero (Member No. 141,19,100,45)**						
	45	0.000	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	45	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	19	1.173	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	141	0.481	CR3	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	45	0.000	CR1	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	45	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	45	0.000	CR1	0.14	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	100	0.000	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	100	0.000	CR1	0.17	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	100	0.000	CR1	0.11	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	19	1.173	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6

2.3 DESIGN BY SET OF MEMBERS

Set No	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	141	0.481	CR3	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	100	0.210	CR1	0.08	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	45	0.250	CR3	0.34	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	100	0.210	CR3	0.07	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	45	0.000	CR3	0.17	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	100	0.000	CR3	0.10	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	141	0.049	CR3	0.09	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	100	0.084	CR1	0.05	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	19	0.000	CR1	0.31	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	45	0.250	CR1	0.76	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	100	0.210	CR1	0.18	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	100	0.210	CR1	0.21	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	141	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	19	0.782	CR2	0.14	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	19	0.391	CR2	0.35	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
9	**Pilar delantero (Member No. 142,29,41)**						
	41	0.000	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	41	0.250	CR1	0.11	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	41	0.000	CR1	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	142	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	41	0.250	CR1	0.02	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	142	0.634	CR1	0.13	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	142	0.634	CR1	0.16	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	142	0.564	CR1	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	29	0.000	CR3	0.05	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	29	0.000	CR3	0.04	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	41	0.000	CR1	0.05	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	142	0.000	CR1	0.14	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	41	0.025	CR1	0.08	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	29	0.169	CR1	0.21	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	29	0.000	CR1	0.32	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	41	0.250	CR1	0.64	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	142	0.704	CR1	0.42	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	142	0.704	CR1	0.44	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	142	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	142	0.634	CR2	0.15	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	142	0.564	CR2	0.32	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
10	**Dintel (Member No. 25,144,152,15,50,106,165,52,153)**						
	165	0.382	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	15	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	25	0.481	CR3	0.23	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	153	0.250	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	144	0.451	CR3	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	153	0.250	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	15	0.000	CR1	0.15	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	15	0.000	CR1	0.23	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	15	0.000	CR1	0.16	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	25	0.481	CR3	0.23	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	165	0.159	CR3	0.22	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	153	0.250	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	25	0.619	CR3	0.40	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	144	0.000	CR1	0.51	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	15	0.530	CR3	0.33	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	144	0.000	CR3	0.42	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	106	0.382	CR1	0.04	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	15	0.212	CR1	0.07	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	25	0.688	CR1	0.48	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	144	0.000	CR1	0.51	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	144	0.000	CR1	0.52	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	25	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	15	0.424	CR2	0.18	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	50	0.911	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
11	Pilar trasero (Member No. 145,54,107,46)						
	145	0.478	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	46	0.000	CR3	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	46	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	54	0.019	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	145	0.000	CR3	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	46	0.000	CR1	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	46	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	46	0.000	CR1	0.12	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	54	0.190	CR1	0.12	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	107	0.189	CR1	0.14	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	54	0.190	CR1	0.14	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	54	0.019	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	145	0.000	CR3	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	107	0.210	CR3	0.08	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	46	0.250	CR3	0.31	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	145	1.435	CR1	0.10	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	54	0.019	CR1	0.11	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	145	0.000	CR3	0.08	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	107	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	107	0.210	CR1	0.12	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	46	0.250	CR1	0.69	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	107	0.210	CR1	0.18	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	107	0.210	CR1	0.21	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	145	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	145	1.275	CR2	0.12	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	145	0.957	CR2	0.11	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
12	**Pilar delantero (Member No. 146,116,42)**						
	42	0.000	CR3	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	42	0.250	CR1	0.10	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	116	0.000	CR3	0.04	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	42	0.125	CR3	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	42	0.000	CR1	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	146	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	146	0.634	CR1	0.11	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	146	0.634	CR1	0.14	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	146	0.564	CR1	0.12	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	116	0.000	CR3	0.04	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	42	0.125	CR3	0.01	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	116	0.000	CR3	0.04	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	42	0.250	CR3	0.04	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	116	0.000	CR1	0.04	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	42	0.000	CR1	0.04	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	146	0.000	CR3	0.15	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	42	0.026	CR1	0.08	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	116	0.189	CR1	0.22	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	116	0.000	CR1	0.31	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	42	0.250	CR1	0.59	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	146	0.704	CR1	0.40	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	146	0.704	CR1	0.41	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	146	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	146	0.634	CR2	0.14	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	146	0.564	CR2	0.32	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
13	**Correas (Member No. 73,55,56,123,58,59)**						
	73	0.156	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	58	0.000	CR3	0.36	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	56	1.523	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	55	0.000	CR3	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	58	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	58	0.000	CR3	0.36	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	56	1.523	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	55	0.000	CR1	0.56	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	73	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	73	0.780	CR2	0.41	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	73	0.780	CR2	0.28	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
14	**Correas (Member No. 74,60,61,124,63,64)**						
	74	0.156	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	60	0.000	CR1	0.38	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	61	1.523	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	60	0.000	CR3	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	60	1.904	CR3	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	60	0.000	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	60	0.000	CR1	0.18	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	60	0.000	CR1	0.11	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							6.2.7(5)
	60	0.000	CR1	0.38	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	61	1.523	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	60	1.904	CR3	0.49	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	124	1.903	CR1	0.51	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	124	1.903	CR1	0.51	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	74	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	74	0.780	CR2	0.43	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	63	1.904	CR2	0.38	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
15	Correas (Member No. 75,65,66,125,68,69)						
	75	0.156	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	68	0.000	CR3	0.36	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	66	1.523	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	65	0.000	CR3	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	65	1.904	CR3	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	65	0.000	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	65	0.000	CR1	0.19	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	65	0.000	CR1	0.11	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	68	0.000	CR3	0.36	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	66	1.523	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	65	1.904	CR3	0.49	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	66	1.903	CR1	0.51	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	66	1.903	CR1	0.51	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	75	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	75	0.780	CR2	0.42	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	68	1.904	CR2	0.39	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
16	Correas (Member No. 76,70,71,126,79,80)						
	76	0.156	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	126	1.903	CR3	0.29	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	79	0.381	CR3	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	70	0.000	CR3	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	70	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	126	1.903	CR3	0.29	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	79	0.381	CR3	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	70	0.000	CR1	0.58	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	76	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	70	0.000	CR2	0.41	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	76	0.780	CR2	0.31	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
17	Correas (Member No. 77,81,82,127,84,85)						
	85	0.624	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	127	1.903	CR1	0.24	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	127	1.523	CR1	0.06	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	81	0.000	CR3	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	81	0.190	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	84	0.000	CR1	0.11	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	84	0.000	CR1	0.20	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	84	0.000	CR1	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	127	1.903	CR1	0.24	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6

2.3 DESIGN BY SET OF MEMBERS

Set No	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
							6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	127	1.523	CR1	0.06	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	81	0.000	CR3	0.40	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	81	0.000	CR1	0.65	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	81	0.000	CR1	0.66	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	77	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	77	0.780	CR2	0.43	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	81	0.190	CR2	0.44	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
18	**Correas (Member No. 78,86,87,129,131,130)**						
	78	0.156	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	87	1.903	CR3	0.22	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	129	1.523	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	86	0.000	CR3	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	131	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	86	0.000	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	86	0.000	CR1	0.19	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	86	0.000	CR1	0.12	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	87	1.903	CR3	0.22	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	129	1.523	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	131	0.000	CR1	0.57	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	86	0.000	CR1	0.63	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	86	0.000	CR1	0.64	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	78	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	78	0.780	CR2	0.43	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	86	0.190	CR2	0.45	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
19	**Riostras (Member No. 90)**						
	90	0.221	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	90	2.208	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	90	0.000	CR3	0.01	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	90	1.103	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	90	2.208	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	90	1.103	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	0.000	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	1.103	CR1	0.01	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	2.208	CR1	0.05	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	90	1.323	CR1	0.05	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	90	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	90	1.103	CR2	0.03	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	90	1.103	CR2	0.20	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
20	**Riostras (Member No. 91)**						
	91	1.985	CR3	0.00	≤ 1	CS100)	Negligible internal forces
	91	0.000	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	91	2.205	CR1	0.01	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	91	1.103	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	91	0.000	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	91	2.205	CR1	0.00	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	91	1.103	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	91	0.000	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General c

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	91	1.103	CR1	0.02	≤ 1	CS163)	cross-section Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	91	0.000	CR1	0.05	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	91	1.103	CR1	0.07	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	91	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	91	1.103	CR2	0.03	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	91	1.103	CR2	0.22	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
21	**Diagonal B (Member No. 93)**						
	93	1.951	CR3	0.06	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	93	0.000	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	93	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	93	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	93	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	93	1.951	CR3	0.15	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	93	1.366	CR1	0.06	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	93	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	93	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	93	1.170	CR2	0.61	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
22	**Diagonal B (Member No. 96)**						
	96	1.951	CR3	0.06	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	96	0.000	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	96	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	96	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	96	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	96	1.951	CR3	0.15	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	96	1.366	CR1	0.07	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	96	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	96	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	96	0.975	CR2	0.67	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
23	**Diagonal B (Member No. 99)**						
	99	1.951	CR3	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	99	0.000	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	99	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	99	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	99	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	99	1.951	CR3	0.15	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	99	1.366	CR1	0.07	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	99	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	99	0.975	CR2	0.05	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	99	0.975	CR2	0.69	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
24	**Diagonal B (Member No. 105)**						
	105	1.951	CR3	0.06	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	105	0.000	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	105	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	105	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	105	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	105	1.951	CR3	0.15	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	105	1.366	CR1	0.05	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	105	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	105	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	105	1.170	CR2	0.56	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
25	**Diagonal B (Member No. 108)**						
	108	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	108	1.417	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	108	0.992	CR1	0.00	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	108	0.000	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	108	0.709	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	108	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	108	1.417	CR1	0.01	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	108	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	108	0.992	CR1	0.00	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	108	0.000	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	108	0.142	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	108	0.000	CR1	0.03	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	108	0.000	CR1	0.09	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	108	0.709	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	108	0.709	CR1	0.02	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	108	0.709	CR1	0.27	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	108	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	108	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	108	0.709	CR2	0.25	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
26	**Diagonal B (Member No. 109)**						
	109	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	109	1.417	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	109	0.850	CR3	0.00	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	109	0.000	CR3	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	109	0.709	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	109	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	109	1.417	CR1	0.01	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	109	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	109	0.850	CR3	0.00	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	109	0.000	CR3	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	109	0.283	CR3	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	109	0.992	CR1	0.01	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	109	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	109	0.000	CR1	0.10	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	109	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	109	0.709	CR1	0.02	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	109	0.709	CR1	0.29	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	109	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	109	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	109	0.709	CR2	0.27	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
27	**Diagonal B (Member No. 110)**						
	110	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	110	1.417	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	110	0.850	CR3	0.00	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	110	0.000	CR3	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	110	0.709	CR1	0.11	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	110	0.000	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	110	1.417	CR1	0.01	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	110	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	110	0.850	CR3	0.00	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	110	0.000	CR3	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	110	0.283	CR3	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	110	0.992	CR1	0.01	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	110	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	110	0.000	CR1	0.10	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	110	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	110	0.709	CR1	0.02	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	110	0.709	CR1	0.29	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	110	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	110	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No	Location x [m]	LC/CO/ RC	Design		Equation No	Description
	110	0.709	CR2	0.27	≤ 1	SE406)	z-direction Serviceability - Combination of actions 'Characteristic' - y-direction
28	**Diagonal B (Member No. 112)**						
	112	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	112	1.417	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	112	0.850	CR3	0.00	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	112	0.000	CR3	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	112	0.709	CR1	0.09	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	112	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	112	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	112	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	112	0.850	CR3	0.00	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	112	0.000	CR3	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	112	0.283	CR3	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	112	1.134	CR1	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	112	0.000	CR1	0.03	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	112	0.000	CR1	0.08	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	112	0.709	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	112	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	112	0.709	CR1	0.25	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	112	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	112	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	112	0.709	CR2	0.24	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
29	**Dintel (Member No. 47,151,156,18,102,120,171,104,163)**						
	120	0.305	CR3	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	18	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	47	0.619	CR3	0.34	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	163	0.250	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	151	0.451	CR3	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	163	0.250	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	18	0.000	CR1	0.17	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	18	0.000	CR1	0.26	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	18	0.000	CR1	0.18	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	47	0.619	CR3	0.34	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	171	0.119	CR3	0.24	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	163	0.250	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	47	0.550	CR3	0.41	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	151	0.000	CR1	0.56	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	18	0.053	CR3	0.21	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	151	0.090	CR3	0.39	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	156	0.000	CR1	0.04	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	18	0.212	CR1	0.08	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	47	0.688	CR1	0.52	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	151	0.000	CR1	0.56	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	151	0.000	CR1	0.56	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	47	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	18	0.424	CR2	0.19	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	102	0.911	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
							y-direction
30	**Pilar trasero (Member No. 155,119,114)**						
	114	0.000	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	114	0.250	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	155	0.535	CR1	0.00	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	155	0.000	CR3	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	114	0.000	CR1	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	114	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	114	0.000	CR1	0.14	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	119	0.210	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	119	0.210	CR1	0.17	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	119	0.189	CR1	0.10	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	155	0.535	CR1	0.00	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	155	0.000	CR3	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	119	0.210	CR3	0.08	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	114	0.250	CR3	0.34	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	155	1.606	CR1	0.03	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	114	0.225	CR1	0.70	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	155	0.000	CR3	0.09	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	119	0.084	CR3	0.04	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	155	1.784	CR1	0.15	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	114	0.250	CR1	0.74	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	119	0.210	CR1	0.13	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	119	0.210	CR1	0.20	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	155	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	155	1.249	CR2	0.13	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	155	1.071	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
31	**Pilar delantero (Member No. 154,72,113)**						
	113	0.000	CR3	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	113	0.250	CR1	0.11	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	72	0.000	CR3	0.04	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	113	0.000	CR1	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	154	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	113	0.250	CR1	0.01	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	154	0.634	CR1	0.13	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	154	0.634	CR1	0.16	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	154	0.584	CR1	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	72	0.000	CR3	0.04	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	72	0.000	CR3	0.05	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	72	0.000	CR1	0.04	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	113	0.000	CR1	0.05	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	154	0.000	CR1	0.16	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	113	0.150	CR3	0.01	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	72	0.189	CR1	0.21	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	72	0.000	CR1	0.32	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	113	0.250	CR1	0.64	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	154	0.704	CR1	0.42	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	154	0.704	CR1	0.44	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	154	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	154	0.634	CR2	0.15	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	154	0.564	CR2	0.32	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
32	**Diagonal B (Member No. 118)**						
	118	1.951	CR3	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	118	0.000	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	118	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	118	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	118	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	118	1.951	CR1	0.10	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	118	1.366	CR1	0.07	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	118	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	118	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	118	0.975	CR2	0.67	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
33	**Diagonal B (Member No. 121)**						
	121	0.000	CR3	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	121	1.417	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	121	0.850	CR3	0.00	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	121	0.000	CR3	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	121	0.709	CR1	0.11	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	121	0.000	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	121	1.417	CR1	0.01	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	121	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	121	0.850	CR3	0.00	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	121	0.000	CR3	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	121	0.283	CR3	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	121	0.992	CR1	0.01	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	121	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	121	0.000	CR1	0.10	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	121	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	121	0.709	CR1	0.02	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	121	0.709	CR1	0.29	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	121	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	121	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	121	0.709	CR2	0.27	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
1	**Dintel (Member No. 1,133,136,6,10,94,158,16,143)**								
	0.382	CR3	0.77	0.00	0.77	0.00	0.44	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.95	0.09	2.06	0.00	-0.42	-0.05	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.481	CR1	0.07	-0.01	-1.60	0.00	-0.77	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.252	CR1	-0.19	-0.01	0.54	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.56	0.00	-2.81	0.00	0.06	-0.01	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-0.46	-0.11	1.91	0.00	0.03	0.02	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-2.94	0.09	2.06	0.00	-0.42	-0.05	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-2.94	0.09	2.06	0.00	-0.42	-0.05	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-2.94	0.09	2.06	0.00	-0.42	-0.05	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.481	CR1	0.07	-0.01	-1.60	0.00	-0.77	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.198	CR3	0.15	0.03	-0.45	0.00	0.65	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.252	CR1	-0.19	-0.01	0.54	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.619	CR3	0.04	-0.02	1.92	0.00	1.19	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.17	0.08	2.04	0.00	-1.35	0.07	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.530	CR3	0.67	0.00	-0.94	0.00	-0.98	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.045	CR3	0.55	0.03	-2.81	0.00	1.20	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	-0.23	-0.02	0.17	0.00	0.00	-0.02	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.397	CR1	0.38	-0.04	1.19	0.00	0.00	0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.698	CR1	0.44	-0.04	-1.93	0.00	-1.35	0.04	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.22	0.08	2.03	0.00	-1.35	0.07	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.22	0.08	2.03	0.00	-1.35	0.07	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.683	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
2	**Pilar trasero (Member No. 134,22,95,43)**								
	0.319	CR1	0.03	0.00	0.02	0.00	0.01	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	4.78	-0.14	1.89	0.00	0.24	0.08	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.18	0.33	-2.42	-0.01	-0.90	-0.25	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.019	CR1	0.06	0.12	0.01	0.00	0.02	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.14	0.00	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.17	0.34	-2.46	-0.01	-0.29	-0.17	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.11	0.40	-2.44	-0.01	-0.29	-0.19	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.11	0.38	-2.46	-0.01	-0.29	-0.19	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.190	CR1	-2.08	0.49	0.11	0.00	0.23	-0.09	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.189	CR1	-5.12	0.40	-2.43	-0.01	-0.23	-0.18	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.190	CR1	-2.08	0.49	0.11	0.00	0.23	-0.09	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.019	CR1	0.06	0.12	0.01	0.00	0.02	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.14	0.00	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR3	0.01	-0.03	0.89	0.00	0.23	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.01	-0.03	0.89	0.00	0.46	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.435	CR1	-2.40	-0.06	0.10	0.00	0.19	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.019	CR1	-2.14	0.42	0.10	0.00	0.21	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	2.60	0.07	-0.09	0.00	0.00	0.09	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.684	CR1	-4.15	0.23	-1.76	-0.01	0.00	-0.09	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.594	CR1	-2.40	-0.06	0.10	0.00	0.21	0.01	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-5.12	0.40	-2.42	-0.01	-0.90	-0.29	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-5.11	0.40	-2.44	-0.01	-0.29	-0.19	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-5.11	0.40	-2.44	-0.01	-0.29	-0.19	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.275	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.957	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
3	**Pilar delantero (Member No. 135,5,20)**								
	0.000	CR3	4.76	0.01	0.50	0.00	0.49	0.15	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-6.88	0.02	2.37	0.01	0.64	-0.29	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-6.87	0.03	2.38	0.00	0.05	-0.29	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.92	0.21	-0.66	0.00	0.00	-0.15	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.634	CR1	-3.94	0.11	-0.64	0.00	-0.41	-0.25	CS131)
	Cross-section check - Torsion acc. to 6.2.7								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.634	CR1	-3.94	0.11	-0.64	0.00	-0.41	-0.25	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.94	0.12	-0.65	0.00	-0.37	-0.24	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	-0.15	-0.02	-0.40	0.00	0.16	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	-0.33	-0.02	-0.34	0.00	0.14	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.43	-0.03	-0.31	0.00	0.07	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	4.72	0.06	0.55	0.00	0.00	0.18	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.050	CR1	-1.52	0.03	0.82	0.00	0.00	-0.08	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.189	CR1	-6.67	0.03	2.37	0.01	0.00	-0.33	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-6.65	0.01	2.37	0.00	-0.46	-0.33	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-6.68	0.02	2.37	0.01	0.64	-0.33	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.95	0.09	-0.64	0.00	-0.46	-0.26	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.95	0.09	-0.64	0.00	-0.46	-0.26	CS271)
	Cross-section check - Axial siress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
4	**Dintel (Member No. 7,137,147,12,30,97,160,32,148)**								
	0.305	CR3	0.79	0.01	0.82	0.00	0.41	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.09	0.12	2.17	0.00	-0.46	-0.05	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.619	CR3	0.05	-0.01	-1.60	0.00	-0.99	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.225	CR1	-0.07	0.04	0.30	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.60	0.02	-2.96	0.00	0.05	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.46	0.20	2.00	0.00	-0.46	0.08	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.09	0.13	2.17	0.00	-0.46	-0.05	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.09	0.13	2.17	0.00	-0.46	-0.05	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-3.09	0.13	2.17	0.00	-0.46	-0.05	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.619	CR3	0.05	-0.01	-1.60	0.00	-0.99	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.159	CR3	0.14	0.04	-0.48	0.00	0.71	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.225	CR1	-0.07	0.04	0.30	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.550	CR3	0.05	-0.02	2.02	0.00	1.11	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.08	2.13	0.00	-1.41	0.06	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.59	-0.03	1.46	0.00	-0.61	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.59	0.05	-2.96	0.00	1.12	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	0.49	-0.07	-0.44	0.00	0.00	-0.02	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-3.08	0.09	2.17	0.00	0.00	-0.08	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.688	CR1	0.48	-0.03	-2.02	0.00	-1.42	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.23	0.08	2.11	0.00	-1.41	0.06	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.23	0.08	2.11	0.00	-1.41	0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.424	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
5	**Pilar trasero (Member No. 138,34,98,44)**								
	0.000	CR3	5.30	0.16	1.98	0.00	0.24	-0.03	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-6.06	-0.36	-2.51	-0.01	-0.92	0.18	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	1.173	CR1	-0.08	-0.03	0.01	0.00	0.03	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.07	-0.03	0.01	0.00	0.00	-0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.97	-0.30	-2.57	-0.01	-0.30	0.07	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR1	-6.04	-0.40	-2.53	-0.01	-0.29	0.09	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-6.03	-0.40	-2.57	-0.01	-0.30	0.09	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.000	CR1	-6.03	-0.44	-2.52	-0.01	0.24	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-6.02	-0.44	-2.55	-0.01	0.24	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-6.03	-0.44	-2.52	-0.01	0.24	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.173	CR1	-0.08	-0.03	0.01	0.00	0.03	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.07	-0.03	0.01	0.00	0.00	-0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	-0.20	-0.03	0.85	0.00	0.24	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.05	0.01	0.95	0.00	0.49	0.01	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.210	CR3	-1.29	-0.06	-1.09	0.00	-0.21	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	-5.99	-0.33	-2.49	-0.01	0.24	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.048	CR3	2.73	-0.09	-0.09	0.00	0.00	0.10	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.77	-0.27	-1.84	-0.01	0.00	0.03	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.481	CR1	-2.48	0.38	0.15	0.00	0.07	-0.28	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-6.04	-0.36	-2.52	-0.01	-0.93	0.18	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-6.03	-0.36	-2.54	-0.01	-0.30	0.09	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-6.03	-0.36	-2.54	-0.01	-0.30	0.09	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.782	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Charactenstic' - z-direction								
	0.391	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
6	**Pilar delantero (Member No. 139,17,21)**								
	0.000	CR3	4.97	0.02	0.56	0.00	0.53	0.15	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-7.04	0.00	2.55	0.01	0.71	-0.32	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR3	-0.32	-0.03	-0.39	0.00	0.15	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-7.03	0.01	2.55	0.01	0.07	-0.28	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.10	0.20	-0.68	0.00	0.00	-0.15	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-4.71	-0.05	0.27	0.00	-0.25	-0.20	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-4.12	0.09	-0.66	0.00	-0.42	-0.25	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.634	CR1	-4.12	0.09	-0.66	0.00	-0.42	-0.25	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-4.12	0.10	-0.67	0.00	-0.38	-0.24	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	-0.32	-0.03	-0.39	0.00	0.15	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	-0.13	-0.03	-0.46	0.00	0.16	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.42	-0.03	-0.36	0.00	0.14	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.43	-0.03	-0.36	0.00	0.07	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	4.86	0.08	0.56	0.00	0.00	0.18	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.025	CR1	-1.61	0.02	0.91	0.00	0.00	-0.08	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.189	CR1	-7.01	0.01	2.55	0.01	0.01	-0.33	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-7.00	-0.02	2.54	0.00	-0.47	-0.33	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-7.04	0.00	2.55	0.01	0.71	-0.32	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-4.12	0.09	-0.66	0.00	-0.47	-0.26	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-4.12	0.08	-0.66	0.00	-0.47	-0.26	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**								
	0.305	CR3	0.61	0.01	0.83	0.00	0.42	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No
	0.000	CR1	-3.13	0.12	2.21	0.00	-0.46	-0.05	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.619	CR1	0.08	-0.02	-1.72	0.00	-1.06	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.225	CR1	-0.07	0.03	0.30	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.61	0.03	-3.02	0.00	0.06	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.48	0.20	2.05	0.00	-0.48	0.08	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.13	0.13	2.21	0.00	-0.46	-0.05	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.13	0.13	2.21	0.00	-0.46	-0.05	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-3.13	0.13	2.21	0.00	-0.46	-0.05	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.619	CR1	0.08	-0.02	-1.72	0.00	-1.06	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.119	CR3	0.14	0.04	-0.44	0.00	0.72	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.225	CR1	-0.07	0.03	0.30	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.550	CR3	0.05	-0.02	2.07	0.00	1.14	0.03	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.08	2.18	0.00	-1.44	0.06	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.57	-0.03	1.46	0.00	-0.61	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.60	0.06	-3.02	0.00	1.15	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	0.50	-0.07	-0.46	0.00	0.00	-0.02	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-3.13	0.08	2.20	0.00	0.01	-0.08	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.688	CR1	0.48	-0.02	-2.06	0.00	-1.45	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.23	0.08	2.17	0.00	-1.44	0.06	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.23	0.08	2.17	0.00	-1.44	0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.424	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
8	**Pilar trasero (Member No. 141,19,100,45)**								
	0.000	CR3	5.14	0.17	2.02	0.00	0.25	-0.04	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.56	-0.30	-2.58	-0.01	-0.96	0.14	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	1.173	CR1	0.07	-0.03	0.01	0.00	0.03	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.481	CR3	0.15	0.08	0.01	0.00	0.00	-0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.54	-0.30	-2.63	-0.01	-0.31	0.07	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.50	-0.39	-2.59	-0.01	-0.30	0.09	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.49	-0.39	-2.63	-0.01	-0.31	0.09	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.000	CR1	-5.49	-0.44	-2.58	-0.01	0.25	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-5.48	-0.44	-2.61	-0.01	0.24	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-5.49	-0.44	-2.58	-0.01	0.25	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.173	CR1	0.07	-0.03	0.01	0.00	0.03	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.481	CR3	0.15	0.08	0.01	0.00	0.00	-0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	-0.20	-0.03	0.86	0.00	0.24	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.02	0.01	0.97	0.00	0.49	0.01	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.210	CR3	-1.19	-0.06	-1.11	0.00	-0.22	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	-1.19	-0.06	-1.11	0.00	-0.22	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	-5.47	-0.34	-2.55	-0.01	0.24	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.048	CR3	2.80	-0.09	-0.10	0.00	0.00	0.10	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.44	-0.27	-1.88	-0.01	0.00	0.03	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-2.23	-0.22	0.14	0.00	0.07	-0.28	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-5.50	-0.36	-2.58	-0.01	-0.96	0.18	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-5.49	-0.36	-2.60	-0.01	-0.31	0.09	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.210	CR1	-5.49	-0.36	-2.60	-0.01	-0.31	0.09	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.782	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.391	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
9	**Pilar delantero (Member No. 142,29,41)**								
	0.000	CR3	5.09	0.03	0.56	0.00	0.53	0.15	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-7.17	0.00	2.57	0.01	0.71	-0.28	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-7.16	0.00	2.58	0.01	0.07	-0.28	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.20	0.19	-0.70	0.00	0.00	-0.16	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-4.81	-0.06	0.28	0.00	-0.26	-0.20	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-4.22	0.09	-0.68	0.00	-0.43	-0.25	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.634	CR1	-4.22	0.09	-0.68	0.00	-0.43	-0.25	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-4.21	0.10	-0.68	0.00	-0.39	-0.24	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	-0.13	-0.03	-0.47	0.00	0.16	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	-0.33	-0.03	-0.40	0.00	0.15	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.44	-0.03	-0.37	0.00	0.07	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR1	-4.20	0.10	-0.70	0.00	0.00	-0.16	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.025	CR1	-1.64	0.02	0.92	0.00	0.00	-0.08	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.189	CR1	-7.14	0.00	2.57	0.01	0.00	-0.33	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-7.13	-0.02	2.57	0.00	-0.48	-0.33	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-7.17	-0.01	2.57	0.01	0.70	-0.32	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-4.22	0.07	-0.68	0.00	-0.48	-0.26	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-4.22	0.07	-0.68	0.00	-0.48	-0.26	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
10	**Dintel (Member No. 25,144,152,15,50,106,165,52,153)**								
	0.382	CR3	0.69	0.00	0.75	0.00	0.44	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.74	0.09	1.95	0.00	-0.42	-0.05	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.481	CR3	0.04	-0.02	-1.44	0.00	-0.69	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	-0.05	-0.02	0.27	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.54	0.00	-2.67	0.00	0.04	-0.01	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-0.39	-0.11	1.80	0.00	0.03	0.02	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-2.73	0.09	1.95	0.00	-0.42	-0.05	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-2.73	0.09	1.95	0.00	-0.42	-0.05	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-2.73	0.09	1.95	0.00	-0.42	-0.05	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.481	CR3	0.04	-0.02	-1.44	0.00	-0.69	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.159	CR3	0.09	0.03	-0.44	0.00	0.65	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.05	-0.02	0.27	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.619	CR3	0.06	-0.01	1.91	0.00	1.12	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.18	0.09	1.91	0.00	-1.27	0.07	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.530	CR3	0.56	0.00	-0.85	0.00	-0.95	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	0.53	0.03	-2.67	0.00	1.24	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.382	CR1	-1.94	-0.04	-1.75	0.00	0.00	-0.03	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.73	0.06	1.95	0.00	0.00	-0.07	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.698	CR1	0.43	-0.05	-1.81	0.00	-1.27	0.05	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.22	0.09	1.89	0.00	-1.27	0.07	CS228)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.22	0.09	1.89	0.00	-1.27	0.07	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.424	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
11	**Pilar trasero (Member No. 145,54,107,46)**								
	0.478	CR3	0.07	0.00	0.01	0.00	0.01	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	4.75	-0.15	1.76	0.00	0.21	0.08	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.48	0.41	-2.24	-0.01	-0.82	-0.30	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.019	CR1	-0.08	0.12	0.01	0.00	0.02	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.14	0.00	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.40	0.34	-2.29	0.00	-0.26	-0.17	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.46	0.41	-2.26	-0.01	-0.26	-0.20	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.46	0.38	-2.29	-0.01	-0.26	-0.20	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.190	CR1	-2.63	0.49	0.11	0.00	0.22	-0.09	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.189	CR1	-5.47	0.41	-2.26	-0.01	-0.21	-0.19	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.190	CR1	-2.63	0.49	0.11	0.00	0.22	-0.09	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.019	CR1	-0.08	0.12	0.01	0.00	0.02	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.14	0.00	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR3	0.06	-0.03	0.87	0.00	0.23	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	0.06	-0.03	0.87	0.00	0.45	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.435	CR1	-2.27	-0.06	0.10	0.00	0.18	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.019	CR1	-2.63	0.49	0.10	0.00	0.20	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR3	2.45	0.07	-0.08	0.00	0.00	0.09	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.31	0.24	-1.64	0.00	0.00	-0.09	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.210	CR1	-4.28	0.20	-1.65	0.00	-0.20	-0.10	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-5.47	0.41	-2.25	-0.01	-0.83	-0.30	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-5.46	0.41	-2.26	-0.01	-0.26	-0.20	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-5.46	0.41	-2.26	-0.01	-0.26	-0.20	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.275	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.957	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
12	**Pilar delantero (Member No. 146,116,42)**								
	0.000	CR3	4.41	-0.01	0.57	0.00	0.49	0.15	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-6.33	0.04	2.29	0.01	0.64	-0.34	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR3	-0.29	-0.02	-0.37	0.00	0.13	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.125	CR3	-0.12	-0.02	-0.43	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-6.32	0.05	2.30	0.00	0.07	-0.33	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.68	0.22	-0.61	0.00	0.00	-0.14	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.634	CR1	-3.70	0.12	-0.60	0.00	-0.38	-0.25	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.634	CR1	-3.70	0.12	-0.60	0.00	-0.38	-0.25	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.70	0.13	-0.60	0.00	-0.34	-0.24	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	-0.29	-0.02	-0.37	0.00	0.13	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.125	CR3	-0.12	-0.02	-0.43	0.00	0.00	0.01	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR3	-0.11	-0.02	-0.43	0.00	0.14	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR3	-0.12	-0.02	-0.43	0.00	-0.06	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR1	-0.37	-0.02	-0.34	0.00	0.13	0.00	CS183)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.38	-0.02	-0.34	0.00	0.05	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	4.47	0.05	0.53	0.00	0.00	0.17	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.025	CR1	-1.47	0.03	0.83	0.00	0.00	-0.08	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.189	CR1	-6.30	0.05	2.29	0.00	0.01	-0.33	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-6.29	0.03	2.29	0.00	-0.42	-0.32	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-6.33	0.04	2.29	0.01	0.64	-0.34	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.70	0.11	-0.59	0.00	-0.42	-0.26	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.70	0.11	-0.59	0.00	-0.42	-0.26	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
13	**Correas (Member No. 73,55,56,123,58,59)**								
	0.156	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	0.01	-0.02	1.08	0.00	-0.37	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.523	CR1	0.00	0.03	0.09	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.00	-0.02	1.09	0.00	-0.40	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.02	-0.25	-1.07	0.00	0.36	-0.08	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR3	0.01	-0.02	1.08	0.00	-0.37	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.523	CR1	0.00	0.03	0.09	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.01	-0.25	-1.08	0.00	0.39	-0.08	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.780	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.780	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
14	**Correas (Member No. 74,60,61,124,63,64)**								
	0.156	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR1	-0.01	-0.02	1.06	0.00	-0.39	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.523	CR1	0.00	0.04	0.09	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	-0.01	-0.01	1.10	0.00	-0.40	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.904	CR3	0.02	0.26	0.95	0.00	0.28	-0.10	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.02	-0.20	-1.09	0.00	0.40	-0.04	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.02	-0.20	-1.09	0.00	0.40	-0.04	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	0.02	-0.20	-1.09	0.00	0.40	-0.04	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-0.01	-0.02	1.06	0.00	-0.39	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.523	CR1	0.00	0.04	0.09	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.904	CR3	0.02	0.26	0.95	0.00	0.28	-0.10	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.903	CR1	0.00	0.26	0.99	0.00	0.29	-0.10	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.903	CR1	0.00	0.26	0.99	0.00	0.29	-0.10	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.780	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.904	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
15	**Correas (Member No. 75,65,66,125,68,69)**								
	0.156	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	0.00	-0.02	1.09	0.00	-0.37	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.523	CR1	0.00	0.05	0.09	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.00	-0.02	1.10	0.00	-0.40	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.904	CR3	-0.01	0.26	0.95	0.00	0.28	-0.10	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR1	-0.01	-0.20	-1.09	0.00	0.40	-0.04	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-0.01	-0.20	-1.09	0.00	0.40	-0.04	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-0.01	-0.20	-1.09	0.00	0.40	-0.04	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	0.00	-0.02	1.09	0.00	-0.37	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.523	CR1	0.00	0.05	0.09	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.904	CR3	-0.01	0.26	0.95	0.00	0.28	-0.10	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.903	CR1	0.00	0.26	0.99	0.00	0.29	-0.10	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.903	CR1	0.00	0.26	0.99	0.00	0.29	-0.10	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.780	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.904	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
16	**Correas (Member No. 76,70,71,126,79,80)**								
	0.156	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	1.903	CR3	0.00	0.02	-1.00	0.00	-0.29	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.381	CR3	0.00	-0.03	-0.07	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.00	-0.04	1.10	0.00	-0.40	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.01	-0.25	-1.09	0.00	0.40	-0.09	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.903	CR3	0.00	0.02	-1.00	0.00	-0.29	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.381	CR3	0.00	-0.03	-0.07	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.01	-0.25	-1.09	0.00	0.40	-0.09	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.780	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
17	**Correas (Member No. 77,81,82,127,84,85)**								
	0.624	CR3	0.00	0.00	-0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	1.903	CR1	-0.01	0.02	0.82	0.00	0.25	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.523	CR1	-0.02	0.10	0.58	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.03	-0.02	1.10	0.00	-0.40	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.190	CR1	-0.07	-0.24	-0.88	0.00	0.21	-0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.06	-0.29	-1.08	0.00	0.36	-0.12	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.06	-0.29	-1.08	0.00	0.36	-0.12	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	0.06	-0.29	-1.08	0.00	0.36	-0.12	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.903	CR1	-0.01	0.02	0.82	0.00	0.25	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.523	CR1	-0.02	0.10	0.58	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.03	-0.02	1.10	0.00	-0.40	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.07	-0.29	-1.09	0.00	0.40	-0.12	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.07	-0.29	-1.09	0.00	0.40	-0.12	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.780	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.190	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
18	**Correas (Member No. 78,86,87,129,131,130)**								
	0.156	CR3	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	1.903	CR3	0.03	0.02	0.78	0.00	0.23	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.523	CR1	-0.05	0.11	0.57	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.05	-0.02	1.09	0.00	-0.40	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.10	-0.27	-1.07	0.00	0.36	-0.10	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.10	-0.27	-1.08	0.00	0.40	-0.11	CS131)
	Cross-section check - Torsion acc. to 6.2.7								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Eq}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR1	-0.10	-0.27	-1.08	0.00	0.40	-0.11	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-0.10	-0.27	-1.08	0.00	0.40	-0.11	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.903	CR3	0.03	0.02	0.78	0.00	0.23	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.523	CR1	-0.05	0.11	0.57	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.08	-0.27	-1.07	0.00	0.36	-0.10	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.10	-0.27	-1.08	0.00	0.40	-0.11	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.10	-0.27	-1.08	0.00	0.40	-0.11	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.780	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.190	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
19	**Riostras (Member No. 90)**								
	0.221	CR3	-0.04	0.00	0.01	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	2.206	CR1	0.69	-0.01	-0.01	0.00	0.00	0.03	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR3	-0.28	0.00	0.01	0.00	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	1.103	CR1	0.01	0.00	0.00	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	2.206	CR1	0.11	0.00	-0.02	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	1.103	CR1	0.01	0.00	0.00	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.09	0.00	0.02	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.103	CR1	0.10	0.00	0.00	0.00	0.01	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	2.206	CR1	0.69	-0.01	-0.01	0.00	0.00	0.03	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.323	CR1	0.68	0.00	0.00	0.00	0.01	0.02	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.103	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.103	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
20	**Riostras (Member No. 91)**								
	1.985	CR3	0.03	0.00	-0.01	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR3	0.29	0.00	0.01	0.00	0.00	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	2.205	CR1	-0.68	-0.01	-0.01	0.00	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	1.103	CR1	0.02	0.00	0.00	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-0.09	0.00	0.02	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	2.205	CR1	-0.68	-0.01	-0.02	0.00	0.00	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.103	CR1	0.02	0.00	0.00	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.09	0.00	0.02	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.103	CR1	-0.10	0.00	0.00	0.00	0.01	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.66	0.00	0.01	0.00	0.00	-0.02	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.103	CR1	-0.67	0.00	0.00	0.00	0.01	-0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.103	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.103	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
21	**Diagonal B (Member No. 93)**								
	1.951	CR3	3.12	-0.08	-0.01	0.02	0.00	0.10	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.96	0.12	0.02	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.94	0.17	0.08	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.96	0.17	0.02	-0.02	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.94	0.17	0.08	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR3	-2.79	0.01	-0.01	-0.02	0.00	-0.09	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.386	CR1	-3.92	0.01	-0.03	-0.02	0.04	-0.15	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
22	**Diagonal B (Member No. 96)**								
	1.951	CR3	3.26	-0.08	-0.01	0.02	0.00	0.11	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-4.12	0.13	0.02	-0.03	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-4.10	0.18	0.09	-0.03	0.00	-0.02	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-4.12	0.18	0.02	-0.03	0.00	-0.02	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-4.10	0.18	0.09	-0.03	0.00	-0.02	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR3	-2.79	0.00	-0.01	-0.02	0.00	-0.09	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.366	CR1	-4.08	0.00	-0.04	-0.03	0.04	-0.16	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
23	**Diagonal B (Member No. 99)**								
	1.951	CR3	3.33	-0.08	-0.01	0.02	0.00	0.11	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-4.23	0.13	0.02	-0.03	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-4.20	0.19	0.09	-0.03	0.00	-0.02	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-4.23	0.19	0.02	-0.03	0.00	-0.02	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-4.20	0.19	0.09	-0.03	0.00	-0.02	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR3	-2.85	0.00	-0.01	-0.02	0.00	-0.09	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.366	CR1	-4.18	0.00	-0.04	-0.03	0.04	-0.16	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
24	**Diagonal B (Member No. 105)**								
	1.951	CR3	2.89	-0.07	-0.01	0.02	0.00	0.10	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.69	0.11	0.01	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.66	0.15	0.08	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.69	0.15	0.02	-0.02	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.66	0.15	0.08	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR3	2.79	-0.07	-0.01	0.02	0.00	0.09	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.366	CR1	-3.64	0.01	-0.03	-0.02	0.03	-0.13	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
25	**Diagonal B (Member No. 108)**								
	0.000	CR3	0.85	0.01	0.01	-0.01	0.00	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-4.11	-0.03	-0.02	0.05	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.992	CR1	-0.09	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR1	-0.07	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-4.10	0.00	0.00	0.06	0.03	-0.07	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-4.10	-0.09	-0.07	0.06	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-4.10	-0.09	-0.07	0.06	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-4.10	-0.09	-0.07	0.06	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.992	CR1	-0.09	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR1	-0.07	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.142	CR1	-0.07	-0.01	0.01	0.00	0.00	-0.01	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.000	CR1	-1.52	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-4.09	0.02	0.07	0.05	0.00	-0.05	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.709	CR1	-1.52	0.00	0.00	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-4.10	0.00	0.00	0.06	0.03	-0.07	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-4.10	0.00	0.00	0.06	0.03	-0.07	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
26	**Diagonal B (Member No. 109)**								
	0.000	CR3	0.93	0.01	0.01	-0.01	0.00	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-4.37	-0.03	-0.02	0.06	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.850	CR3	-0.07	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR3	-0.07	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-4.36	0.00	0.00	0.06	0.03	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-4.37	-0.09	-0.06	0.06	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-4.37	-0.09	-0.08	0.06	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-4.37	-0.09	-0.08	0.06	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.850	CR3	-0.07	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR3	-0.07	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR3	-0.07	-0.01	0.00	0.00	0.00	-0.01	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.992	CR1	-0.14	-0.01	0.00	0.00	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.63	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-4.36	0.02	0.08	0.06	0.00	-0.05	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.64	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-4.36	0.00	0.00	0.06	0.03	-0.08	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-4.36	0.00	0.00	0.06	0.03	-0.08	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
27	**Diagonal B (Member No. 110)**								
	0.000	CR3	0.95	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-4.43	-0.03	-0.02	0.06	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.850	CR3	-0.05	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR3	-0.05	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-4.42	0.00	0.00	0.06	0.03	-0.08	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-4.41	0.09	0.08	0.06	0.00	-0.05	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-4.42	-0.10	-0.08	0.06	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-4.42	-0.10	-0.08	0.06	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.850	CR3	-0.05	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.9								
	0.000	CR3	-0.05	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR3	-0.05	-0.01	0.00	0.00	0.00	0.00	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.992	CR1	-0.12	-0.01	0.00	0.00	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.66	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-4.41	0.02	0.08	0.06	0.00	-0.05	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.66	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-4.42	0.00	0.00	0.06	0.03	-0.08	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.709	CR1	-4.42	0.00	0.00	0.06	0.03	-0.08	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
28	**Diagonal B (Member No. 112)**								
	0.000	CR3	0.86	0.01	0.01	-0.01	0.00	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.93	-0.03	-0.02	0.05	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.850	CR3	-0.04	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR3	-0.03	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-3.93	0.00	0.00	0.05	0.03	-0.07	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-3.93	-0.08	-0.07	0.05	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.93	-0.08	-0.07	0.05	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.93	-0.08	-0.07	0.05	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.850	CR3	-0.04	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR3	-0.03	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR3	-0.03	-0.01	0.00	0.00	0.00	0.00	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	1.134	CR1	-0.22	-0.01	-0.01	0.00	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.50	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.92	0.02	0.07	0.05	0.00	-0.05	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.709	CR1	-1.51	0.00	0.00	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.93	0.00	0.00	0.05	0.03	-0.07	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.93	0.00	0.00	0.05	0.03	-0.07	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
29	**Dintel (Member No. 47,151,156,18,102,120,171,104,163)**								
	0.305	CR3	0.81	0.01	0.83	0.00	0.42	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.12	0.12	2.20	0.00	-0.46	-0.05	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.619	CR3	0.05	-0.01	-1.63	0.00	-1.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	-0.07	-0.03	0.31	0.00	0.01	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR3	0.60	0.02	-3.01	0.00	0.05	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-0.47	-0.12	2.05	0.00	0.03	0.04	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.11	0.13	2.20	0.00	-0.46	-0.05	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.11	0.13	2.20	0.00	-0.46	-0.05	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-3.11	0.13	2.20	0.00	-0.46	-0.05	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.619	CR3	0.05	-0.01	-1.63	0.00	-1.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.119	CR3	0.13	0.04	-0.45	0.00	0.72	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.07	-0.03	0.31	0.00	0.01	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.550	CR3	0.05	-0.02	2.05	0.00	1.13	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.08	2.17	0.00	-1.44	0.06	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.053	CR3	0.69	0.02	-0.98	0.00	-0.59	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR3	0.59	0.05	-3.01	0.00	1.14	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.26	-0.03	0.19	0.00	0.00	-0.03	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-3.11	0.08	2.20	0.00	0.01	-0.08	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.688	CR1	0.48	-0.02	-2.06	0.00	-1.44	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.24	0.08	2.15	0.00	-1.44	0.06	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.24	0.08	2.15	0.00	-1.44	0.06	CS271)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.424	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
30	**Pilar trasero (Member No. 156,119,114)**								
	0.000	CR3	5.26	0.08	2.01	0.00	0.25	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.81	-0.15	-2.55	-0.01	-0.94	0.00	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.535	CR1	0.04	0.01	0.02	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR3	0.15	0.01	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.78	-0.13	-2.61	-0.01	-0.30	-0.04	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.80	-0.19	-2.57	-0.01	-0.30	-0.04	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.78	-0.19	-2.61	-0.01	-0.30	-0.04	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.210	CR1	-5.80	-0.16	-2.57	-0.01	-0.30	-0.04	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.80	-0.16	-2.57	-0.01	-0.30	-0.04	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.189	CR1	-5.80	-0.16	-2.57	-0.01	-0.24	-0.04	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.535	CR1	0.04	0.01	0.02	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	0.15	0.01	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR3	0.07	0.00	0.97	0.00	0.25	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - General cross-section								
	0.250	CR3	0.08	0.00	0.97	0.00	0.49	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.606	CR1	-1.14	-0.04	0.02	0.00	0.05	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.225	CR1	-5.80	-0.17	-2.58	-0.01	-0.88	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR3	2.78	0.06	-0.10	0.00	0.00	0.10	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR3	5.26	0.07	2.01	0.00	-0.01	0.02	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.784	CR1	-2.58	-0.07	0.13	0.00	0.24	-0.05	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-5.80	-0.13	-2.56	-0.01	-0.95	-0.01	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-5.78	-0.13	-2.58	-0.01	-0.30	-0.04	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-5.78	-0.16	-2.58	-0.01	-0.30	-0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.249	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.071	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
31	**Pilar delantero (Member No. 154,72,113)**								
	0.000	CR3	5.06	0.02	0.57	0.00	0.54	0.15	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-7.13	0.00	2.56	0.01	0.70	-0.32	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR3	-0.32	-0.03	-0.40	0.00	0.15	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-7.12	0.01	2.57	0.01	0.07	-0.29	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.17	0.20	-0.69	0.00	0.00	-0.16	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-4.78	-0.05	0.27	0.00	-0.26	-0.20	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-4.19	0.09	-0.68	0.00	-0.43	-0.25	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.634	CR1	-4.19	0.09	-0.68	0.00	-0.43	-0.25	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-4.19	0.10	-0.68	0.00	-0.39	-0.24	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR3	-0.32	-0.03	-0.40	0.00	0.15	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR3	-0.13	-0.03	-0.47	0.00	0.16	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.42	-0.03	-0.36	0.00	0.15	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.43	-0.03	-0.37	0.00	0.07	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR1	4.99	0.08	0.56	0.00	0.00	0.18	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.150	CR3	-0.14	-0.03	-0.47	0.00	0.00	0.02	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.189	CR1	-7.11	0.00	2.56	0.01	0.00	-0.33	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No
	0.000	CR1	-7.10	-0.02	2.55	0.00	-0.48	-0.33	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	-7.13	0.00	2.56	0.01	0.70	-0.32	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-4.20	0.07	-0.68	0.00	-0.48	-0.26	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-4.20	0.07	-0.68	0.00	-0.48	-0.26	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.834	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
32	**Diagonal B (Member No. 118)**								
	1.951	CR3	3.31	-0.08	-0.01	0.02	0.00	0.11	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-4.20	0.13	0.02	-0.02	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-4.17	0.18	0.09	-0.02	0.00	-0.02	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-4.19	0.19	0.02	-0.02	0.00	-0.02	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-4.17	0.18	0.09	-0.02	0.00	-0.02	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.91	0.01	-0.01	-0.01	0.00	-0.06	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.366	CR1	-4.15	0.01	-0.04	-0.02	0.04	-0.16	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
33	**Diagonal B (Member No. 121)**								
	0.000	CR3	0.95	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-4.41	-0.03	-0.02	0.06	0.00	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.850	CR3	-0.07	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR3	-0.06	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-4.40	0.00	0.00	0.06	0.03	-0.08	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-4.39	0.09	0.08	0.06	0.00	-0.05	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-4.41	-0.10	-0.08	0.06	0.00	-0.04	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-4.41	-0.10	-0.08	0.06	0.00	-0.04	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.850	CR3	-0.07	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR3	-0.06	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.6								
	0.283	CR3	-0.06	-0.01	0.00	0.00	0.00	-0.01	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.992	CR1	-0.14	-0.01	0.00	0.00	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.65	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-4.39	0.02	0.08	0.06	0.00	-0.05	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.66	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-4.40	0.00	0.00	0.06	0.03	-0.08	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-4.40	0.00	0.00	0.06	0.03	-0.08	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								

RF-STEEL EC3
CA2
Verificación correa

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	15	
National Annex	NEN	
Ultimate Limit State Design		
Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	

1.3 CROSS-SECTIONS



Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
7	4	C-PAR 58/31/1.2/12/2.4	General	0.47	Correa

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
15	**Correas (Member No. 75,65,66,125,68,69)** 75	0.780	CR1	0.47	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
15	**Correas (Member No. 75,65,66,125,68,69)** 0.780	CR1	0.00	0.19	0.94	0.01	0.33	-0.07	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

RF-STEEL EC3
CA3
Verificación dintel

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	7	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	

1.3 CROSS-SECTIONS



Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
1	4	C-PAR 98/38/1.5/12/1.5	General	0.67	Dintel

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)** 37	0.569	CR1	0.67	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)** 0.569	CR1	-1.47	0.05	0.09	0.00	0.72	0.06	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

RF-STEEL EC3
CA4
verificacion pilar

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	5,9	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
1	Acero S 235 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	23.50	16.0
					22.50	40.0
					21.50	100.0
					19.50	150.0
					18.50	200.0
					17.50	250.0
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	
5	Acero S 355 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	35.50	3.0
					35.50	16.0
					34.50	40.0
					33.50	63.0
					32.50	80.0
					31.50	100.0
					29.50	150.0
					28.50	200.0

C-PAR 78/46/1.5/1... Tubo 90/1/K

1.3 CROSS-SECTIONS

Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
3	4	C-PAR 76/46/1.5/12/3	General	0.26	Pilar sup
5	1	Tubo 90/1/K	Pipe	0.60	Pilar inf
8	5	C-PAR 70/40/3/12/3	General	0.22	Pilar inf 2

C-PAR 70/40/3/12/3

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
5	**Pilar trasero (Member No. 138,34,98,44)**						
	44	0.250	CR1	0.30	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis
9	**Pilar delantero (Member No. 142,29,41)**						
	41	0.250	CR1	0.60	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
5	**Pilar trasero (Member No. 138,34,98,44)**								
	0.250	CR1	-6.04	-0.37	0.05	0.00	0.01	0.30	CS272)
	Cross-section check - Elastic design with warping torsion analysis								
9	**Pilar delantero (Member No. 142,29,41)**								
	0.250	CR1	-7.17	0.00	2.53	-0.08	0.71	-0.07	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

AXIAL
structural solutions

ANNEX VI

LOAD TEST REPORT

TÜVRheinland CERTIFIED
Management System ISO 9001:2015
www.tuv.com ID 9105085427
TÜVRheinland CERTIFIED
EN 1090-1 Factory Production Control
www.tuv.com ID 9105071358

AXIAL
structural solutions

Behoort bij besluit van
Burgemeester en wethouders
van de gemeente Etten-Leur
Int. kenmerk:
2021OG0373-01

ETTEN LEUR GEMEENTE

ANNEX IV-B

POSMAC

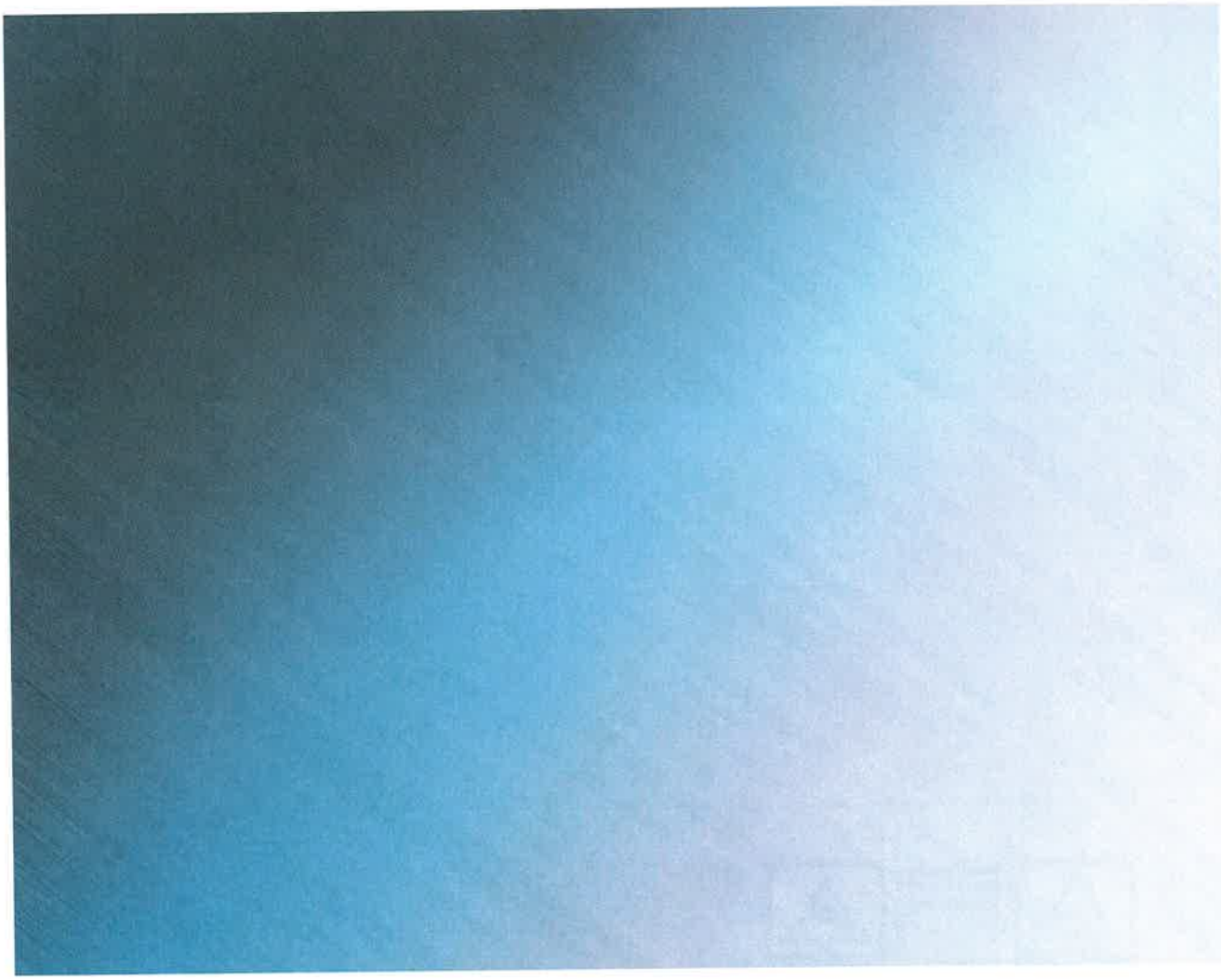
TÜVRheinland CERTIFIED
Management System ISO 9001:2015
www.tuv.com ID 9105085637

TÜVRheinland CERTIFIED
EN 1090-1 Factory Production Control
www.tuv.com ID 9105071259

posco

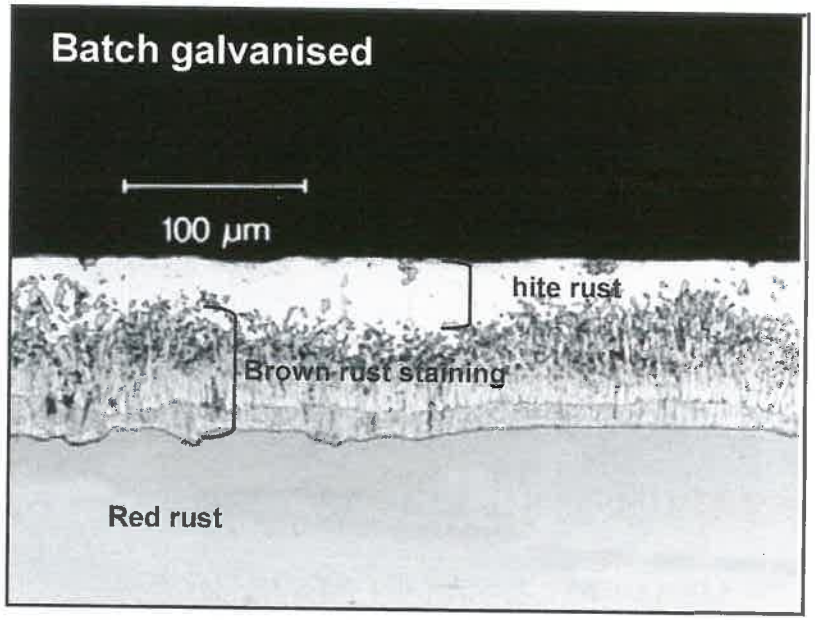
PosMAC®

POSCO Magnesium Aluminium alloy Coating product

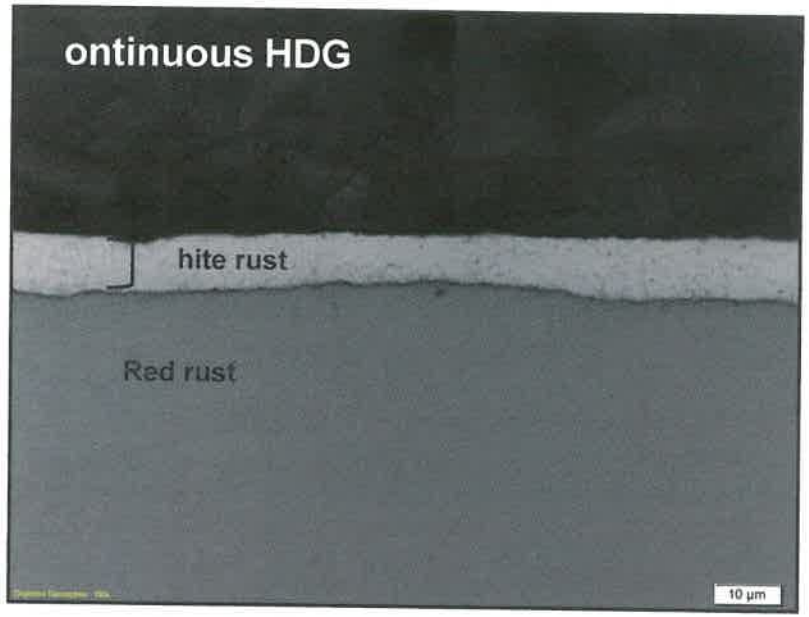


Microstructure orrosion performance Batch galvani ed vs continuous HDG

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Layered micirostructure
with brittle intermetallics



Pure/ductile coating

* HD ASA, Steel Protection, eneral Hot Dip alvani ing, page 39

Advantages | MAGNE IS

ArcelorMittal

- Magnelis offers
  - Superior corrosion protection Magnelis offers longer life time than other coatings
    - Thinner coating yet more protection
    - Very good corrosion protection even in severe environment
  - Superior edge protection
  - Eliminates post dip galvani ing
  - Cost savings through less maintenance

- Magnelis is easy to process

- Magnelis is environmental friendly

- Magnelis can offer you
  - A cost effective solution (compared to post galva, stainless, aluminium, other coatings, ….)
  - Improvement of corrosion protection

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PosMAC® is a range of steel products that provide 5 to 10 times greater corrosion resistance compared with ordinary hot-dip galvanized steel sheet (GI, GI(H)) of the same coating weight. PosMAC® especially has an excellent cross section corrosion resistance. Ordinary products having thick plating can be replaced with it. The same processing, assembly and painting processes can be applied to PosMAC® as one would apply to GI steels.

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PosMAC® is the registered trademark of POSCO.

PosMAC®

posco

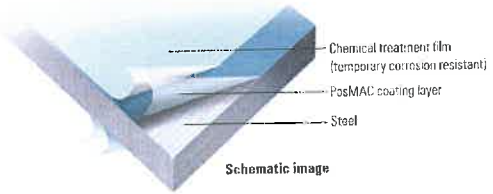
What is PosMAC®?

What is PosMAC® ?

PosMAC(POSCO Magnesium Aluminium alloy Coating product) is a ternary alloy coated steel(Zn- 3%Mg- 2.5%Al) with high corrosion resistance developed with POSCO's own technology.

* **PosMAC®** is the registered trademark of POSCO.

▪ Product configuration



Schematic image

▪ Product characteristics

- PosMAC is a corrosion resistant products that is 5 to 10 times stronger resistance than that of a normal hot-dip galvanized steel sheet(GI, GI(H)) with the same coating weight. PosMAC has an excellent cross-section corrosion resistance; normal thick plating products can be replaced with this product.
- The same processing, assembly and painting process can be applied to PosMAC as one would apply to GI.

▪ Product characteristics comparison

- PosMAC is superior to GI in corrosion resistance on flat, machined, cross-section parts and is superior to galvalume in cross-section corrosion resistance.

Quality items		PosMAC	GI	Galvalume
Hardness(Hv) of coating layer		110~130	60~80	80~100
Friction characteristics		◎	X	△
Corrosion resistance	Flat sheet	◎	△	◎
	Bending	◎	△	△
	Cup	◎	△	◎
	Cross-section	◎	△	X
Chemical resistance		◎	△	△
Weldability		◎	◎	◎

Equipment specifications

Classification		Pohang #1CGL
Operation date		2012. 04
Capacity		750 thousands ton/year
Product dimensions	Thickness	0.4~4.5mm
	Width	800~1850mm
Coating weight		60~400 g/m²
Product grade		General, Structural
Post treatment		Chromate(Cr⁶⁺, Cr³⁺), Cr-free, Oiling

Manufacturing equipment

Entry



The equipments at the entry section are composed of two pay off reels and a welder.

Shot blast, Pickling



The scales from an HR coil can be removed completely by passing through the shot blast and pickling tank.

Galvanizing



Zn-Mg-Al is coated onto the surface of the steel sheet after passing the annealing furnace in the pot reserved for PosMAC, and then the targeted coating weight is achieved by spraying high pressurized air from the air knife.

SPM & Post treatment

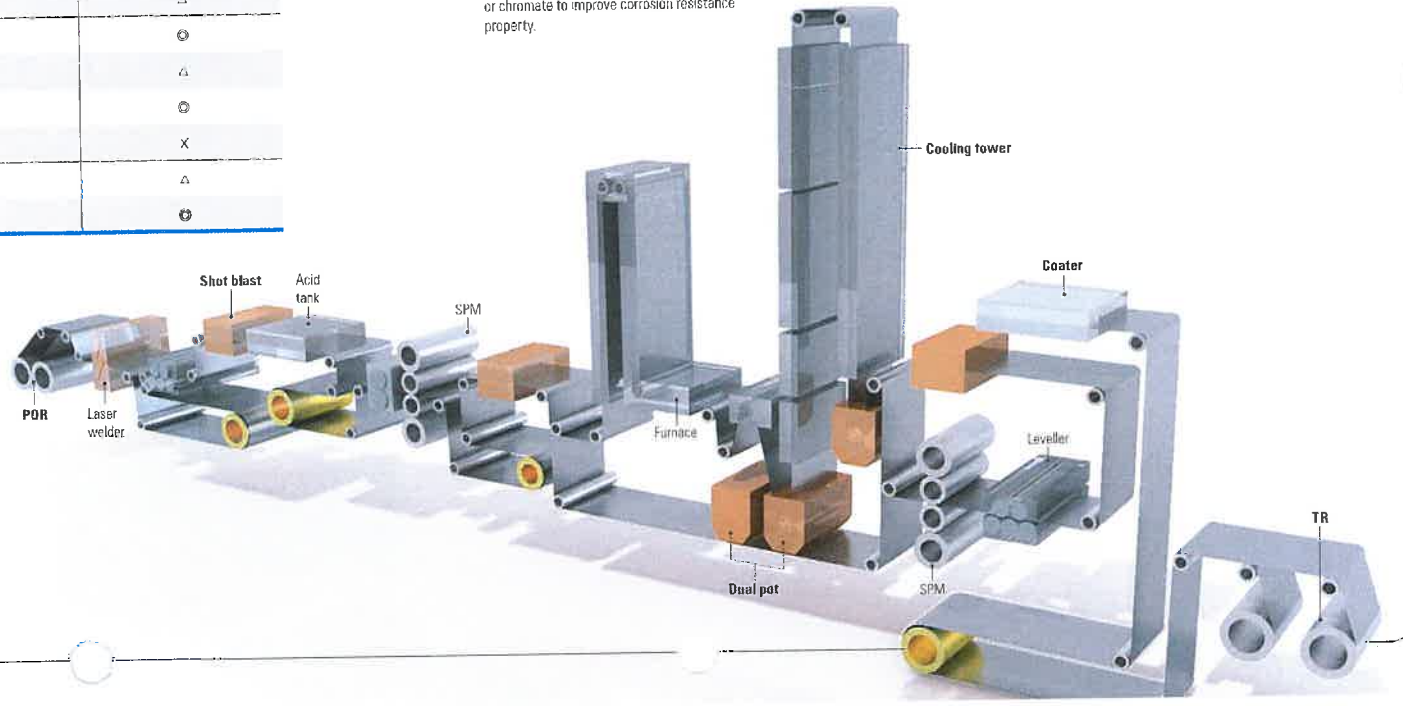


In order to obtain the flat shape and elegant surface, PosMAC product get passed through a skin pass mill. Also to prevent any white rust, product surface is coated with Cr-free or chromate to improve corrosion resistance property.

Inspection & Coiling



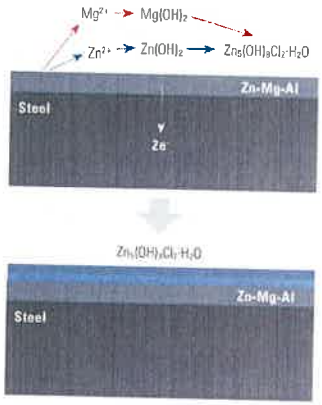
The equipment at the exit section are composed of an inspection table and an oiler equipment where the products are inspected synthetically and judged whether they are adequate for sale.

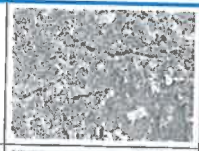
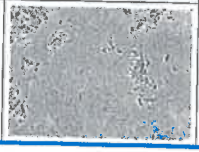
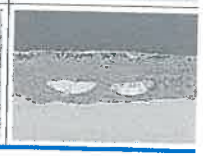


Corrosion resistance of PosMAC®

Why PosMAC® has excellent corrosion resistance?

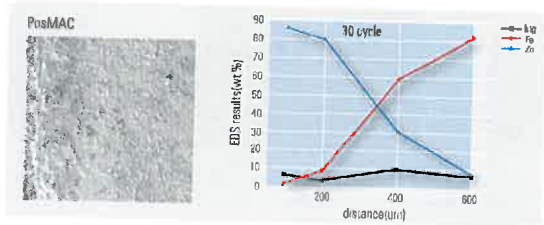
The magnesium(Mg) in PosMAC's coating layer will accelerate the formation of a dense corrosion product called "Simonkolleite ($Zn_5(OH)_8Cl_2 \cdot H_2O$)" which is extremely stable. When simonkolleite is formed on the surface of the coating layer in a film-like-form, it plays a role as a corrosion inhibitor for the base metal.



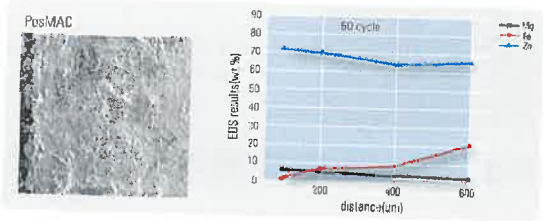
CCT	Surface	Cross-section
30 cycle		
60 cycle		

In addition, the upper coating layer can be dissolved to cover the cross-section and accelerate the growth of a stable corrosion product. However red-rust can be found in the already exposed steel plate, but fortunately, the film of the corrosion products covers the cross-section and serves to prevent corrosion.









Comparison to galvanized(GI(H)) / Galvalume in corrosion resistance on flat surfaces(SST)

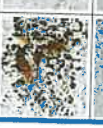
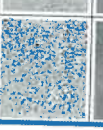
SST	GI(H)	Galvalume	PosMAC	
The coating weight on both sides	600g/m²	100g/m²	200g/m²	350g/m²
480Hr				
720Hr				
1440Hr				
2400Hr				

- PosMAC shows 5 to 10 times the corrosion resistance compared to galvanized steel sheet on flat surfaces.
- In addition, PosMAC shows equal or greater corrosion resistance than Galvalume on flat surfaces.

Test method :
Surface inspection after salt spray test
(JIS Z 2371, 5% NaCl, 35℃) every 24Hr

Comparison to galvanized(GI(H)) / Galvalume in corrosion resistance on flat surfaces(CCT)

- PosMAC shows 5 to 10 times the corrosion resistance compared to galvanized steel sheet on flat surfaces.
- In addition, PosMAC shows equal or greater corrosion resistance than galvalume on flat surfaces.

CCT	GI(H)				Galvalume	PosMAC		
The coating weight on both sides	120g/m²	200g/m²	300g/m²	600g/m²	100g/m²	140g/m²	200g/m²	275g/m²
10 cycle (80Hr)								
70 cycle (560Hr)								
120 cycle (960Hr)								

Test method : CCT(Cyclic Corrosion Test)
CCT 1cycle(KS R1127) : Salt spray 2Hr(5%NaCl, 35℃) → Dry 4Hr(25%RH, 60℃) → Wet 2Hr(95%RH, 50℃)

Corrosion resistance of PosMAC®

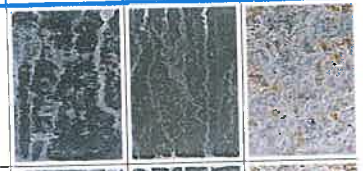
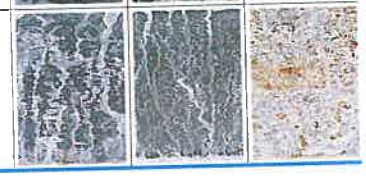
Batch



PosMAC®'s corrosion resistance on flat sheets compared to batch plated GI

(Korea Testing & Research Institute : Test No. TBO-000048)

PosMAC shows 5~10 times corrosion resistance to that of batch plated GI sheet.

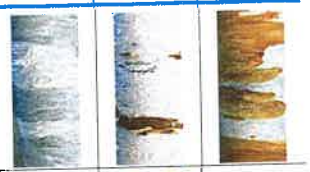
SST	PosMAC		Batch plated GI
Coating weight	60g/m²	300g/m²	550g/m²
480 Hr			
720 Hr			

SST	PosMAC		Batch plated GI
Coating weight	60g/m²	300g/m²	550g/m²
1200 Hr			
2400 Hr			

Test method : Surface inspection after salt spray test(JIS Z2371, 5%NaCl, 35°C) every 24Hr

PosMAC®'s corrosion resistance on bent areas compared to that of hot dip galvanized steel(GI(H)) and galvalume

PosMAC shows 2~3 times corrosion resistance to that of GI(H) and Galvalume on bent areas.

Thickness/ Steel type	2.0 mmt CQ Grade		
SST	PosMAC	GI(H)	Galvalume
Coating weight	140g/m²	140g/m²	140g/m²
800 Hr			
1200 Hr			

Test method Surface inspection after salt spray test(JIS Z2371, 5%NaCl, 35°C)every 24Hr

Corrosion resistance of cup drawing region

Corrosion resistance of PosMAC is 2~3 times higher than that of GI(H) while equal to that of Galvalume.

CCT	PosMAC	GI(H)	Galvalume
Coating weight	275g/m²	350g/m²	200g/m²
60 cycle		 Red rust occurred after 35 cycle	
80 cycle			
100 cycle		-	

Test method : Cup drawing was followed by CCT(Cyclic Corrosion Test)
CCT 1cycle(KS R1127) : Salt spray 2Hr(5%NaCl, 35°C) → Dry 4Hr(25%RH, 60°C) → Wet 2Hr(95%RH 50°C)

PosMAC®'s corrosion resistance of processed product

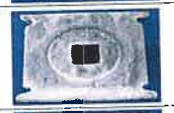
■ **Processed product** : C-type steel for solar photovoltaic power generator support structure.



Division		Coating weight	Processed area	Frontal cross-section
SST 500Hr	Batch-GI	370.3g/m² (One side)		
	PosMAC	116.1g/m² (One side)		

Test method : Every 24 hours after spraying salt water solution(JIS Z2371, 5% NaCl, at 34C), check the condition of samples.

■ **Processed product** : Square type part for solar photovoltaic power generator support structure

Division	Batch-GI	PosMAC
	432g/m²(One side)	195g/m²(One side)
SST 1000Hr		
		
SST 2000Hr		
		

Test method : Every 24 hours after spraying salt water solution(JIS Z2371, 5% NaCl, at 34C), check the condition of samples.

Corrosion resistance of PosMAC®

Weathering test on cross-section part (Korea conformity laboratories)

- Corrosion resistance in cross-section parts of PosMAC, is superior to that of GI(H) and galvalume.
- PosMAC also gets red-rust in cross-section parts when initially exposed outdoors. However as the time goes by, the corrosion(red-rust) area of PosMAC tends to decrease through the formation of its distinctive oxide-based material(simonkolleite).
- If the thickness of PosMAC is more than 1.6t, we recommend post-treatment(catalog 19p, 22p), because it is not fully covered by simonkolleite after 1 year. And when the thickness of PosMAC is less than 1.6t and cross-section parts is clean without red-rust at initial construction, it is recommended to carry out post-treatment by the option of the customers.



Outdoor exposure test

Sample	Thickness	Coating weight (g/m²)	Cross-section image		
			After 6 months	After 1 year	After 2 years
PosMAC	1.2	130			
	1.6	120			
	2.0	300			
Galvalume	1.6	120			
GI(H)	1.6	180			

Note. Outdoor exposure test at seosan chemical industrial complex(Oct. '12 ~ Oct. '14, Korea conformity laboratories)

Estimation of PosMAC®'s longevity (KOBELCO from Japan)

Classification	Test sample	Thickness(mm)	Coating weight (Both sides, g/m²)	Post-treatment	Corrosion start time of Fe(CCT)	Estimate of longevity (Salt damage environment)
Ternary alloy coated steel	PosMAC (POSCO)	2.0	140	Cr	1,920Hr	50 years
		2.0	350	Cr-free(NB)	3,700Hr	100 years
	Competitor's high corrosion resistant Type 1	2.0	120	Cr-free	1,920Hr	50 years
		1.6	190	Cr	2,200Hr	60 years
	Type 2	0.27	120	Cr-free	2,200Hr	60 years
Galvanized steel	GI(H) (POSCO)	2.0	600	Cr	960Hr	25 years(Base)
	Batch GI (Domestic galvanizer)	2.0	1,000	-	960Hr	25 years

Test Method : CCT(Cyclic Corrosion Test) CCT 1cycle(KS R1127) : Salt spray 2Hr(5%NaCl, 35℃) → Dry 4Hr(25%RH, 60℃) → Wet 2Hr(95%RH 50℃)
Evaluation of longevity : Japan's bridge construction association stated that the longevity of a GI with K600 zinc coating has a corrosion resistance longevity of 25years. Based on this study the relative longevity of other comparable steel products was extracted.

White rust occurrence of the PosMAC®

- PosMAC is strong corrosion-resistant steel to protect the base metal by forming oxide of a dense structure called simonkolleite.
- Therefore, white rust also can occur as usual galvanized steel. To avoid white rust of PosMAC before the construction, the following should be noted.

■FE-SEM image comparision of the corrosion product of the PosMAC & GI

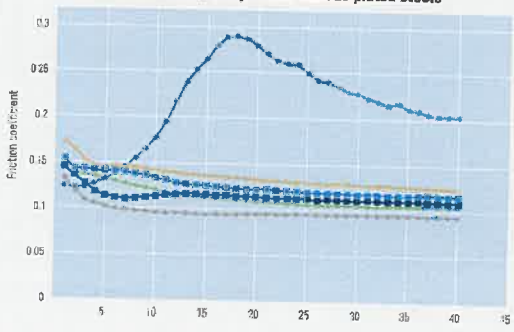
Division	GI	PosMAC
Classification	ZnO	$Zn_5(OH)_8Cl_2, H_2O$, $Zn_4CO_3(OH)_6, H_2O$
Image	 Porous & incompact structure	 Stable & dense structure

■ Precautions when storing the PosMAC before the construction

- Coils, sheet, and processed products must be kept dry and smooth-ventilated place. White rust can be caused by water vapor on the ground floor when storing.
- Set vinyl and the thick pentagonal timber(thicker than 10mm recommended) on the ground first and stack the coils to ventilate ordinarily.
- The coil and sheet should be wrapped when raining and if the rain stops, the package should be removed so that the internal water could evaporate and get removed.
- To cover vinyl above the unpackaged coil where it has moisture in the air should not be kept for a long time as it might promote the reaction with coil and the moisture.
- When keeping the coil for a long time, it should be used quickly and in first-in-first-out manner since there is the possibility that white rust might occur.
- The unpackaged or package-seperated coils have to be used quickly.

Galling & scratch resistance of PosMAC®

■ Surface hardness vs. Tool pass for various plated steels



- PosMAC has particularly excellent galling & scratch resistance compared to that of GI due to its high surface hardness. Consequently, PosMAC excretes less dust-like compound than a GI, so our customers can keep their press machines clean during the forming process.

Surface hardness : PosMAC Hv 110~130, GI Hv 60~80, Galvalume Hv 80~100

■ Surface appearance after friction test



Test condition

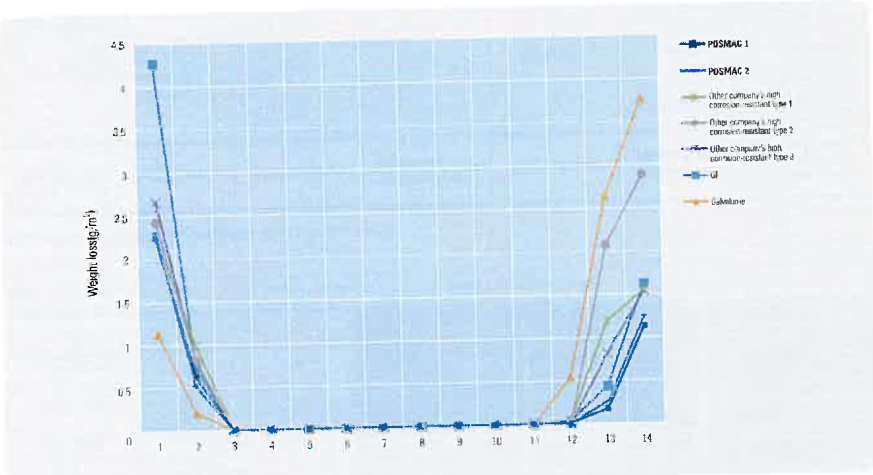
- Target force : 333.3 kgf, Pressure : 3.736 MPa
- Tip movement : 200 mm length, 20 mm/sec rate
- Avg. calculation region : 30mm ~ 170mm
- P-DBH(washing oil) oiled.

Type 1, 2 Other company's high corrosion-resistant

Chemical resistance of PosMAC®

- PosMAC shows less weight loss of plating layer in comparison to GI and galvalume under either an acidic or an alkaline environment. This means that PosMAC is much more resistant to potent chemicals than other plated steels products.
- GI and galvalume are especially weak under the strong acidic condition(pH 1~2) and strong basic condition(pH 13~14), respectively.
- PosMAC is applicable for farm housing and building materials thanks to its excellent chemical resistance.

■ Weight loss of plating layer vs. pH for various plated steels



Test method : Weighing the loss of plated layer after dipping into various solutions(pH 1~14, H_2SO_4, NaOH and NH_3 single or mixed) for 24 hours.

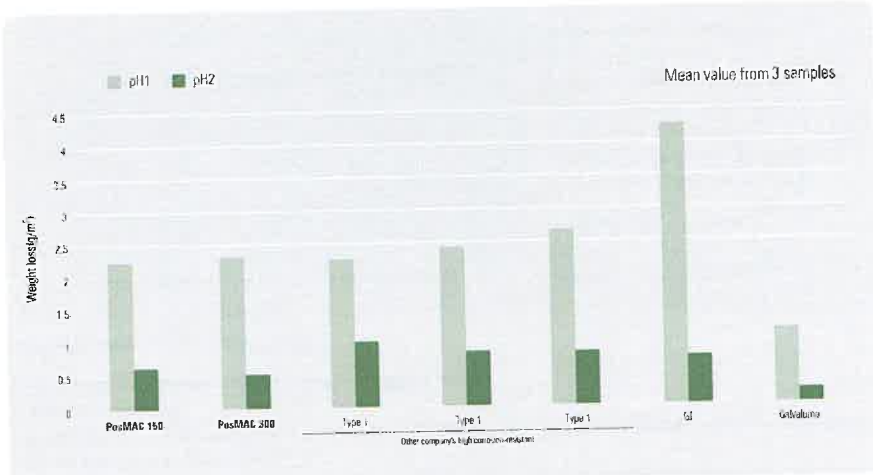
■ Chemical resistance against pH 1 solutions



■ Chemical resistance against pH 2 solutions

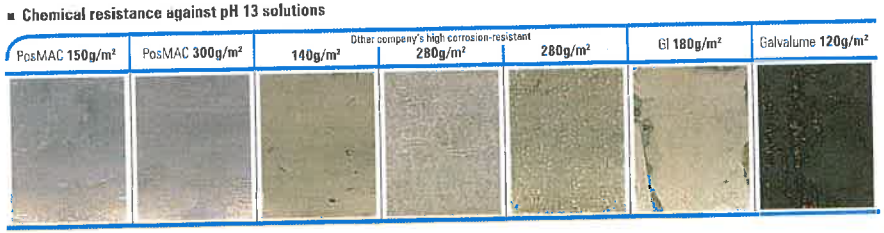


■ Weight loss from pH 1 and 2 solutions

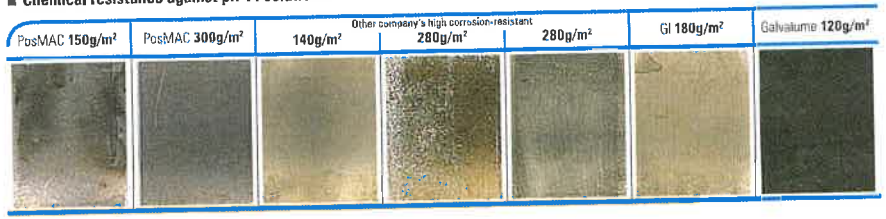


- All of the commercial alloy plated steels above shows similar chemical resistance under acidic conditions(pH 1~2).
- The galvalume which has the highest Al content shows the highest chemical resistance under acidic conditions(pH 1~2).

■ Chemical resistance against pH 13 solutions

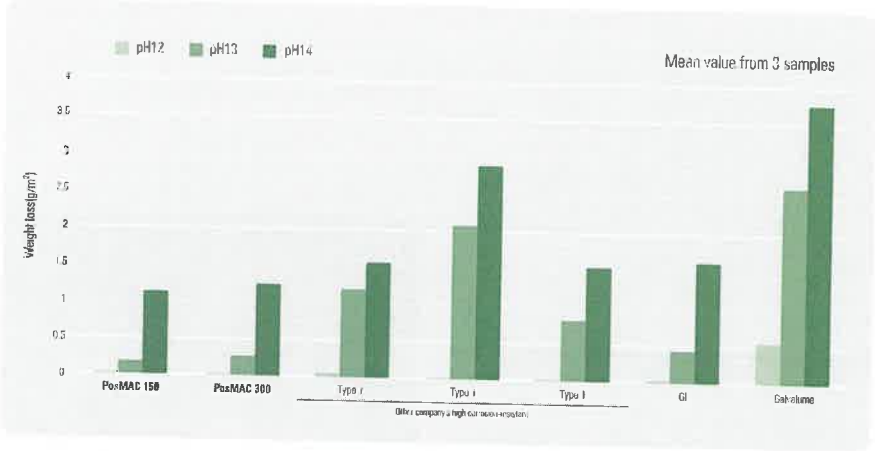


■ Chemical resistance against pH 14 solutions



Chemical resistance of PosMAC®

■ **Weight loss from pH 12, 13 and 14 solutions**



- Galvalume's chemical resistance is the poorest under alkaline conditions(pH 12~14) although its chemical resistance was excellent under acidic conditions(pH 1~2).
- PosMAC's chemical resistance is especially excellent under alkaline conditions(pH12~14).

Chemical resistance to ammonia solutions



■ **Evaluation method**

- Dipping into a 10% ammonia solution(pH 12.5).
- Replace with fresh solution every 100 hours.
- Surface inspection after 1200 hours.

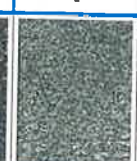
■ **Anti-corrosiveness after 1000, 1200 hours**

Diffing Time	PosMAC 120g/m²	GI 275g/m²	Galvalume 100g/m²	Diffing Time	PosMAC 120g/m²	GI 275g/m²	Galvalume 100g/m²
1000Hr				1200Hr			

- Galvalume displayed red-rust formation after 400 hours. / - GI displayed rapid red-rust formation after 1000 hours.
- PosMAC did not display red-rust formation after 1200 hours.

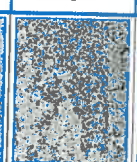
Acid rain simulation test results

- Red-rust formed on the exposed edge of the galvalume after 30 cycles / similar symptoms became visible on the GI after 60 cycles.

Acid rain simulation	30 Cycle			60 Cycle		
	PosMAC	GI	Galvalume	PosMAC	GI	Galvalume
The coating weight on both sides	100g/m²	275g/m²	100g/m²	100g/m²	275g/m²	100g/m²
Cut surface edge taped						
Cut surface edge exposed						

Test condition : Artificial acid rain(0.1% NaCl solution+H_2SO_4, 35°C, 1Hr, pH4) → Drying(30%RH at 60°C, 4Hr) → Humid environment(95%RH at 50°C, 3Hr).

- Red-rust did not form on the exposed edge of the PosMAC after 90 cycles.

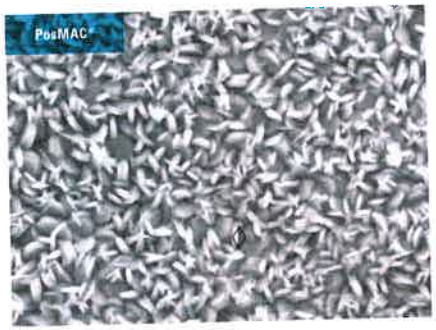
Acid rain simulation	90 Cycle			120 Cycle		
	PosMAC	GI	Galvalume	PosMAC	GI	Galvalume
The coating weight on both sides	100g/m²	275g/m²	100g/m²	100g/m²	275g/m²	100g/m²
Cut surface edge taped						
Cut surface edge exposed						

Test condition : Artificial acid rain(0.1% NaCl solution+H_2SO_4, 35°C, 1Hr, pH4) → Drying(30%RH at 60°C, 4Hr) → Humid environment(95%RH at 50°C, 3Hr).

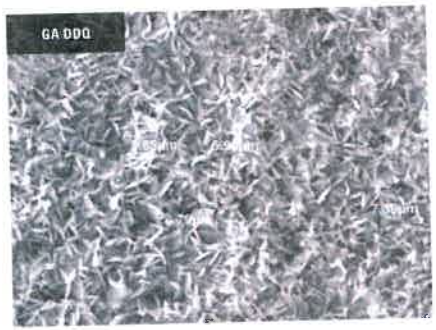
Phosphating property of PosMAC®

Phosphating property

- Because phosphate crystallization is formed densely, phosphating property is advantegeous.







Classification	Phosphate coating weight (g/m²)	Crystallization size (μm)
PosMAC	3.75	1-6
GA-DQ	3.64	9~12
GA-DDQ	3.56	5~8

Gas metal arc(GMA) welding

Welding machine Welding is achievable with general market-grade welding machine.

Welding wire It can apply general mild steel, structural wire. If you use KC28 of carbon steel, it is profitable in LME(Liquid Metal Enbrittlement) prevention of weld zone more than SM309L, SM310. (stainless steel)

Shield gas It uses gas Ar+20% CO_2 for decreasing spatter.

Welding current, voltage When welding with the same speed of a general cold-rolled steel sheet, PosMAC is robbed of heat by the evaporation of its Zinc plating layer. So welding input heat must be established more than that of a general cold-rolled steel sheet. (About 5~10 % in electric current)

Welding speed To prevent defect occurrence like a blow hole or pit, welding speed must be set lower than that of a cold-rolled steel sheet.

Repair spray coating Damaged Zn-Mg-Al coating layer of weld zone, must execute repair spray coating for corrosion resistance security of weld zone. Execute Zn-Al alloy spray coating that is on common use according to specifications of makers.

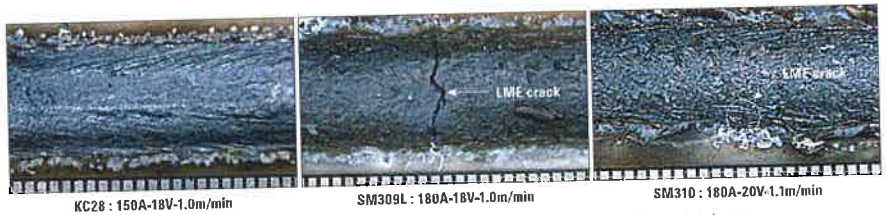
LME(Liquid Metal Enbrittlement) occurrence by welding material

Test information : PosMAC-C, 1.2 mmt, Coating Weight M140g/m², No oiled, No post treatment.

LME crack observed on welding surface

KC28(carbon steel) is good without LME,
but STS welding material is sensitive in the LME.

Welding material	Chemical composition	TS	EL	Note
KC28(1.2Φ)	0.07C-0.86Si-1.5Mn	580MPa	28%	YGW12, ER70S-6
SM309L(1.2Φ)	22Cr-12Ni-0.02C	563MPa	43%	STS Welding material
SM310(1.2Φ)	25Cr-20Ni-0.1C	610MPa	35%	



KC28 : 150A-18V-1.0m/min | SM309L : 180A-18V-1.0m/min | SM310 : 180A-20V-1.1m/min

※ When welding under excessive stress condition, LME crack can happen. Before using the material, please contact our product technical part.

PosMAC welding guideline

Circular fillet arc welding method between PosMAC panel and STS304 Pipe

In order to prevent LME crack when welding of the PosMAC, (example of application: water tank),

it has to be welded with both appropriate welding material and protection gas mixture ratio.

- 308L(100% CO_2), 312(Ar+2% O_2)

■ **The fillet arc welding part sectional picture between the PosMAC panel & the STS304 pipe**



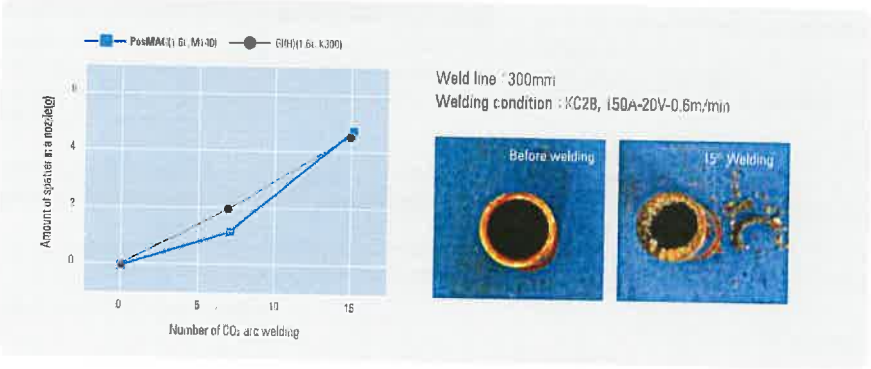
Classification	Maker	Diameter	Type	Shield gas	lassi					
					C	Mn	Si	Cr	Ni	Mo
Shield-bright 308L Xtra	SeAH ESAB	Φ1.2	Flux cored wire	100%CO_2	0.03	1.3	0.6	19.2	9.6	0.2
SMP-M312			SolidWire	Ar+2%O_2	0.1	1.9	0.33	29.9	9.79	-

* If the shield gas mixture ratio change, LME crack could happen in PosMAC welding part.

Weldability of PosMAC®

Spatter occurrence when welding

Test information : PosMAC-C, 1.6 mmt, Coating Weight M140g/m², No oiled, No post treatment.
Welding condition : CO_2 welding, Welding material: KC28 solid wire(1.2Φ), Current 150A, Voltage 20V, Welding speed 0.6m/min
Test Result : As the number of arc welding increases, spatter weight of nozzle parts increases.
Therefore, nozzle cleaning is necessary after the 10th(Weld line 3,000mm) welding.

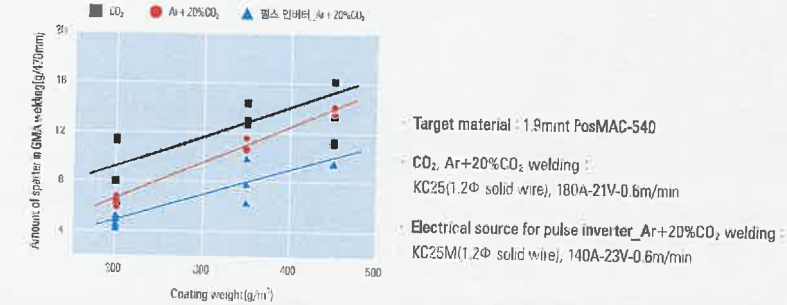


Spatter weight of nozzle of CO_2 arc welder

Nozzle condition after welding

How to reduce spatter

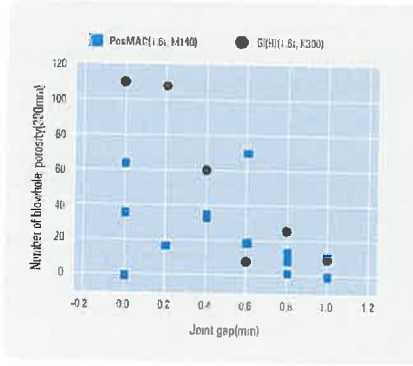
During arc welding of coated materials, evaporating zinc pushes out molten metals, creating lots of spatter.
The amount of spatter increases dramatically with coating weight. Spatter also reacts sharply with CO_2 used in the welding of non-coated materials.
Spatter can be reduced by using pulse inverter electrical sources for arc generation and using Ar+20CO_2 as a shield gas.



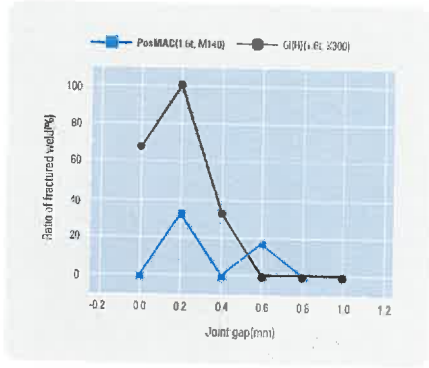
Properties relationship between amount of spatter, coating weight, and electrical source for arc welding

Occurrence of porosity and blow hole reduction method

Test information : PosMAC-C 1.6 mmt, coating weight M140g/m², No oiled, No post treatment.
Welding condition : CO_2 welding, Welding material: KC28 solid wire, Current 150A, Voltage 20V, Welding speed 0.6m/min.
Test result : If it is set joint gap interval 0.6mm, because discharge of zinc stream is increased through joint,
so strength of weld zone improves.



Relation of joint gap interval and porosity, blow hole

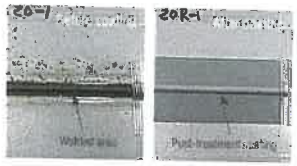


Relation of joint gap interval and weld zone fracture

Post-treatment of arc-welded area

After arc-welding, post-treatment is necessary due to the loss of coated layers in the deposited metal zone as well as the heat affected zone. For PosMAC, by spraying a layer (minimum 40㎛ per each side) of post-treatment solution containing commonly available Al-powder, galvanic corrosion-resistance appropriate to the material can be restored.

Material : 1.9mmt, 540MPa, Coating weight M450
Arc welding : KC25M(1.2Φ, solid wire), Ar+20%CO_2, 160A-0.7m/min



Result of SST per condition after post-treatment of arc-welded area of PosMAC(after 960 hours)

Original material	Silver powder from A company(Paint)	Galvanic from A company (Paint)



Test method : Every 24 hours after spraying salt water solution(JIS Z2371, 5% NaCl, at 34C), check the condition of samples.

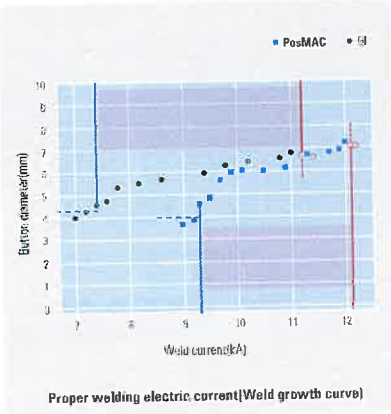
Weldability of PosMAC®

Spot welding

- When PosMAC is welding(likely general Zn coating product) welding current must be enhanced compared to that of cold-rolled steel sheet.
  : When PosMAC is welding(likely general Zn coating product), current density falls and conduction path is expanded by the melting of the Zn layer.
- Electrode life-time is decreased due to the consumption of electrodes. As a reaction of the electrode and the Zn layer, figures out electrode life-time in advance and must carry out dressing, exchange regularly.

Spot weldability comparison of hot dip galvanized sheet and PosMAC

Classifi-cation	Thickness (mm)	Coating weight of one side (g/m²)	Proper welding electric current (standard : more than 1.0kA)
PosMAC	0.67	122	2.7
GI	1.2	72	3.8



Proper welding electric current(Weld growth curve)

High frequency pipe-making welding

- High frequency pipe-making workability of PosMAC is similar to that of a general galvanized steel.
- Corrosion resistance of weld zone is superior to that of a general hot dip galvanized steel after spray coating processing.

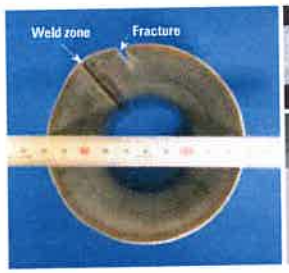
Pipe-making and high frequency pipe-making weld of PosMAC

Steel grade and steel pipe specification : PosMAC M200, Post-treatment : Chromate / Out dia 60.4mm, 48.9mm, Thickness 2.0mm

Test result :

Pipe-making property is good. Forming property of weld zone is excellent. Pipe extension ratio is more than 60% until base metal fracture occurs. Weld zone spray coating for repairing must be Al+Zn, Al-Zn alloy, Al and spray coating thickness is more than 7㎛.

** Base layer spray coating needs application of Al spray coating material for insurance of coating cohesiveness and thickness.*



Pipe shape after pipe extension of high frequency pipe-making weld of PosMAC.



Micro-structure of the spray coating layer in the high frequency welded pipe of PosMAC.

Classifi-cation	High frequency welding		
	GI(H) 180g/m²	Batch-GI 600g/m²	PosMAC 140g/m²
SST 300Hr			
600Hr			

Weld zone corrosion resistance of high frequency welded pipe of PosMAC.

Laser beam welding

Laser beam welding, in comparison to arc welding, generates a low heat point weld, which reduces spatter and defects, leading to improvements in quality and usability.

Welding butt Joints

During laser beam welding of PosMAC, heat input must be tightly controlled to retain desired physical properties. If heat input application is excessive during low-speed welding, coated layers will be vaporized and oxidized by welding heat, making it difficult for the welded part to retain corrosion resistance. On the other hand, if heat input is low inadequately during high-speed welding, it is difficult to perform piercing welding.

The chart below shows the desirable welding speed range according to steel thickness and coating weight. For steel products other than those shown here, specific welding requirements can be derived.

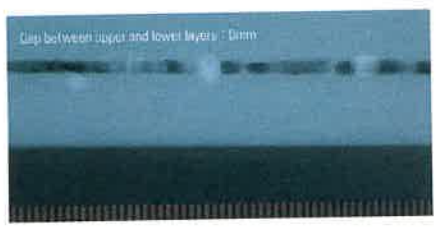
Division	Welding speed(m/min), Laser output 6kW					
	2	4	6	8	10	12
3.28t, M140, Chrome treatment	Coated layer elimination and oxidization		Proper welding condition		Partial penetration	
2.48t, M275, Chrome treatment						
2.47t, M275, Chrome treatment						
2.1t, M350, Chrome treatment						
2.34t, M140, No treatment						
2.33t, M140, NT treatment						
1.95t, M275, NT treatment						

Laser beam welding requirements for PosMAC butt joints

** Penetration refers to the depth of the original material converted to welded metal after the melting process. The depth of this zone in the plate thickness direction is called penetration depth. If only part of a joint is penetrated, it is called partial penetration.*

Welding lap joints

When a lap joint is welded, the coated layer between the two plates vaporizes, and is absorbed into the molten metal, likely creating gas pockets. The faster the welding speed, the more gas pockets are formed. With reduced welding heat input, the number of gas pockets will decrease to a certain degree, but it is hard to completely prevent their occurrence. At the present time, the most effective way to minimize gas pockets is maintain a gap between the two plates of at least 0.3mm so that the vaporized coating layer can easily escape to the outside. However, though a bigger gap between upper and lower plates is favorable for preventing gas pockets, it must be heeded that too big a gap could hinder the creation of a sound joint.



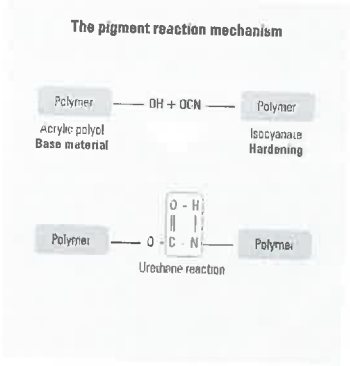


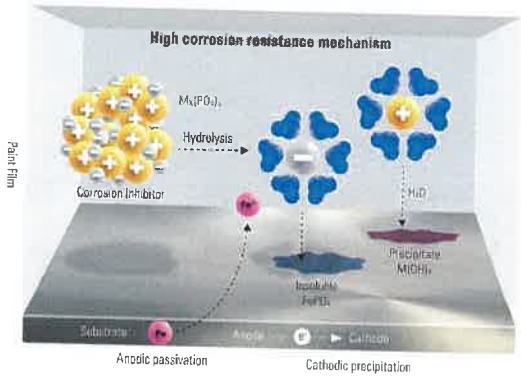
X-ray analysis result of laser-beam-welded lap joint: 2.3t PosMAC-C, M140, NT / 6kW-4m/min

Post-treatment for PosMAC® only

The feature of MAC-GUARD

- The MAC-GUARD product is the repair solution developed by the PosMAC only.
- The MAC-GUARD product has excellent hardness, chemical resistance, water resistance due to the urethane(Urethane) coupling between polymers.
- The MAC-GUARD product contains two-component coating material with main component an acrylic polyol, a special anti-corrosive pigment [Mx (PO4) y]. It has excellent corrosion resistance by using zinc and aluminum flake.
- MAC-GUARD product has excellent weather resistance by using HDI(Hexamethylene diisocyanate) as a hardener instead of using MDI (Methylene Diphenyl Diisocyanate) or TDI(Tolyene diisocyanate) to combine isocyanate to the benzene ring directly.
- 40 ㎛ or more of the MAC-GUARD should be applied for one side with spray or paint to secure corrosion resistance.





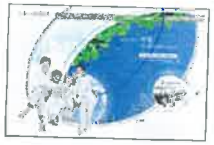
The results of corrosion resistant test

It is possible to ensure excellent corrosion resistance of welded parts by small amount of deposition(40㎛) than commercial product(60㎛)

CCT Test result

CCT*	Commercialized product(60㎛)	MAC-GUARD(40㎛)
150 Cycle (1200Hr)		

*CCT 1cycle(KS R 1127) : Salt spray 2Hr(5% NaCl, 35℃) → Dry 4Hr(25% RH, 60℃) → Wet 2Hr(95% RH, 50℃)



Contact AK ChemTech CO.,LTD

Pohang plant : 590 Hodong Namgu Pohangsi Gyeongsangbukdo
Tel : +82-54-280-2127 / Fax : +82-54-278-6579
http://www.akchemtech.co.kr

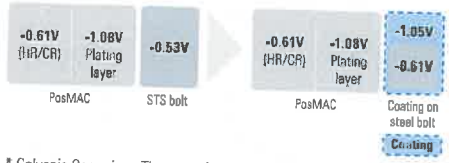
AK 에이케이켐텍주식회사 ChemTech CO.,LTD.

Bolt for PosMAC® only

The feature of MAC-BOLT

By developing product which has similar self-potential of the PosMAC, the galvanic corrosion due to potential difference get controlled. MAC-BOLT has excellent corrosion resistance, which is exclusively used with PosMAC through the sacrificial protection of the Zn & Al Flake.

The self-potential among 5% the NaCl aqueous solution and corrosion-resistance



* Galvanic Corrosion : The corrosion occurred by the electrochemical process when two mutually different kinds of metals get touched.

The self-potential result of measurement for each meterial

· 5% NaCl(pH6.5, 35℃), PosMAC : -1041.6 mV/SCE

Material	Electric potential(mV)
Steel	-634.8
Zn plating	-1049.0
STS 304	-530.8
MAC-BOLT	-1054.7

The surface treating material and method

The ingredient of coating material

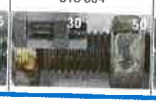
- Binder : Epoxy type
- Main ingredient : Zn & Al Flake + Nano Powder
- Feature : MAC-BOLT has the excellent corrosion resistance by combining Zn and Al Flake that is the sacrificial anode. The formation of the coating layer with the nano-powder in the space between flake
- Coating method : Dip & Spin → Heat Treatment(Dry)



Coating process

Pre-treatment (Blast) → 1st coating → Dry (230~250℃) → 2nd coating → Dry (230~250℃) → Quality inspection

CCT test of Bolt

10~25 Cycle	30~50 Cycle	180~250 Cycle
Zn(Cr)*	STS 304	MAC-BOLT
		

*m(Cr) : Chromate treatment on electro galvanized steel

CCT test after bolting of PosMAC & PosMAC

30 Cycle	100~300 Cycle
	

- MAC-BOLT : Red-rust did not occur over CCT 200 Cycle(1,600Hr)
- Zn(Cr) coated product : Red-rust happened in 30 cycle(240Hr), STS 304 : Red-rust happened in 50cycle(400Hr)
- CCT 1cycle(KS R 1127) : Salt spray 2Hr(5% NaCl, 35℃) → Dry 4Hr(25% RH, 60℃) → Wet 2Hr(95% RH, 50℃)



Contact SAMIL CO.,LTD

(Sihwa Industrial Complex 5ra 409) 89, Jiwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea
Tel : +82-31-319-8137 / Fax: +82-31-319-8139 / E-mail : samil98@sifastener.com
http://www.sifastener.com

Main usage


Foundation structure supporting solar power panels




Foundation structure supporting solar power panels on the water


PEB (Pre-engineered metal building system)


Cooling tower


Silo


Distributing board


Pipe


Plant factory structure


Vinyl house pad


Vinyl house switch


Stock farm


Fish farms


Steel curtain wall


Cable tray

Main usage


High corrosion resistance required part of an air conditioner


Motor case


Rock bolt


Corrugated steel


Back plate of noise barrier


Guard rail


Water storage tank


Sandwich panel


Roof, Wall




Resort building wall in coast(PosMAC+PVDF treatment)



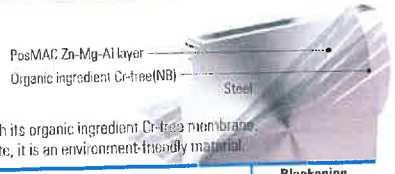

General house(PosMAC+Polyester or PVDF treatment)




Apartment roof(PosMAC+PVDF treatment)


PD panel

Post-treatment

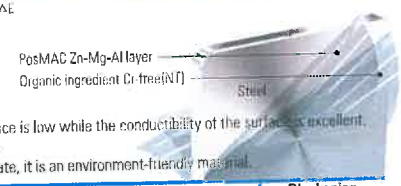


Organic ingredient Cr-free(NB)

Excellent corrosion resistance It displays excellent white-rust resistance with its organic ingredient Cr-free membrane.
Environment friendly Because it is a membrane that does not contain chromate, it is an environment-friendly material.

Post treatment	Corrosion resistance of flat sheet		Corrosion resistance of erichsen sheet		Blackening resistance
	SST 72Hr	SST 96Hr	SST 24Hr	SST 48Hr	Standard △E ≤ 3.0
NB					2.1
					Anti-finger Printed property is good.

※ Blackening resistance test : Humid Environment(95% RH at 50°C, 120Hr) → measurement of △E



Inorganic ingredient Cr-free(NT)

Conductivity Because it is an inorganic ingredient membrane, electric resistance is low while the conductibility of the surface is excellent.
Corrosion resistance It has white-rust resistance similar to that of chromate.
Environment friendly Because it is a membrane that does not contain chromate, it is an environment-friendly material.

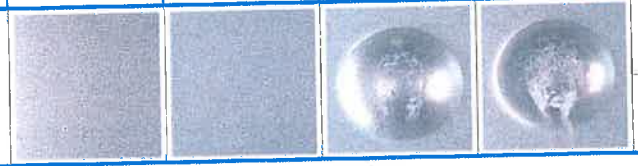
Post treatment	Corrosion resistance of flat sheet		Corrosion resistance of erichsen sheet		Blackening resistance
	SST 72Hr	SST 96Hr	SST 24Hr	SST 48Hr	Standard △E ≤ 3.0
NT					2.8
					Electric resistance is lower than 1mΩ

※ Blackening resistance test : Humid Environment(95% at 50°C, 120Hr) → measurement of △E



Cr^{3+} Eco chromate(CE)

Excellent corrosion resistance It displays excellent white-rust resistance by blocking corrosive factors with its chromium nitrate and chromium phosphate.
Environment Friendly Because it does not contain Cr^{6+}, it is an environment friendly material.

Post treatment	Corrosion resistance of flat sheet		Corrosion resistance of erichsen sheet		Blackening resistance
	SST 72Hr	SST 96Hr	SST 24Hr	SST 48Hr	Standard △E ≤ 3.0
CE					2.9
					Pipe making and alkali resistance is good

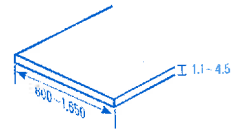
※ Blackening resistance test : Humid Environment(95% at 50°C, 120Hr) → measurement of △E

PosMAC®(HR Base) specification

HR Base PosMAC®

- Coating mass : 60~400g/m² (Both Sides)
- Post treatment : Cr-Free (NB, NT), Chromate(CI), Cr^{3+} ECO Chromate(CE)
- Sizes in production(CQ) : Thickness 1.1~ 4.5mm / Width 800 ~ 1,650mm

※ Width may vary depending on the thickness



Grade	POSCO	KS D 3030	ASTM Equivalents *( ) ksi unit	EN Equivalents	JIS Equivalents	Mechanical properties(MPa,%)			
						YP	TS	EL	CMB
CQ	PosMAC-C	KS-SGMHC	A653-CS	EN-DX51D	JIS-SGHC	170~400	270~450	28~	1T
DQ	PosMAC-D	-	A653-FS	EN-DX52D	-	~245	270~400	35~	1T
Structural	PosMAC-340	KS-SGMH340	A653-SS255 (SS37)	EN-S250GD	JIS-SGH340	245~450	340~470	20~	1T
	PosMAC-400	KS-SGMH400	A653-SS275 (SS40)	EN-S280GD	JIS-SGH400	295~490	400~560	18~	2T
	PosMAC-440	KS-SGMH440	A653-SS340 (SS50)	-	JIS-SGH440	335~490	440~600	18~	3T
	PosMAC-Y340	-	A653-HSLAS340 (HSLAS50)	EN-S350GD	-	340~	410~	21~	2T
	PosMAC-490	KS-SGMH490	A653-HSLAS380 (HSLAS55)	-	JIS-SGH490	365~600	490~650	16~	3T
	PosMAC-540	KS-SGMH540	A653-HSLAS410 (HSLAS60)	EN-S450GD	JIS-SGH540	450~600	540~650	16~	3T
	PosMAC-700	-	-	-	-	500~	700~	8~	3T

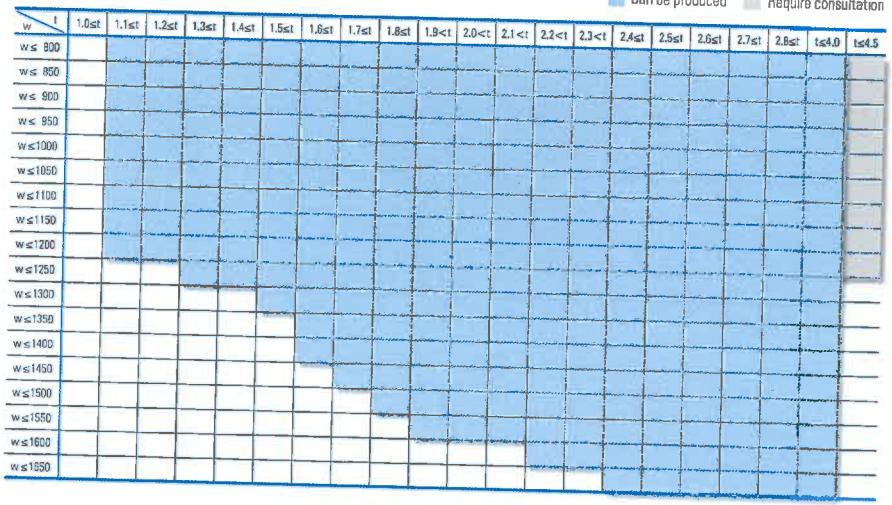
*CMB : Coating metal bending test

PosMAC®(HR Base) specification

* The following manufacturing spec is the standard when the mill edge order.
  In case of the slit edge order, possible width decrease with 20mm.

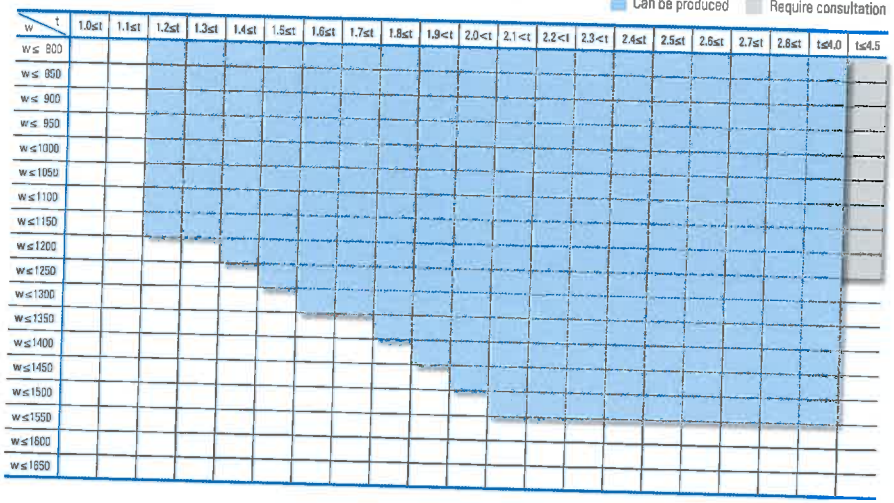
PosMAC-C, PosMAC-D, PosMAC-340

Can be produced Require consultation



PosMAC-400

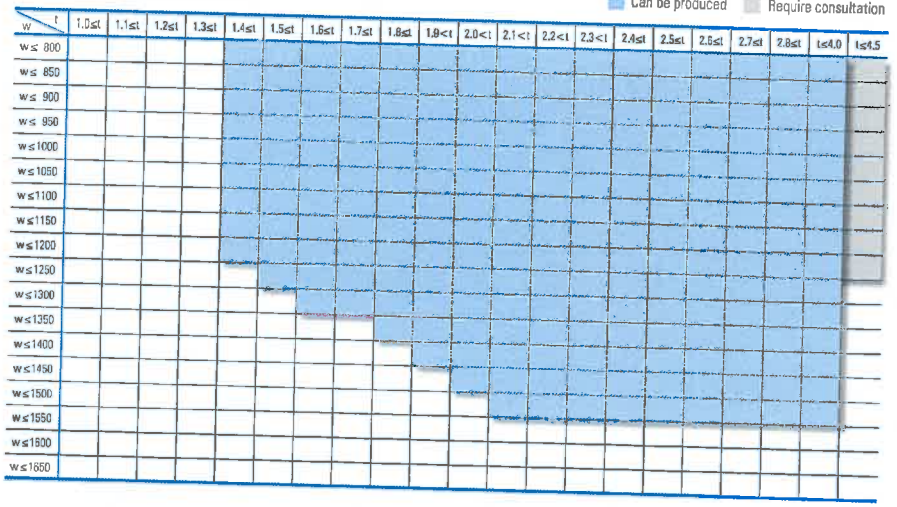
Can be produced Require consultation



⚠ Please be sure to consult with our associates when making orders for specific usage.

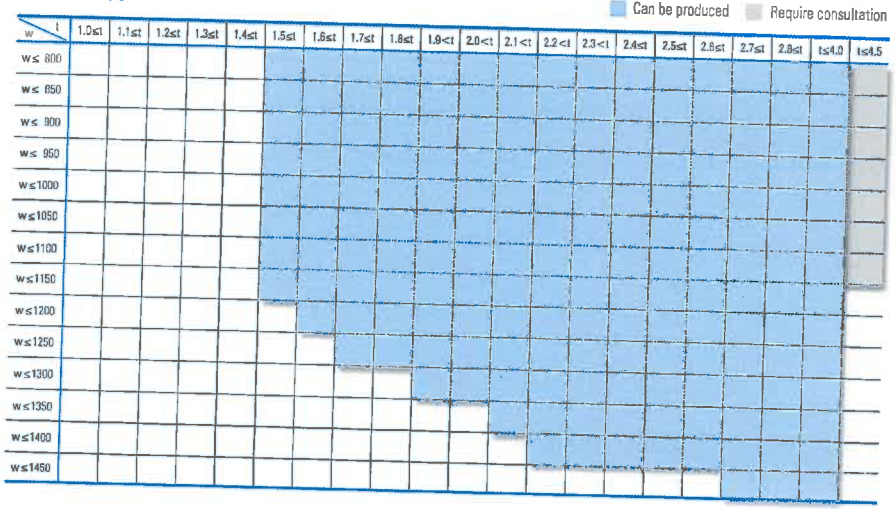
PosMAC-440, PosMAC-Y340

Can be produced Require consultation



PosMAC-490

Can be produced Require consultation



PosMAC®(HR Base) specification

PosMAC-540

Can be produced Require consultation

w \ t	1.0≤t	1.1≤t	1.2≤t	1.3≤t	1.4≤t	1.5≤t	1.6≤t	1.7≤t	1.8≤t	1.9<t	2.0<t	2.1<t	2.2<t	2.3<t	2.4≤t	2.5≤t	2.6≤t	2.7≤t	2.8≤t	t≤4.0	t≤4.5
w≤ 800																					
w≤ 850																					
w≤ 900																					
w≤ 950																					
w≤1000																					
w≤1050																					
w≤1100																					
w≤1150																					
w≤1200																					
w≤1250																					
w≤1300																					
w≤1350																					
w≤1400																					
w≤1450																					

PosMAC-700

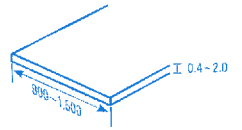
Reqgire consultation

w \ t	1.0≤t	1.1≤t	1.2≤t	1.3≤t	1.4≤t	1.5≤t	1.6≤t	1.7≤t	1.8≤t	1.9<t	2.0<t	2.1<t	2.2<t	2.3<t	2.4≤t	2.5≤t	2.6≤t	2.7≤t	2.8≤t	t≤4.0	t≤4.5
w≤ 800																					
w≤ 850																					
w≤ 900																					
w≤ 950																					
w≤1000																					
w≤1050																					
w≤1100																					
w≤1150																					
w≤1200																					
w≤1250																					
w≤1300																					
w≤1350																					
w≤1400																					
w≤1450																					

⚠ Please be sure to consult with our associates when making orders for specific usage.

CR Base PosMAC®

- Coating mass : 60~400g/m² (Both sides)
- Post treatment : Cr-Free(NB, NT), Chromate(CL), Cr^{3+} ECO Chromate(CE)
- Sizes in production(CQ) : Thickness 0.4~ 2.0mm / Width 800 ~ 1,600mm
  ※ Width may vary depending on the thickness



Grade	POSCO	KS D 3030	ASTM Equivalents *( ) ksi unit	EN Equivalents	JIS Equivalents	Mechanical properties(MPa,%)			
						YP	TS	EL	CMB
CQ	C-PosMAC-C	KS-SGMCC	A653-CS	EN-DX51D	JIS-SGCC	170~400	270~450	28~	1T
DQ	C-PosMAC-D	KS-SGMCD2	A653-FS	EN-DX53D	JIS-SGCD2	~245	270~400	40~	1T
DDQ	C-PosMAC-N	KS-SGMCD3	A653-DDS	EN-DX54D	JIS-SGCD3	~245	270~400	43~	1T
Structural	C-PosMAC340	KS-SGMC340	A653-SS255 (SS37)	EN-S250GD	JIS-SGC340	245~450	340~500	20~	1T
	C-PosMAC400	KS-SGMC400	A653-SS275 (SS40)	EN-S280GD	JIS-SGC400	295~490	400~560	18~	2T
	C-PosMAC440	KS-SGMC440	A653-HSLAS340 (HSLAS50)	EN-S350GD	JIS-SGC440	335~490	440~600	18~	2T
	C-PosMAC490	KS-SGMH490	A653-HSLAS380 (HSLAS55)	-	JIS-SGC490	365~600	490~650	16~	3T
	C-PosMAC540	-	A653-HSLAS410 (HSLAS60)	EN-S450GD	-	450~600	540~650	16~	3T
	C-PosMAC570	KS-SGMC570	A653-HSLAS480 (HSLAS70)	EN-S550GD	JIS-SGC570	560~	570~	8~	3T

*CMB : Coating Metal Bending test.

PosMAC®(CR Base) specification

* The following manufacturing spec is the standard when the mill edge order.

C-PosMAC-C

Can be produced Require consultation

w \ t	0.4≤t	0.6<t	0.7<t	1.0<t	1.8<t	2.0≤t
w≤ 800						
w≤ 850						
w≤ 900						
w≤ 950						
w≤1000						
w≤1050						
w≤1100						
w≤1150						
w≤1200						
w≤1250						
w≤1300						
w≤1350						
w≤1400						
w≤1470						
w≤1500						
w≤1550						
w≤1600						

C-PosMAC-D, C-PosMAC-N

Can be produced Require consultation

w \ t	0.4≤t	0.6<t	0.7<t	1.0<t	1.8<t	2.0≤t
w≤ 800						
w≤ 850						
w≤ 900						
w≤ 950						
w≤1000						
w≤1050						
w≤1100						
w≤1150						
w≤1200						
w≤1250						
w≤1300						
w≤1350						
w≤1400						
w≤1470						
w≤1500						
w≤1550						
w≤1580						

⚠ Please be sure to consult with our associates when making orders for specific usage.

C-PosMAC340, C-PosMAC400

Require consultation

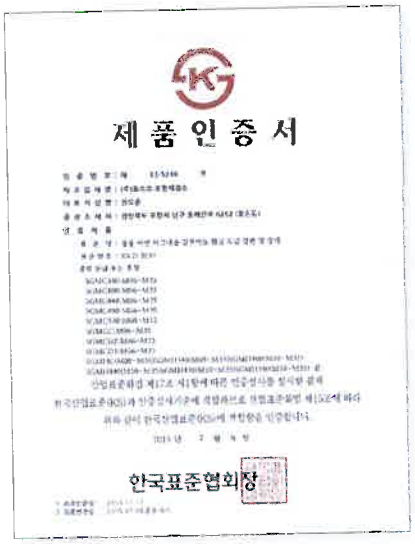
w \ t	0.4≤t	0.6<t	0.7<t	1.0<t	1.8<t	2.0≤t
w≤ 800						
w≤ 850						
w≤ 900						
w≤ 950						
w≤1000						
w≤1050						
w≤1100						
w≤1150						
w≤1200						
w≤1250						
w≤1300						
w≤1350						
w≤1400						
w≤1470						
w≤1500						
w≤1550						
w≤1600						

C-PosMAC440, C-PosMAC490, C-PosMAC540, C-PosMAC570

Require consultation

w \ t	0.4≤t	0.6<t	0.7<t	1.0<t	1.8<t	2.0≤t
w≤ 800						
w≤ 850						
w≤ 900						
w≤ 950						
w≤1000						
w≤1050						
w≤1100						
w≤1150						
w≤1200						
w≤1250						
w≤1300						
w≤1350						
w≤1400						
w≤1470						
w≤1500						
w≤1550						
w≤1600						

KS D 3030


제 품 인 증 서

한국표준협회장

POSCO acquired the certification of KS D 3030(hot-dip zinc-magnesium-aluminum alloy coated steel sheet and strip) standard in July 2015.

Cold-rolled products :
SGMCC, SGMCD2, SGMCD3, SGMC340, SGMC400, SGMC440, SGMC490, SGMC570

Hot-rolled products :
SGMHC, SGMH340, SGMH400, SGMH440, SGMH490, SGMH540

Yield strength, Tensile strength, Elongation

■ **Hot-rolled products**

Designation	YS Min, N/mm²	TS Min, N/mm²	EL Min, %	Test piece
SGMHC	(205)	(270)	-	No.5, Rolling direction
SGMH340	245	340	20	No.5 Rolling direction or Cross-section
SGMH400	295	400	18	
SGMH440	335	440	18	
SGMH490	365	490	16	
SGMH540	400	540	16	

Remark1) 1N/mm² = 1MPa
Remark2) ( ) is only for reference

■ **Cold-rolled products**

Designation	YS Min, N/mm²	TS Min, N/mm²	EL Min, % Thickness(mm) 0.25≤t < 0.40	0.40≤t < 0.60	0.60≤t < 1.0	1.0≤t < 1.6	1.6 ≤ t < 2.3	Test piece
SGMCC	(250)	(270)	-	-	-	-	-	No.5, Rolling direction
SGMCH	-	-	-	-	-	-	-	
SGMCD1	-	270	-	34	36	37	38	
SGMCD2	-	270	-	36	38	39	40	
SGMCD3	-	270	-	38	40	41	42	
SGMC340	245	340	20	20	20	20	20	No.5 Rolling direction or Cross-section
SGMC400	295	400	18	18	18	18	18	
SGMC440	335	440	18	18	18	18	18	
SGMC490	365	490	16	16	16	16	16	
SGMC570	560	570	-	-	-	-	-	

Remark1) When the anti-aging characteristics is featured in the SGMCD3 sheets and coils, the anti-aging characteristics is guaranteed for 6 months.
Anti-aging refers to the characteristic preventing stretcher strains from occuring during manufacturing.
Remark2) In principle, tensile strength tests are not performed on plates with thickness under 0.25mm.
Remark3) ( ) is only for reference.
Remark4) 1N/mm² = 1MPa

Coating weight(Both sides)

Coating designation	Triple point test (g/m², Average)	Single point test (g/m², Min)
(M06)*	60	51
M08	80	68
M10	100	85
M12	120	102
M14	140	119
M18	180	153
M20	200	170
M22	220	187
M25	250	213
M27	275	234
(M35)a	350	298
(M45)a	450	383

Remark1) For both sides, triple spots coating weight, the average value of the measurement of 3 test pieces is applied.
Remark2) For one side, single spot coating weight, the minimum value of the measurement of 3 test pieces is applied.
Remark3) Separate consultation is available for the maximum coating weight on both sides.

KS D 3030

Coating weight(Both sides)

■ Hot-rolled products(CQ~DQ)

(Unit : mm)

Order thickness	Width		
	W < 1200	1200 ≤ W <1500	1500 ≤ W <1800
1.20 ≤ t < 1.60	±0.16	±0.17	±0.18
1.60 ≤ t < 2.00	±0.17	±0.18	±0.19
2.00 ≤ t < 2.50	±0.18	±0.20	±0.22
2.50 ≤ t < 3.15	±0.20	±0.22	±0.25
3.15 ≤ t < 4.00	±0.22	±0.24	±0.27
4.00 ≤ t < 5.00	±0.25	±0.27	-

■ Hot-rolled products(Structural steel)

(Unit : mm)

Order thickness	Width	
	W < 1600	1600 ≤ W < 1800
1.20 ≤ t < 1.60	±0.19	-
1.60 ≤ t < 2.00	±0.20	±0.24
2.00 ≤ t < 2.50	±0.21	±0.26
2.50 ≤ t < 3.15	±0.23	±0.30
3.15 ≤ t < 4.00	±0.25	±0.35
4.00 ≤ t < 5.00	±0.46	-

■ Cold-rolled products

(Unit : mm)

Order thickness	Width				
	W < 630	630 ≤ W < 1000	1000 ≤ W < 1250	1250 ≤ W < 1600	1600 ≤ W
t < 0.25	±0.04	±0.04	±0.04	-	-
0.25 ≤ t < 0.40	±0.04	±0.05	±0.05	±0.06	-
0.40 ≤ t < 0.60	±0.06	±0.06	±0.06	±0.07	±0.08
0.60 ≤ t < 0.80	±0.07	±0.07	±0.07	±0.07	±0.08
0.80 ≤ t < 1.00	±0.07	±0.07	±0.08	±0.09	±0.10
1.00 ≤ t < 1.25	±0.08	±0.08	±0.09	±0.10	±0.12
1.25 ≤ t < 1.60	±0.09	±0.10	±0.11	±0.12	±0.14
1.60 ≤ t < 2.00	±0.11	±0.12	±0.13	±0.14	±0.16
2.00 ≤ t < 2.30	±0.13	±0.14	±0.15	±0.16	±0.18
2.30 ≤ t	±0.15	±0.16	±0.17	±0.18	±0.21

Remark) ( ) is only for reference

Tolerances on width

(Unit : mm)

Width	Hot-rolled products		Cold-rolled products
	Mill edge(A)	Cut edge(B)	
W ≤ 1500	0~+25	0~+10	0~+7
1500 < W			0~+10

Tolerances on length(for sheet)

(Unit : mm)

Hot-rolled products	Cold-rolled products
0~+15	0~+15

Tolerances on camber

■ Hot-rolled products

(Unit : mm)

Width	Sheet			Coil
	Length			
	L < 2500	2500 ≤ L < 4000	4000 ≤ L	
W < 630	5	8	12	5mm/About an arbitrary length of 2000mm
630 ≤ W <1000	4	6	10	
1 000 ≤ W	3	5	8	

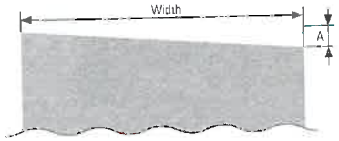
■ Cold-rolled products

(Unit : mm)

Width	Sheet		Coil
	Length		
	L < 2000	2000 ≤ L	
W < 630	4	4mm/About an arbitrary length of 2000mm	
630 ≤ W	2	2mm/About an arbitrary length of 2000mm	

Packing

Tolerances on out-squareness



⚠ Out-of-squareness $\frac{A}{W} \times 100(\%)$

Do not exceed 1%!

Tolerance on flatness

■ **Hot-rolled products**

(Unit : mm)

Thickness	Width				
	W ≤ 1250	1250 ≤ W < 1600	1600 ≤ W < 2000	2000 ≤ W < 3000	W ≥ 3000
1.20 ≤ t < 1.60	18	20	-	-	-
1.60 ≤ t < 3.15	16	18	20	-	-
3.15 ≤ t < 4.00		16		-	-
4.00 ≤ t < 6.00		14		24	25

Remark) Unless otherwise specified, the maximum value of steel flatness shall be 1.5 times of the above table on the steels of the minimum tensile strength spec of over 570N/mm² or the minimum yield strength of over 430N/mm² or having equivalent chemical element or hardness.

■ **Cold-rolled products**

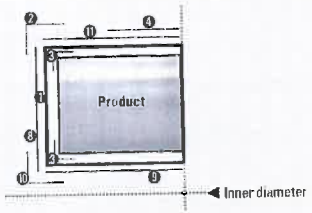
(Unit : mm)

Width	Designation		
	Bow	Edge wave	Center wave
w < 1000	12	8	6
1000 ≤ w < 1250	15	9	8
1250 ≤ w < 1600	15	11	8
1600 ≤ w	20	24	9

Packing

NO	Name	Material
❶	PP VCI wrap	Vinyl
❷	Outer ring	Steel
❸	Corner wrap	Anti-rust board
❹	Outer protect board	Steel
❺	Horizontal band	Steel
❻	Center band	PET
❼	Vertical band	Steel
❽	Side board	Plastic
❾	Inner protect board	Plastic
❿	Inner ring	Steel
⓫	Outer protect board	Anti-rust board

* Packing type and materials are changeable.



Name of cross-sectional pack



Name of outer pack

Order guide

Please refer to the instructions mentioned below in order for you to select the products appropriate for your final usage when you place an order.

Specifications
It is important for you to select a size appropriate for your final usage when you place an order for a product in a specific size.
In addition, since there are various grades of products which you can choose, even if the product is for general commercial use, please consult it with us before you place an order.

Post-treatment
Please select a post-treatment method for the product following the surface treatment, and a surface treatment method appropriate for the conditions under which the final product is to be used. Please refer to the relevant catalog.
Cr-treated or Cr-free treated materials for post-treatment is effective in preventing white rust on the surface of galvanized steel sheet.

Coating weight
Please select a proper coating weight according to the targeted durable life-span of the coating weight, the conditions of use, the method in which it will be processed and other various conditions where the final product will be used. A post-plating treated product is better under corrosive conditions, while on the other hand, a foil plating method is better for products requiring good formability and weldability.

Oiling
Customer can choose the oiling volume according to the usage conditions. However, if you place an order for untreated and un-oiled product, white rust may formed on the surface of the product.

Dimensions
The dimensions of a product greatly affects the actual yield ratio and the formability. If you need stricter dimensions within the available sizes in our catalogs, please consult with us when placing an order.

Edge
Customer can select a product with mill edge or slit edge according to the usage of the product.
If the edge of our company's product is to be used as is for the final product, it is better to place an order with slit edge.

Weld zone
In case of a coil product, a pickled weld zone and a plated weld zone could be mingled. Although such weld zones are relatively small parts of the product, their hardness is high and they are a little thick. Therefore, in case that it is hard for a customer to remove such parts, please select an option, 'No Mingle', then, we will take a measure for it.

Packaging
An appropriate packaging type can be selected according to the conditions of the transportation and storage of a product, but if no packaging is selected, a warranty for white rust can not be issued.

Cautions on use

Since hot-dip galvanized steel sheets cannot exert its various characteristics when utilized inappropriately, please heed the follwing instructions concerning the care of the product.



Storage

Do not keep the product in a place where excess moisture or water may permeate into the product's packaging. If excess moisture or water does come in contact with the product's surface, please dry it off right away. Keep the product indoors in a well ventilated facility, away from conditions where the daily temperature fluctuation is a norm. If the wrapping paper, etc., is damaged while it is being kept, please repair it right away, but keep in mind that even when the packaging is perfectly intact, white rust is known to formate when a galvanized product is kept in stock over a extended period of time. Lastly please take caution and be careful that the plated surface is not damaged during transportation or other operations.



Processing

Since certain lubricant products contains additives that causes zinc erosion, please use lubricants without corrosive properties, and in case the usage of such corrosive lubricant is inevitable, please remove it and treat the surface with an anti-corrosion agent after processing. If the product is to be processed, please select a size appropriate for the usage. Please avoid processing the product under highly moist, sulfurous conditions. Processing environments with either acid gas or sooty smoke should also be avoided.



Welding

In case of a resistance welding(RW), since zinc is attached to the electrode, it is necessary to clean it periodically. In case of a seam welding, the life span of the electrode can be extended by using the KNURL-GEAR DRIVE System. In case of a high-temperature brazing, especially, please avoid brazing with a GA material. Since some fumes are generated when welding, please weld a product at an airy place. Usually, a hot-dip galvanized product is not good for soldering with some general flux.



Degreasing

It is good to use a weak alkaline degreasing agent, either a natural degreasing agent or an organic solvent. Since strong alkaline degreasing agent corrodes zinc, please do not use such agents.



Coating

Since zinc is a highly active metal, it is difficult to attain the neccessary adhesiveness when coated directly on to the surface of a hot-dip galvanized steel sheet without some additional treatments.



Aging

As time progresses, a product may suffer from deteriorated formability, stretcher-strain or fluting phenomena. Therefore, please use a non-aging steel sheet in order to prevent such problems.



Usage

Do not deviate from the original usage for which the product was intended for. If the usage of the product differs from the time it was ordered, it may face problems while being processed.



Others

When using a processed product, if certain treatments, such as coating, and etc., are not conducted on the plated surface, the effects of using a plated steel sheet decreases. (The corrosion levels of the products can vary depending on the conditions it is used.) So, please be noted.

PosMAC®

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Burgemeester en wethouders
van de gemeente Etten-Leur
Int. kenmerk:
2021OG0373-01

ETTEN LEUR GEMEENTE

ANNEX V

LIST OF CALCULATIONS

TÜVRheinland CERTIFIED
Management System ISO 9001:2015
www.tuv.com ID 9105085637

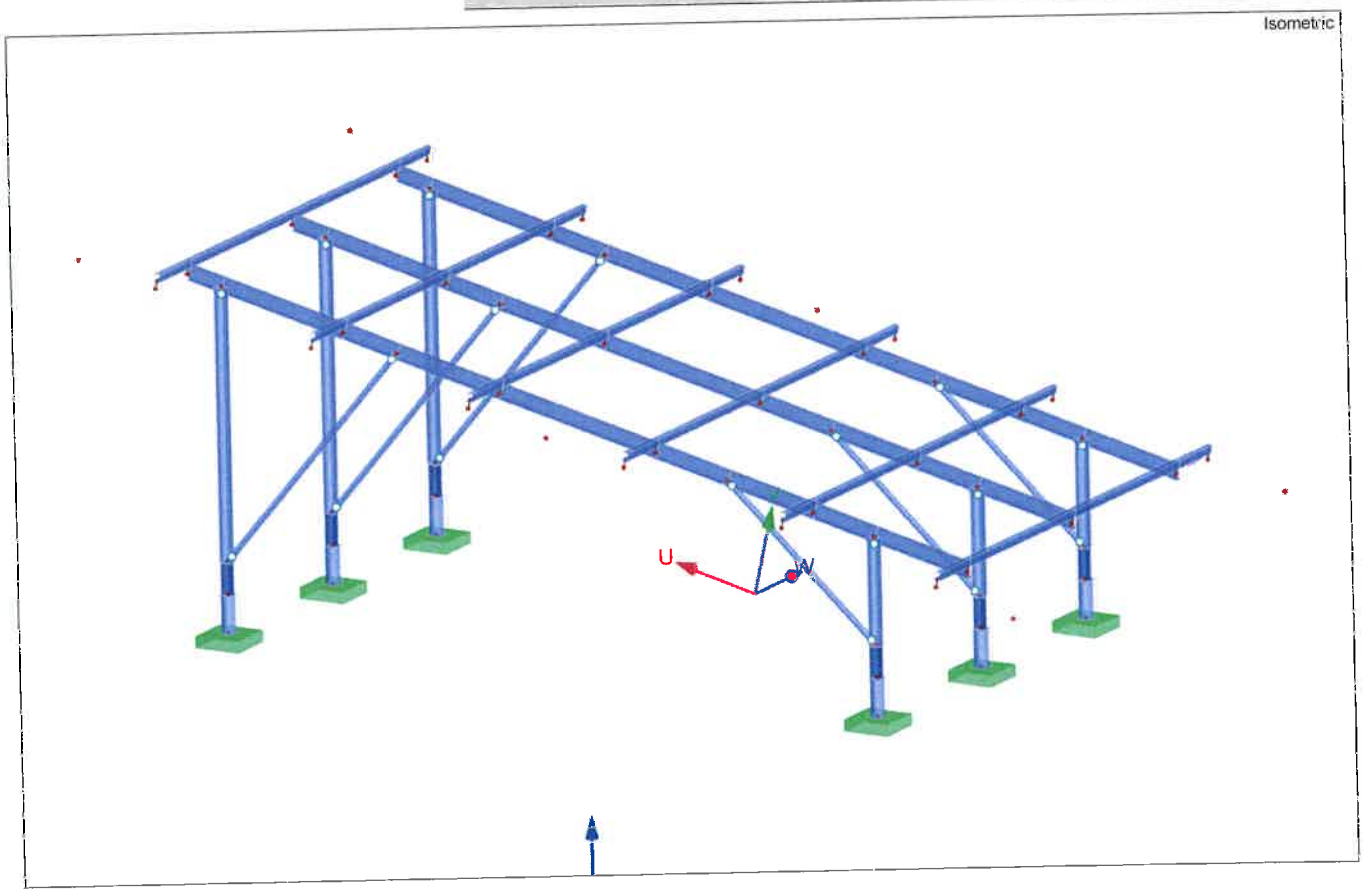
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EN 1090-1 Factory Production Control
www.tuv.com ID 9105071259

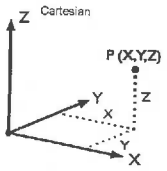
STRUCTURAL ANALYSIS

PROJECT **NL-1191-63 BOLLENDONK**

CLIENT **SOLARCENTURY**

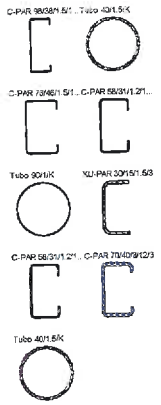
CREATED BY **AXIAL STRUCTURAL SOLUTIONS**





1.1 NODES

Node No.	Node Type	Reference Node	Coordinate System	Node Coordinates X [m]	Y [m]	Z [m]	Comment
5	Standard	-	Cartesian	-3.356	4.383	1.783	
8	Standard	-	Cartesian	-4.100	6.099	1.955	
9	Standard	-	Cartesian	-4.100	4.783	1.955	
10	Standard	-	Cartesian	-4.100	7.415	1.955	
13	Standard	-	Cartesian	-5.353	7.415	2.244	
15	Standard	-	Cartesian	-5.353	4.783	0.000	Segundo pórtico - Final pilar trasero
17	Standard	-	Cartesian	-0.676	4.783	0.000	Segundo pórtico - Final pilar delantero
19	Standard	-	Cartesian	-5.353	4.783	2.244	
20	Standard	-	Cartesian	-0.676	7.415	1.164	
21	Standard	-	Cartesian	-5.353	6.099	2.244	
26	Standard	-	Cartesian	-5.353	6.099	0.000	Tercer pórtico - Final pilar trasero
28	Standard	-	Cartesian	-0.676	6.099	0.000	Tercer pórtico - Final pilar delantero
30	Standard	-	Cartesian	-0.676	4.783	1.164	
31	Standard	-	Cartesian	-0.676	6.099	1.164	
37	Standard	-	Cartesian	-5.353	4.783	0.250	Segundo pórtico - Final pilar trasero
38	Standard	-	Cartesian	-0.676	4.783	0.250	Segundo pórtico - Final pilar delantero
39	Standard	-	Cartesian	-5.353	6.099	0.250	Tercer pórtico - Final pilar trasero
41	Standard	-	Cartesian	-0.676	6.099	0.250	Tercer pórtico - Final pilar delantero
46	Standard	-	Cartesian	-5.596	7.815	2.300	Quinto pórtico - Final dintel
48	Standard	-	Cartesian	-5.353	7.415	0.000	Quinto pórtico - Final pilar trasero
50	Standard	-	Cartesian	-0.676	7.415	0.000	Quinto pórtico - Final pilar delantero
53	Standard	-	Cartesian	-5.353	4.783	0.460	
54	Standard	-	Cartesian	-1.730	4.783	1.408	
55	Standard	-	Cartesian	-5.353	6.099	0.460	
56	Standard	-	Cartesian	-1.730	6.099	1.408	
57	Standard	-	Cartesian	-5.353	7.415	0.250	Quinto pórtico - Final pilar trasero
58	Standard	-	Cartesian	-0.676	7.415	0.250	Quinto pórtico - Final pilar delantero
59	Standard	-	Cartesian	-5.353	7.415	0.460	
60	Standard	-	Cartesian	-1.730	7.415	1.408	
63	Standard	-	Cartesian	-0.676	4.783	0.460	
65	Standard	-	Cartesian	-0.676	6.099	0.460	
69	Standard	-	Cartesian	-0.676	7.415	0.460	
91	Standard	-	Cartesian	-2.246	4.783	1.527	
92	Standard	-	Cartesian	-0.006	4.783	1.010	Segundo pórtico - Inicio dintel
93	Standard	-	Cartesian	-5.596	4.783	2.300	Segundo pórtico - Final dintel
96	Standard	-	Cartesian	-1.116	4.783	1.266	
97	Standard	-	Cartesian	-3.356	4.783	1.783	
98	Standard	-	Cartesian	-4.486	4.783	2.044	
99	Standard	-	Cartesian	-2.246	6.099	1.527	
100	Standard	-	Cartesian	-1.116	6.099	1.266	
101	Standard	-	Cartesian	-0.006	6.099	1.010	Tercer pórtico - Inicio dintel
102	Standard	-	Cartesian	-5.596	6.099	2.300	Tercer pórtico - Final dintel
105	Standard	-	Cartesian	-3.356	6.099	1.783	
106	Standard	-	Cartesian	-4.486	6.099	2.044	
107	Standard	-	Cartesian	-2.246	7.415	1.527	
108	Standard	-	Cartesian	-1.116	7.415	1.266	
109	Standard	-	Cartesian	-3.356	7.415	1.783	
110	Standard	-	Cartesian	-4.486	7.415	2.044	
114	Standard	-	Cartesian	-0.006	7.415	1.010	Quinto pórtico - Inicio dintel
115	Standard	-	Cartesian	-5.596	7.415	2.300	Quinto pórtico - Final dintel
134	Standard	-	Cartesian	-5.596	4.383	2.300	Primer pórtico - Final dintel
142	Standard	-	Cartesian	-1.116	4.383	1.266	Correas 2
143	Standard	-	Cartesian	-1.116	7.815	1.266	Correas 2
144	Standard	-	Cartesian	-2.246	4.383	1.527	Correas 3
145	Standard	-	Cartesian	-2.246	7.815	1.527	Correas 3
146	Standard	-	Cartesian	-0.006	4.383	1.010	Correas 2
147	Standard	-	Cartesian	-3.356	7.815	1.783	Correas 4
148	Standard	-	Cartesian	-4.486	4.383	2.044	Correas 5
149	Standard	-	Cartesian	-4.486	7.815	2.044	Correas 5
150	Standard	-	Cartesian	-0.006	7.815	1.010	Correas 2
288	Standard	-	Cartesian	0.547	4.383	0.872	Nudo aux
289	Standard	-	Cartesian	-6.151	4.383	2.429	Nudo aux
290	Standard	-	Cartesian	0.547	7.815	0.872	Nudo aux
291	Standard	-	Cartesian	-6.151	7.815	2.429	Nudo aux
292	Standard	-	Cartesian	-2.801	4.383	1.655	Nudo aux
293	Standard	-	Cartesian	-2.801	7.815	1.655	Nudo aux



1.13 CROSS-SECTIONS

Section No.	Mat. No.	J [cm⁴] / A [cm²]	I_y [cm⁴] / A_y [cm²]	I_z [cm⁴] / A_z [cm²]	Principal Axes α [°]	Rotation α' [°]	Overall Dimensions [mm] Width b	Height h
1	C-PAR 98/38/1.5/12/1.5 4 Dintel	0.02 2.82	41.51 0.72	5.51 1.18	0.00	0.00	38.0	98.0
2	Tubo 40/1.5/K 2 Diagonal	6.73 1.81	3.37 0.90	3.37 0.90	0.00	0.00	40.0	40.0
3	C-PAR 76/46/1.5/12/3 4 Pilar sup	0.02 2.69	25.71 1.02	7.78 0.82	0.00	0.00	46.0	76.0
4	C-PAR 58/31/1.2/12/2.4 4 Riostra	0.01 1.61	8.52 0.54	2.27 0.49	0.00	0.00	31.0	58.0
5	Tubo 90/1/K 1 Pilar inf	55.38 2.80	27.69 1.39	27.69 1.39	0.00	0.00	90.0	90.0
6	KU-PAR 30/15/1.5/3 2	0.01 0.81	1.05 0.27	0.17 0.36	0.00	0.00	15.0	30.0
7	C-PAR 58/31/1.2/12/2.4 4 Correa	0.01 1.61	8.52 0.54	2.27 0.49	0.00	0.00	31.0	58.0
8	C-PAR 70/40/3/12/3 5 Pilar inf 2	0.12 4.63	34.79 1.67	9.31 1.50	0.00	0.00	40.0	70.0
9	Tubo 40/1.5/K 2	6.73 1.81	3.37 0.90	3.37 0.90	0.00	0.00	40.0	40.0

1.21 SETS OF MEMBERS

Set No.	Set of Members Description	Type	Member No.	Length [m]	Comment
4	Dintel	Contin. member	7,137,147,12,30,97,160,32,145	5.737	
5	Pilar trasero	Contin. member	138,98,44	2.244	
6	Pilar delantero	Contin. member	139,17,21	1.164	
7	Dintel	Contin. member	13,140,149,14,37,101,162,39,150	5.737	
8	Pilar trasero	Contin. member	141,100,45	2.244	
9	Pilar delantero	Contin. member	142,29,41	1.164	
10	Dintel	Contin. member	25,144,152,15,50,106,165,52,153	5.737	
11	Pilar trasero	Contin. member	145,107,46	2.244	
12	Pilar delantero	Contin. member	146,118,42	1.164	
13	Correas	Contin. member	73,123,58,59	3.432	
14	Correas	Contin. member	74,124,63,64	3.432	
15	Correas	Contin. member	75,125,68,69	3.432	
16	Correas	Contin. member	76,126,79,80	3.432	
17	Correas	Contin. member	81,127,84,85	3.432	
18	Correas	Contin. member	86,128,131,132	3.432	
22	Diagonal B	Contin. member	96	1.951	
23	Diagonal B	Contin. member	99	1.951	
24	Diagonal B	Contin. member	105	1.951	
26	Diagonal B	Contin. member	109	1.417	
27	Diagonal B	Contin. member	110	1.417	
28	Diagonal B	Contin. member	112	1.417	

2.1 LOAD CASES

Load Case	Load Case Description	EN 1990 | NEN 2011 Action Category	Active	Self-Weight - Factor in Direction X	Y	Z
LC1	PP	Permanent	☑	0.000	0.000	-1.000
LC2	CM Paneles	Permanent	☐			
LC3	V Presión sup	Wind	☐			
LC4	V Succión sup	Wind	☐			

2.1 LOAD CASES

Load Case	Load Case Description	EN 1990 | NEN 2011 Action Category	Self-Weight - Factor in Direction			
			Active	X	Y	Z
LC7	Imp X	Imperfection	☐			
LC8	Imp Y	Imperfection	☐			
LC9	V Presión inf	Wind	☐			
LC10	V Succión inf	Wind	☐			
LC11	Nieve	Snow (H ≤ 1000 m a.s.l.)	☐			

2.1.1 LOAD CASES - CALCULATION PARAMETERS

Load Case	Load Case Description	Calculation Parameters
LC1	PP	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options : ☒ Consider favorable effects due to tension : ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of: : ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) : ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC2	CM Paneles	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options : ☒ Consider favorable effects due to tension : ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of : ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) : ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC3	V Presión sup	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options : ☒ Consider favorable effects due to tension : ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of: : ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) : ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC4	V Succión sup	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options : ☒ Consider favorable effects due to tension : ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of: : ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) : ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC7	Imp X	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options : ☒ Consider favorable effects due to tension : ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of: : ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) : ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC8	Imp Y	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options : ☒ Consider favorable effects due to tension : ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of: : ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) : ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC9	V Presión inf	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options : ☒ Consider favorable effects due to tension : ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of: : ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) : ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC10	V Succión inf	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options : ☒ Consider favorable effects due to tension : ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of: : ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)

2.1.1 LOAD CASES - CALCULATION PARAMETERS

Load Case	Load Case Description	Calculation Parameters	
			☑ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC11	Nieve	Method of analysis	◉ Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	◉ Picard
		Options	☑ Consider favorable effects due to tension
			☑ Refer internal forces to deformed system for:
			☑ Normal forces N
			☑ Shear forces V_y and V_z
			☑ Moments M_y, M_z and M_T
		Activate stiffness factors of:	☑ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			☑ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)

2.2 ACTIONS

Action	Action Description	EN 1990 | NEN 2011 Action Category	Acting	Load Cases in Action	
A1	Permanente/Sobrecarga de uso	Permanent	Simultaneously	LC2	CM Paneles
				LC1	PP
A2	Viento	Wind	Alternative	LC3	V Presión sup
				LC4	V Succión sup
				LC10	V Succión inf
				LC9	V Presión inf
A3	Nieve	Snow (H ≤ 1000 m a.s.l.)		LC11	Nieve

2.3 COMBINATION EXPRESSIONS

CE No.	Description	EN 1990 | NEN 2011 Design Situation	Settings	
CE1	ELU	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	Consider	☑ Imperfection load cases
			Numbering of Generated Combinations	First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations	☑ Generate additionally Either/Or result combination (result envelopes) ☑ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations	
			Method of analysis	: Second-order analysis (P-Delta)
CE2	ELS	SLS - Characteristic	Consider	☐ Favorable permanent actions
			Numbering of Generated Combinations	First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations	☑ Generate additionally Either/Or result combination (result envelopes) ☑ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations	
			Method of analysis	: Second-order analysis (P-Delta)
CE3	EQU	ULS (EQU) - Permanent / transient	Consider	☑ Favorable permanent actions
			Numbering of Generated Combinations	First number of generated: 1 - Load combinations 1 - Result combinations
			Result combinations	☑ Generate additionally Either/Or result combination (result envelopes) ☑ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations	
			Method of analysis	: Second-order analysis (P-Delta)

2.4 ACTION COMBINATIONS

Action Combin.	Action Combination Description	EN 1990 | NEN 2011 Design Situation	No.	Factor	Action	
AC1	1.35G	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
AC2	1.35G + 0.00Qw	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
AC3	1.35G + 0.00Qw + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	0.00	A3	Nieve
AC4	1.35G + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A3	Nieve
AC5	1.20G	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
AC6	1.20G + 1.50Qw	ULS (STR/GEO) - Permanent / transient -	1	1.2015	A1	Permanente/Sobrecarga de uso

2.4 ACTION COMBINATIONS

Action Combin.	Action Combination Description	EN 1990 | NEN 2011 Design Situation	No.	Factor	Action	
		- Eq. 6.10a and 6.10b				
			2	1.50	A2	Viento
AC7	1.20G + 1.50Qw + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC8	1.20G + 1.50Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC9	1.20G + 0.00Qw + 1.50Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve
AC10	1.00G	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
AC11	1.00G + 1.00Qw	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A2	Viento
AC12	1.00G + 1.00Qw + 0.00Qs	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A2	Viento
			3	0.00	A3	Nieve
AC13	1.00G + 1.00Qs	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A3	Nieve
AC14	1.00G + 0.00Qw + 1.00Qs	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.00	A3	Nieve
AC15	1.10G	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
AC16	1.10G + 1.50Qw	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
AC17	1.10G + 1.50Qw + 0.00Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC18	1.10G + 1.50Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC19	1.10G + 0.00Qw + 1.50Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve
AC20	0.90G	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
AC21	0.90G + 1.50Qw	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
AC22	0.90G + 1.50Qw + 0.00Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC23	0.90G + 1.50Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC24	0.90G + 0.00Qw + 1.50Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
AC1	1.35G	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
AC2	1.35G + 0.00Qw	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
AC3	1.35G + 0.00Qw + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC4	1.35G + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.35
			Load Cases	: CC1 CC2
		Action 2	Factor	: 0.00
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC11
AC5	1.20G	Design Situation		: ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	: 1.2015
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor ξ	: 0.89
			Factor γ	: 1.35
			Load Cases	: CC1 CC2
AC6	1.20G + 1.50Qw	Design Situation		: ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	: 1.2015
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor ξ	: 0.89
			Factor γ	: 1.35
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
AC7	1.20G + 1.50Qw + 0.00Qs	Design Situation		: ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	: 1.2015
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor ξ	: 0.89
			Factor γ	: 1.35
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 0.00
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC11
AC8	1.20G + 1.50Qs	Design Situation		: ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	: 1.2015
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor ξ	: 0.89
			Factor γ	: 1.35
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC9	1.20G + 0.00Qw + 1.50Qs	Design Situation		: ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	: 1.2015
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor ξ	: 0.89
			Factor γ	: 1.35
			Load Cases	: CC1 CC2
		Action 2	Factor	: 0.00
			Action	: A2 - Viento
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC10	1.00G	Design Situation		: SLS - Characteristic
		Action 1	Factor	: 1.00
			Action	: A1 - Permanente/Sobrecarga de uso
			Load Cases	: CC1 CC2
AC11	1.00G + 1.00Qw	Design Situation		: SLS - Characteristic
		Action 1	Factor	: 1.00
			Action	: A1 - Permanente/Sobrecarga de uso
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.00
			Action	: A2 - Viento
			Load Cases	: CC3 CC4 CC9 CC10
AC12	1.00G + 1.00Qw + 0.00Qs	Design Situation		: SLS - Characteristic
		Action 1	Factor	: 1.00
			Action	: A1 - Permanente/Sobrecarga de uso
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.00
			Action	: A2 - Viento
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 0.00
			Action	: A3 - Nieve
			Factor ψ	: 0.00
			Load Cases	: CC11
AC13	1.00G + 1.00Qs	Design Situation		: SLS - Characteristic
		Action 1	Factor	: 1.00
			Action	: A1 - Permanente/Sobrecarga de uso

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
		Action 2	Load Cases	: CC1 CC2
			Factor	: 1.00
			Action	: A3 - Nieve
			Load Cases	: CC11
AC14	1.00G + 0.00Qw + 1.00Qs	Design Situation		: SLS - Characteristic
		Action 1	Factor	: 1.00
			Action	: A1 - Permanente/Sobrecarga de uso
			Load Cases	: CC1 CC2
		Action 2	Factor	: 0.00
			Action	: A2 - Viento
			Factor ψ	: 0.00
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 1.00
			Action	: A3 - Nieve
			Load Cases	: CC11
AC15	1.10G	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
AC16	1.10G + 1.50Qw	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
AC17	1.10G + 1.50Qw + 0.00Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 0.00
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC11
AC18	1.10G + 1.50Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC19	1.10G + 0.00Qw + 1.50Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 1.10
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 1.10
			Load Cases	: CC1 CC2
		Action 2	Factor	: 0.00
			Action	: A2 - Viento
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 1.50
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Load Cases	: CC11
AC20	0.90G	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
AC21	0.90G + 1.50Qw	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
AC22	0.90G + 1.50Qw + 0.00Qs	Design Situation		: ULS (EQU) - Permanent / transient
		Action 1	Factor	: 0.90
			Action	: A1 - Permanente/Sobrecarga de uso
			Factor γ	: 0.90
			Load Cases	: CC1 CC2
		Action 2	Factor	: 1.50
			Action	: A2 - Viento
			Factor γ	: 1.50
			Load Cases	: CC3 CC4 CC9 CC10
		Action 3	Factor	: 0.00
			Action	: A3 - Nieve
			Factor γ	: 1.50
			Factor ψ	: 0.00
			Load Cases	: CC11

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
AC23	0.90G + 1.50Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC24	0.90G + 0.00Qw + 1.50Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11

2.5 LOAD COMBINATIONS

Load Combin.	DS	Load Combination Description	No	Factor	Load Case
CO1	ULS'	1.35*CC1 + 1.35*CC2 + CC7	1	1.35	LC1 PP
			2	1.35	LC2 CM Paneles
			3	1.00	LC7 Imp X
CO2	ULS'	1.35*CC1 + 1.35*CC2 + CC7 + CC8	1	1.35	LC1 PP
			2	1.35	LC2 CM Paneles
			3	1.00	LC7 Imp X
			4	1.00	LC8 Imp Y
CO3	ULS'	1.35*CC1 + 1.35*CC2 + CC8	1	1.35	LC1 PP
			2	1.35	LC2 CM Paneles
			3	1.00	LC8 Imp Y
CO4	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
			4	1.00	LC7 Imp X
CO5	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO6	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
			4	1.00	LC8 Imp Y
CO7	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
			4	1.00	LC7 Imp X
CO8	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO9	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
			4	1.00	LC8 Imp Y
CO10	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC7 Imp X
CO11	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO12	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC8 Imp Y
CO13	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC7 Imp X
CO14	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO15	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC8 Imp Y
CO16	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles

2.5 LOAD COMBINATIONS

Load Combin.	DS	Load Combination Description	No.	Factor	Load Case
			3	1.50	LC11 Nieve
			4	1.00	LC7 Imp X
CO17	ULS	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO18	ULS	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC8 Imp Y
CO19	S Ch	CC1 + CC2	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
CO20	S Ch	CC1 + CC2 + CC3	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC3 V Presión sup
CO21	S Ch	CC1 + CC2 + CC4	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC4 V Succión sup
CO22	S Ch	CC1 + CC2 + CC9	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC9 V Presión inf
CO23	S Ch	CC1 + CC2 + CC10	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC10 V Succión inf
CO24	S Ch	CC1 + CC2 + CC11	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC11 Nieve
CO25	EQU	1.1*CC1 + 1.1*CC2	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
CO26	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC3	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
CO27	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC4	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
CO28	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC9	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
CO29	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC10	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
CO30	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC11	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC11 Nieve
CO31	EQU	0.9*CC1 + 0.9*CC2	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
CO32	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC3	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
CO33	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC4	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
CO34	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC9	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
CO35	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC10	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
CO36	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC11	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC11 Nieve

2.7 RESULT COMBINATIONS

Result Combin	Description	Loading
RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b	CO1/p or CO2/p or CO3/p or CO4/p or CO5/p or CO6/p or CO7/p or CO8/p or CO9/p or CO10/p or CO11/p or CO12/p or CO13/p or CO14/p or CO15/p or CO16/p or CO17/p or CO18/p
RC2	ELS - Característica	CO19/p or CO20/p or CO21/p or CO22/p or CO23/p or CO24/p
RC3	ELU (EQU) - Permanente / transitoria	CO25/p or CO26/p or CO27/p or CO28/p or CO29/p or CO30/p or CO31/p or CO32/p or CO33/p or CO34/p or CO35/p or CO36/p

RF-STEEL EC3
CA1
Cálculo de barras de acero según Eurocódigo 3

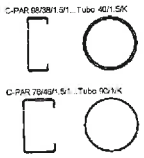
1.1 GENERAL DATA

Members to design:		
Sets of members to design:	All	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
Serviceability Limit State Design Result combinations to design:	RC2	ELS - Característica

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
1	Acero S 235 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	23.50	16.0
					22.50	40.0
					21.50	100.0
					19.50	150.0
					18.50	200.0
					17.50	250.0
2	S280GD 1.0244 | EN 10346:2009-03	21000.00	8076.92	0.300	28.00	
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	
5	Acero S 355 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	35.50	3.0
					35.50	16.0
					34.50	40.0
					33.50	63.0
					32.50	80.0
					31.50	100.0
					29.50	150.0
					28.50	200.0

1.3 CROSS-SECTIONS



Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
1	4	C-PAR 98/38/1.5/12/1.5	General	0.57	Dintel
2	2	Tubo 40/1.5/K	Pipe	0.20	Diagonal
3	4	C-PAR 76/46/1.5/12/3	General	0.31	Pilar sup
5	1	Tubo 90/1/K	Pipe	0.64	Pilar inf
7	4	C-PAR 58/31/1.2/12/2.4	General	0.51	Correa
8	5	C-PAR 70/40/3/12/3	General	0.23	Pilar inf 2
9	2	Tubo 40/1.5/K	Pipe	0.48	



2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
4	**Dintel (Member No. 7,137,147,12,30,97,160,32,148)**						
	97	0.763	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	12	0.000	CR1	0.02	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	7	0.451	CR1	0.19	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	147	0.000	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	137	0.451	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	97	0.763	CR1	0.00	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	160	0.000	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	137	0.000	CR1	0.15	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	160	0.000	CR1	0.07	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	7	0.481	CR1	0.19	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	160	0.159	CR1	0.11	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	147	0.000	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	7	0.688	CR1	0.41	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	137	0.000	CR1	0.32	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	137	0.090	CR1	0.31	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	30	0.000	CR1	0.16	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	12	0.159	CR1	0.04	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	137	0.045	CR1	0.35	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	137	0.000	CR1	0.39	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	137	0.000	CR1	0.40	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	7	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	12	0.477	CR2	0.15	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	30	1.025	CR2	0.10	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
5	**Pilar trasero (Member No. 138,98,44)**						
	44	0.000	CR1	0.06	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	44	0.250	CR1	0.05	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	138	0.000	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	44	0.250	CR1	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	44	0.000	CR1	0.00	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	44	0.000	CR1	0.08	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	98	0.189	CR1	0.05	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	98	0.189	CR1	0.09	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	138	0.000	CR1	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	98	0.210	CR1	0.07	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	44	0.250	CR1	0.27	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	138	1.427	CR1	0.02	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	98	0.084	CR1	0.09	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	138	1.784	CR1	0.17	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	44	0.250	CR1	0.49	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	98	0.210	CR1	0.12	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	98	0.210	CR1	0.15	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	138	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	138	1.249	CR2	0.07	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	138	1.249	CR2	0.25	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
6	**Pilar delantero (Member No. 139,17,21)**						
	21	0.000	CR1	0.06	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	21	0.250	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	21	0.000	CR1	0.07	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	139	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	21	0.250	CR1	0.07	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	17	0.000	CR1	0.05	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	139	0.634	CR1	0.06	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	17	0.210	CR1	0.15	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	21	0.000	CR1	0.19	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	139	0.704	CR1	0.27	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	21	0.250	CR1	0.45	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	139	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	139	0.634	CR2	0.13	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	139	0.564	CR2	0.21	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**						
	101	0.763	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	14	0.000	CR1	0.02	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	13	0.688	CR1	0.35	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	13	0.000	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	140	0.451	CR1	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	101	0.763	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	14	0.000	CR1	0.12	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	140	0.000	CR1	0.22	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	14	0.000	CR1	0.12	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	13	0.688	CR1	0.35	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
	162	0.238	CR1	0.10	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	13	0.000	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	13	0.550	CR1	0.45	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	13	0.688	CR1	0.57	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	14	0.106	CR1	0.22	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	140	0.135	CR1	0.38	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	14	0.318	CR1	0.06	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	14	0.530	CR1	0.39	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	140	0.000	CR1	0.53	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	13	0.688	CR1	0.57	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	13	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	14	0.477	CR2	0.19	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	37	1.025	CR2	0.10	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
8	**Pilar trasero (Member No. 141,100,45)**						
	45	0.000	CR1	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	45	0.250	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	141	0.000	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	45	0.250	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	45	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	45	0.250	CR1	0.11	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	100	0.210	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	100	0.000	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	100	0.189	CR1	0.07	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	141	0.357	CR1	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	100	0.210	CR1	0.09	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	45	0.250	CR1	0.34	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	141	1.427	CR1	0.03	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	141	0.000	CR1	0.10	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	100	0.084	CR1	0.08	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	141	1.784	CR1	0.17	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	45	0.250	CR1	0.64	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	100	0.210	CR1	0.14	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	100	0.210	CR1	0.18	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	141	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	141	1.249	CR2	0.10	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	141	1.071	CR2	0.27	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
9	**Pilar delantero (Member No. 142,29,41)**						
	41	0.000	CR1	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	41	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	41	0.000	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	142	0.070	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	41	0.000	CR1	0.04	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	142	0.634	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	142	0.634	CR1	0.09	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	142	0.664	CR1	0.07	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	29	0.000	CR1	0.06	≤ 1	CS163)	6.2.7(5) Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	41	0.250	CR1	0.06	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	142	0.704	CR1	0.08	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	29	0.189	CR1	0.14	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	142	0.000	CR1	0.18	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	142	0.704	CR1	0.31	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	41	0.250	CR1	0.53	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	142	0.704	CR1	0.29	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	142	0.704	CR1	0.30	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	142	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	142	0.634	CR2	0.16	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	142	0.564	CR2	0.23	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
10	**Dintel (Member No. 25,144,152,15,50,106,165,52,153)**						
	152	0.630	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	15	0.000	CR1	0.02	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	165	0.079	CR1	0.20	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	153	0.250	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	144	0.451	CR1	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	144	0.406	CR1	0.00	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	15	0.000	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	144	0.000	CR1	0.15	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	15	0.000	CR1	0.11	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	165	0.079	CR1	0.20	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	153	0.250	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	25	0.688	CR1	0.35	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	144	0.000	CR1	0.31	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	15	0.530	CR1	0.27	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	106	0.000	CR1	0.14	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	15	0.371	CR1	0.04	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	50	0.000	CR1	0.30	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	144	0.000	CR1	0.36	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	144	0.000	CR1	0.37	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	25	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	15	0.424	CR2	0.15	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	50	1.025	CR2	0.11	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
11	**Pilar trasero (Member No. 145,107,46)**						
	145	0.178	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	46	0.000	CR1	0.06	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	46	0.250	CR1	0.05	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	145	0.535	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	46	0.250	CR1	0.07	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	145	0.000	CR1	0.00	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	46	0.000	CR1	0.07	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	145	0.535	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	107	0.210	CR1	0.07	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force a

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
							acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	46	0.250	CR1	0.26	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	145	1.427	CR1	0.02	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	107	0.105	CR1	0.10	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	145	1.784	CR1	0.17	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	46	0.250	CR1	0.41	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	145	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	145	1.249	CR2	0.07	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	145	1.249	CR2	0.26	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
12	**Pilar delantero (Member No. 146,116,42)**						
	42	0.000	CR1	0.05	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	42	0.250	CR1	0.05	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	42	0.050	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	42	0.000	CR1	0.08	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	146	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	42	0.000	CR1	0.08	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	146	0.000	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	42	0.050	CR1	0.02	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	116	0.000	CR1	0.04	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	42	0.250	CR1	0.06	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	146	0.634	CR1	0.05	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	116	0.147	CR1	0.16	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	146	0.704	CR1	0.26	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	42	0.250	CR1	0.47	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	146	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	146	0.634	CR2	0.12	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	146	0.564	CR2	0.22	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
13	**Correas (Member No. 73,123,58,59)**						
	73	0.080	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	123	1.316	CR1	0.20	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	58	1.184	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	58	0.000	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	123	1.316	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	123	1.316	CR1	0.20	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	58	1.184	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	58	0.000	CR1	0.30	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	73	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	58	0.658	CR2	0.39	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	123	1.316	CR2	0.10	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
14	**Correas (Member No. 74,124,63,64)**						
	74	0.080	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	124	1.316	CR1	0.22	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	63	1.053	CR1	0.06	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	63	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	124	1.316	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	124	1.316	CR1	0.22	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	63	1.053	CR1	0.06	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear f

2.3 DESIGN BY SET OF MEMBERS

Set No	Member No	Location x [m]	LC/CO/RC	Design		Equation No	Description
							force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	63	0.000	CR1	0.36	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	74	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	63	0.658	CR2	0.34	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	63	0.132	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
15	**Correas (Member No. 75,125,68,69)**						
	75	0.080	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	125	0.526	CR1	0.15	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	68	1.184	CR1	0.11	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	68	0.000	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	125	1.316	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	125	0.526	CR1	0.15	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	68	1.184	CR1	0.11	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	125	1.316	CR1	0.31	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	75	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	68	0.658	CR2	0.51	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	68	1.184	CR2	0.12	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
16	**Correas (Member No. 76,126,79,80)**						
	80	0.320	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	79	0.658	CR1	0.12	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	79	0.921	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	79	0.000	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	126	1.316	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	79	0.658	CR1	0.12	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	79	0.921	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	79	0.000	CR1	0.34	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	76	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	79	0.658	CR2	0.42	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	79	0.132	CR2	0.09	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
17	**Correas (Member No. 81,127,84,85)**						
	81	0.080	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	127	0.526	CR1	0.13	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	84	1.184	CR1	0.06	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	84	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	84	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	127	0.526	CR1	0.13	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	84	1.184	CR1	0.06	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	84	0.000	CR1	0.33	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	81	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	84	0.790	CR2	0.30	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	84	0.132	CR2	0.11	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
18	**Correas (Member No. 86,129,131,130)**						
	86	0.080	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	131	0.000	CR1	0.22	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	131	1.184	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	131	0.000	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	131	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	131	0.000	CR1	0.22	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	131	1.184	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	131	0.000	CR1	0.32	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	86	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	131	0.790	CR2	0.26	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	131	0.132	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
22	**Diagonal B (Member No. 96)**						
	96	1.951	CR1	0.05	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	96	0.000	CR1	0.05	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	96	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	96	0.000	CR1	0.00	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	96	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	96	1.951	CR1	0.14	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	96	1.366	CR1	0.02	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	96	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	96	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	96	0.975	CR2	0.37	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
23	**Diagonal B (Member No. 99)**						
	99	1.951	CR1	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	99	0.000	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	99	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	99	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	99	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	99	1.951	CR1	0.09	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	99	1.951	CR1	0.03	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	99	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	99	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	99	0.975	CR2	0.48	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
24	**Diagonal B (Member No. 105)**						
	105	1.951	CR1	0.04	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	105	0.000	CR1	0.04	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	105	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	105	0.000	CR1	0.00	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	105	0.000	CR1	0.00	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	105	1.951	CR1	0.12	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	105	1.366	CR1	0.01	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	105	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	105	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	105	0.975	CR2	0.32	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
26	**Diagonal B (Member No. 109)**						
	109	0.000	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	109	1.417	CR1	0.05	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	109	0.709	CR1	0.01	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	109	0.000	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	109	0.709	CR1	0.06	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	109	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	109	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	109	1.417	CR1	0.00	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	109	0.709	CR1	0.01	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	109	0.000	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	109	0.283	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	109	0.142	CR1	0.02	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	109	0.000	CR1	0.05	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	109	0.709	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	109	0.709	CR1	0.00	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	109	0.709	CR1	0.15	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	109	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	109	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	109	0.709	CR2	0.14	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
27	**Diagonal B (Member No. 110)**						
	110	0.000	CR1	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	110	1.417	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	110	0.709	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	110	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	110	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	110	1.417	CR1	0.00	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	110	0.567	CR1	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	110	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	110	0.000	CR1	0.07	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	110	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	110	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	110	0.709	CR1	0.20	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	110	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	110	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	110	0.709	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
28	**Diagonal B (Member No. 112)**						
	112	0.000	CR1	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	112	1.417	CR1	0.05	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	112	0.709	CR1	0.06	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	112	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	112	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	112	1.417	CR1	0.00	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	112	1.134	CR1	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	112	0.142	CR1	0.03	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	112	0.000	CR1	0.05	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	112	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	112	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	112	0.709	CR1	0.16	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	112	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	112	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	112	0.709	CR2	0.15	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
4	**Dintel (Member No. 7,137,147,12,30,97,160,32,148)**								
	0.763	CR1	0.64	-0.01	0.65	0.00	0.63	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-1.73	0.05	1.20	0.00	-0.22	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.481	CR1	0.04	-0.01	-1.27	0.00	-0.57	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-0.18	-0.04	0.14	0.00	0.00	-0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR1	0.49	-0.01	-2.41	0.00	0.05	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR1	0.53	-0.08	1.22	0.00	0.45	0.04	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.37	0.05	0.99	0.00	-0.44	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.48	0.01	-2.38	0.00	1.13	0.00	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	0.37	0.05	0.99	0.00	-0.44	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.481	CR1	0.04	-0.01	-1.27	0.00	-0.57	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.159	CR1	-0.18	0.01	0.97	0.00	-0.33	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.18	-0.04	0.14	0.00	0.00	-0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR1	0.05	-0.03	1.61	0.00	1.13	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.14	0.06	1.22	0.00	-0.79	0.05	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.090	CR1	0.48	0.01	-2.38	0.00	0.91	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-1.53	0.03	0.05	0.00	0.41	0.00	CS198)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.159	CR1	-1.70	0.05	1.18	0.00	-0.01	-0.04	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.045	CR1	0.48	0.01	-2.38	0.00	1.02	0.00	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.48	0.01	-2.38	0.00	1.13	0.00	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.48	0.01	-2.38	0.00	1.13	0.00	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.025	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
5	**Pilar trasero (Member No. 138,98,44)**								
	0.000	CR1	4.09	0.03	1.62	0.00	0.21	0.07	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-3.53	-0.05	-1.47	0.00	-0.56	-0.11	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	0.16	0.02	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	4.08	0.03	1.62	0.00	0.61	0.06	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.52	-0.06	-1.47	0.00	-0.19	-0.12	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.29	-0.05	-1.53	0.00	-0.19	-0.14	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.189	CR1	-3.52	-0.05	-1.47	0.00	-0.16	-0.13	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.189	CR1	-3.51	-0.05	-1.49	0.00	-0.17	-0.13	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	0.16	0.02	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.03	-0.01	0.75	0.00	0.20	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.02	-0.01	0.76	0.00	0.39	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.427	CR1	-0.82	-0.03	0.02	0.00	0.03	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-3.29	-0.04	-1.51	0.00	0.01	-0.15	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.784	CR1	-1.38	0.01	0.07	0.00	0.13	-0.12	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	4.08	0.03	1.62	0.00	0.61	0.06	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-3.51	-0.05	-1.49	0.00	-0.20	-0.12	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-3.51	-0.05	-1.49	0.00	-0.20	-0.12	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.249	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.249	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
6	**Pilar delantero (Member No. 139,17,21)**								
	0.000	CR1	3.95	0.01	0.47	0.00	0.43	0.13	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-3.96	0.04	1.33	0.00	0.34	-0.20	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.93	0.05	1.35	0.00	0.00	-0.19	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-2.35	0.15	-0.41	0.00	0.00	-0.09	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-3.95	0.05	1.32	0.00	0.32	-0.23	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.000	CR1	-0.18	-0.03	-0.24	0.00	0.14	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.634	CR1	-0.56	-0.03	0.19	0.00	0.13	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.210	CR1	-3.94	0.05	1.32	0.00	-0.01	-0.22	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-3.96	0.05	1.35	0.00	0.00	-0.19	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-2.37	0.09	-0.41	0.00	-0.29	-0.17	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	3.94	0.00	0.49	0.00	0.55	0.13	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.763	CR1	0.89	0.00	0.81	0.00	0.80	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.27	0.10	1.58	0.00	-0.32	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.688	CR1	0.06	-0.01	-1.72	0.00	-1.03	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.04	0.02	-0.17	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR1	0.65	0.05	-3.26	0.00	0.07	-0.03	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR1	0.72	-0.12	1.60	0.00	0.56	0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-2.27	0.12	1.58	0.00	-0.32	-0.04	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.62	0.09	-3.22	0.00	1.53	0.02	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-2.27	0.12	1.58	0.00	-0.32	-0.04	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.688	CR1	0.06	-0.01	-1.72	0.00	-1.03	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.238	CR1	-0.16	0.01	1.24	0.00	-0.28	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.04	0.02	-0.17	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.550	CR1	0.02	-0.03	2.21	0.00	1.23	0.03	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR1	0.02	-0.04	2.20	0.00	1.53	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.106	CR1	0.86	0.02	-1.10	0.00	-0.62	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.135	CR1	0.63	0.08	-3.23	0.00	1.10	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.318	CR1	-0.97	0.08	0.55	0.00	0.01	-0.05	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.530	CR1	0.86	0.02	-1.15	0.00	-1.10	-0.01	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.62	0.09	-3.22	0.00	1.53	0.02	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR1	0.02	-0.04	2.20	0.00	1.53	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.025	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
8	**Pilar trasero (Member No. 141,100,45)**								
	0.000	CR1	5.73	0.06	2.16	0.00	0.26	0.06	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-4.67	-0.11	-1.81	-0.01	-0.68	-0.08	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	0.13	0.02	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	5.72	0.06	2.17	0.00	0.80	0.04	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.66	-0.12	-1.82	-0.01	-0.22	-0.11	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	5.72	0.06	2.17	0.00	0.80	0.04	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.210	CR1	-4.66	-0.09	-1.82	-0.01	-0.22	-0.11	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	5.74	0.04	2.16	0.01	-0.19	0.07	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.189	CR1	-4.66	-0.10	-1.82	-0.01	-0.18	-0.11	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.357	CR1	0.12	0.03	0.01	0.00	0.01	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.06	-0.01	0.96	0.00	0.25	0.03	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.05	-0.01	0.98	0.00	0.49	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.427	CR1	-1.04	-0.03	0.02	0.00	0.04	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	3.08	0.06	-0.10	0.00	0.00	0.11	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.66	-0.10	-1.82	-0.01	0.01	-0.12	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.784	CR1	-1.95	-0.01	0.10	0.00	0.18	-0.12	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.72	0.06	2.17	0.00	0.80	0.04	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-4.34	-0.08	-1.92	-0.01	-0.23	-0.13	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-4.34	-0.08	-1.92	-0.01	-0.23	-0.13	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.249	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.071	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
9	**Pilar delantero (Member No. 142,29,41)**								
	0.000	CR1	5.55	0.07	0.44	0.00	0.52	0.12	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.27	-0.01	1.84	0.00	0.50	-0.19	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-5.26	0.00	1.84	0.00	0.04	-0.19	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.070	CR1	5.41	0.12	0.60	0.00	0.04	0.19	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-1.33	0.06	0.83	0.00	-0.03	-0.10	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-3.13	0.06	-0.50	0.00	-0.32	-0.17	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.634	CR1	-3.11	0.05	-0.52	0.00	-0.31	-0.17	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.13	0.06	-0.50	0.00	-0.28	-0.17	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-0.08	-0.04	-0.53	0.00	0.17	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.09	-0.04	-0.53	0.00	-0.08	0.04	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.704	CR1	-0.75	-0.04	0.24	0.00	0.17	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.189	CR1	-5.26	-0.01	1.84	0.00	0.00	-0.23	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	5.42	0.13	0.60	0.00	0.00	0.20	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR1	5.40	0.08	0.62	0.00	0.43	0.13	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.54	0.06	0.46	0.00	0.63	0.11	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.13	0.04	-0.50	0.00	-0.35	-0.15	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.13	0.04	-0.50	0.00	-0.35	-0.18	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
10	**Dintel (Member No. 25,144,152,15,50,106,165,52,153)**								
	0.630	CR1	0.54	0.02	-0.75	0.00	-0.44	0.00	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-1.73	0.08	1.19	0.00	-0.30	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.079	CR1	0.02	0.04	-0.38	0.00	0.59	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	-0.06	0.02	0.12	0.00	0.00	-0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR1	0.47	0.00	-2.24	0.00	0.02	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.406	CR1	0.16	0.09	1.00	0.00	-0.31	0.01	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-1.73	0.08	1.19	0.00	-0.30	-0.03	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.45	0.03	-2.20	0.00	1.02	-0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-1.73	0.08	1.19	0.00	-0.30	-0.03	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.079	CR1	0.02	0.04	-0.38	0.00	0.59	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.06	0.02	0.12	0.00	0.00	-0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR1	0.07	0.02	1.46	0.00	1.02	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.15	0.10	1.03	0.00	-0.72	0.05	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.530	CR1	0.37	0.00	-0.70	0.00	-0.80	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.63	0.04	-0.88	0.00	0.39	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.371	CR1	-0.84	0.05	0.47	0.00	0.00	-0.03	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	0.43	0.03	0.86	0.00	-0.81	0.02	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.45	0.02	-2.20	0.00	1.02	-0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.45	0.03	-2.20	0.00	1.02	-0.01	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.424	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.025	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
11	**Pilar trasero (Member No. 145,107,46)**								
	0.178	CR1	0.16	0.02	0.01	0.00	0.00	0.00	CS100)
	Negligible internal forces								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR1	3.65	0.02	1.38	0.00	0.16	0.07	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-3.17	-0.03	-1.25	0.00	-0.46	-0.10	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.535	CR1	0.16	0.03	0.01	0.00	0.01	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	3.64	0.02	1.38	0.00	0.51	0.07	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-1.29	0.07	0.08	0.00	0.00	-0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.16	-0.05	-1.26	0.00	-0.14	-0.13	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.535	CR1	0.16	0.03	0.01	0.00	0.01	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.03	-0.01	0.72	0.00	0.19	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.02	-0.01	0.74	0.00	0.38	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.427	CR1	-0.78	-0.02	0.02	0.00	0.04	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.105	CR1	-2.96	-0.02	-1.27	0.00	0.00	-0.15	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.784	CR1	-1.34	0.02	0.07	0.00	0.13	-0.13	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	3.64	0.02	1.38	0.00	0.51	0.07	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.249	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.249	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
12	**Pilar delantero (Member No. 146,116,42)**								
	0.000	CR1	3.49	-0.04	0.59	0.00	0.43	0.15	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-3.79	0.06	1.51	0.00	0.47	-0.25	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.050	CR1	-0.09	-0.03	-0.41	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-3.78	0.08	1.53	0.00	0.09	-0.24	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-2.07	0.17	-0.34	0.00	0.00	-0.08	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.78	0.08	1.53	0.00	0.09	-0.24	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.000	CR1	-0.19	0.08	-0.20	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.050	CR1	-0.09	-0.03	-0.41	0.00	0.00	0.03	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR1	-0.08	-0.04	-0.41	0.00	0.11	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.10	-0.03	-0.41	0.00	-0.08	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.634	CR1	-0.57	-0.03	0.15	0.00	0.10	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.147	CR1	-3.78	0.09	1.53	0.00	-0.01	-0.23	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR1	-2.89	0.04	-0.42	0.00	-0.30	-0.16	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	3.48	-0.04	0.61	0.00	0.59	0.16	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
13	**Correas (Member No. 73,123,58,59)**								
	0.080	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	1.316	CR1	0.02	0.02	-1.06	0.00	-0.20	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.184	CR1	-0.01	0.03	0.06	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.03	0.00	1.21	0.00	-0.28	0.01	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.316	CR1	0.02	0.18	0.68	0.00	0.12	-0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.316	CR1	0.02	0.02	-1.06	0.00	-0.20	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.184	CR1	-0.01	0.03	0.06	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.03	0.00	1.21	0.00	-0.28	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.658	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.316	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
14	**Correas (Member No. 74,124,63,64)**								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.080	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	1.316	CR1	-0.02	0.01	-1.11	0.00	-0.23	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.053	CR1	-0.01	0.07	0.03	0.00	0.00	-0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.01	0.04	1.26	0.00	-0.31	0.03	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.316	CR1	0.01	0.22	0.68	0.00	0.14	-0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.316	CR1	-0.02	0.01	-1.11	0.00	-0.23	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.053	CR1	-0.01	0.07	0.03	0.00	0.00	-0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.01	0.04	1.26	0.00	-0.31	0.03	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.658	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.132	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
15	**Correas (Member No. 75,125,68,69)**								
	0.080	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.526	CR1	0.02	-0.01	0.22	0.00	0.15	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.184	CR1	0.01	0.09	0.06	0.00	0.00	-0.05	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.02	0.02	1.23	0.00	-0.27	0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.316	CR1	0.00	0.24	0.65	0.00	0.11	-0.09	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.526	CR1	0.02	-0.01	0.22	0.00	0.15	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.184	CR1	0.01	0.09	0.06	0.00	0.00	-0.05	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.316	CR1	0.00	0.24	0.65	0.00	0.11	-0.09	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.658	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.184	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
16	**Correas (Member No. 76,126,79,80)**								
	0.320	CR1	0.00	0.00	-0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.658	CR1	-0.01	0.06	-0.10	0.00	-0.12	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.921	CR1	-0.01	0.04	0.00	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.01	-0.05	1.25	0.00	-0.29	-0.03	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.316	CR1	-0.01	0.20	0.65	0.00	0.11	-0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.658	CR1	-0.01	0.06	-0.10	0.00	-0.12	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.921	CR1	-0.01	0.04	0.00	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.01	-0.05	1.25	0.00	-0.29	-0.03	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.658	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.132	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
17	**Correas (Member No. 81,127,84,85)**								
	0.080	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.526	CR1	0.00	-0.02	0.18	0.00	0.14	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.184	CR1	0.01	0.08	0.05	0.00	0.00	-0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.00	-0.03	1.27	0.00	-0.32	-0.01	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.00	-0.18	-0.77	0.00	0.19	-0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.526	CR1	0.00	-0.02	0.18	0.00	0.14	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.184	CR1	0.01	0.08	0.05	0.00	0.00	-0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.00	-0.03	1.27	0.00	-0.32	-0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.790	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.132	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
18	**Corneas (Member No. 86,129,131,130)**								
	0.080	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR1	-0.01	-0.01	-0.90	0.00	0.23	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.184	CR1	-0.02	0.05	0.05	0.00	0.00	-0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.00	-0.02	1.23	0.00	-0.32	-0.01	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.02	-0.18	-0.79	0.00	0.20	-0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.01	-0.01	-0.90	0.00	0.23	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.184	CR1	-0.02	0.05	0.05	0.00	0.00	-0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.00	-0.02	1.23	0.00	-0.32	-0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.790	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.132	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
22	**Diagonal B (Member No. 98)**								
	1.951	CR1	2.65	-0.06	-0.01	0.02	0.00	0.09	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.48	0.05	0.01	-0.02	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-2.46	0.08	0.05	-0.02	0.00	-0.02	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-2.48	0.08	0.01	-0.02	0.00	-0.02	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-2.46	0.08	0.05	-0.02	0.00	-0.02	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	2.65	-0.06	-0.01	0.02	0.00	0.09	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.366	CR1	-2.44	0.00	-0.02	-0.02	0.02	-0.08	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
23	**Diagonal B (Member No. 99)**								
	1.951	CR1	3.56	-0.09	-0.01	0.02	0.00	0.12	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.12	0.08	0.01	-0.02	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.10	0.12	0.06	-0.02	0.00	-0.02	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.12	0.12	0.01	-0.02	0.00	-0.02	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.10	0.12	0.06	-0.02	0.00	-0.02	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.67	0.01	-0.01	-0.01	0.00	-0.05	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR1	3.56	-0.09	-0.01	0.02	0.00	0.12	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
24	**Diagonal B (Member No. 105)**								
	1.951	CR1	2.28	-0.05	-0.01	0.02	0.00	0.07	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.10	0.04	0.02	-0.02	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-2.09	0.07	0.04	-0.02	0.00	-0.02	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-2.10	0.07	0.01	-0.02	0.00	-0.02	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-2.09	0.07	0.04	-0.02	0.00	-0.02	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	2.28	-0.05	-0.01	0.02	0.00	0.07	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.366	CR1	-2.07	0.00	-0.02	-0.02	0.02	-0.07	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
26	**Diagonal B (Member No. 109)**								
	0.000	CR1	0.59	0.00	0.01	-0.01	0.00	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	1.417	CR1	-2.39	-0.01	-0.01	0.03	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	0.01	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR1	0.01	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-2.35	0.00	0.00	0.03	0.02	-0.04	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-2.35	-0.04	-0.04	0.03	0.00	-0.02	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-2.32	-0.04	-0.01	0.03	0.00	-0.02	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-2.35	-0.04	-0.04	0.03	0.00	-0.02	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.01	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR1	0.01	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR1	0.00	-0.01	0.01	0.00	0.00	0.00	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9								
	0.142	CR1	-0.97	0.01	0.01	0.01	0.00	-0.01	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-2.37	0.00	0.04	0.03	0.00	-0.03	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.709	CR1	-1.00	0.00	0.00	0.01	0.01	-0.02	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-2.35	0.00	0.00	0.03	0.02	-0.04	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-2.35	0.00	0.00	0.03	0.02	-0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
27	**Diagonal B (Member No. 110)**								
	0.000	CR1	1.03	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.20	-0.02	-0.01	0.04	0.00	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	-3.19	0.00	0.00	0.04	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-3.19	-0.06	-0.06	0.04	0.00	-0.03	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.19	-0.06	-0.06	0.04	0.00	-0.03	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.19	-0.06	-0.06	0.04	0.00	-0.03	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.567	CR1	0.26	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.50	0.00	0.01	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.18	0.01	0.06	0.04	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.50	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.19	0.00	0.00	0.04	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.19	0.00	0.00	0.04	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
28	**Diagonal B (Member No. 112)**								
	0.000	CR1	0.76	0.00	0.01	-0.01	0.00	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-2.54	-0.05	-0.05	0.03	0.00	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	-2.53	0.00	0.00	0.03	0.02	-0.04	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-2.54	-0.05	-0.05	0.03	0.00	-0.03	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-2.54	-0.05	-0.05	0.03	0.00	-0.03	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-2.54	-0.05	-0.05	0.03	0.00	-0.03	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	1.134	CR1	-0.20	-0.01	-0.01	0.00	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.142	CR1	-1.32	0.01	0.01	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-2.49	0.01	0.01	0.03	0.00	-0.03	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.34	0.00	0.01	0.02	0.01	-0.02	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-2.53	0.00	0.00	0.03	0.02	-0.04	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-2.53	0.00	0.00	0.03	0.02	-0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								

RF-STEEL EC3
CA2
Verificación correa

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	15	
National Annex:	NEN	
Ultimate Limit State Design		
Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	

C-PAR 58/31/1.2/1...

1.3 CROSS-SECTIONS

Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
7	4	C-PAR 58/31/1.2/12/2.4	General	0.42	Correa

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
15	**Correas (Member No. 75,125,68,69)**						
	68	0.000	CR1	0.42	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
15	**Correas (Member No. 75,125,68,69)**								
	0.000	CR1	1.17	0.01	1.19	0.02	-0.30	0.01	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

RF-STEEL EC3
CA3
Verificación dintel

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	7	
National Annex:	NEN	
Ultimate Limit State Design		
Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	

C-PAR 98/38/1.5/1...

1.3 CROSS-SECTIONS

Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
1	4	C-PAR 98/38/1.5/12/1.5	General	0.64	Dintel

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**						
	14	0.424	CR1	0.64	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**								
	0.424	CR1	0.22	0.00	-1.13	0.00	-0.98	0.01	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

RF-STEEL EC3
CA4
verificacion pilar

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	5,9	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
1	Acero S 235 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	23.50	16.0
					22.50	40.0
					21.50	100.0
					19.50	150.0
					18.50	200.0
					17.50	250.0
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	
5	Acero S 355 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	35.50	3.0
					35.50	16.0
					34.50	40.0
					33.50	63.0
					32.50	80.0
					31.50	100.0
					29.50	150.0
					28.50	200.0

C-PAR 78/48/5 5/1...Tubo 90/1/K

1.3 CROSS-SECTIONS

Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
3	4	C-PAR 78/48/5 5/12/3	General	0.26	Pilar sup
5	1	Tubo 90/1/K	Pipe	0.52	Pilar inf
9	5	C-PAR 70/40/3/12/3	General	0.20	Pilar inf 2

C-PAR 70/40/3/12/3

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
5	**Pilar trasero (Member No. 138,98,44)**						
	44	0.250	CR1	0.49	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis
9	**Pilar delantero (Member No. 142,29,41)**						
	41	0.250	CR1	0.52	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
5	**Pilar trasero (Member No. 138,98,44)**								
	0.250	CR1	4.08	0.03	1.62	-0.05	0.61	0.00	CS272)
	Cross-section check - Elastic design with warping torsion analysis								
9	**Pilar delantero (Member No. 142,29,41)**								
	0.250	CR1	5.54	0.06	0.46	-0.01	0.63	-0.05	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

STRUCTURAL ANALYSIS

PROJECT

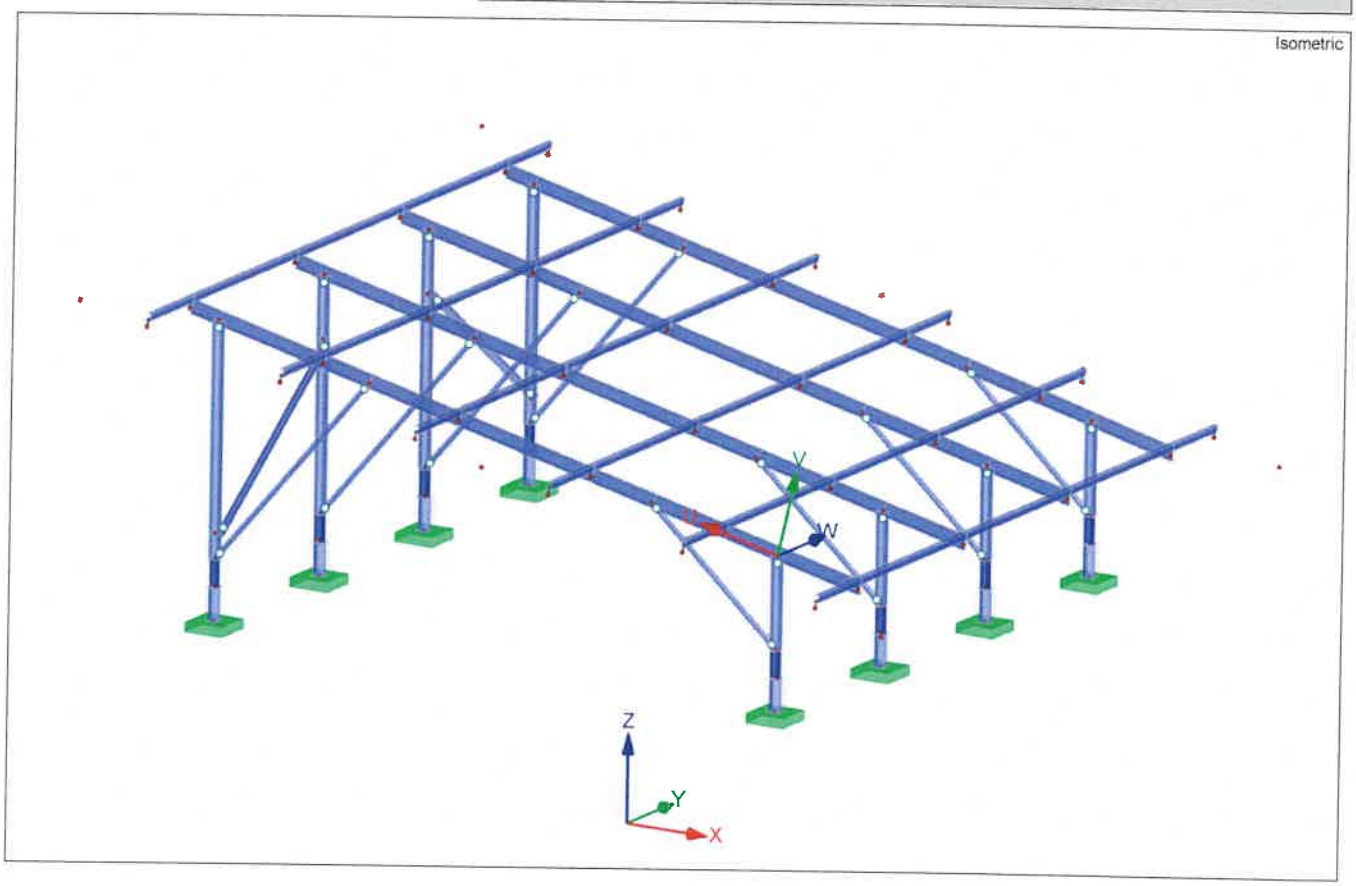
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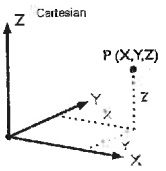
CLIENT

SOLARCENTURY

CREATED BY

AXIAL STRUCTURAL SOLUTIONS



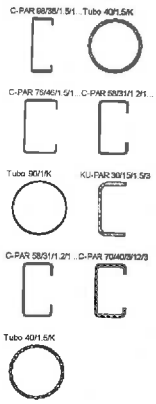


1.1 NODES

Node No.	Node Type	Reference Node	Coordinate System	Node Coordinates X [m]	Y [m]	Z [m]	Comment
1	Standard	-	Cartesian	-0.676	3.283	0.460	
4	Standard	-	Cartesian	-5.353	3.283	0.000	Primer pórtico - Final pilar trasero
5	Standard	-	Cartesian	-3.356	2.668	1.783	
6	Standard	-	Cartesian	-0.676	3.283	0.000	Primer pórtico - Final pilar delantero
8	Standard	-	Cartesian	-4.100	6.283	1.955	
9	Standard	-	Cartesian	-4.100	4.783	1.955	
10	Standard	-	Cartesian	-4.100	7.783	1.955	
11	Standard	-	Cartesian	-4.100	3.283	1.955	
13	Standard	-	Cartesian	-5.353	7.783	2.244	
15	Standard	-	Cartesian	-5.353	4.783	0.000	Segundo pórtico - Final pilar trasero
17	Standard	-	Cartesian	-0.676	4.783	0.000	Segundo pórtico - Final pilar delantero
19	Standard	-	Cartesian	-5.353	4.783	2.244	
20	Standard	-	Cartesian	-0.676	7.783	1.164	
21	Standard	-	Cartesian	-5.353	6.283	2.244	
26	Standard	-	Cartesian	-5.353	6.283	0.000	Tercer pórtico - Final pilar trasero
28	Standard	-	Cartesian	-0.676	6.283	0.000	Tercer pórtico - Final pilar delantero
29	Standard	-	Cartesian	-0.676	3.283	1.164	
30	Standard	-	Cartesian	-0.676	4.783	1.164	
31	Standard	-	Cartesian	-0.676	6.283	1.164	
32	Standard	-	Cartesian	-5.353	3.283	2.244	
34	Standard	-	Cartesian	-5.353	6.283	1.783	
35	Standard	-	Cartesian	-5.353	3.283	0.250	Primer pórtico - Final pilar trasero
36	Standard	-	Cartesian	-0.676	3.283	0.250	Primer pórtico - Final pilar delantero
37	Standard	-	Cartesian	-5.353	4.783	0.250	Segundo pórtico - Final pilar trasero
38	Standard	-	Cartesian	-0.676	4.783	0.250	Segundo pórtico - Final pilar delantero
39	Standard	-	Cartesian	-5.353	6.283	0.250	Tercer pórtico - Final pilar trasero
41	Standard	-	Cartesian	-0.676	6.283	0.250	Tercer pórtico - Final pilar delantero
46	Standard	-	Cartesian	-5.596	8.398	2.300	Quinto pórtico - Final dintel
48	Standard	-	Cartesian	-5.353	7.783	0.000	Quinto pórtico - Final pilar trasero
50	Standard	-	Cartesian	-0.676	7.783	0.000	Quinto pórtico - Final pilar delantero
51	Standard	-	Cartesian	-5.353	3.283	0.460	
52	Standard	-	Cartesian	-1.730	3.283	1.408	
53	Standard	-	Cartesian	-5.353	4.783	0.460	
54	Standard	-	Cartesian	-1.730	4.783	1.408	
55	Standard	-	Cartesian	-5.353	6.283	0.460	
56	Standard	-	Cartesian	-1.730	6.283	1.408	
57	Standard	-	Cartesian	-5.353	7.783	0.250	Quinto pórtico - Final pilar trasero
58	Standard	-	Cartesian	-0.676	7.783	0.250	Quinto pórtico - Final pilar delantero
59	Standard	-	Cartesian	-5.353	7.783	0.460	
60	Standard	-	Cartesian	-1.730	7.783	1.408	
63	Standard	-	Cartesian	-0.676	4.783	0.460	
65	Standard	-	Cartesian	-0.676	6.283	0.460	
69	Standard	-	Cartesian	-0.676	7.783	0.460	
83	Standard	-	Cartesian	-0.006	3.283	1.010	Primer pórtico - Inicio dintel
84	Standard	-	Cartesian	-5.596	3.283	2.300	Primer pórtico - Final dintel
87	Standard	-	Cartesian	-2.246	3.283	1.527	
88	Standard	-	Cartesian	-1.116	3.283	1.266	
89	Standard	-	Cartesian	-3.356	3.283	1.783	
90	Standard	-	Cartesian	-4.486	3.283	2.044	
91	Standard	-	Cartesian	-2.246	4.783	1.527	
92	Standard	-	Cartesian	-0.006	4.783	1.010	Segundo pórtico - Inicio dintel
93	Standard	-	Cartesian	-5.596	4.783	2.300	Segundo pórtico - Final dintel
96	Standard	-	Cartesian	-1.116	4.783	1.266	
97	Standard	-	Cartesian	-3.356	4.783	1.783	
98	Standard	-	Cartesian	-4.486	4.783	2.044	
99	Standard	-	Cartesian	-2.246	6.283	1.527	
100	Standard	-	Cartesian	-1.116	6.283	1.266	
101	Standard	-	Cartesian	-0.006	6.283	1.010	Tercer pórtico - Inicio dintel
102	Standard	-	Cartesian	-5.596	6.283	2.300	Tercer pórtico - Final dintel
105	Standard	-	Cartesian	-3.356	6.283	1.783	
106	Standard	-	Cartesian	-4.486	6.283	2.044	
107	Standard	-	Cartesian	-2.246	7.783	1.527	
108	Standard	-	Cartesian	-1.116	7.783	1.266	
109	Standard	-	Cartesian	-3.356	7.783	1.783	
110	Standard	-	Cartesian	-4.486	7.783	2.044	
114	Standard	-	Cartesian	-0.006	7.783	1.010	Quinto pórtico - Inicio dintel
116	Standard	-	Cartesian	-5.596	7.783	2.300	Quinto pórtico - Final dintel
134	Standard	-	Cartesian	-5.596	2.668	2.300	Primer pórtico - Final dintel

1.1 NODES

Node No.	Node Type	Reference Node	Coordinate System	Node Coordinates X [m]	Y [m]	Z [m]	Comment
142	Standard	-	Cartesian	-1.116	2.668	1.266	Correas 2
143	Standard	-	Cartesian	-1.116	8.398	1.266	Correas 2
144	Standard	-	Cartesian	-2.246	2.668	1.527	Correas 3
145	Standard	-	Cartesian	-2.246	8.398	1.527	Correas 3
146	Standard	-	Cartesian	-0.006	2.668	1.010	Correas 2
147	Standard	-	Cartesian	-3.356	8.398	1.783	Correas 4
148	Standard	-	Cartesian	-4.486	2.668	2.044	Correas 5
149	Standard	-	Cartesian	-4.486	8.398	2.044	Correas 5
150	Standard	-	Cartesian	-0.006	8.398	1.010	Correas 2
174	Standard	-	Cartesian	-5.353	3.283	0.650	Riostras estabilidad
175	Standard	-	Cartesian	-5.353	4.783	1.783	Riostras estabilidad
177	Standard	-	Cartesian	-5.353	7.783	0.650	Riostras estabilidad
288	Standard	-	Cartesian	0.547	2.668	0.872	Nudo aux
289	Standard	-	Cartesian	-6.151	2.668	2.429	Nudo aux
290	Standard	-	Cartesian	0.547	8.398	0.872	Nudo aux
291	Standard	-	Cartesian	-6.151	8.398	2.429	Nudo aux
292	Standard	-	Cartesian	-2.801	2.668	1.655	Nudo aux
293	Standard	-	Cartesian	-2.801	8.398	1.655	Nudo aux



1.13 CROSS-SECTIONS

Section No.	Mat. No.	J [cm⁴] / A [cm²]	I_y [cm⁴] / A_y [cm²]	I_z [cm⁴] / A_z [cm²]	Principal Axes α [°]	Rotation α' [°]	Overall Dimensions [mm] Width h	Height h
1	C-PAR 98/38/1.5/12/1.5							
	4	0.02	41.51	5.51	0.00	0.00	38.0	98.0
	Dintel	2.82	0.72	1.18				
2	Tubo 40/1.5/K							
	2	6.73	3.37	3.37	0.00	0.00	40.0	40.0
	Diagonal	1.81	0.90	0.90				
3	C-PAR 76/46/1.5/12/3							
	4	0.02	25.71	7.78	0.00	0.00	46.0	76.0
	Pilar sup	2.69	1.02	0.82				
4	C-PAR 58/31/1.2/12/2.4							
	4	0.01	8.52	2.27	0.00	0.00	31.0	58.0
	Riostra	1.61	0.54	0.49				
5	Tubo 90/1/K							
	1	55.38	27.69	27.69	0.00	0.00	90.0	90.0
	Pilar inf	2.80	1.39	1.39				
6	KU-PAR 30/15/1.5/3							
	2	0.01	1.05	0.17	0.00	0.00	15.0	30.0
		0.81	0.27	0.36				
7	C-PAR 58/31/1.2/12/2.4							
	4	0.01	8.52	2.27	0.00	0.00	31.0	58.0
	Correa	1.61	0.54	0.49				
8	C-PAR 70/40/3/12/3							
	5	0.12	34.79	9.31	0.00	0.00	40.0	70.0
	Pilar inf 2	4.63	1.67	1.50				
9	Tubo 40/1.5/K							
	2	6.73	3.37	3.37	0.00	0.00	40.0	40.0
		1.81	0.90	0.90				

1.21 SETS OF MEMBERS

Set No.	Set of Members Description	Type	Member No.	Length [m]	Comment
1	Dintel	Contin. member	1,133,136,6,10,94,158, 15,143	5.737	
2	Pilar trasero	Contin. member	134,22,95,43	2.244	
3	Pilar delantero	Contin. member	135,5,20	1.164	
4	Dintel	Contin. member	7,137,147,12,30,97, 160,32,148	5.737	
5	Pilar trasero	Contin. member	138,34,98,44	2.244	
6	Pilar delantero	Contin. member	139,17,21	1.164	
7	Dintel	Contin. member	13,140,149,14,37,101, 162,39,150	5.737	
8	Pilar trasero	Contin. member	141,19,100,45	2.244	
9	Pilar delantero	Contin. member	142,29,41	1.164	
10	Dintel	Contin. member	25,144,152,15,50,106, 165,52,153	5.737	
11	Pilar trasero	Contin. member	145,54,107,46	2.244	
12	Pilar delantero	Contin. member	146,116,42	1.164	
13	Correas	Contin. member	73,55,123,58,59	5.730	
14	Correas	Contin. member	74,60,124,63,64	5.730	

1.21 SETS OF MEMBERS

Set No.	Set of Members Description	Type	Member No.	Length [m]	Comment
15	Correas	Contin. member	75,85,125,68,89	5.730	
16	Correas	Contin. member	76,70,126,79,80	5.730	
17	Correas	Contin. member	77,81,127,84,85	5.730	
18	Correas	Contin. member	78,86,129,131,130	5.730	
19	Riostras	Contin. member	90	1.868	
20	Riostras	Contin. member	91	1.868	
21	Diagonal B	Contin. member	93	1.951	
22	Diagonal B	Contin. member	96	1.951	
23	Diagonal B	Contin. member	99	1.951	
24	Diagonal B	Contin. member	105	1.951	
25	Diagonal B	Contin. member	108	1.417	
26	Diagonal B	Contin. member	109	1.417	
27	Diagonal B	Contin. member	110	1.417	
28	Diagonal B	Contin. member	112	1.417	

2.1 LOAD CASES

Load Case	Load Case Description	EN 1990 | NEN:2011 Action Category	Self-Weight - Factor in Direction			
			Active	X	Y	Z
LC1	PP	Permanent	☑	0.000	0.000	-1.000
LC2	CM Paneles	Permanent	☐			
LC3	V Presión sup	Wind	☐			
LC4	V Succión sup	Wind	☐			
LC7	Imp X	Imperfection	☐			
LC8	Imp Y	Imperfection	☐			
LC9	V Presión inf	Wind	☐			
LC10	V Succión inf	Wind	☐			
LC11	Nieve	Snow (H ≤ 1000 m a.s.l.)	☐			

2.1.1 LOAD CASES - CALCULATION PARAMETERS

Load Case	Load Case Description	Calculation Parameters	
LC1	PP	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	☑ Consider favorable effects due to tension
			☑ Refer internal forces to deformed system for:
			☑ Normal forces N
			☑ Shear forces V_y and V_z
			☑ Moments M_y, M_z and M_T
		Activate stiffness factors of:	☑ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			☑ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC2	CM Paneles	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	☑ Consider favorable effects due to tension
			☑ Refer internal forces to deformed system for:
			☑ Normal forces N
			☑ Shear forces V_y and V_z
			☑ Moments M_y, M_z and M_T
		Activate stiffness factors of:	☑ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			☑ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC3	V Presión sup	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	☑ Consider favorable effects due to tension
			☑ Refer internal forces to deformed system for:
			☑ Normal forces N
			☑ Shear forces V_y and V_z
			☑ Moments M_y, M_z and M_T
		Activate stiffness factors of:	☑ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			☑ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC4	V Succión sup	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of nonlinear algebraic equations	Picard
		Options	☑ Consider favorable effects due to tension
			☑ Refer internal forces to deformed system for:
			☑ Normal forces N
			☑ Shear forces V_y and V_z
			☑ Moments M_y, M_z and M_T
		Activate stiffness factors of:	☑ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z)
			☑ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC7	Imp X	Method of analysis	Second order analysis (P-Delta)
		Method for solving system of n	Picard

2.1.1 LOAD CASES - CALCULATION PARAMETERS

Load Case	Load Case Description	Calculation Parameters
		nonlinear algebraic equations Options : ☑ Consider favorable effects due to tension ☑ Refer internal forces to deformed system for: ☑ Normal forces N ☑ Shear forces V_y and V_z ☑ Moments M_y, M_z and M_T Activate stiffness factors of: ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) ☑ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC8	Imp Y	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options ☒ Consider favorable effects due to tension ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC9	V Presión inf	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options ☑ Consider favorable effects due to tension ☑ Refer internal forces to deformed system for: ☑ Normal forces N ☑ Shear forces V_y and V_z ☑ Moments M_y, M_z and M_T Activate stiffness factors of: ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC10	V Succión inf	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options ☒ Consider favorable effects due to tension ☒ Refer internal forces to deformed system for: ☒ Normal forces N ☒ Shear forces V_y and V_z ☒ Moments M_y, M_z and M_T Activate stiffness factors of ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)
LC11	Nieve	Method of analysis : Second order analysis (P-Delta) Method for solving system of nonlinear algebraic equations : Picard Options ☑ Consider favorable effects due to tension ☑ Refer internal forces to deformed system for: ☑ Normal forces N ☑ Shear forces V_y and V_z ☑ Moments M_y, M_z and M_T Activate stiffness factors of: ☒ Cross-sections (factor for J, I_y, I_z, A, A_y, A_z) ☒ Members (factor for GJ, EI_y, EI_z, EA, GA_y, GA_z)

2.2 ACTIONS

Action	Action Description	EN 1990 | NEN:2011 Action Category	Acting	Load Cases in Action	
A1	Permanente/Sobrecarga de uso	Permanent	Simultaneously	LC2	CM Paneles
				LC1	PP
A2	Viento	Wind	Alternative	LC3	V Presión sup
				LC4	V Succión sup
				LC10	V Succión inf
				LC9	V Presión inf
A3	Nieve	Snow (H ≤ 1000 m a.s.l.)		LC11	Nieve

2.3 COMBINATION EXPRESSIONS

CE No.	Description	EN 1990 | NEN:2011 Design Situation	Settings
CE1	ELU	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	Consider : ☑ Imperfection load cases Numbering of Generated Combinations: First number of generated: 1 - Load combinations 1 - Result combinations Result combinations: ☑ Generate additionally Either/Or result combination (result envelopes) ☑ Generate additionally a separate Either/Or result combination for each combination expression Generated Load Combinations Method of analysis : Second-order analysis (P-Delta)
CE2	ELS	SLS - Characteristic	Consider : ☐ Favorable permanent actions Numbering of Generated Combinations: First number of generated: 1 - Load combinations 1 - Result combinations Result combinations: ☑ Generate additionally Either/Or result combination (result envelopes) ☑ Generate additionally a separate Either/Or result combination f

2.3 COMBINATION EXPRESSIONS

CE No.	Description	EN 1990 | NEN 2011 Design Situation	Settings		
					for each combination expression
CE3	EQU	ULS (EQU) - Permanent / transient	Generated Load Combinations Method of analysis	:	Second-order analysis (P-Delta)
			Consider	:	☒ Favorable permanent actions
			Numbering of Generated Combinations		First number of generated:
			Result combinations		1 - Load combinations 1 - Result combinations ☒ Generate additionally Either/Or result combination (result envelopes) ☒ Generate additionally a separate Either/Or result combination for each combination expression
			Generated Load Combinations Method of analysis	:	Second-order analysis (P-Delta)

2.4 ACTION COMBINATIONS

Action Combin.	Action Combination Description	EN 1990 | NEN 2011 Design Situation	No	Factor	Action	
AC1	1.35G	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
AC2	1.35G + 0.00Qw	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
AC3	1.35G + 0.00Qw + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	0.00	A3	Nieve
AC4	1.35G + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.35	A1	Permanente/Sobrecarga de uso
			2	0.00	A3	Nieve
AC5	1.20G	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
AC6	1.20G + 1.50Qw	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
AC7	1.20G + 1.50Qw + 0.00Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC8	1.20G + 1.50Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC9	1.20G + 0.00Qw + 1.50Qs	ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b	1	1.2015	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve
AC10	1.00G	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
AC11	1.00G + 1.00Qw	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A2	Viento
AC12	1.00G + 1.00Qw + 0.00Qs	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A2	Viento
			3	0.00	A3	Nieve
AC13	1.00G + 1.00Qs	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	1.00	A3	Nieve
AC14	1.00G + 0.00Qw + 1.00Qs	SLS - Characteristic	1	1.00	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.00	A3	Nieve
AC15	1.10G	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
AC16	1.10G + 1.50Qw	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
AC17	1.10G + 1.50Qw + 0.00Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC18	1.10G + 1.50Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC19	1.10G + 0.00Qw + 1.50Qs	ULS (EQU) - Permanent / transient	1	1.10	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve
AC20	0.90G	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
AC21	0.90G + 1.50Qw	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
AC22	0.90G + 1.50Qw + 0.00Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A2	Viento
			3	0.00	A3	Nieve
AC23	0.90G + 1.50Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	1.50	A3	Nieve
AC24	0.90G + 0.00Qw + 1.50Qs	ULS (EQU) - Permanent / transient	1	0.90	A1	Permanente/Sobrecarga de uso
			2	0.00	A2	Viento
			3	1.50	A3	Nieve

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
AC1	1.35G	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
AC2	1.35G + 0.00Qw	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
AC3	1.35G + 0.00Qw + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC4	1.35G + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.35
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC5	1.20G	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
AC6	1.20G + 1.50Qw	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A2 - Viento
			Factor γ	1.50
			Load Cases	CC3 CC4 CC9 CC10
AC7	1.20G + 1.50Qw + 0.00Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A2 - Viento
			Factor γ	1.50
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC8	1.20G + 1.50Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC9	1.20G + 0.00Qw + 1.50Qs	Design Situation		ULS (STR/GEO) - Permanent / transient - Eq. 6.10a and 6.10b
		Action 1	Factor	1.2015
			Action	A1 - Permanente/Sobrecarga de uso
			Factor ξ	0.89
			Factor γ	1.35

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
			Load Cases	: CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC10	1.00G	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
AC11	1.00G + 1.00Qw	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
		Action 2	Factor	1.00
			Action	A2 - Viento
			Load Cases	CC3 CC4 CC9 CC10
AC12	1.00G + 1.00Qw + 0.00Qs	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
		Action 2	Factor	1.00
			Action	A2 - Viento
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor ψ	0.00
			Load Cases	CC11
AC13	1.00G + 1.00Qs	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
		Action 2	Factor	1.00
			Action	A3 - Nieve
			Load Cases	CC11
AC14	1.00G + 0.00Qw + 1.00Qs	Design Situation		SLS - Characteristic
		Action 1	Factor	1.00
			Action	A1 - Permanente/Sobrecarga de uso
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	1.00
			Action	A3 - Nieve
			Load Cases	CC11
AC15	1.10G	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	1.10
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.10
			Load Cases	CC1 CC2
AC16	1.10G + 1.50Qw	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	1.10
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.10
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A2 - Viento
			Factor γ	1.50
			Load Cases	CC3 CC4 CC9 CC10
AC17	1.10G + 1.50Qw + 0.00Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	1.10
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.10
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A2 - Viento
			Factor γ	1.50
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC18	1.10G + 1.50Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	1.10
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.10
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC19	1.10G + 0.00Qw + 1.50Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	1.10
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	1.10
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento

2.4.1 ACTION COMBINATIONS - DETAILS

Action Combin.	Action Combination Description	Parameters		
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC20	0.90G	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
AC21	0.90G + 1.50Qw	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A2 - Viento
			Factor γ	1.50
			Load Cases	CC3 CC4 CC9 CC10
AC22	0.90G + 1.50Qw + 0.00Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A2 - Viento
			Factor γ	1.50
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	0.00
			Action	A3 - Nieve
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC11
AC23	0.90G + 1.50Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
		Action 2	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11
AC24	0.90G + 0.00Qw + 1.50Qs	Design Situation		ULS (EQU) - Permanent / transient
		Action 1	Factor	0.90
			Action	A1 - Permanente/Sobrecarga de uso
			Factor γ	0.90
			Load Cases	CC1 CC2
		Action 2	Factor	0.00
			Action	A2 - Viento
			Factor γ	1.50
			Factor ψ	0.00
			Load Cases	CC3 CC4 CC9 CC10
		Action 3	Factor	1.50
			Action	A3 - Nieve
			Factor γ	1.50
			Load Cases	CC11

2.5 LOAD COMBINATIONS

Load Combin.	DS	Load Combination Description	No.	Factor	Load Case	
CO1	ULS'	1.35*CC1 + 1.35*CC2 + CC7	1	1.35	LC1	PP
			2	1.35	LC2	CM Paneles
			3	1.00	LC7	Imp X
CO2	ULS'	1.35*CC1 + 1.35*CC2 + CC7 + CC8	1	1.35	LC1	PP
			2	1.35	LC2	CM Paneles
			3	1.00	LC7	Imp X
			4	1.00	LC8	Imp Y
CO3	ULS'	1.35*CC1 + 1.35*CC2 + CC8	1	1.35	LC1	PP
			2	1.35	LC2	CM Paneles
			3	1.00	LC8	Imp Y
CO4	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC7	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC3	V Presión sup
			4	1.00	LC7	Imp X
CO5	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC7 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC3	V Presión sup
			4	1.00	LC7	Imp X
			5	1.00	LC8	Imp Y
CO6	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC3 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC3	V Presión sup
			4	1.00	LC8	Imp Y
CO7	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC7	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles
			3	1.50	LC4	V Succión sup
			4	1.00	LC7	Imp X
CO8	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC7 + CC8	1	1.20	LC1	PP
			2	1.20	LC2	CM Paneles

2.5 LOAD COMBINATIONS

Load Combin.	DS	Load Combination Description	No.	Factor	Load Case
			3	1.50	LC4 V Succión sup
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO9	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC4 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
			4	1.00	LC8 Imp Y
CO10	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC7 Imp X
CO11	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO12	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC9 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
			4	1.00	LC8 Imp Y
CO13	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC7 Imp X
CO14	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO15	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC10 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
			4	1.00	LC8 Imp Y
CO16	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC7	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC7 Imp X
CO17	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC7 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC7 Imp X
			5	1.00	LC8 Imp Y
CO18	ULS'	1.2*CC1 + 1.2*CC2 + 1.5*CC11 + CC8	1	1.20	LC1 PP
			2	1.20	LC2 CM Paneles
			3	1.50	LC11 Nieve
			4	1.00	LC8 Imp Y
CO19	S Ch	CC1 + CC2	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
CO20	S Ch	CC1 + CC2 + CC3	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC3 V Presión sup
CO21	S Ch	CC1 + CC2 + CC4	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC4 V Succión sup
CO22	S Ch	CC1 + CC2 + CC9	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC9 V Presión inf
CO23	S Ch	CC1 + CC2 + CC10	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC10 V Succión inf
CO24	S Ch	CC1 + CC2 + CC11	1	1.00	LC1 PP
			2	1.00	LC2 CM Paneles
			3	1.00	LC11 Nieve
CO25	EQU	1.1*CC1 + 1.1*CC2	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
CO26	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC3	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
CO27	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC4	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
CO28	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC9	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
CO29	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC10	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC10 V Succión inf
CO30	EQU	1.1*CC1 + 1.1*CC2 + 1.5*CC11	1	1.10	LC1 PP
			2	1.10	LC2 CM Paneles
			3	1.50	LC11 Nieve
CO31	EQU	0.9*CC1 + 0.9*CC2	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
CO32	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC3	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC3 V Presión sup
CO33	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC4	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC4 V Succión sup
CO34	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC9	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC9 V Presión inf
CO35	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC10	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC10 V Succión inf

2.5 LOAD COMBINATIONS

Load Combin	DS	Load Combination Description	No.	Factor	Load Case
CO36	EQU	0.9*CC1 + 0.9*CC2 + 1.5*CC11	1	0.90	LC1 PP
			2	0.90	LC2 CM Paneles
			3	1.50	LC11 Nieve

2.7 RESULT COMBINATIONS

Result Combin	Description	Loading
RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b	CO1/p or CO2/p or CO3/p or CO4/p or CO5/p or CO6/p or CO7/p or CO8/p or CO9/p or CO10/p or CO11/p or CO12/p or CO13/p or CO14/p or CO15/p or CO16/p or CO17/p or CO18/p
RC2	ELS - Característica	CO19/p or CO20/p or CO21/p or CO22/p or CO23/p or CO24/p
RC3	ELU (EQU) - Permanente / transitoria	CO25/p or CO26/p or CO27/p or CO28/p or CO29/p or CO30/p or CO31/p or CO32/p or CO33/p or CO34/p or CO35/p or CO36/p

4.1 NODES - SUPPORT FORCES

Result Combinations

Node No.	RC		Support Forces [kN] P_X	P_Y	P_Z	Support Moments [kNm] M_X	M_Y	M_Z	
4	RC1	Max	2.18	0.23	5.44	0.10	0.81	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-1.93	-0.12	-4.49	-0.17	-0.72	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.40	0.12	3.49	0.06	0.52	0.00	ELS - Característica
		Min	-1.34	-0.08	-3.14	-0.10	-0.49	0.00	ELS - Característica
6	RC1	Max	1.90	0.03	5.45	0.16	0.69	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.46	-0.03	-5.34	-0.24	-0.29	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.32	0.01	3.48	0.11	0.47	0.00	ELS - Característica
		Min	-0.25	-0.02	-3.71	-0.14	-0.17	0.00	ELS - Característica
15	RC1	Max	2.25	0.17	5.95	0.13	0.83	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-1.99	-0.24	-5.07	-0.08	-0.74	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.44	0.12	3.83	0.06	0.54	0.00	ELS - Característica
		Min	-1.38	-0.13	-3.48	-0.05	-0.50	0.00	ELS - Característica
17	RC1	Max	2.01	0.03	5.61	0.15	0.75	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.53	-0.03	-5.56	-0.24	-0.32	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.39	0.02	3.58	0.10	0.52	0.00	ELS - Característica
		Min	-0.29	-0.02	-3.85	-0.14	-0.19	0.00	ELS - Característica
26	RC1	Max	2.31	0.18	5.84	0.13	0.86	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-2.05	-0.25	-4.81	-0.08	-0.76	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.48	0.12	3.75	0.06	0.55	0.00	ELS - Característica
		Min	-1.42	-0.13	-3.35	-0.06	-0.52	0.00	ELS - Característica
28	RC1	Max	2.04	0.03	5.80	0.15	0.75	0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.55	-0.03	-5.70	-0.23	-0.32	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.41	0.02	3.71	0.10	0.52	0.00	ELS - Característica
		Min	-0.31	-0.02	-3.95	-0.14	-0.20	0.00	ELS - Característica
48	RC1	Max	1.98	0.24	5.32	0.11	0.73	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-1.78	-0.13	-4.57	-0.18	-0.65	-0.01	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.27	0.13	3.42	0.07	0.47	0.00	ELS - Característica
		Min	-1.23	-0.09	-3.14	-0.10	-0.45	0.00	ELS - Característica
50	RC1	Max	1.80	0.03	4.93	0.17	0.73	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
		Min	-0.50	-0.02	-4.98	-0.25	-0.33	0.00	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
	RC2	Max	1.25	0.02	3.14	0.11	0.50	0.00	ELS - Característica
		Min	-0.28	-0.02	-3.45	-0.14	-0.20	0.00	ELS - Característica

RF-STEEL EC3
CA1
Cálculo de barras de acero según Eurocódigo 3

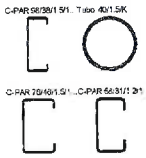
1.1 GENERAL DATA

Members to design:		
Sets of members to design:	All	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b
Serviceability Limit State Design Result combinations to design:	RC2	ELS - Característica

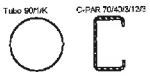
1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
1	Acero S 235 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	23.50	16.0
					22.50	40.0
					21.50	100.0
					19.50	150.0
					18.50	200.0
					17.50	250.0
2	S280GD 1.0244 | EN 10346:2009-03	21000.00	8076.92	0.300	28.00	
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	
5	Acero S 355 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	35.50	3.0
					35.50	16.0
					34.50	40.0
					33.50	63.0
					32.50	80.0
					31.50	100.0
					29.50	150.0
					28.50	200.0

1.3 CROSS-SECTIONS



Sect. No.	Matl. No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
1	4	C-PAR 98/38/1.5/12/1.5	General	0.60	Dintel
2	2	Tubo 40/1.5/K	Pipe	0.23	Diagonal
3	4	C-PAR 76/46/1.5/12/3	General	0.34	Pilar sup
4	4	C-PAR 58/31/1.2/12/2.4	General	0.12	Riostra
5	1	Tubo 90/1/K	Pipe	0.68	Pilar inf
7	4	C-PAR 58/31/1.2/12/2.4	General	0.44	Correa
8	5	C-PAR 70/40/3/12/3	General	0.26	Pilar inf 2
9	2	Tubo 40/1.5/K	Pipe	0.52	



2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
1	**Dintel (Member No. 1,133,136,6,10,94,158,16,143)**						
	94	0.382	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	6	0.000	CR1	0.02	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	1	0.550	CR1	0.32	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	143	0.250	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	133	0.451	CR1	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	94	0.763	CR1	0.00	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	133	0.000	CR1	0.11	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	133	0.000	CR1	0.23	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	133	0.000	CR1	0.11	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	1	0.550	CR1	0.32	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	158	0.198	CR1	0.25	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	143	0.250	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	133	0.000	CR1	0.41	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	1	0.688	CR1	0.55	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	6	0.530	CR1	0.39	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	133	0.090	CR1	0.42	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	6	0.265	CR1	0.03	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	158	0.397	CR1	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	133	0.000	CR1	0.44	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	133	0.000	CR1	0.52	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	1	0.688	CR1	0.56	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic d

2.3 DESIGN BY SET OF MEMBERS

Set No	Member No	Location x [m]	LC/CO/RC	Design		Equation No	Description
							design
	1	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	6	0.477	CR2	0.20	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	10	0.797	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
2	**Pilar trasero (Member No. 134,22,95,43)**						
	43	0.000	CR1	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	43	0.250	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	134	1.594	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	134	0.000	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	43	0.250	CR1	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	43	0.250	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	43	0.250	CR1	0.12	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	22	0.190	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	95	0.189	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	22	0.190	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	134	1.594	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	134	0.000	CR1	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	95	0.210	CR1	0.09	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	43	0.250	CR1	0.36	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	22	0.076	CR1	0.10	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	22	0.019	CR1	0.09	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	134	0.000	CR1	0.10	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	95	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	22	0.190	CR1	0.11	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	43	0.250	CR1	0.65	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	95	0.210	CR1	0.13	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	95	0.210	CR1	0.17	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	134	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	134	1.275	CR2	0.10	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	134	0.797	CR2	0.11	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
3	**Pilar delantero (Member No. 135,5,20)**						
	20	0.000	CR1	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	20	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	20	0.000	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	135	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	135	0.634	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	5	0.210	CR1	0.11	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	135	0.564	CR1	0.08	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	5	0.000	CR1	0.06	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	135	0.000	CR1	0.14	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	20	0.050	CR1	0.07	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	135	0.000	CR1	0.18	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	135	0.704	CR1	0.33	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	20	0.250	CR1	0.57	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	135	0.704	CR1	0.31	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	135	0.704	CR1	0.32	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design

2.3 DESIGN BY SET OF MEMBERS

Set No	Member No	Location x [m]	LC/CO/RC	Design		Equation No	Description
	135	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	135	0.634	CR2	0.17	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	135	0.564	CR2	0.27	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
4	**Dintel (Member No. 7,137,147,12,30,97,160,32,148)**						
	97	0.305	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	12	0.000	CR1	0.02	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	7	0.550	CR1	0.33	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	148	0.225	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	137	0.451	CR1	0.13	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	97	0.763	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	137	0.000	CR1	0.11	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	137	0.000	CR1	0.25	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	137	0.000	CR1	0.12	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	7	0.550	CR1	0.33	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	7	0.619	CR1	0.37	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	148	0.225	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	137	0.000	CR1	0.42	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	7	0.688	CR1	0.57	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	97	0.000	CR1	0.25	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	137	0.090	CR1	0.44	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	12	0.212	CR1	0.06	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	160	0.397	CR1	0.01	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	137	0.000	CR1	0.45	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	137	0.000	CR1	0.54	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	7	0.688	CR1	0.58	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	7	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	12	0.477	CR2	0.22	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	30	0.911	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
5	**Pilar trasero (Member No. 138,34,98,44)**						
	44	0.000	CR1	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	44	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	34	1.303	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	138	0.481	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	44	0.250	CR1	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	44	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	44	0.250	CR1	0.12	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	98	0.000	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	98	0.000	CR1	0.13	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	98	0.000	CR1	0.08	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	34	1.303	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	138	0.481	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	98	0.210	CR1	0.09	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	44	0.250	CR1	0.38	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	34	1.043	CR1	0.10	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	44	0.000	CR1	0.18	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	98	0.000	CR1	0.09	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	138	0.048	CR1	0.10	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	98	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	138	0.481	CR1	0.20	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	44	0.250	CR1	0.67	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	98	0.210	CR1	0.14	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	98	0.210	CR1	0.17	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	138	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	34	0.782	CR2	0.10	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	34	0.391	CR2	0.23	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
6	**Pilar delantero (Member No. 139,17,21)**						
	21	0.000	CR1	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	21	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	21	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	139	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	21	0.250	CR1	0.01	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	139	0.634	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	17	0.210	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	139	0.564	CR1	0.08	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	17	0.000	CR1	0.06	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	21	0.000	CR1	0.05	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	139	0.000	CR1	0.14	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	139	0.000	CR1	0.19	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	139	0.704	CR1	0.34	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	21	0.250	CR1	0.61	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	139	0.704	CR1	0.31	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	139	0.704	CR1	0.32	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	139	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	139	0.634	CR2	0.18	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	139	0.564	CR2	0.27	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**						
	101	0.305	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	14	0.000	CR1	0.03	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	13	0.550	CR1	0.34	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	150	0.225	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	140	0.451	CR1	0.14	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	101	0.763	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	140	0.000	CR1	0.12	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	140	0.000	CR1	0.26	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	140	0.000	CR1	0.13	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	13	0.550	CR1	0.34	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	13	0.619	CR1	0.38	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	150	0.225	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	140	0.000	CR1	0.43	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	13	0.688	CR1	0.59	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	14	0.000	CR1	0.21	≤ 1	CS183)	Cross-section check - Bending, shear and axial force a

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
							acc. to 6.2.9.2 - Class 3 - General cross-section
	140	0.090	CR1	0.45	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	14	0.212	CR1	0.06	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	140	0.000	CR1	0.46	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	140	0.000	CR1	0.56	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	13	0.688	CR1	0.60	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	13	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	14	0.477	CR2	0.22	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	37	0.911	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
8	**Pilar trasero (Member No. 141,19,100,45)**						
	45	0.000	CR1	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	45	0.250	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	141	0.481	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	45	0.250	CR1	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	45	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	45	0.250	CR1	0.12	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	100	0.000	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	100	0.000	CR1	0.13	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	100	0.000	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	141	0.481	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	100	0.210	CR1	0.09	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	45	0.250	CR1	0.39	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	19	1.042	CR1	0.10	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	45	0.000	CR1	0.19	≤ 1	CS184)	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	100	0.000	CR1	0.09	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	141	0.048	CR1	0.11	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	100	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	19	0.000	CR1	0.21	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	45	0.250	CR1	0.68	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	100	0.210	CR1	0.14	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	100	0.210	CR1	0.17	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	141	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	19	0.782	CR2	0.11	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	19	0.391	CR2	0.24	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
9	**Pilar delantero (Member No. 142,29,41)**						
	41	0.000	CR1	0.09	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	41	0.250	CR1	0.09	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	41	0.125	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	41	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	142	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	41	0.250	CR1	0.01	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	142	0.634	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	29	0.210	CR1	0.12	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	142	0.584	CR1	0.08	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	41	0.125	CR1	0.01	≤ 1	CS154)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	29	0.000	CR1	0.06	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	41	0.250	CR1	0.05	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force a

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	142	0.000	CR1	0.15	≤ 1	CS203)	acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	142	0.000	CR1	0.19	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	142	0.704	CR1	0.34	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	41	0.250	CR1	0.62	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	142	0.704	CR1	0.31	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	142	0.704	CR1	0.32	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	142	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	142	0.634	CR2	0.18	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	142	0.564	CR2	0.27	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
10	**Dintel (Member No. 25,144,152,15,50,106,165,52,153)**						
	106	0.382	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	15	0.000	CR1	0.02	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	25	0.481	CR1	0.26	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	153	0.250	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	144	0.451	CR1	0.12	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	153	0.250	CR1	0.00	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	144	0.000	CR1	0.10	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	144	0.000	CR1	0.22	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	144	0.000	CR1	0.10	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	25	0.481	CR1	0.26	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	165	0.159	CR1	0.25	≤ 1	CS148)	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	153	0.250	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	25	0.550	CR1	0.40	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	25	0.688	CR1	0.50	≤ 1	CS168)	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	15	0.053	CR1	0.21	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	144	0.045	CR1	0.43	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	15	0.212	CR1	0.05	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	144	0.000	CR1	0.41	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	144	0.000	CR1	0.48	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	25	0.688	CR1	0.51	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	25	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	15	0.477	CR2	0.20	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	50	0.797	CR2	0.13	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
11	**Pilar trasero (Member No. 145,54,107,46)**						
	46	0.000	CR1	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	46	0.250	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	54	0.019	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	145	0.000	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	46	0.250	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	46	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	46	0.250	CR1	0.10	≤ 1	CS129)	Cross-section check - Resulting shear force acc. to 6.2.6(4)
	54	0.190	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	107	0.000	CR1	0.11	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	54	0.190	CR1	0.09	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	54	0.019	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	145	0.000	CR1	0.00	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	107	0.210	CR1	0.09	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	46	0.250	CR1	0.35	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	54	0.076	CR1	0.10	≤ 1	CS183)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	54	0.019	CR1	0.09	≤ 1	CS188)	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	145	0.000	CR1	0.09	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	107	0.084	CR1	0.06	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	107	0.210	CR1	0.12	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	46	0.250	CR1	0.59	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	107	0.210	CR1	0.13	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	107	0.210	CR1	0.16	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	145	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	145	1.275	CR2	0.09	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	145	0.797	CR2	0.10	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
12	**Pilar delantero (Member No. 146,116,42)**						
	42	0.000	CR1	0.08	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	42	0.250	CR1	0.08	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	42	0.000	CR1	0.09	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	146	0.000	CR1	0.01	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	146	0.634	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	116	0.210	CR1	0.10	≤ 1	CS133)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	146	0.564	CR1	0.07	≤ 1	CS138)	Cross-section check - Torsion and shear force acc. to 6.2.7(5)
	116	0.000	CR1	0.05	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	42	0.250	CR1	0.05	≤ 1	CS164)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe
	146	0.000	CR1	0.13	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	42	0.025	CR1	0.07	≤ 1	CS204)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	146	0.000	CR1	0.17	≤ 1	CS208)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	146	0.704	CR1	0.32	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	42	0.250	CR1	0.59	≤ 1	CS224)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe
	146	0.704	CR1	0.30	≤ 1	CS228)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	146	0.704	CR1	0.30	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	146	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	146	0.634	CR2	0.16	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	146	0.564	CR2	0.27	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
13	**Correas (Member No. 73,55,123,58,59)**						
	73	0.123	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	58	0.900	CR1	0.15	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	123	1.200	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	55	0.000	CR1	0.10	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	58	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	58	0.900	CR1	0.15	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	123	1.200	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	55	0.000	CR1	0.37	≤ 1	CS183)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	73	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	73	0.615	CR2	0.30	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	73	0.615	CR2	0.15	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
14	**Correas (Member No. 74,60,124,63,64)**						
	74	0.123	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	124	1.500	CR1	0.19	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	124	1.200	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	60	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	63	1.500	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	124	1.500	CR1	0.19	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	124	1.200	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	60	0.000	CR1	0.38	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	74	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	74	0.615	CR2	0.30	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	63	1.500	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
15	**Correas (Member No. 75,65,125,68,69)**						
	75	0.123	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	65	0.000	CR1	0.37	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	65	1.200	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	65	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	68	1.500	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	65	0.000	CR1	0.37	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	65	1.200	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	68	0.000	CR1	0.34	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	75	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	75	0.615	CR2	0.28	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	68	1.500	CR2	0.20	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
16	**Correas (Member No. 76,70,126,79,80)**						
	76	0.123	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	70	0.000	CR1	0.28	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	79	0.300	CR1	0.03	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	70	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	70	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	70	0.000	CR1	0.28	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	79	0.300	CR1	0.03	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	70	0.000	CR1	0.41	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	76	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	70	0.000	CR2	0.30	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	76	0.615	CR2	0.17	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
17	**Correas (Member No. 77,81,127,84,85)**						
	85	0.492	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	84	0.000	CR1	0.34	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	127	0.300	CR1	0.04	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	81	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	81	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	84	0.000	CR1	0.34	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	127	0.300	CR1	0.04	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	81	0.000	CR1	0.44	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General c

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
							cross-section
	77	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	77	0.615	CR2	0.31	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	81	0.150	CR2	0.25	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
18	**Correas (Member No. 78,86,129,131,130)**						
	130	0.492	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	86	0.150	CR1	0.20	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	129	0.300	CR1	0.02	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	86	0.000	CR1	0.11	≤ 1	CS122)	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4
	131	0.000	CR1	0.02	≤ 1	CS124)	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4
	86	0.150	CR1	0.20	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	129	0.300	CR1	0.02	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	86	0.000	CR1	0.42	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	78	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	78	0.615	CR2	0.31	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	86	0.150	CR2	0.25	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
19	**Riostras (Member No. 90)**						
	90	0.187	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	90	1.868	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	90	0.000	CR1	0.01	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	90	0.934	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	90	1.868	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	90	0.934	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	0.187	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	0.934	CR1	0.01	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	90	1.868	CR1	0.03	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	90	1.121	CR1	0.04	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	90	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	90	0.934	CR2	0.01	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	90	0.934	CR2	0.12	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
20	**Riostras (Member No. 91)**						
	91	1.868	CR1	0.00	≤ 1	CS100)	Negligible internal forces
	91	0.000	CR1	0.01	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	91	1.868	CR1	0.01	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	91	0.934	CR1	0.01	≤ 1	CS112)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3
	91	0.000	CR1	0.01	≤ 1	CS117)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3
	91	0.934	CR1	0.01	≤ 1	CS143)	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	91	0.000	CR1	0.01	≤ 1	CS153)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	91	0.550	CR1	0.01	≤ 1	CS163)	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section
	91	0.187	CR1	0.03	≤ 1	CS203)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section
	91	0.934	CR1	0.04	≤ 1	CS223)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section
	91	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	91	0.934	CR2	0.01	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	91	0.934	CR2	0.12	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
21	**Diagonal B (Member No. 93)**						
	93	1.951	CR1	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	93	0.000	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	93	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	93	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	93	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	93	1.951	CR1	0.10	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and a

2.3 DESIGN BY SET OF MEMBERS

Set No	Member No	Location x [m]	LC/CO/RC	Design		Equation No	Description
	93	1.951	CR1	0.04	≤ 1	CS221)	axial force acc. to 6.2.9.1 Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	93	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	93	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	93	1.170	CR2	0.47	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
22	**Diagonal B (Member No. 96)**						
	96	1.951	CR1	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	96	0.000	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	96	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	96	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	96	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	96	1.951	CR1	0.10	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	96	1.366	CR1	0.04	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	96	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	96	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	96	1.170	CR2	0.50	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
23	**Diagonal B (Member No. 99)**						
	99	1.951	CR1	0.07	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	99	0.000	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	99	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	99	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	99	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	99	1.951	CR1	0.10	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	99	1.366	CR1	0.04	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	99	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	99	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	99	1.170	CR2	0.52	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
24	**Diagonal B (Member No. 105)**						
	105	1.951	CR1	0.06	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	105	0.000	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	105	0.000	CR1	0.00	≤ 1	CS121)	Cross-section check - Shear force in z-axis acc. to 6.2.6
	105	0.000	CR1	0.01	≤ 1	CS123)	Cross-section check - Shear force in y-axis acc. to 6.2.6
	105	0.000	CR1	0.01	≤ 1	CS128)	Cross-section check - Resulting shear force acc. to 6.2.6
	105	1.951	CR1	0.16	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	105	1.951	CR1	0.03	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	105	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	105	0.975	CR2	0.04	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	105	1.170	CR2	0.43	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
25	**Diagonal B (Member No. 108)**						
	108	0.000	CR1	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	108	1.417	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	108	0.709	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	108	1.417	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	108	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	108	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	108	0.709	CR1	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	108	0.000	CR1	0.03	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	108	0.000	CR1	0.07	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	108	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	108	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	108	0.709	CR1	0.21	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	108	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	108	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	108	0.709	CR2	0.19	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
26	**Diagonal B (Member No. 109)**						
	109	0.000	CR1	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	109	1.417	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	109	0.709	CR1	0.01	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	109	0.000	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	109	0.709	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	109	0.000	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/RC	Design		Equation No.	Description
	109	1.417	CR1	0.00	≤ 1	CS137)	6.2.7(9) Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	109	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	109	0.709	CR1	0.01	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	109	0.000	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	109	0.283	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	109	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	109	0.000	CR1	0.07	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	109	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	109	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	109	0.709	CR1	0.22	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	109	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	109	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	109	0.709	CR2	0.21	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
27	**Diagonal B (Member No. 110)**						
	110	0.000	CR1	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	110	1.417	CR1	0.07	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	110	0.709	CR1	0.08	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	110	0.000	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	110	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	110	1.417	CR1	0.01	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	110	0.709	CR1	0.00	≤ 1	CS181)	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1
	110	0.000	CR1	0.04	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	110	0.000	CR1	0.08	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	110	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	110	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	110	0.709	CR1	0.23	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	110	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	110	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	110	0.709	CR2	0.21	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction
28	**Diagonal B (Member No. 112)**						
	112	0.000	CR1	0.02	≤ 1	CS101)	Cross-section check - Tension acc. to 6.2.3
	112	1.417	CR1	0.06	≤ 1	CS102)	Cross-section check - Compression acc. to 6.2.4
	112	0.992	CR1	0.00	≤ 1	CS111)	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2
	112	0.000	CR1	0.01	≤ 1	CS116)	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2
	112	0.709	CR1	0.07	≤ 1	CS131)	Cross-section check - Torsion acc. to 6.2.7
	112	0.000	CR1	0.00	≤ 1	CS132)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	112	1.417	CR1	0.00	≤ 1	CS137)	Cross-section check - Torsion and shear force acc. to 6.2.7(9)
	112	1.417	CR1	0.00	≤ 1	CS139)	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)
	112	0.992	CR1	0.00	≤ 1	CS141)	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8
	112	0.000	CR1	0.01	≤ 1	CS151)	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8
	112	0.142	CR1	0.00	≤ 1	CS161)	Cross-section check - Biaxial bending and shear force acc. to 6.2.6, 6.2.7 and 6.2.9
	112	0.000	CR1	0.03	≤ 1	CS201)	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1
	112	0.000	CR1	0.07	≤ 1	CS206)	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1
	112	0.567	CR1	0.00	≤ 1	CS221)	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9
	112	0.709	CR1	0.01	≤ 1	CS226)	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9
	112	0.709	CR1	0.20	≤ 1	CS271)	Cross-section check - Axial stress and torsion - Elastic design
	112	0.000	CR2	0.00	≤ 1	SE400)	Serviceability - Negligible deformations
	112	0.709	CR2	0.02	≤ 1	SE401)	Serviceability - Combination of actions 'Characteristic' - z-direction
	112	0.709	CR2	0.18	≤ 1	SE406)	Serviceability - Combination of actions 'Characteristic' - y-direction

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
1	**Dintel (Member No. 1,133,136,6,10,94,158,16,143)**								
	0.382	CR1	0.89	0.00	0.88	0.00	0.50	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.37	0.05	1.64	0.00	-0.34	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.550	CR1	0.06	-0.01	-1.72	0.00	-0.95	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	-0.07	-0.02	0.23	0.00	0.01	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR1	0.64	0.00	-3.21	0.00	0.07	-0.01	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR1	0.75	-0.09	1.64	0.00	0.58	0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.62	0.05	-3.20	0.00	1.52	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.62	0.05	-3.20	0.00	1.52	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	0.62	0.05	-3.20	0.00	1.52	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.550	CR1	0.06	-0.01	-1.72	0.00	-0.95	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.198	CR1	0.18	0.03	-0.52	0.00	0.73	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.07	-0.02	0.23	0.00	0.01	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.17	0.04	1.61	0.00	-1.07	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR1	0.04	-0.04	2.20	0.00	1.52	0.03	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.530	CR1	0.79	0.01	-1.09	0.00	-1.12	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR1	0.63	0.04	-3.20	0.00	1.23	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.265	CR1	-1.00	0.02	0.61	0.00	0.00	-0.02	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.397	CR1	0.44	-0.04	1.27	0.00	0.00	0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.31	0.03	2.35	0.00	-1.19	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.62	0.05	-3.20	0.00	1.52	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR1	0.04	-0.04	2.20	0.00	1.52	0.03	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.797	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
2	**Pilar trasero (Member No. 134,22,95,43)**								
	0.000	CR1	5.46	-0.11	2.17	0.00	0.27	0.07	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-4.49	0.15	-1.89	0.00	-0.71	-0.12	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	1.594	CR1	0.13	0.00	0.01	0.00	0.02	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.17	0.00	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	5.44	-0.11	2.18	0.00	0.81	0.09	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-4.11	0.23	-1.93	-0.01	-0.72	-0.17	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	5.44	-0.11	2.18	0.00	0.81	0.09	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.190	CR1	-1.67	0.29	0.09	0.00	0.18	-0.05	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.189	CR1	-4.44	0.18	-1.89	-0.01	-0.20	-0.09	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.190	CR1	-1.67	0.29	0.09	0.00	0.18	-0.05	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.594	CR1	0.13	0.00	0.01	0.00	0.02	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.17	0.00	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.03	-0.04	1.00	0.00	0.26	0.03	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.03	-0.03	1.02	0.00	0.52	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.076	CR1	2.75	-0.15	-0.11	0.00	-0.17	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.019	CR1	-1.72	0.25	0.08	0.00	0.17	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	2.97	0.08	-0.10	0.00	0.00	0.11	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.44	0.17	-1.87	-0.01	0.00	-0.07	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.190	CR1	2.75	-0.16	-0.11	0.00	-0.19	0.02	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.44	-0.11	2.18	0.00	0.81	0.09	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	5.45	-0.11	2.17	0.00	0.27	0.07	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General c								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	cross-section								
	0.210	CR1	5.45	-0.11	2.17	0.00	0.27	0.07	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.275	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.797	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
3	**Pilar delantero (Member No. 135,5,20)**								
	0.000	CR1	5.45	0.01	0.53	0.00	0.55	0.17	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.34	0.01	1.88	0.00	0.52	-0.21	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-5.34	0.01	1.91	0.00	0.04	-0.21	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.12	0.13	-0.52	0.00	0.00	-0.12	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.634	CR1	-3.14	0.06	-0.51	0.00	-0.33	-0.18	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.33	0.01	1.90	0.00	0.04	-0.24	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.14	0.07	-0.51	0.00	-0.29	-0.18	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-0.14	-0.03	-0.46	0.00	0.18	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-4.07	0.04	-0.55	0.00	0.00	-0.15	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.050	CR1	-1.38	0.02	0.81	0.00	0.00	-0.06	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR1	5.39	0.05	0.62	0.00	0.00	0.20	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR1	5.37	0.03	0.64	0.00	0.44	0.16	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.44	0.01	0.58	0.00	0.69	0.16	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.14	0.05	-0.51	0.00	-0.36	-0.19	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.14	0.05	-0.51	0.00	-0.36	-0.19	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
4	**Dintel (Member No. 7,137,147,12,30,97,160,32,148)**								
	0.305	CR1	0.90	0.01	0.93	0.00	0.46	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.44	0.07	1.71	0.00	-0.36	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.550	CR1	0.06	-0.02	-1.79	0.00	-0.98	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.225	CR1	-0.05	0.02	0.23	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR1	0.67	0.03	-3.34	0.00	0.07	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR1	0.75	-0.11	1.69	0.00	0.59	0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.65	0.07	-3.33	0.00	1.57	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.65	0.07	-3.33	0.00	1.57	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	0.65	0.07	-3.33	0.00	1.57	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.550	CR1	0.06	-0.02	-1.79	0.00	-0.98	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.619	CR1	0.06	-0.02	-1.79	0.00	-1.11	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.225	CR1	-0.05	0.02	0.23	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.04	1.66	0.00	-1.11	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR1	0.05	-0.03	2.28	0.00	1.57	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.74	-0.03	1.71	0.00	-0.70	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.060	CR1	0.66	0.06	-3.33	0.00	1.27	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.43	0.05	1.71	0.00	0.00	-0.06	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.397	CR1	0.49	-0.03	1.30	0.00	0.00	0.01	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.32	0.01	2.45	0.00	-1.23	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.65	0.07	-3.33	0.00	1.57	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.688	CR1	0.05	-0.03	2.28	0.00	1.57	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
5	**Pilar trasero (Member No. 138,34,98,44)**								
	0.000	CR1	5.96	0.17	2.23	0.00	0.27	-0.03	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.07	-0.26	-1.91	-0.01	-0.72	0.13	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	1.303	CR1	0.05	-0.03	0.01	0.00	0.02	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.481	CR1	0.18	0.09	0.01	0.00	0.01	-0.04	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	5.95	0.17	2.25	0.00	0.83	-0.08	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-5.06	-0.27	-1.92	-0.01	-0.24	0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	5.95	0.17	2.25	0.00	0.83	-0.08	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.000	CR1	-5.05	-0.30	-1.92	-0.01	0.17	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-5.04	-0.30	-1.96	-0.01	0.16	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-5.05	-0.30	-1.92	-0.01	0.17	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	1.303	CR1	0.05	-0.03	0.01	0.00	0.02	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.481	CR1	0.18	0.09	0.01	0.00	0.01	-0.04	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.09	-0.01	1.08	0.00	0.28	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.08	-0.01	1.08	0.00	0.55	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.043	CR1	3.17	0.13	-0.11	0.00	-0.16	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-1.43	-0.06	-1.20	0.00	-0.24	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR1	5.97	0.14	2.23	0.00	-0.19	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.048	CR1	3.06	-0.07	-0.11	0.00	0.00	0.11	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-5.04	-0.26	-1.94	-0.01	0.00	0.03	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.481	CR1	-1.94	0.23	0.12	0.00	0.06	-0.18	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.95	0.17	2.25	0.00	0.83	-0.08	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-5.05	-0.25	-1.95	-0.01	-0.25	0.06	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-5.05	-0.25	-1.95	-0.01	-0.25	0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.782	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.391	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
6	**Pilar delantero (Member No. 139,17,21)**								
	0.000	CR1	5.61	0.03	0.62	0.00	0.59	0.16	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.56	0.00	2.01	0.01	0.56	-0.24	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-5.55	0.00	2.01	0.00	0.06	-0.21	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.23	0.13	-0.53	0.00	0.00	-0.12	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-4.93	-0.06	0.18	0.00	-0.32	-0.21	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-3.25	0.05	-0.53	0.00	-0.33	-0.18	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.55	0.00	2.01	0.00	0.06	-0.24	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.25	0.06	-0.53	0.00	-0.30	-0.18	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-0.11	-0.03	-0.53	0.00	0.19	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.12	-0.03	-0.53	0.00	0.07	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR1	-4.23	0.03	-0.57	0.00	0.00	-0.16	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	5.61	0.10	0.65	0.00	0.00	0.21	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR1	5.59	0.05	0.67	0.00	0.46	0.16	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.60	0.02	0.64	0.00	0.75	0.15	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.25	0.04	-0.52	0.00	-0.37	-0.18	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.25	0.04	-0.52	0.00	-0.37	-0.18	CS271)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**								
	0.305	CR1	0.93	0.02	0.94	0.00	0.47	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.49	0.07	1.74	0.00	-0.37	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.550	CR1	0.07	-0.02	-1.84	0.00	-1.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.225	CR1	-0.06	0.02	0.24	0.00	0.00	0.03	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR1	0.68	0.04	-3.44	0.00	0.07	-0.03	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.763	CR1	0.77	-0.11	1.73	0.00	0.60	0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.66	0.09	-3.43	0.00	1.62	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.66	0.09	-3.43	0.00	1.62	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	0.66	0.09	-3.43	0.00	1.62	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.550	CR1	0.07	-0.02	-1.84	0.00	-1.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.619	CR1	0.06	-0.02	-1.84	0.00	-1.14	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.225	CR1	-0.06	0.02	0.24	0.00	0.00	0.03	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.04	1.72	0.00	-1.15	0.04	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR1	0.04	-0.03	2.35	0.00	1.62	0.04	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.82	0.03	-1.13	0.00	-0.60	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.090	CR1	0.67	0.08	-3.43	0.00	1.31	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.49	0.05	1.74	0.00	0.01	-0.06	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-0.33	0.00	2.53	0.00	-1.26	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.66	0.09	-3.43	0.00	1.62	0.01	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.698	CR1	0.04	-0.03	2.35	0.00	1.62	0.04	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.911	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
8	**Pilar trasero (Member No. 141,19,100,45)**								
	0.000	CR1	5.85	0.18	2.30	0.00	0.28	-0.04	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-4.81	-0.20	-1.98	-0.01	-0.75	0.10	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.481	CR1	0.17	0.09	0.01	0.00	0.01	-0.04	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	5.84	0.18	2.31	0.00	0.86	-0.08	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.76	-0.28	-1.97	-0.01	-0.24	0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	5.84	0.18	2.31	0.00	0.86	-0.08	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.000	CR1	-4.75	-0.30	-1.97	-0.01	0.17	0.01	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-4.74	-0.30	-2.01	-0.01	0.17	0.01	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-4.75	-0.30	-1.97	-0.01	0.17	0.01	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.481	CR1	0.17	0.09	0.01	0.00	0.01	-0.04	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.05	-0.02	1.10	0.00	0.28	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.05	-0.01	1.10	0.00	0.56	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	1.042	CR1	2.98	0.14	-0.12	0.00	-0.17	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-1.31	-0.08	-1.23	0.00	-0.24	0.00	CS184)
	Cross-section check - Bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR1	5.86	0.15	2.30	0.00	-0.20	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.048	CR1	3.21	-0.07	-0.11	0.00	-0.01	0.12	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.74	-0.27	-1.99	-0.01	0.00	0.03	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	-1.80	-0.15	0.11	0.00	0.05	-0.19	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.250	CR1	5.84	0.18	2.31	0.00	0.86	-0.08	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-4.75	-0.25	-1.99	-0.01	-0.25	0.07	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-4.75	-0.25	-1.99	-0.01	-0.25	0.07	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.782	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.391	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
9	**Pilar delantero (Member No. 142,29,41)**								
	0.000	CR1	5.81	0.04	0.60	0.00	0.60	0.16	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-5.70	-0.01	2.01	0.00	0.56	-0.21	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.125	CR1	-0.13	-0.03	-0.55	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-5.69	0.00	2.04	0.00	0.05	-0.21	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-3.33	0.13	-0.55	0.00	0.00	-0.13	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-5.08	-0.07	0.19	0.00	-0.32	-0.20	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.634	CR1	-3.35	0.05	-0.54	0.00	-0.34	-0.18	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-5.69	-0.01	2.04	0.00	0.05	-0.24	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-3.35	0.05	-0.54	0.00	-0.31	-0.18	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.125	CR1	-0.13	-0.03	-0.55	0.00	0.00	0.02	CS154)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR1	-0.12	-0.03	-0.55	0.00	0.19	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.13	-0.03	-0.55	0.00	-0.07	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR1	-4.36	0.03	-0.58	0.00	0.00	-0.16	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	5.77	0.11	0.66	0.00	0.00	0.22	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR1	5.75	0.05	0.69	0.00	0.47	0.16	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.80	0.03	0.63	0.00	0.75	0.15	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-3.35	0.04	-0.54	0.00	-0.38	-0.19	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-3.35	0.04	-0.54	0.00	-0.38	-0.19	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
10	**Dintel (Member No. 25,144,152,15,50,106,165,52,153)**								
	0.382	CR1	0.77	0.00	0.86	0.00	0.49	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.14	0.05	1.53	0.00	-0.32	-0.04	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.481	CR1	0.04	-0.02	-1.59	0.00	-0.77	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	-0.02	-0.03	0.21	0.00	0.00	0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.451	CR1	0.61	0.00	-3.02	0.00	0.04	-0.02	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	-0.30	-0.08	1.40	0.00	0.02	0.02	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.59	0.05	-3.01	0.00	1.40	0.00	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	0.59	0.05	-3.01	0.00	1.40	0.00	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	0.59	0.05	-3.01	0.00	1.40	0.00	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.481	CR1	0.04	-0.02	-1.59	0.00	-0.77	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.159	CR1	0.08	0.04	-0.51	0.00	0.74	0.00	CS148)
	Cross-section check - Bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.02	-0.03	0.21	0.00	0.00	0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.550	CR1	0.07	-0.01	2.04	0.00	1.12	0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.688	CR1	0.07	-0.02	2.03	0.00	1.40	0.03	CS168)
	Cross-section check - Biaxial bending, shear force and torsion acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.053	CR1	0.62	0.01	-0.94	0.00	-0.62	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.045	CR1	0.60	0.04	-3.00	0.00	1.26	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.212	CR1	-2.14	0.03	1.53	0.00	0.00	-0.05	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.000	CR1	-0.29	0.03	2.22	0.00	-1.10	0.03	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR1	0.59	0.05	-3.01	0.00	1.40	0.00	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.588	CR1	0.07	-0.02	2.03	0.00	1.40	0.03	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.477	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.797	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
11	**Pilar trasero (Member No. 145,54,107,46)**								
	0.000	CR1	5.33	-0.13	1.97	0.00	0.24	0.07	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-4.57	0.19	-1.69	-0.01	-0.63	-0.15	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.019	CR1	0.05	0.11	0.01	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.19	0.00	0.01	0.00	0.00	0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.250	CR1	5.32	-0.13	1.98	0.00	0.73	0.10	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-4.30	0.24	-1.78	0.00	-0.21	-0.12	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.250	CR1	5.32	-0.13	1.98	0.00	0.73	0.10	CS129)
	Cross-section check - Resulting shear force acc. to 6.2.6(4)								
	0.190	CR1	-2.07	0.30	0.09	0.00	0.17	-0.05	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	5.34	-0.15	1.97	0.00	-0.18	0.04	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.190	CR1	-2.07	0.30	0.09	0.00	0.17	-0.05	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.019	CR1	0.05	0.11	0.01	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.19	0.00	0.01	0.00	0.00	0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.210	CR1	0.10	-0.03	0.99	0.00	0.26	0.03	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	0.08	-0.02	1.00	0.00	0.51	0.03	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.076	CR1	2.87	-0.17	-0.10	0.00	-0.16	0.00	CS183)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.019	CR1	-2.07	0.30	0.07	0.00	0.16	0.00	CS188)
	Cross-section check - Bending, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.000	CR1	2.75	0.08	-0.09	0.00	0.00	0.10	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.084	CR1	-4.55	0.19	-1.72	0.00	0.00	-0.07	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.210	CR1	-4.26	0.20	-1.79	0.00	-0.21	-0.10	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.250	CR1	5.32	-0.13	1.98	0.00	0.73	0.10	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.210	CR1	-4.30	0.24	-1.78	0.00	-0.21	-0.12	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.210	CR1	-4.30	0.24	-1.78	0.00	-0.21	-0.12	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	1.275	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.797	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
12	**Pilar delantero (Member No. 146,116,42)**								
	0.000	CR1	4.94	0.00	0.67	0.00	0.56	0.17	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.250	CR1	-4.98	0.00	1.77	0.00	0.50	-0.25	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-4.97	0.03	1.80	0.00	0.05	-0.21	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-2.89	0.14	-0.48	0.00	0.00	-0.11	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.634	CR1	-2.91	0.08	-0.47	0.00	-0.30	-0.18	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.210	CR1	-4.97	0.03	1.80	0.00	0.05	-0.24	CS133)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.564	CR1	-2.90	0.08	-0.47	0.00	-0.27	-0.17	CS138)
	Cross-section check - Torsion and shear force acc. to 6.2.7(5)								
	0.000	CR1	-0.09	-0.03	-0.50	0.00	0.16	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.250	CR1	-0.10	-0.02	-0.50	0.00	-0.07	0.02	CS164)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - Pipe								
	0.000	CR1	-3.81	0.06	-0.52	0.00	0.00	-0.14	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.025	CR1	-1.33	0.03	0.84	0.00	0.00	-0.07	CS204)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.000	CR1	5.03	0.06	0.59	0.00	0.00	0.19	CS208)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.704	CR1	5.01	0.01	0.61	0.00	0.42	0.16	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	0.250	CR1	4.93	-0.01	0.69	0.00	0.73	0.17	CS224)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - Pipe								
	0.704	CR1	-2.91	0.07	-0.47	0.00	-0.33	-0.19	CS228)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.704	CR1	-2.91	0.07	-0.47	0.00	-0.33	-0.19	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.634	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.564	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
13	**Correas (Member No. 73,55,123,58,59)**								
	0.123	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.900	CR1	0.01	0.02	-0.16	0.00	0.15	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.200	CR1	0.00	0.01	0.07	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.01	-0.02	1.26	0.00	-0.38	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.01	-0.20	-0.85	0.00	0.23	-0.05	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.900	CR1	0.01	0.02	-0.16	0.00	0.15	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.200	CR1	0.00	0.01	0.07	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.01	-0.02	1.26	0.00	-0.38	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.615	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.615	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
14	**Correas (Member No. 74,60,124,63,64)**								
	0.123	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	1.500	CR1	0.00	0.02	0.88	0.00	0.20	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.200	CR1	0.00	0.05	0.07	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-0.01	0.00	1.27	0.00	-0.38	0.01	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.500	CR1	-0.01	0.21	0.75	0.00	0.15	-0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.500	CR1	0.00	0.02	0.88	0.00	0.20	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.200	CR1	0.00	0.05	0.07	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.01	0.00	1.27	0.00	-0.38	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.615	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.500	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
15	**Correas (Member No. 75,65,125,68,69)**								
	0.123	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR1	0.00	-0.02	1.27	0.00	-0.38	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.200	CR1	0.00	0.05	0.06	0.00	0.00	-0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.00	-0.02	1.27	0.00	-0.38	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	1.500	CR1	0.00	0.21	0.76	0.00	0.15	-0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.00	-0.02	1.27	0.00	-0.38	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.200	CR1	0.00	0.05	0.06	0.00	0.00	-0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.01	-0.01	1.26	0.00	-0.34	0.01	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.615	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.500	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
16	**Correas (Member No. 76,70,126,79,80)**								
	0.123	CR1	0.00	0.00	0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR1	0.00	-0.02	-0.98	0.00	0.29	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.300	CR1	0.00	-0.04	-0.08	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.00	-0.05	1.27	0.00	-0.38	-0.02	CS122)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.01	-0.21	-0.87	0.00	0.26	-0.06	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.00	-0.02	-0.98	0.00	0.29	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.300	CR1	0.00	-0.04	-0.08	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	0.00	-0.05	1.27	0.00	-0.38	-0.02	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.615	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
17	**Correas (Member No. 77,81,127,84,85)**								
	0.492	CR1	0.00	0.00	-0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.000	CR1	-0.03	-0.02	1.26	0.00	-0.35	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.300	CR1	0.00	-0.05	-0.07	0.00	0.00	-0.02	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.03	-0.02	1.27	0.00	-0.38	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.05	-0.24	-0.87	0.00	0.26	-0.09	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	-0.03	-0.02	1.26	0.00	-0.35	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.300	CR1	0.00	-0.05	-0.07	0.00	0.00	-0.02	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.05	-0.24	-0.87	0.00	0.26	-0.09	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.615	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.150	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
18	**Correas (Member No. 78,86,129,131,130)**								
	0.492	CR1	0.00	0.00	-0.02	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	0.150	CR1	0.06	-0.02	1.03	0.00	-0.21	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.300	CR1	0.01	-0.03	-0.07	0.00	0.00	-0.01	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	0.06	-0.02	1.26	0.00	-0.38	0.00	CS122)
	Cross-section check - Shear force in z-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.000	CR1	0.08	-0.22	-0.86	0.00	0.23	-0.07	CS124)
	Cross-section check - Shear force in y-axis acc. to 6.2.6(4) - Class 3 or 4								
	0.150	CR1	0.06	-0.02	1.03	0.00	-0.21	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.300	CR1	0.01	-0.03	-0.07	0.00	0.00	-0.01	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.08	-0.22	-0.87	0.00	0.26	-0.08	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.615	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.150	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
19	**Riostras (Member No. 90)**								
	0.187	CR1	-0.03	0.00	0.01	0.00	0.00	0.00	CS100)
	Negligible internal forces								
	1.868	CR1	0.46	0.00	-0.01	0.00	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-0.29	0.00	0.01	0.00	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.934	CR1	-0.02	0.00	0.00	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	1.868	CR1	0.08	0.00	-0.01	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.934	CR1	-0.02	0.00	0.00	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.187	CR1	0.06	0.00	0.01	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.934	CR1	0.07	0.00	0.00	0.00	0.01	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	1.868	CR1	0.46	0.00	-0.01	0.00	0.00	0.02	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	1.121	CR1	0.45	0.00	0.00	0.00	0.01	0.02	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.934	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.934	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
20	**Riostras (Member No. 91)**								
	1.868	CR1	0.03	0.00	-0.01	0.00	0.00	0.00	CS100)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Negligible internal forces								
	0.000	CR1	0.30	0.00	0.01	0.00	0.00	0.01	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.868	CR1	-0.46	0.00	-0.01	0.00	0.00	-0.02	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.934	CR1	0.02	0.00	0.00	0.00	0.01	0.00	CS112)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 3								
	0.000	CR1	-0.06	0.00	0.01	0.00	0.00	0.00	CS117)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 3								
	0.934	CR1	0.02	0.00	0.00	0.00	0.01	0.00	CS143)
	Cross-section check - Bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.000	CR1	-0.06	0.00	0.01	0.00	0.00	0.00	CS153)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.560	CR1	-0.07	0.00	0.01	0.00	0.01	0.00	CS163)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.9.2 and 6.2.10 - Class 3 - General cross-section								
	0.187	CR1	-0.45	0.00	0.01	0.00	0.00	-0.02	CS203)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.2 - Class 3 - General cross-section								
	0.934	CR1	-0.45	0.00	0.00	0.00	0.01	-0.02	CS223)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9 - Class 3 - General cross-section								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.934	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.934	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
21	**Diagonal B (Member No. 93)**								
	1.951	CR1	3.57	-0.09	-0.01	0.02	0.00	0.12	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.17	0.08	0.01	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.15	0.12	0.06	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.17	0.13	0.01	-0.02	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.15	0.12	0.06	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.81	0.01	-0.01	-0.01	0.00	-0.06	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR1	3.57	-0.09	-0.01	0.02	0.00	0.12	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
22	**Diagonal B (Member No. 96)**								
	1.951	CR1	3.68	-0.10	-0.01	0.02	0.00	0.12	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.26	0.09	0.01	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.24	0.13	0.07	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.26	0.13	0.01	-0.02	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.24	0.13	0.07	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.90	0.01	-0.01	-0.01	0.00	-0.06	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.366	CR1	-3.22	0.01	-0.03	-0.02	0.03	-0.12	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
23	**Diagonal B (Member No. 99)**								
	1.951	CR1	3.79	-0.10	-0.01	0.02	0.00	0.12	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-3.36	0.09	0.01	-0.02	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-3.34	0.13	0.07	-0.02	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-3.36	0.13	0.01	-0.02	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-3.34	0.13	0.07	-0.02	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-1.94	0.01	-0.01	-0.01	0.00	-0.06	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.366	CR1	-3.32	0.01	-0.03	-0.02	0.03	-0.12	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
24	**Diagonal B (Member No. 105)**								
	1.951	CR1	3.25	-0.08	-0.01	0.02	0.00	0.11	CS101)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Tension acc. to 6.2.3								
	0.000	CR1	-2.91	0.07	0.01	-0.01	0.00	-0.01	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.000	CR1	-2.89	0.11	0.06	-0.01	0.00	-0.01	CS121)
	Cross-section check - Shear force in z-axis acc. to 6.2.6								
	0.000	CR1	-2.91	0.11	0.01	-0.01	0.00	-0.01	CS123)
	Cross-section check - Shear force in y-axis acc. to 6.2.6								
	0.000	CR1	-2.89	0.11	0.06	-0.01	0.00	-0.01	CS128)
	Cross-section check - Resulting shear force acc. to 6.2.6								
	1.951	CR1	-2.87	0.01	-0.02	-0.01	0.00	-0.09	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	1.951	CR1	3.25	-0.08	-0.01	0.02	0.00	0.11	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.975	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	1.170	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
25	**Diagonal B (Member No. 108)**								
	0.000	CR1	0.97	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.29	-0.02	-0.01	0.04	0.00	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	-3.28	0.00	0.00	0.04	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	1.417	CR1	-3.29	-0.06	-0.06	0.04	0.00	-0.03	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.29	-0.06	-0.06	0.04	0.00	-0.03	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.29	-0.06	-0.06	0.04	0.00	-0.03	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.16	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.50	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.28	0.01	0.05	0.04	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.50	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.28	0.00	0.00	0.04	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.28	0.00	0.00	0.04	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
26	**Diagonal B (Member No. 109)**								
	0.000	CR1	1.07	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.46	-0.02	-0.02	0.04	0.00	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	0.08	-0.01	0.00	-0.01	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR1	0.08	-0.01	0.01	-0.01	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-3.45	0.00	0.00	0.05	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.44	0.06	0.06	0.05	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.45	-0.07	-0.06	0.05	0.00	-0.03	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.45	-0.07	-0.06	0.05	0.00	-0.03	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.08	-0.01	0.00	-0.01	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR1	0.08	-0.01	0.01	-0.01	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.283	CR1	0.08	-0.01	0.01	-0.01	0.00	0.00	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.5, 6.2.7 and 6.2.9								
	0.000	CR1	-1.61	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.44	0.01	0.05	0.04	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.62	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.45	0.00	0.00	0.05	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.45	0.00	0.00	0.05	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
27	**Diagonal B (Member No. 110)**								
	0.000	CR1	1.10	0.01	0.01	-0.01	0.00	0.02	CS101)

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.52	-0.02	-0.02	0.05	0.00	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.709	CR1	-3.51	0.00	0.00	0.05	0.02	-0.06	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.50	0.06	0.06	0.05	0.00	-0.04	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.51	-0.07	-0.06	0.05	0.00	-0.03	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.51	-0.07	-0.06	0.05	0.00	-0.03	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.709	CR1	0.12	-0.01	0.00	-0.01	0.00	0.00	CS181)
	Cross-section check - Bending, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-1.64	0.00	0.03	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.50	0.01	0.06	0.05	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.65	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.51	0.00	0.00	0.05	0.02	-0.06	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.51	0.00	0.00	0.05	0.02	-0.06	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								
28	**Diagonal B (Member No. 112)**								
	0.000	CR1	0.99	0.01	0.01	-0.01	0.00	0.02	CS101)
	Cross-section check - Tension acc. to 6.2.3								
	1.417	CR1	-3.09	-0.02	-0.01	0.04	0.00	-0.03	CS102)
	Cross-section check - Compression acc. to 6.2.4								
	0.992	CR1	-0.08	-0.01	0.00	0.00	0.00	0.00	CS111)
	Cross-section check - Bending about y-axis acc. to 6.2.5 - Class 1 or 2								
	0.000	CR1	-0.07	-0.01	0.01	0.00	0.00	-0.01	CS116)
	Cross-section check - Bending about z-axis acc. to 6.2.5 - Class 1 or 2								
	0.709	CR1	-3.08	0.00	0.00	0.04	0.02	-0.05	CS131)
	Cross-section check - Torsion acc. to 6.2.7								
	0.000	CR1	-3.07	0.05	0.06	0.04	0.00	-0.03	CS132)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.09	-0.06	-0.06	0.04	0.00	-0.03	CS137)
	Cross-section check - Torsion and shear force acc. to 6.2.7(9)								
	1.417	CR1	-3.09	-0.06	-0.06	0.04	0.00	-0.03	CS139)
	Cross-section check - Torsion and resulting shear force acc. to 6.2.7(9)								
	0.992	CR1	-0.08	-0.01	0.00	0.00	0.00	0.00	CS141)
	Cross-section check - Bending and shear force acc. to 6.2.5 and 6.2.8								
	0.000	CR1	-0.07	-0.01	0.01	0.00	0.00	-0.01	CS151)
	Cross-section check - Bending about z-axis and shear force acc. to 6.2.5 and 6.2.8								
	0.142	CR1	-0.07	-0.01	0.01	0.00	0.00	-0.01	CS161)
	Cross-section check - Biaxial bending and shear force acc. to 6.2.5, 6.2.7 and 6.2.9								
	0.000	CR1	-1.48	0.00	0.01	0.02	0.00	-0.02	CS201)
	Cross-section check - Bending about z-axis, shear and axial force acc. to 6.2.9.1								
	0.000	CR1	-3.07	0.01	0.05	0.04	0.00	-0.04	CS206)
	Cross-section check - Bending about z-axis, shear, torsion and axial force acc. to 6.2.9.1								
	0.567	CR1	-1.50	0.00	0.01	0.02	0.01	-0.03	CS221)
	Cross-section check - Biaxial bending, shear and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.08	0.00	0.00	0.04	0.02	-0.05	CS226)
	Cross-section check - Biaxial bending, shear, torsion and axial force acc. to 6.2.10 and 6.2.9								
	0.709	CR1	-3.08	0.00	0.00	0.04	0.02	-0.05	CS271)
	Cross-section check - Axial stress and torsion - Elastic design								
	0.000	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE400)
	Serviceability - Negligible deformations								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE401)
	Serviceability - Combination of actions 'Characteristic' - z-direction								
	0.709	CR2	0.00	0.00	0.00	0.00	0.00	0.00	SE406)
	Serviceability - Combination of actions 'Characteristic' - y-direction								

RF-STEEL EC3
CA2
Verificación correa

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	15	
National Annex:	NEN	
Ultimate Limit State Design		
Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	

C-PAR 58/31/1.2/1...

1.3 CROSS-SECTIONS

Sect No.	Matl No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
7	4	C-PAR 58/31/1.2/12/2.4	General	0.45	Correa

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
15	**Correas (Member No. 75,65,125,68,69)**						
	65	0.000	CR1	0.45	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
15	**Correas (Member No. 75,65,125,68,69)**								
	0.000	CR1	-0.32	-0.02	1.26	0.02	-0.36	0.00	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

RF-STEEL EC3
CA3
Verificación dintel

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	7	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
4	S350GD 1.0529 | EN 10346:2009-03	21000.00	8076.92	0.300	35.00	

C-PAR 98/38/1.5/1...

1.3 CROSS-SECTIONS

Sect No.	Matl No.	Cross-Section Description	Cross-Section Type	Max Design Ratio	Comment
1	4	C-PAR 98/38/1.5/12/1.5	General	0.71	Dintel

2.3 DESIGN BY SET OF MEMBERS

Set No.	Member No.	Location x [m]	LC/CO/ RC	Design		Equation No.	Description
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**						
	14	0.424	CR1	0.71	≤ 1	CS272)	Cross-section check - Elastic design with warping torsion analysis

3.2 GOVERNING INTERNAL FORCES BY SET OF MEMBERS

Set No.	Location x [m]	Load Case	Forces [kN] N_{Ed}	$V_{y,Ed}$	$V_{z,Ed}$	Moments [kNm] T_{Ed}	$M_{y,Ed}$	$M_{z,Ed}$	Equation No.
7	**Dintel (Member No. 13,140,149,14,37,101,162,39,150)**								
	0.424	CR1	0.16	0.00	-1.14	0.00	-1.08	0.01	CS272)
	Cross-section check - Elastic design with warping torsion analysis								

RF-STEEL EC3
CA4
verificacion pilar

1.1 GENERAL DATA

Members to design:		
Sets of members to design:	5,9	
National Annex:	NEN	
Ultimate Limit State Design Result combinations to design:	RC1	ELU (STR/GEO) - Permanente / transitoria - Ec. 6.10a y 6.10b

1.2 MATERIALS

Matl. No.	Material Description	E- Modulus E [kN/cm²]	Shear Modulus G [kN/cm²]	Poisson's Ratio ν [-]	Yield Stress f_{yk} [kN/cm²]	Max. Thickness t [mm]
1	Acero S 235 JR | EN 10025-2:2004-11	21000.00	8076.92	0.300	23.50	16.0
					22.50	40.0
					21.50	100.0
					19.50	150.0

AXIAL
structural solutions

Behoort bij besluit van
Burgemeester en wethouders
van de gemeente Etten-Leur
Int. kenmerk:
2021OG0373-01

ETTEN LEUR
GEMEENTE

LOAD TESTS REPORT
Bollendonk
(NETHERLANDS)

Title	*Load Tests Report*			
Review	*0*			
Date	*25/03/2021*			
Reason	*Base*			

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1. LOAD TESTS REPORT

1.1. - Aim

The aim of the Load Test Report is to define the foundation for the structure of the Bollendonk PV project.

1.2. - Description of the project

The photovoltaic installation is located near the city of Bollendonk, Netherlands. The approximate peak power is 16,62MW and the coordinates of the location are:

Longitude: 6° 31' 9.9336" ' E

Latitude: 52° 53' 4.74" N

1.3. - Description of the tests

The ramming depth should be the necessary for the screw to withstand the loads over the structure without excessive deformation.

The extraction test consists of applying a force that increases with a very low speed in the vertical direction on the ramming pillar until it is observed a movement on the pillar. It is applied four consecutive load steps. For each step it is written the load applied and the displacement observed. Finally, it is written down the maximum force applied for a maximum displacement of 20mm and the load when the pillar is completely extracted.

The shear test consists of applying a force to a distance of 0,4m over the terrain in the horizontal direction on the screw pillar until it is observed a movement on the pillar. It is applied four consecutive load steps. For each step it is written the load applied and the displacement observed. Finally, it is written down the maximum force applied for a maximum displacement of 20mm and when it is observed a deformation or a constant movement in the pillar.

It is used a dynamometer in the tests that is attached to the pillar and which in turn is pulled by an external machine, such as an excavator or a crane.

1.3.1. - Ramming profile

Load tests were carried out with the following pillars sections:

- Spiral screw profile: Ø90mm #2mm.
- Helical screw profile: Ø90mm #2mm.
- Helical Screw Ø100mm #2mm.

1.3.2. - Measuring instrument

It is used a dynamometer to measure the load during the tests.

1.4. - Results obtained.

During the test, it has been performed direct ramming with two profile Screw 90mm and Screw 100mm for a 0,8m ramming depth, in the following tables are summarized the test results obtained.

All complete results and the location of the test according to the position are attached at the end of the present document.



Figure 1. Zone localization

Screw Ø90mm at 0,8m Ramming Depth Pull Out Test: Helicoidal Screw					
Number of tests		23			
	Value(kg)	*Value (kN)*	ξ1 (Ave)/ξ2 (min)	Value / ξ	Rt,k (kN)
Mean	984,173913	9,655	1	9,655	7,868
Minimum	802	7,868	1	7,868	
Set		R3		**Rt,d (kN)**	**7,152**
Partial Resistance Factor		1,1			

Shear Force Test: 0.4m		
	Value(kg)	*Value (kN)*
Mean/1.1	256,047	2,521
Bending momento (kN·m)		1,005

Screw Ø90mm at 0,8m Ramming Depth Pull Out Test: Spiral Screw					
Number of tests		23			
	Value(kg)	*Value (kN)*	ξ1 (Ave)/ξ2 (min)	Value / ξ	Rt,k (kN)
Mean	951,3043478	9,332	1	9,332	6,573
Minimum	670	6,573	1	6,573	
Set		R3		**Rt,d (kN)**	**5,975**
Partial Resistance Factor		1,1			

Shear Force Test: 0.4m		
	Value(kg)	*Value (kN)*
Mean/1.1	263,9393939	2,589
Bending momento (kN·m)		1,04

Screw Ø90mm at 0,8m Ramming Depth Pull Out Test: Flat Screw					
Number of tests		5			
	Value(kg)	*Value (kN)*	ξ1 (Ave)/ξ2 (min)	Value / ξ	Rt,k (kN)
Mean	1041,111111	10,213	1	10,213	7,456
Minimum	760	7,456	1	7,456	
Set		R3		**Rt,d (kN)**	**6,778**
Partial Resistance Factor		1,1			

Shear Force Test: 0.4m		
	Value(kg)	*Value (kN)*
Mean/1.1	271,21	2,661
Bending momento (kN·m)		1,06

Complete results and localization are attached in Annex I.

2. – Analysis of the results

Results obtained in the ramming tests are evaluated according to the Part 1 of Eurocode 7 UNE-EN_1997-1"Geotechnical project" with the considerations included in the present report.

2.1.- Required bearing capacity.

The following table summarizes the maximum values obtained from the loads effect (ELU). In the case of Extraction Values, following the guidelines of chapter 5.3.5 of the CTE (Codigo técnico de al Edificación) and different bibliography guidelines, it can be considered that the pull-out resistance is equal to 70% of the compressive strength. In this way, the maximum value between the extraction reaction and 70% of the compression reaction is considered as a reference, following the previous consideration.

The complete reactions can be found in the Annex II at the end of the document.

External table	Rz (kN)	Rx,y (kN)	Mx,y,z (kN·m)
Max. Value Pile A	7,39	2,89	1.01
Max. Value Pile B	7,58	2,31	1,03

Short Externel table	Rz (kN)	Rx,y (kN)	Mx,y,z (kN·m)
Max. Value Pile A	6,96	2,05	0,91
Max. Value Pile B	7,04	2,73	0,95

Intern table	Rz (kN)	Rx,y (kN)	Mx,y,z (kN·m)
Max. Value Pile A	7.18	0,73	0,77
Max. Value Pile B	6,26	2,77	1

2.2.- Results obtained for 0,8m depth for helical screw Ø90mm.

a) Calculation of the tensile strength

From section 7.6.3.2 "Ultimate tensile resistance from pile load tests" it is obtained the equation to determine the.

From section 7.6.3.2 "Ultimate tensile resistance from pile load tests" it is obtained the equation to determine the design tensile resistance $R_{t,d}$. According to equation (7.13):

$$R_{t,d} = \frac{R_{t,k}}{\gamma_{s,t}}$$

The characteristic value of the tensile resistance of a pile shall be determined by the equation (7.14):

$$R_{t,k} = Min\left\{\frac{(R_{t,m})_{mean}}{\xi_1}; \frac{(R_{t,m})_{\min}}{\xi_2}\right\}$$

ξ_1 y ξ_2 are the correlation factors related to the number of piles tested, n, and they are respectively applied to the mean value $(R_{t,m})_{mean}$ and the minimum value $(R_{t,m})_{mín}$ of the tensile resistances obtained in the ramming tests. Therefore, in first place, the mean and minimum tensile strengths shall be calculated. They are obtained from the results included in the previous table, for example for with the ramming depth of 0,8m:

$$(R_{t,m})_{mean} = 984 \cdot 9{,}81 = 9{,}653\ kN$$

$$(R_{t,m})_{min} = 802 \cdot 9{,}81 = 7{,}867\ kN$$

Correlation coefficients are obtained from Table A.9:

Table A.9 - Correlation factors ξ to derive characteristic values from static pile load tests (n - number of tested piles)

ξ for n =	1	2	3	4	≥ 5
ξ_1	1,40	1,30	1,20	1,10	1,00
ξ_2	1,40	1,20	1,05	1,00	1,00

Since 5 screws were tested with the 0,8m deep, the following correlation factors are obtained according to the previous table:

$$\xi_1 = \xi_2 = 1$$

With this, the characteristic value for the tensile resistance for a ramming depth of 0,8m:

$$R_{t,k} = Min\left\{\frac{(R_{t,m})_{mean}}{\xi_1}; \frac{(R_{t,m})_{min}}{\xi_1}\right\} = Min\left\{\frac{9{,}653}{1}; \frac{7{,}867}{1}\right\} = 7{,}867\ kN$$

Once it has been obtained the characteristic value of the tensile resistance, the partial factor for shaft in tension, $\gamma_{s,t}$ is obtained from Table A.6, which is shown below. It is considered the calculation approach 2 (R2).

Table A.6- Partial resistance factors (γ_R) for driven piles

Resistance	Symbol	Set			
		R1	R2	R3	R4
Base	γ_b	1,0	1,1	1,0	1,3
Shaft (compression)	γ_s	1,0	1,1	1,0	1,3
Total/combined (compression)	γ_t	1,0	1,1	1,0	1,3
Shaft in tension	$\gamma_{s,t}$	1,25	1,15	1,1	1,6

Then, it is calculated the design tensile resistance $R_{t,d}$ for different ramming depths depending on the pillar.

$$R_{t,d} = \frac{R_{t,k,c}}{\gamma_{s,t}}$$

$$R_{t,d} = \frac{7{,}867}{1{,}1} = 7{,}152\ kN$$

Finally, it is compared with the maximum value obtained from the loads effect (ELU), checking that, according to section 7.6.3.1, the following inequality (7.12) is satisfied:

$$F_{t;d} \leq R_{t;d}$$

In this case, for a 0,8m ramming depth, we obtain a resistance of 7,152 kN.

b) Calculation of the lateral load

According to 7.7 paragraph "Transversely loaded piles" from Eurocode 7, in order to demonstrate that a pile can support a lateral calculated load with an appropiate safety against breaking, the following inequality shall be satisfied for all ultimate limit state load cases and load combinations:

$$F_{tr;d} \leq R_{tr;d}$$

$R_{tr;d}$ is the design resistance of a transversally loaded pile and $F_{tr;d}$ is the calculated value of the lateral load over the screw.

First of all, it is calculated the $R_{tr;d}$ value from the average of the results obtained in the horizontal tests. For example, for a 0,8m ramming depth we obtain:

$$R_{tr;d} = 281{,}6 \cdot 9{,}81 = 2{,}762\ kN$$

Applying a safety factor of 1,1, we obtain finally a resistance:

$$R_{tr;d} = \frac{2{,}762}{1{,}1} = 2{,}51\ kN$$

The previous value is compared with the maximum shear value obtained, from the list of results of the calculated structure. The following relation shall be verified:

$$F_{tr;d} > R_{tr;d_test}$$

The same applies for the calculation of the bending moment obtained from the results of the tests (shear force applied at 0,4m from the ground).

With a 0,8m ramming depth:

$$M_{y_test} = 2{,}51\ kN \cdot 0{,}4\ m = 1{,}04\ kN \cdot m$$

The previous result is compared with the maximum value obtained from the lists of results from calculations. Again, it is verified the relation:

$$M_{calculation} \leq M_{y_{test}}$$

3. – Conclusions.

The summary of loads obtained in the tests is detailed below.

		Results obtained POT		
Profile	Depth (m)	Rt,d (kN)	Rtr;d (kN)	Mytest (kN·m)
Screw Ø90mm	0,8	7,152	2,51	1,04

Above results are compared to the maximum value obtained from the loads effect (ELU).

Max reaction without reinforcment (Helical Screw A Ø90mm and B Ø90mm at 0,8m):

$$F_{t;d} \leq R_{t;d}$$

Screw: 7,58 > 7,152

$$F_{tr;d} \leq R_{tr;d}$$

Screw A: 2,77 > 2,51

$$M_{calculation} \leq M_{y_{test}}$$

Screw A: 1,03 < 1,04

Therefore, analyzing the results obtained in the pull out test, it is observed that in only three points the necessary load is not reached, these points are not the ones with reinforcements.

It was observed in all the points that were placed reinforcement, an increase in shear was observed around 10-15% and in the extraction around 20%, this being enough to reach the necessary loads provided by the calculation.

Max reaction with reinforcment (Helical Screw A Ø90mm and B Ø90mm at 0,8m):

$$F_{t;d} \leq R_{t;d}$$

Screw: 7,58 < 8,58

$$F_{tr;d} \leq R_{tr;d}$$

Screw A: 2,77 < 2,82

$$M_{calculation} \leq M_{y_{test}}$$

Screw A: 1,03 < 1,16

Therefore, it is validated that for all the tables (external and internal) , the screw foundation Ø90mm #2mm at a ramming depth of 0,8m with reinforcement L30x30x3mm with 1700mm see figure 2 for screw A and screw B, tilt respect to the ground 45 degrees.

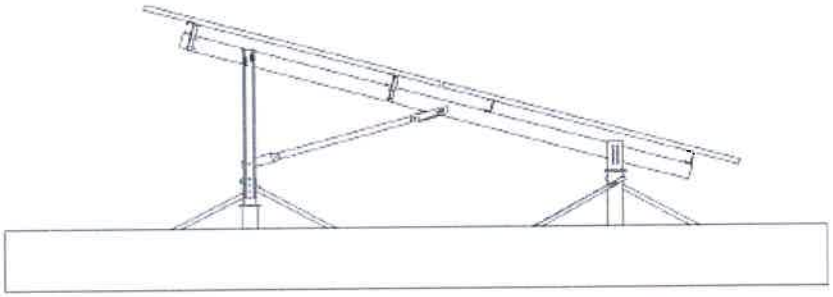


Figure 2. Reinforcment example.

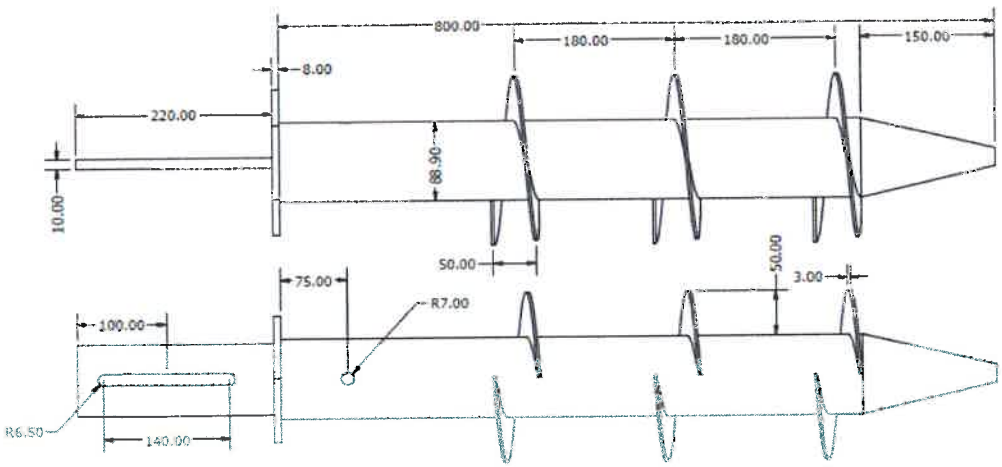


Figure 3. Helical screw.

According to the ramming test, there was no rejection in the screws tested. In case of rejection, it will be followed the IT303. Refusal Depth Specification protocol using pre-drilling those that the ramming depth will not be reached. A tolerance 0f +- 10% ramming depth will be permitted.

As the tests are specific points, taking into account the inspection of the terrain by the construction department of Axial, a low estimated predrilling would be necessary.

It should be notice that tall conclusions are based on pullout test results, wish is extrapolated to the entire area assuming ground conditions do not deviate from results observed during test. If before or during the execution phase different ground conditions are observed, Axial should be noticed in order to give additional recommendations. In order to verify this hypothesis, it is recommended to realize at least 2 verification tests per MW when installing, the location of this test should be evaluated by the Site Manager and verified by Axial. For further information regarding verification procedure, please refer to IT 302-Load Test Verification work instruction.

ANNEX I: POINTS LOCATION


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ANNEX II: POT COMPLETE RESULTS

Proyecto/Project	Bollendok		Fecha / Date
Ubicación/Location	51º36'22"N ; 4º37'28"E		Contacto de Obra / Site C

INFORMACIÓN DE REFERENCIA / REFERENCE INFORM. *(A rellenar por Ingeniería / To be filled by engineering department)*

Nº de pruebas / Nº of Tests:	150 tests (75 piles)
Observaciones / Observations	It is planned to test 75 screw foundation: 50 screws 90x2mm and 25 screws 100x2mm. It will be tested the screws foundation in one round. Three different screws will be tamped at the same points, separating at least 4 m. According to the information provided, in all area it will be tested at a depth of 0.8 because of geotestile and where the geotestile is greater than 0.8m we test at depth of 0.8 m. In the event that the proposed foundation is not sufficient due to the resistance of the soil, it will be tested with reinforcements at the base to increase this property. - 26 points Each point will be tested for traction and shear. Firstly it will be made the shear test and secondly the traction test. 2 weeks between ramming of the piles and extracting of the piles. - In extraction, it is planned to carry out 3 steps of load (L1 is 50% of ULS, L2 is 115% of ULS, L3 is 130% of ULS). For each step, we note the load and the displacement observed at ground level with the load applied. Each load step will be held for 30 seconds or until the displacement stabilizes. If the 20mm displacement has not been reached in the first 3 steps, a last one will be carried out (L20). It will be written down the load for which is obtained a displacement of 20mm. Residual displacement is also noted after removing the load. - In transverse forces (shear), it is planned to carry out 3 levels of load (L1 is 50% of ULS, L2 is 115% of ULS, L3 is 130% of ULS). For each step, we note the load and the displacement observed at ground level with the load applied. Each load step will be held for 30 seconds or until the displacement stabilizes. If the 20mm displacement has not been reached in the first 3 steps, a last one will be carried out (L20). It will be written down the load for which is obtained a displacement of 20mm. Residual displacement is also noted after removing the load. To perform the horizontal tests, we recommend applying the force to 0.4m from the ground to model shear and maximum moment.

Sección del Pilar / Pillar secti	Spiral screw 100x2mm		Cargas de ensayo / Test loads			
	Helical Screw 90x2mm	Helical Screw 100x2mm		L1	L2	L3
Profundidad 1 / Depth 1	0,4		Extracción / Extraction	420	925	1100
Profundidad 2 / Depth 2			Cortante (1)/ Shear (1)	110	245	290
Profundidad 3 / Depth 3			Cortante (2)/ Shear (2)			

RESULTADOS / EXAMPLE FIL

REF	Test	Screw type	Reinforcement	Profundidad de Hincado / Ramming depth (m)	L1		L2		L3		L (20mm)			d
					L1' (kg)	d1' (mm)	L2' (kg)	d2' (mm)	L3' (kg)	d3' (mm)	(kg)			(mm)
C100 1	Extracción / Extraction	Spiral	2	0,8	1020	5	1750	10	2630	16	2790			5
C100 1	Cortante / Shear	3 helicoidal	No	0,8	340	10	595	15	900	18	1000			5

ULTADO PRUEBAS / TEST RES

REF	Test	Screw type	Reinforcement	Profundidad de Hincado / Ramming depth (m)	L1		L2		L3		L (20mm)			d
					L1' (kg)	d1' (mm)	L2' (kg)	d2' (mm)	L3' (kg)	d3' (mm)	(kg)	Max Extraction	Max Shear	(mm)
1	Shear	HS	No	0,8	120	4,5	250	16	278	20			278	
	Extraction				450	0,5	950	4	1100	20		1100		
2	Shear	HS	No	0,8	150	10	220	20					220	
	Extraction				490	1	930	6	970	20		970		
3	Shear													
	Extraction													
4	Shear	HS	No	0,8	150	5	250	11	300	17			300	
	Extraction				430	1	930	20				930		
5	Shear	HS	No	0,8	130	4,5	240	18	310	20			310	
	Extraction				440	1	930	17	1120	20		1120		
6	Shear	HS	No	0,8	130	5	240	17	250	20			250	
	Extraction				450	1	930	14	940	20		940		
7	Shear	HS	No	0,8	200	7	270	20					270	
	Extraction				420	4	920	16	1000	20		1000		
8	Shear	HS		0,8	130	1	300	7	630	20			690	
	Extraction				470	1	930	18	1000	20		1000		
9	Shear	HS	No	0,8									0	
	Extraction				450	1	970	18	1130	20		1130		
11	Shear	HS	No	0,8	150	6	250	10	350				350	
	Extraction				430	1	950	17	1070	20		1070		
12	Shear	HS	No	0,8	150	3	250	10	350	20			350	
	Extraction				440	7	850	20				850		
13	Shear	HS	No	0,8										
	Extraction				424	10	760	20				760		
14	Shear	HS	No	0,8	70								70	
	Extraction				420	12	760	20				760		
15	Shear	HS	No	0,8	120	7	240	14	330	20			330	
	Extraction				440	1	930	17	1110	20		1110		
16	Shear	HS	No	0,8	140	10	230	20					230	
	Extraction				430	12	640	20				640		
17	Shear	HS		0,8	160	10	250	12	320	20			320	
	Extraction				470	1	920	17	1050	20		1050		
18	Shear	HS	No	0,8	115		180	20					180	
	Extraction				450	4,5	820	20				820		
19	Shear	HS	No	0,8	150	7	270	12	330	20			330	
	Extraction				440	1,5	930	17	1100	20		1100		
20	Shear	HS	No	0,8	145	2	360	12	320	20			360	
	Extraction				485	0	940	18	1000	20		1000		
21	Shear	HS	No	0,8	140	18	150	20					150	
	Extraction				430	9	810	20				810		
22	Shear	HS	No	0,8	190	1	290	14	430	20			430	
	Extraction				428	0	940	17	1040	20		1040		
23	Shear	HS	No	0,8	120	2	260	10	330	20			330	
	Extraction				440	0	940	16	1120	20		1120		
25	Shear	HS		0,8	120	2,5	270	11	370	20			370	
	Extraction				430	0	880	7	1120	20		1120		
26	Shear	HS	No	0,8	150	1	240	19	280	20			280	
	Extraction				470	0	650	12	980	20		980		

1	Shear	S	No	0,8	130	10	240	14	250	20				250	
	Extraction				450	0	940	0	1120	20		1120			
2	Shear	S	No	0,8	160	9	250	20						250	
	Extraction				500	7	930	20				930			
3	Shear	S	No	0,8	130	3	240	9	350	17				350	
	Extraction				430	1,5	840	20				840			
4	Shear	S	No	0,8	120	1	260	14	350	20				350	
	Extraction				430	0	950	0	1080	20		1080			
5	Shear	S	No	0,8	150	1,5	250	6	300	20				300	
	Extraction				430	0	920	0	1130	20		1130			
6	Shear	S	No	0,8	130	0	200	18	250	20				250	
	Extraction				440	4	920	20				920			
7	Shear	S	No	0,8	120	0	220	20						220	
	Extraction				430	15	600	20				600			
8	Shear	S	No	0,8	140	1	230	0	300	20				300	
	Extraction				430	6	940	20				940			
9	Shear	S	No	0,8	190	1	260	9	320	20				320	
	Extraction				430	6	750	0	790	20		790			
10	Shear	S	[redacted]	0,8	140	0	280	16	360	20				360	
	Extraction				460	0	920	20				920			
11	Shear	S	[redacted]	0,8	110	0	250	16	330	20				330	
	Extraction				430	0	930	1	1100	20		1100			
12	Shear	S	No	0,8	150	1,5	250	16	300	20				300	
	Extraction				450	4	700	20				700			
13	Shear	S	No	0,8	140	12	240	20						240	
	Extraction				420	7	890	20				890			
14	Shear	S	[redacted]	0,8	140	2,5	300	20						300	
	Extraction				425	0	940	2	1000	20		1000			
15	Shear	S	No	0,8	120	0	240	7	300	20				300	
	Extraction				430	0	920	0	1100	20		1100			
17	Shear	S	No	0,8	140	0	260		330	20				330	
	Extraction				440	0	930	0	1130	20		1130			
18	Shear	S	No	0,8	128	20								128	
	Extraction				450	20									
19	Shear	S	No	0,8	140	0	250	20						250	
	Extraction				420	3	850	20				850			
20	Shear	S	[redacted]	0,8	150	1	240	16	330	20				330	
	Extraction				450	0	940	7	1130	20		1130			
21	Shear	S	No	0,8	120	10	200	20						200	
	Extraction				450	11	670	20				670			
22	Shear	S	No	0,8	160	2,5	300	14	390	20				390	
	Extraction				430	0	956	7	1050	20		1050			
23	Shear	S	No	0,8	130	0	250	17	320	20				320	
	Extraction				430	0	940	2	1100	20		1100			
24	Shear	S	No	0,8	160	3	250	17	290	20				290	
	Extraction				500	14	670	20				670			
26	Shear	S	No	0,8	120	0	240	17	310	20				310	
	Extraction				490	0	950	14	1100	20		1100			
4	Shear	HC	[redacted]	0,8	170	10	300	20						300	
	Extraction				470	1	980	18	1150	20		1150			
5	Shear	HC	No	0,8	130	7	240	19	250	20				250	
	Extraction				430	3	950	16	1100	20		1100			
6	Shear	HC	No	0,8										0	
	Extraction				450	15	850	20				850			
10	Shear	HC	No	0,8	140	18	170	20						170	
	Extraction				425	14	730	20				730			
11	Shear	HC	No	0,8	150	10	240	14	300	20				300	
	Extraction				430	1	980	16	1100	20		1100			
13	Shear	HS	No	0,8	80	20								80	
	Extraction				424	12	750	20				760			
15	Shear	HC	No	0,8	140	0	260	14	330	20				330	
	Extraction				440	1	920	11	1120	20		1120			
16	Shear	HC	[redacted]	0,8	130	12	330	20						330	
	Extraction				430	1	950	15	1100	20		1100			
18	Shear	HC	No	0,8										0	
	Extraction				430	1	940	14	1110	20		1110			
23	Shear	HC	No	0,8	0		0							0	
	Extraction				430	4	940	17	1110	20		1110			
24	Shear	HC	No	0,8	130	4	300	14	500	20				500	
	Extraction				470	0	920	11	1120	20		1120			

AXIAL
structural solutions

ANNEX VII

CHEMICAL ANALYSIS

TÜVRheinland CERTIFIED
Management System ISO 9001:2015
www.tuv.com ID 9105085627
TÜVRheinland CERTIFIED
EN 1090-1 Factory Production Control
www.tuv.com ID 9105071258

Subject	**: Corrosivity analysis Solar Park Bollendonk, Etten-Leur**
Client	**: Antea Group**
Author	**: H.W.H. Engelen**
Authenticator	**: R. Steenbrink**
Report number	**: 42026-N001-V1-HEN**
Date	**: 8 April 2021**

1 Preamble

Geobest B.V. has been commissioned by Antea Group to perform an corrosivity analysis for the purpose of the realisation of solar field Bollendonk, Etten-Leur, on behalf of SolarCentury. The project site consists a former landfill, covered by soil. The solar park will be founded on a piled foundation, consisting most likely of hot-dipped galvanized steel piles.

This report gives insight in the corrosivity of the soil found at the project site and rates the coating on hot-dip galvanized steels in order to be able to determine the amount of protection required against corrosion on the steel profiles.

2 Soil investigation and laboratory report

To be able to assess the corrosivity of the soil, several soil samples are taken from the upper 1,0 meter of soil. Using these samples, laboratory samples are prepared by mixing soil from different boreholes at equal depth. From these samples, subsamples are taken to be able to conduct different tests.

As the solar park will cover one large single plot, all samples from equal depth are used to prepare a single laboratory sample, two in total. An overview of the project location is presented in Figure 1.



Figure 1: Overview solar park Bollendonk

The following parameters are determined:
- Amount of sulfides;
- Buffer capacity (acidity/alkalinity);
- pH;
- Ec (conductivity).

With these four parameters the rating of coatings on hot-dip galvanized steels can be classified according to DIN 50929-3.

The laboratory tests are conducted by SGS Belgium. The results of these laboratory tests are presented in report GP21-04884 R1, reported at 18 March 2021. The full report is presented in Annex 1, as part of the data corrosion investigation report, reference nr. 0468334.100, by Antea Group.

3 Interpretation results

The results of the corrosivity analysis are presented in Table 1.

Table 1: Lab results and rating coating

Parameter	Lower boundary	Upper boundary	Unit	Weighting factor Z
Conductivity	5,000	5,000	Ω cm	-2
pH	8.1	8.2	-	0
Acidity	1.6	1.7	mmol/kg	0
Alkalinity	<0.050	<0.050	mmol/kg	
Sulfide amount	<0.050	<0.050	mg/kg	0
			Rating:	-2

The full results of the corrosivity analysis according to the DIN 50929-3 are presented in Annex 2.

Based on the results of the laboratory tests it can be concluded that, according to the DIN 50929-3, the coating on hot-dip galvanized steels has a rating of -2 – good. This rating is applicable on the complete upper 1,0 meter across the project site.

This DIN 50929-3 classification value of -2 corresponds to, according to BS EN ISO 12944-2, corrosivity category C3 – mildly aggressive.

Annex 1 Soil investigation and laboratory report

Data corrosion investigation

Solar Park location Bollendonk Etten-Leur

project number 0468334.100
final
April 8, 2021

Understanding today
Improving tomorrow.

Table of Contents

1 Labresults Etten-Leur = GP21-04884_R1_FINAL (Geobest BV)
2 Soil profiles
3 Drawing of situation with sampling points

GP21-04884 R1

ANALYTICAL REPORT

LABORATORY DETAILS		CLIENT DETAILS	
Manager	Rudi Herman	Client	GEOBEST BV
Laboratory	SGS Belgium NV Environment, Health and Safety	Address	Marconiweg 2 4131 PD Vianen Nederland
Address	Spoorstraat 12 Postbus 78 4430 AB 's-Gravenpolder	Contact	R. Steenbrink
Telephone	+31 (0) 88 214 62 00	Telephone	0854890140
Facsimile	+31 (0) 88 214 62 99	Facsimile	
Email	nl.envi.cs@sgs.com	Email	ruud.steenbrink@geobest.nl
SGS Reference	GP21-04884	Project	**Standard project**
Received	10-03-2021	Order Number	**Zonnepark Bollendonk Etten-Leur**
Date Reported	18-03-2021		

ADDITIONAL JOB IDENTIFICATION

PO number job	42026

SAMPLE IDENTIFICATION

GP21-04884.001	MM1 (0.0-0.5 m depth)
GP21-04884.002	MM2 (0.5-1.0 m depth)

COMMENTS

This is a revised report. This revised report supercedes and voids all previous / other reports with the same report number.

All analyses marked with a Q are ISO17025 accredited (BELAC 005-TEST)

The laboratory is acknowledged for the analysis marked with an E.

Regarding all samples:

R1; at request of client report translated into English.

SIGNATORIES

BELAC VLAREL

ISO17025 (BELAC 005-TEST)

Rudi Herman
Lab Operations Manager

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Precision data in relation to the accredited analysis are available on request. In the appendix information is given about the sample preservation and preservation times of the received samples. Technical information about results marked with a "*" are also given in this appendix. The reports from external subcontracted analyses, if applicable, are attached to this report.

GP21-04884 R1

ANALYTICAL REPORT

			Sample Number	GP21-04884.001	GP21-04884.002
			Matrix	Soil	Soil
			Sample Depth		
			Sampled By	ANTEA	ANTEA
			Sample Date	08-03-2021	08-03-2021
			Sample Location		
			Sample Received Date	10-03-2021	10-03-2021
Parameter		Unit	RL	Result	Result
Shake-test [According to CMA/2/II/A.19]					
E	Shaketest CMA	-	-	x	x
E	L/S-ratio	l/kg db	-	10.0	10.0
	Execution date	-	-	16/03/2021	16/03/2021
Dry substance [According to CMA 2/II/A.1 (based on NEN-EN 15934)]					
Q/E	Dry substance	wt %	-	83.9	82.6
Information regarding sample pretreatment []					
	Method of reduction of particle size	-	-	nvt	nvt
	Drying step	-	-	Nee	Nee
	Method of splitting up	-	-	Kwarteren	Kwarteren
	Fraction of removed artifacts	wt %	0.50	<0.50	<0.50
	Description removed artifacts	-	-	nvt	nvt
	Fraction > 4 mm	wt %	0.50	<0.50	<0.50
Relative humidity []					
	Relative humidity	wt %	-	19	21
pH [According to ISO 10523]					
	pH	-	2.0	8.1	8.2
	Temperature pH-measurement	°C	-	21.3	21.4
Conductivity [According to NEN-ISO 7888]					
	Ec at 25°C after automatic temperature correction	µS/cm	10	200	200
	Temperature Ec measurement	°C	-	21.5	21.7
Acidity/Alkalinity [According to WAC/III/A/006 (based on ISO 9963-1)]					
	Alkalinity up to pH 4.5	mmol/l	0.050	1.7	1.6
	Alkalinity up to pH 8.3	mmol/l	0.050	<0.050	<0.050
Sulphides [According to WAC/III/C/040]					
	Total sulphide same as S	mg/l	0.050	<0.050	<0.050

GP21-04884 R1

ANALYTICAL REPORT

APPENDIX

PRESERVATION AND CONSERVATION REMARKS

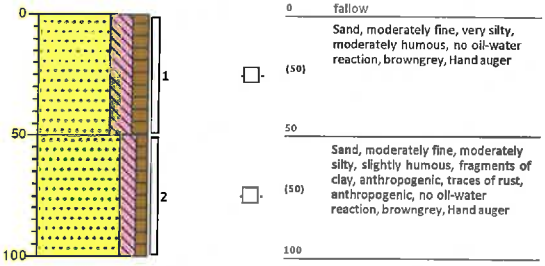
All samples were delivered at the laboratory preserved in a correct way.

Project name: Zonnepark Etten-Leur Bollendonk

Projectnr. 0468334.100

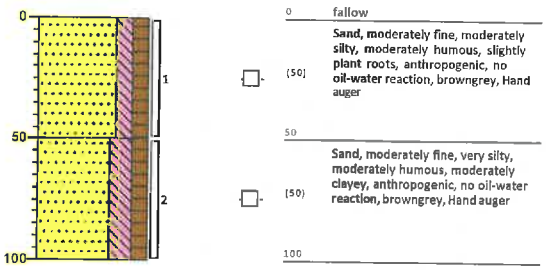
Borehole: 12a

Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102124,87
Y-coordinate: 402362,69
Z (m t.o.v. NAP): 6,592



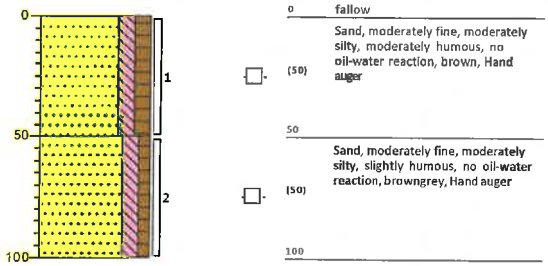
Borehole: 14a

Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102095,54
Y-coordinate: 402304,34
Z (m t.o.v. NAP): 7,124



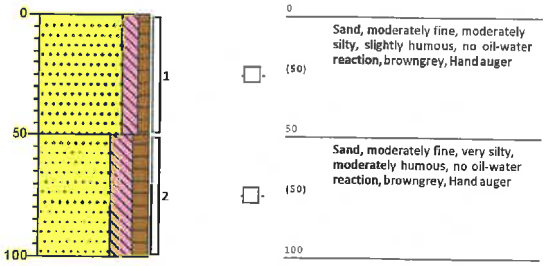
Borehole: 17a

Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102122,43
Y-coordinate: 402253,90
Z (m t.o.v. NAP): 7,604



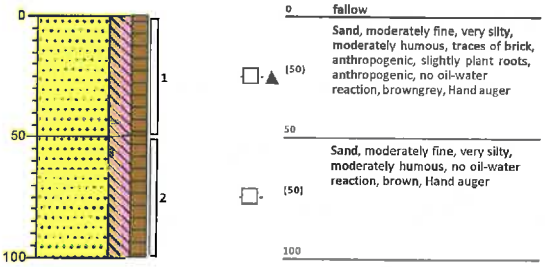
Borehole: 24a

Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102211,18
Y-coordinate: 402363,55
Z (m t.o.v. NAP): 7,17



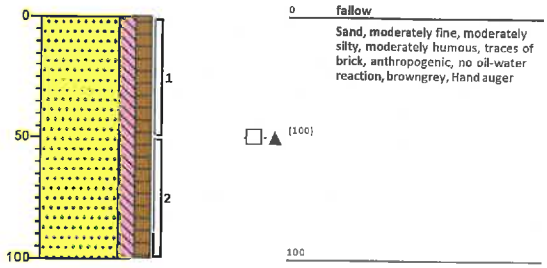
Borehole: 26a

Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102199,83
Y-coordinate: 402284,17
Z (m t.o.v. NAP): 8,019



Borehole: 28a

Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102269,96
Y-coordinate: 402343,41
Z (m t.o.v. NAP): 7,54



Scale: 1: 30

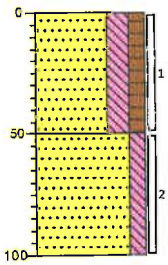
Drawed according to NEN 5104

Projectname: Zonnepark Etten-Leur Bollendonk

Projectnr. 0468334.100

Borehole: 30a

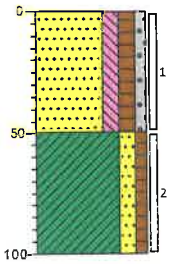
Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102084,43
Y-coordinate: 402199,41



0 fallow
Sand, moderately fine, very silty, moderately humous, moderately plant roots, anthropogenic, layers of clay, anthropogenic, no oil-water reaction, browngrey, Hand auger
(50)
50
Sand, moderately fine, moderately silty, residue of rubble, anthropogenic, no oil-water reaction, browngrey, Hand auger
(50)
100

Borehole: 32a

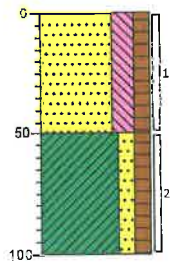
Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102190,02
Y-coordinate: 402234,46
Z (m t.o.v. NAP): 8,521



0 verge
Sand, moderately fine, moderately silty, moderately humous, slightly gravelly, no oil-water reaction, browngrey, Hand auger
(50)
50
Clay, moderately sandy, slightly humous, no oil-water reaction, grey, Hand auger
(50)
100

Borehole: 38a

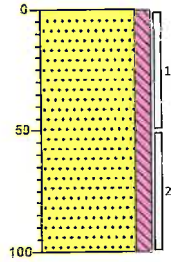
Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102160,31
Y-coordinate: 402136,74
Z (m t.o.v. NAP): 9,344



0 fallow
Sand, moderately fine, very silty, moderately humous, traces of brick, anthropogenic, no oil-water reaction, browngrey, Hand auger
(50)
50
Clay, moderately sandy, moderately humous, no oil-water reaction, browngrey, Hand auger
(50)
100

Borehole: 41a

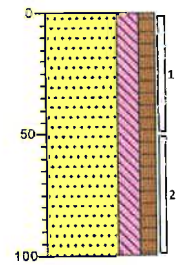
Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102254,39
Y-coordinate: 402281,82
Z (m t.o.v. NAP): 8,106



0 fallow
Sand, moderately fine, moderately silty, no oil-water reaction, brownyellow, Hand auger
(100)
100

Borehole: 46A

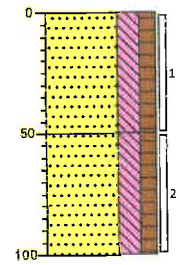
Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102241,45
Y-coordinate: 402158,67



0 fallow
Sand, moderately fine, very silty, moderately humous, slightly clayey, anthropogenic, residue of plant roots, anthropogenic, traces of brick, anthropogenic, no oil-water reaction, Hand auger
(100)
100

Borehole: 49a

Date: 8-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102325,22
Y-coordinate: 402205,78



0 fallow
Sand, moderately fine, very silty, moderately humous, no oil-water reaction, browngrey, Hand auger
(50)
50
Sand, moderately fine, very silty, moderately humous, slightly clayey, anthropogenic, no oil-water reaction, browngrey, Hand auger
(50)
100

Scale: 1: 30

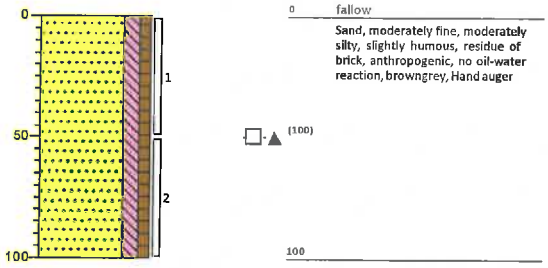
Drawed according to NEN 5104

Project name: Zonnepark Etten-Leur Bollendonk

Projectnr. 0468334.100

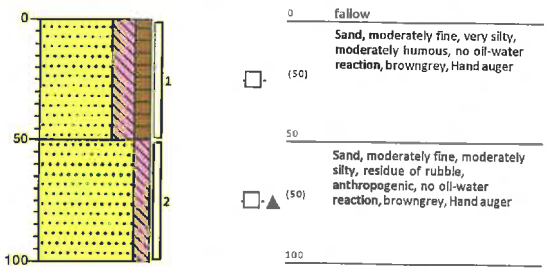
Borehole: 50a

Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102149,57
Y-coordinate: 402085,71
Z (m t.o.v. NAP): 9,534



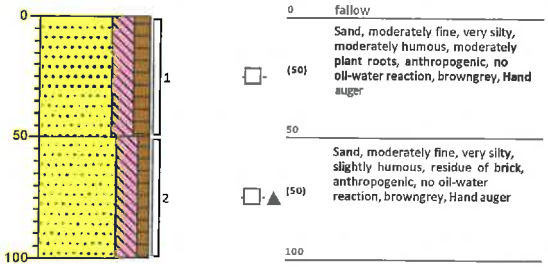
Borehole: 57a

Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102248,20
Y-coordinate: 402063,68
Z (m t.o.v. NAP): 8,785



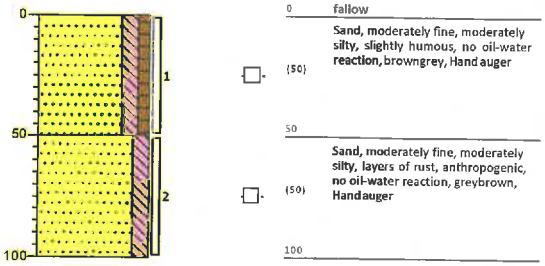
Borehole: 61a

Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102298,52
Y-coordinate: 402146,82



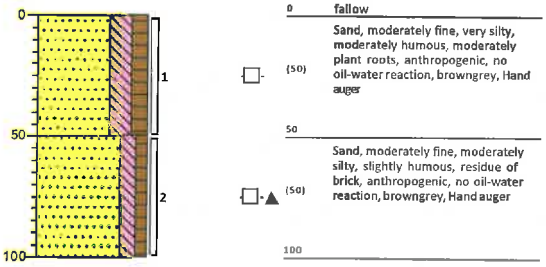
Borehole: 62a

Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102341,60
Y-coordinate: 402160,92



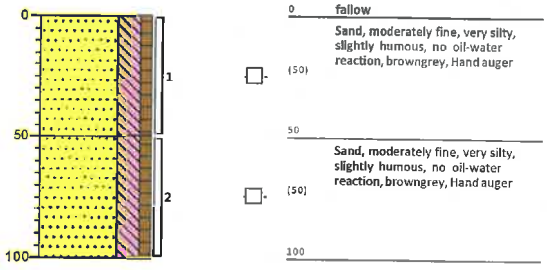
Borehole: 66a

Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102298,15
Y-coordinate: 402061,03
Z (m t.o.v. NAP): 8,464



Borehole: 68a

Date: 5-3-2021
Drilling master: T.P.C.van Gils
X-coordinate: 102365,66
Y-coordinate: 402081,19



Scale: 1: 30

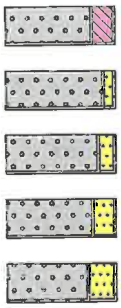
Drawed according to NEN 5104

Project name: Zonnepark Etten-Leur Bollendonk

egend NEN 104 compliant

anteagroup

gravel



Gravel, silt

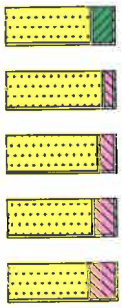
Gravel, slightl sand

Gravel, moderatel sand

Gravel, ver sand

Gravel, extremel sand

sand



Sand, cla e

Sand, slightl silt

Sand, moderatel silt

Sand, ver silt

Sand, extremel silt

peat



Peat, mineral deficient

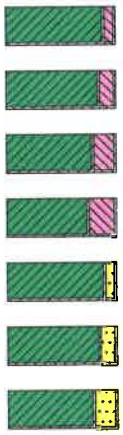
Peat, slightl cla e

Peat, ver cla e

Peat, slightl sand

Peat, ver sand

cla



la , slightl silt

la , moderatel silt

la , ver silt

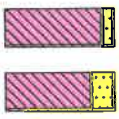
la , extremel silt

la , slightl sand

la , moderatel sand

la , ver sand

loam



oam, slightl sand

oam, ver sand

other additives



slightl humous

moderatel humous

ver humous

slightl gravell

moderatel gravell

ver gravell

odour

- None odour
- weak odour
- moderate odour
- strong odour
- extreme odour

oil

- no oil-water reaction
- poor oil-water reaction
- moderate oil-water reaction
- strong oil-water reaction
- extreme oil-water reaction

p i d value

- 0
- 1
- 10
- 100
- 1000
- 10000

samples



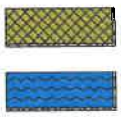
disturbed sample

undisturbed sample

voluming

miscellaneous

- special compound
- Average highest groundwater level
- groundwater level
- Average lowest groundwater level



alluvium

water

Scale: 1: 50

Drawed according to NEN 5104


Legenda
Onderzoeksgebied
Vakken
Meetpunten
Boring tot 1,0 m-mv
Boring tot 2,0 m-mv
1
2
3
4
5
6
OPDRACHTGEVER
Solarcentury
PROJECTOMSCHRIJVING
0468334.100 Zonnepark Etten-Leur Bollendonk
KAARTTITEL
Situering boorpunten
KAARTNUMMER
0468334.100-S1
GIS SPECIALIST
Luuk Lafeber
SCHAAL
1:1500
PROJECTLEIDER
G.A. van der Laan
FORMAAT
A3
DATUM
07-04-2021
BLAD IN BLADEN
1 van 1
STATUS
definitief
WIJZIR
00
www.anteagroup.nl
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About Antea Group

From city to countryside, from air to water: Antea Group's engineers and consultants have been contributing to our living environment in the Netherlands for years now. We design bridges and roadways, and create residential neighborhoods and water structures. But we are also involved in areas such as the environment, safety, asset management and energy. Under the name Oranjewoud, we expanded into an all-round, independent partner for companies and government bodies. As the Antea Group, we also apply this knowledge at a global level. By combining valuable knowledge, including on technical matters, with a pragmatic approach, we make solutions attainable and workable. Goal-oriented, with an eye for sustainability. In this way, we anticipate today's questions and tomorrow's answers. Just as we have been for over 60 years now.

Contact information

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Annex 2 Corrosivity analysis

CORROSIE VAN METALEN VOLGENS DIN 50929 - DEEL 3

GEOBEST

Classificatie van de kans op corrosie van metalen leidingen, schopen en constructie onderdelen waarvan het buitenoppervlak in aanraking komt met bodem en water
Aan de hand van grondmonsters wordt de bodemaggressiviteit globaal vastgesteld

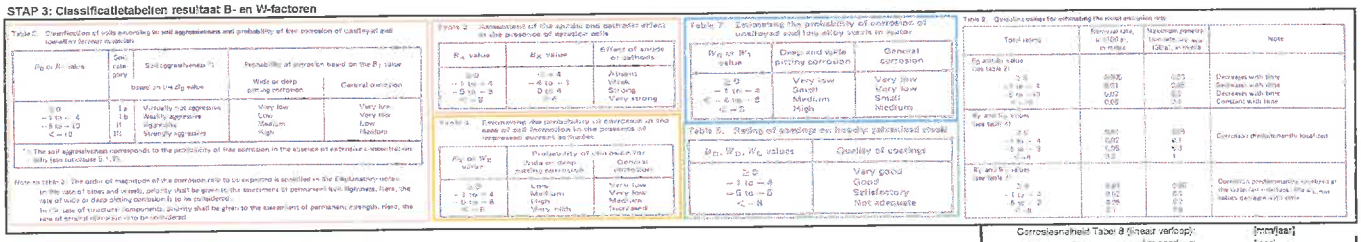
Projectnaam:	Zonnepark Bollendonk Etten-Leur	Versie:	1
Projectnummer:	42026	Versiedatum:	11-nov-17
Naam:	HEN	Printdatum:	07-apr-21

STAP 2: Vergelijkingsresultaten B- & W-factoren

In contact met grond			Resultaat B-factor
Classificatie corrosie in een homogene ondergrond			
B0	=	Z1+Z2+Z3+Z4+Z5+Z6+Z7+Z8+Z9	B0 -7
Classificatie corrosie in een inhomogene ondergrond			
B1	=	B0+Z10+Z11	B1 -7
Beoordeling van het effect van de anodische zone voor grondsoorten met Z1 < 0			
BA	=	Z1+Z2+Z4+Z5+Z6+Z7+Z8	BA -4
Beoordeling van het effect van de kathodische zone voor grondsoorten met Z1 > 0			
BK	=	Z1+Z3+Z4+Z5+Z6	BK 4
Anodische corrosie door cellformatie in de afwezigheid van samengedrukte kathode stromen			
BE	=	BA+Z12	BE -12
Kwaliteit coating thermisch verzinkt staal			
BD	=	Z2+Z4+Z5+Z8	BD -2

In contact met water			Resultaat W-factor
Classificatie corrosie staal, onder water			
W0	=	M1+M3+M4+M5+M6+(M3/M4)	W0 -8
Classificatie corrosie staal, waterlucht zone			
W1	=	W0-N1+N2*N3	W1 -9
Cel formatie in de aanwezigheid van samengedrukte kathode stromen			
WE	=	N3+N6+N7	WE -7
Kwaliteit coating thermisch verzinkt staal in zout water, onderwaterzone			
WD	=	M1+M3+M4+M5+M6	WD -6
Kwaliteit coating thermisch verzinkt staal in zout water, waterlucht- en spatzone			
WL	=	WD+M2	WL -12

STAP 3: Classificatietabellen resultaat B- en W-factoren



Corrosiesnelheid Tabel 8 (lineair verloop):	[mm/jaar]
Levensduur:	[jaar]
Corrosie afname totaal:	0 [mm]

STAP 1: Wegingsfactoren grond bepalen (Z)

Selectie maken Z-factoren:

NR.	PARAMETER	EENHEID	RANGE	FACTOR	KEUZE Z-FACTOR
	Type grond	massa %		Z1 =	2
1	a) Aandeel afslibbaar materiaal (klei + slib)	massa %	< 10%	4	a) Aandeel afslibbaar materiaal (klei + slib) >10 tot 30%
	a) Aandeel afslibbaar materiaal (klei + slib)		> 10 tot 30%	2	
	a) Aandeel afslibbaar materiaal (klei + slib)		30 tot 50%	0	
	a) Aandeel afslibbaar materiaal (klei + slib)		50 tot 80%	-2	
	a) Aandeel afslibbaar materiaal (klei + slib)		> 80%	-4	
	b) Veen, leem, mineraal-gas, organisch houtafval in drassige grond, turf		> 5%	-12	
	c) Emstig verontreinigde grond (as, slak, afval, afvalwater, koks, kolen, puin, etc.)			-12	
2	Specifieke (elektrische) bodemweerstand	Ω cm		Z2 =	-2
			> 50000	4	> 2000 tot 5000
			> 20000 tot 50000	2	
			> 5000 tot 20000	0	
			> 2000 tot 5000	-2	
			> 1000 tot 2000	-4	
			> 500 tot 1000	-8	
			< 500	-12	
3	Watergehalte	massa %		Z3 =	-1
			≤ 20	0	> 20
			> 20	-1	
4	pH-waarde	-		Z4 =	0
			> 9	2	> 5 tot 6
			> 6 tot 9	0	
			> 5 tot 6	-2	
			< 5	-4	
5	Buffercapaciteit	mmol/kg		Z5 =	0
	Zuurgraad tot pH 4,3		< 200	2	Alkaliniteit tot pH 7 < 1,5
			200 tot 1000	1	
			> 1000	0	
	Alkaliniteit tot pH 7		< 2,5	0	
			2,5 tot 5	-2	
			> 5 tot 10	-4	
			> 10 tot 20	-6	
			> 20 tot 30	-8	
			> 30	-10	
6	Sulfidengehalte	mg/kg		Z6 =	0
			≤ 5	0	< 5
			5 tot 10	-3	
			> 10	-6	
7	Gehalte aan neutrale zouten	mmol/kg		Z7 =	-3
			< 3	0	> 30 tot 100
			> 3 tot 10	-1	
			> 10 tot 30	-2	
			> 30 tot 100	-3	
			> 100	-4	
8	Sulfaatgehalte	mmol/kg		Z8 =	-1
			≤ 2	0	2 tot 5
			2 tot 5	-1	
			> 5 tot 10	-2	
			> 10	-3	
9	Grondwater			Z9 =	-2
		Geen grondwater aanwezig		0	Grondwater fluctueert
		Grondwater aanwezig		-1	
		Grondwater fluctueert		-2	
10	Horizontale grondhomogeniteit	-		Z10 =	0
		Zie: Z2	| Δ Z2 | < 2	0	| Δ Z2 | < 2
		Zie: Z2	2 ≤ | Δ Z2 | ≤ 3	-2	
		Zie: Z2	| Δ Z2 | > 3	-4	
11	Verticale grondhomogeniteit	-		Z11 =	0
	a)	Constructie homogeen ingebed in grond met gelijkwaardige structuur, zand		0	Constructie homogeen ingebed in grond met gelijkwaardige structuur, zand
		Constructie inhomogeen ingebed in ongelijke gronden en/of in gronden die vreemde stoffen bevatten (puin, wortels, etc.)		-6	
	b) Zie: Z2		2 ≤ | Δ Z2 | ≤ 3	-1	
	Zie: Z2		| Δ Z2 | > 3	-2	
12	Elektrochemische potentiaal (structuur / grond potentiaal) en opzichte van	V		Z12 =	-8
			-0,5 tot -0,4	-3	-0,4 tot -0,3
			-0,4 tot -0,3	-8	
			> -0,3	-16	

STAP 1: Wegingsfactoren water bepalen (N & M)

Selectie maken N & M-factoren:

NR.	PARAMETER	EENHEID	RANGE	FACTOR VOOR Ongelegeerd staal (N)	FACTOR VOOR Gegalvaniseerd staal (M)	KEUZE N-FACTOR	KEUZE M-FACTOR
1	Type water	-		N1 =	M1 =	-1	1
	Stromend water			0	-2	Stilstaand water	Stilstaand water
	Stilstaand water			-1	1		
	Water aan de rand van meren			-3	-3		
	Anaërob water in een poel of ven			-5	-5		
2	Waterzone	-		N2 =	M2 =	1	-3
	Onderwater			0	2	Waterlucht zone	Waterlucht zone
	Waterlucht zone			1	-6		
	Spatzone			0,3	-2		
3	C (Cl-) en 2C (SO4 -2)	mol/m3		N3 =	M3 =	-2	3
			< 1	0	0	1 tot 5	1 tot 5
			1 tot 5	-2	0		
			> 5 tot 25	-4	-1		
			> 25 tot 100	-6	-2		
			> 100 tot 300	-7	-3		
			> 300	-8	-4		
4	Zuurgraad tot pH 4,3	mol/m3		N4 =	M4 =	1	-1
			< 1	1	-1	< 1	< 1
			1 tot 2	2	1		
			> 2 tot 4	3	1		
			> 4 tot 6	4	0		
			> 6	5	-1		
5	c (Ca2+)	mol/m3		N5 =	M5 =	-1	3
			< 0,5	-1	0	< 0,5	< 0,5
			0,5 tot 2	0	2		
			> 2 tot 6	1	3		
			> 6	2	4		
6	pH-waarde	-		N6 =	M6 =	-3	-5
			< 5,5	-3	-6	< 5,5	< 5,5
			5,5 tot 6,5	-2	-4		
			> 6,5 tot 7	-1	-1		
			> 7 tot 7,5	0	1		
			> 7,5	1	1		
7	Structuur / water potentiaal, Urt	V		N7 =	-	-2	-
			> -0,2 tot -0,1	-2	-	> -0,2 tot -0,1	
			> -0,1 tot 0	-5	-		
			> 0	-8	-		

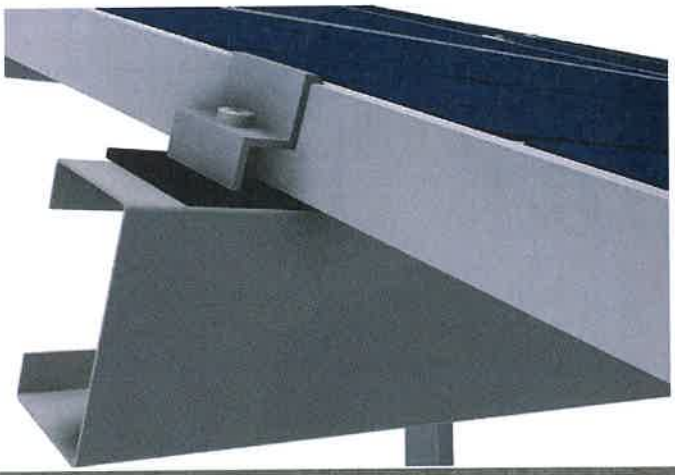
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ANNEX VIII

CLAMP DATASHEET

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PHOTOVOLTAIC STRUCTURE



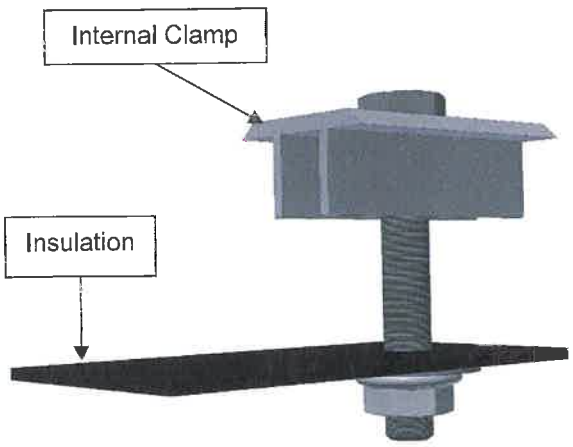
PHOTOVOLTAIC CLAMPS

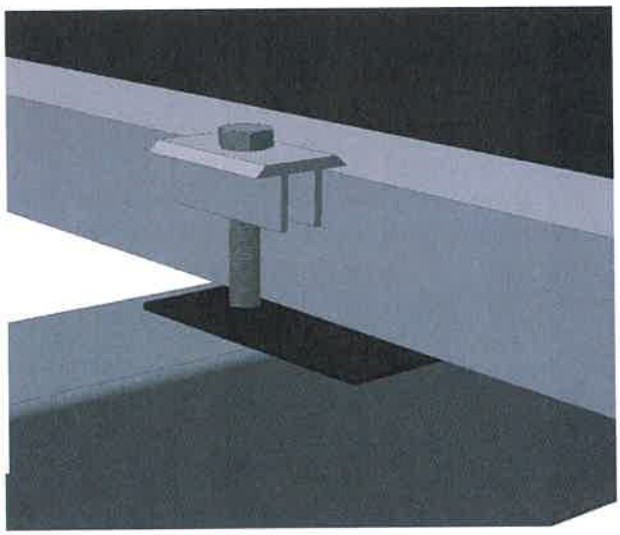
❖ DESCRIPTION:

Panels are fixed to the crossbars of the structure by means of aluminium clamps and polyamide insulations. Fixation of these elements is provided by a screwed connection. The insulation is installed between the aluminium exposed part of the PV module frame and the galvanized steel profiles of the structure in order to prevent the occurrence of galvanic couples between the dissimilar materials.

There are two types of clamps, internal and external. Drawings for both internal and external clamps can be found at the end of this document.

Internal clamps are installed between contiguous panels. The following pictures show the internal clamp pre-assembled and installed:

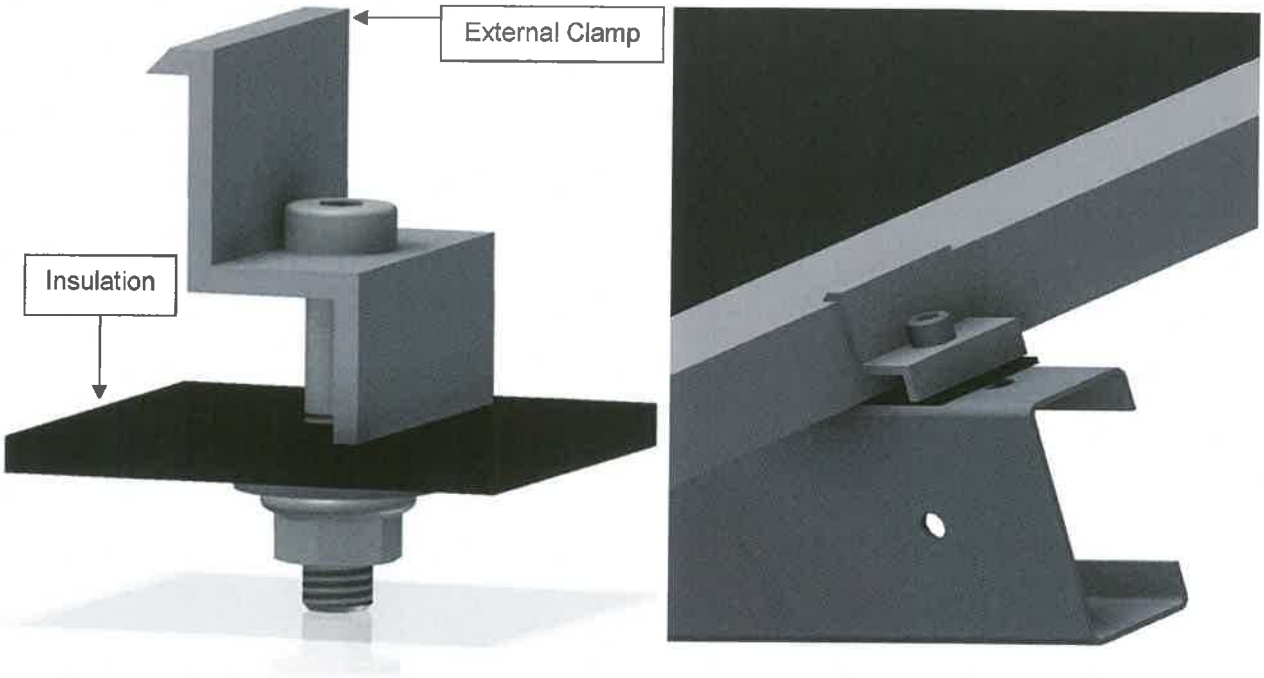




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External clamps are installed at the end of each row of PV panels. The following pictures show the external clamp pre-assembled and installed:



❖ **MATERIALS:**

Both Internal and External Photovoltaic Clamps shall be of Aluminium 6060 T6

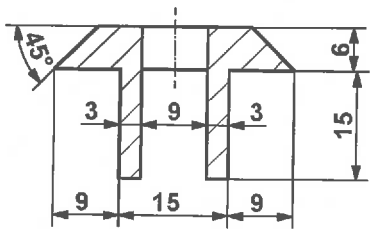
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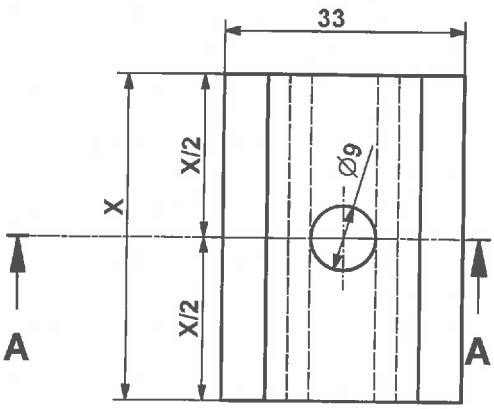
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CLAMP DRAWINGS

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A-A (1 : 1)

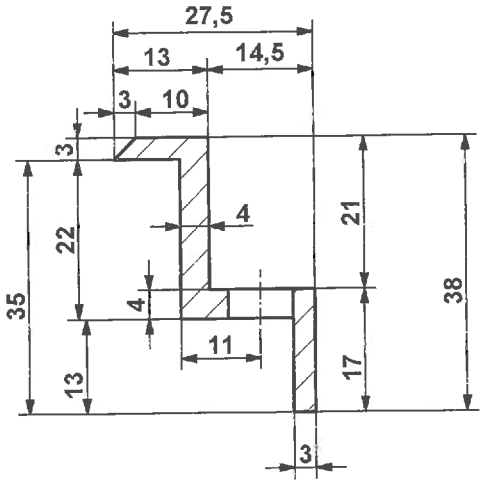


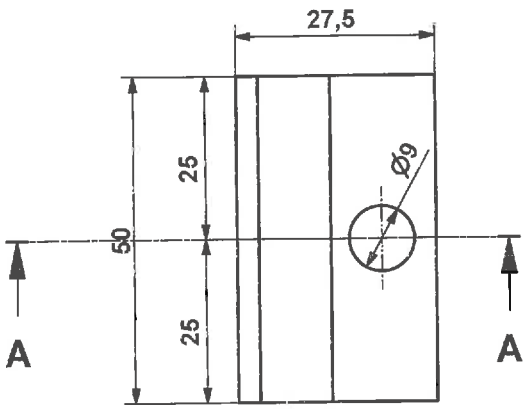
X= 38 mm

Rev.:	By:	Date:	Change:
0	Óscar	15/05/2018	First
1	Óscar	16/10/2018	Espesor 3mm y solape 9mm

CUSTOMER: **XXXXX**	Drawn by: Javier	Date of drawing: 21/02/2017	AXIAL structural solutions
Project: **XXX**	Quality: AL 6063 / Al 6060		
System: **XXX**	Treatment: T5 / T6		NOTE: DIMENSIONAL TOLERANCE FOR COLD-FORMED PROFILES ACCORDING TO UNE EN 10162 STANDARD. FOR ALL OTHER PARTS, TOLERANCE ACCORDING TO ISO 2768-m STANDARD.
P7408 Internal clamp Pl.idw	Material: Aluminium		
	Weight: 0,030 kg	Code: P7408	N° of parts:

A-A (1 : 1)





Rev.:	By:	Date:	Change:
0	Óscar	11/01/2019	First

CUSTOMER: **XXXX**	Drawn by: Martín	Date of drawing: 11/01/2019	AXIAL structural solutions
Project: **XXXX**	Quality: Al 6060		NOTE: DIMENSIONAL TOLERANCE ACCORDING TO UNE_EN 1090 STANDARD AND ISO 2768-m STANDARD.
System: **XXXX**	Treatment: T6		F106 - Rev2
21367 External clamp 35mm.idw	Material: Aluminum		
	Weight: 0,026 kg	Code:21367	Nº of parts: