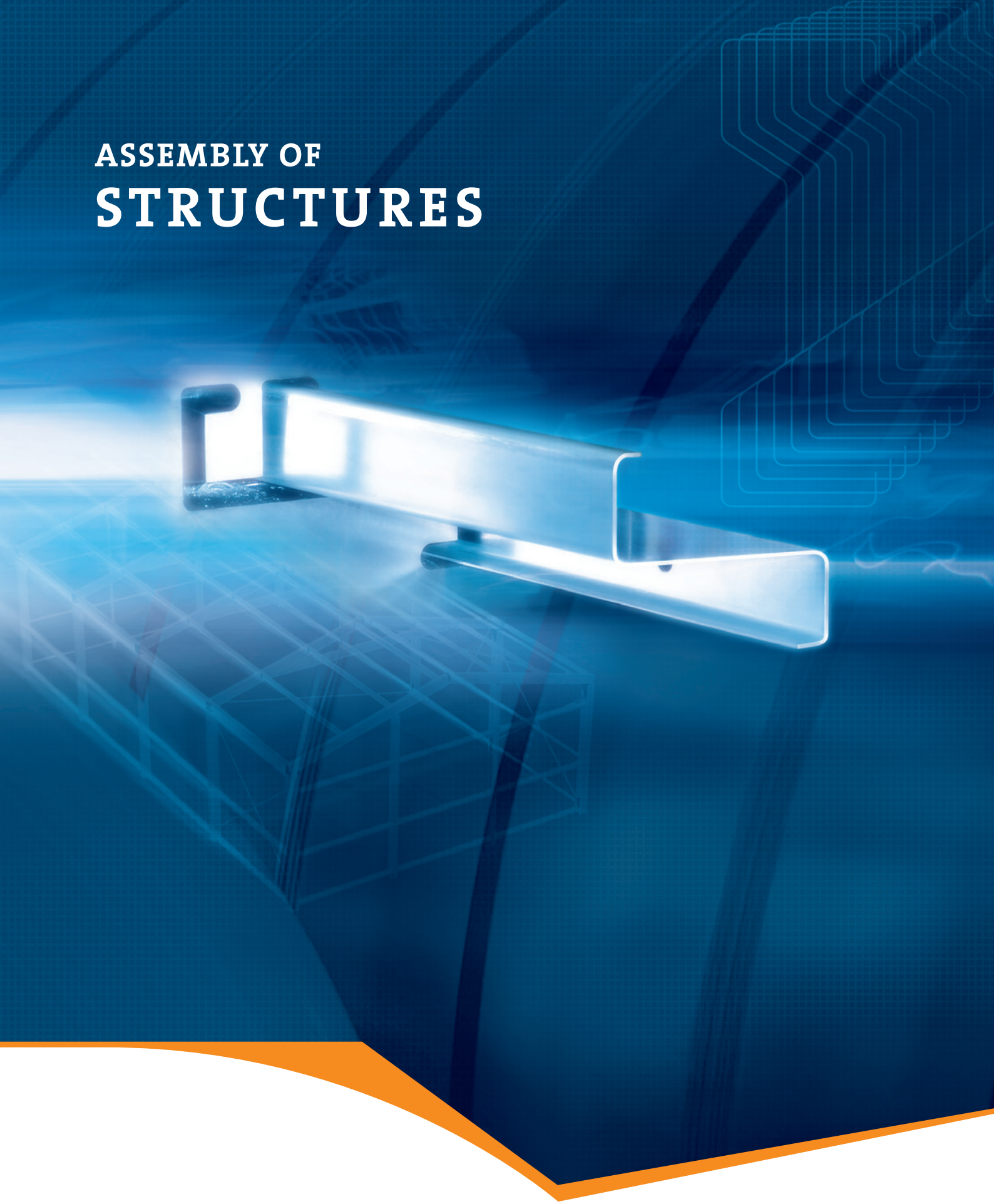
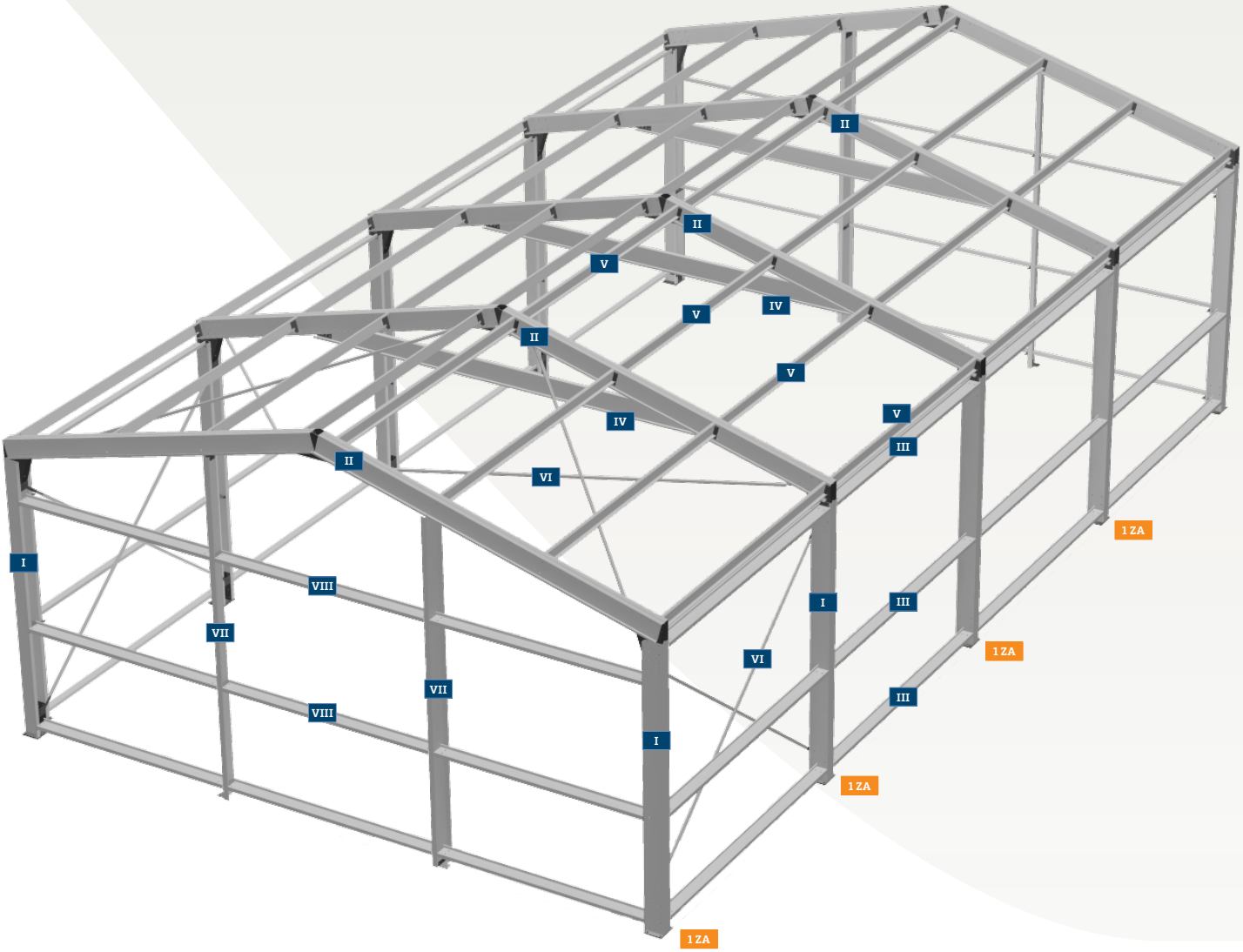
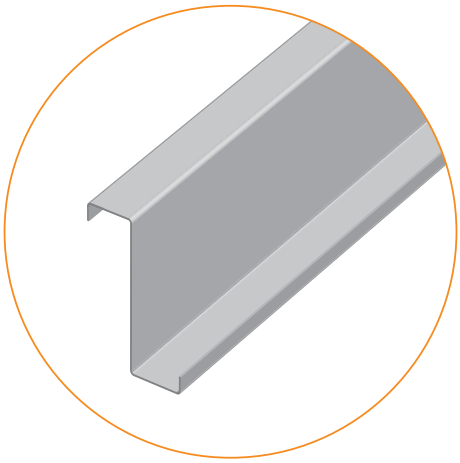
ASSEMBLY OF STRUCTURES



JORISIDE
THE STEEL FUTURE

ASSEMBLY OF A Z-STRUCTURE





SEQUENCE OF CONSTRUCTION:

1 | FEET [1 ZA]

2 | COLUMNS [I]

3 | WALL PURLINS [III]

4 | BEAMS [II]

5 | TIE RODS [IV]

6 | ROOF PURLINS [V]

7 | DIAGONAL BRACES [VI]

8 | VERTICAL GABLES [VII]

9 | HORIZONTAL GABLES [VIII]

ASSEMBLY OF A Z-STRUCTURE

Z-STRUCTURE

A Z-structure is composed of Z-profiles. This profile has both a narrow and a wide flange. Perforated, in the narrow flange, is a small, identifying hole. This hole has no relevance during the assembling.

In the normal loading case, the type of profile to choose is principally influenced by the width of the building:
1/ width up to 10m: Σ-profiles
2/ width 10m and more: Z-profiles of 300mm

STRUCTURAL PROFILES

The column profiles and the roof beams are composed of double-mounted profiles.

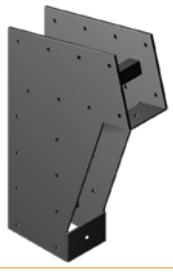
I	column
II	beam

Single-mounted profiles are used to make the roof- and wall purlin and the gables.

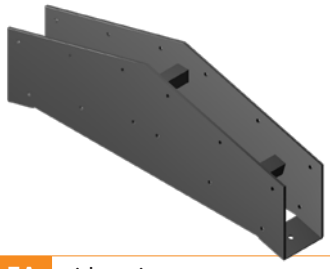
III	wall purlin
IV	tie rod
V	roof purlin
VI	diagonal brace
VII	vertical gable
VIII	horizontal gable

ASSEMBLY PARTS

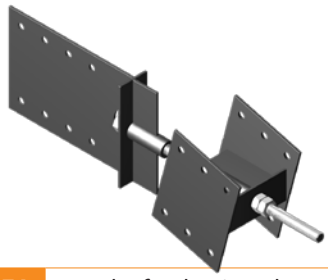
1 ZA foot



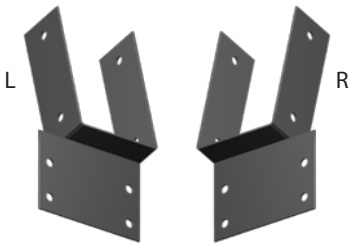
2 ZA corner piece



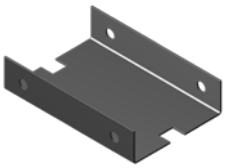
3 ZA ridge piece



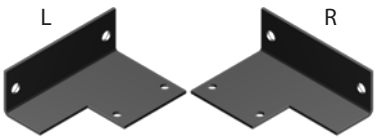
4 ZA coupler for the tie rod



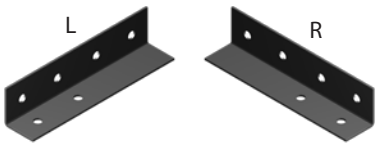
5 ZA U-pieces for the gable



6 ZA U-piece



7 ZA L-pieces



9 ZA L-pieces for the gable

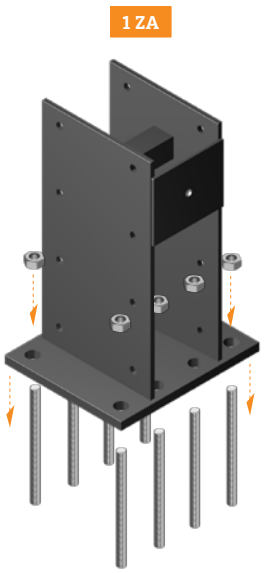
10 Z end piece for wind bracing

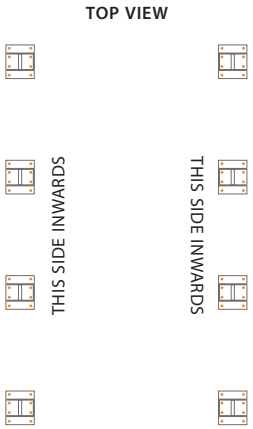
rail 50/2 for wind bracing

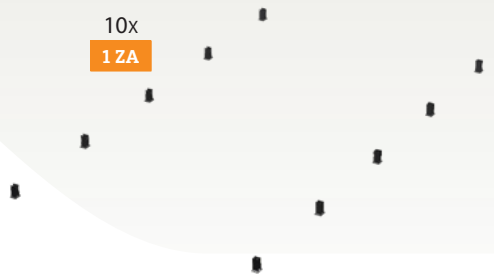
bolts - Ø 24 - 330mm

ASSEMBLY OF A Z-STRUCTURE

1 | FASTEN THE FEET [1 ZA] TO THE FOUNDATION WITH ANCHORING BOLTS

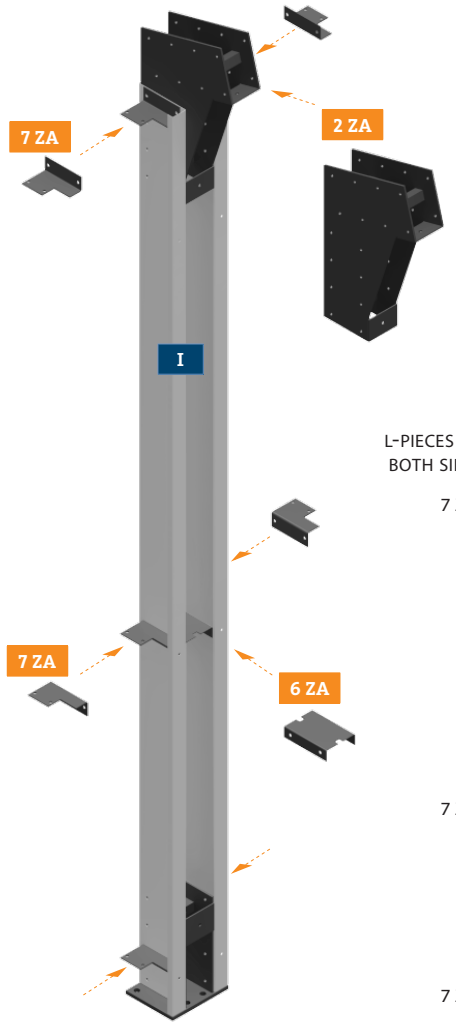


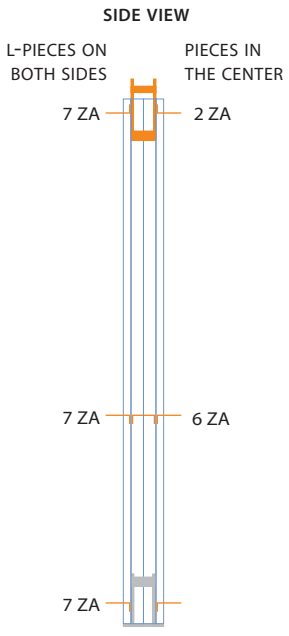


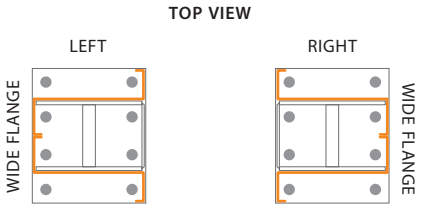


All the feet are in a straight line per row. The exact position for the feet is shown on the appended technical floor plan. The side with the single hole in should be mounted facing inwards the building.

2 | ASSEMBLE THE COLUMNS [I] AND THEN INSTALL THEM ON THE MATCHING FEET [1 ZA]

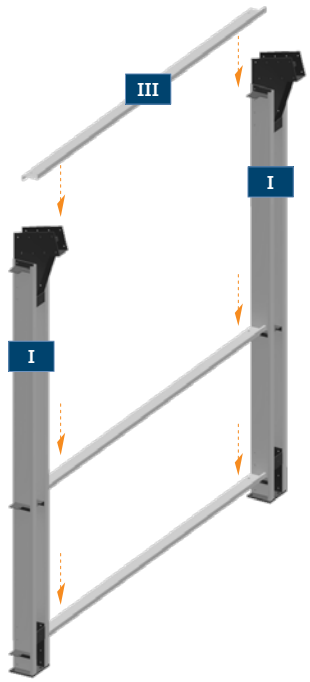


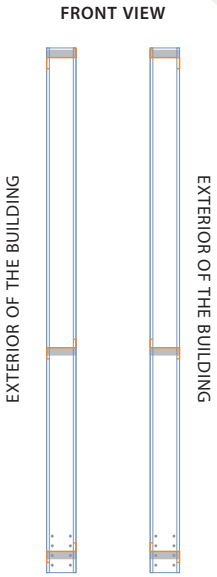




The beams and columns are mounted with the wide flange facing outwards the building. First of all, on the ground, the couplers are fixed to single Z-profiles. At the top: the corner piece [2ZA] and the L-pieces [7ZA]. At mid-height: the U-pieces [6ZA] and the L-pieces [7ZA]. Once all the pieces have been assembled, the column profile is slid gingerly over the foot [1] and it's fixed in place, together with the bottom-most L-pieces [7ZA].

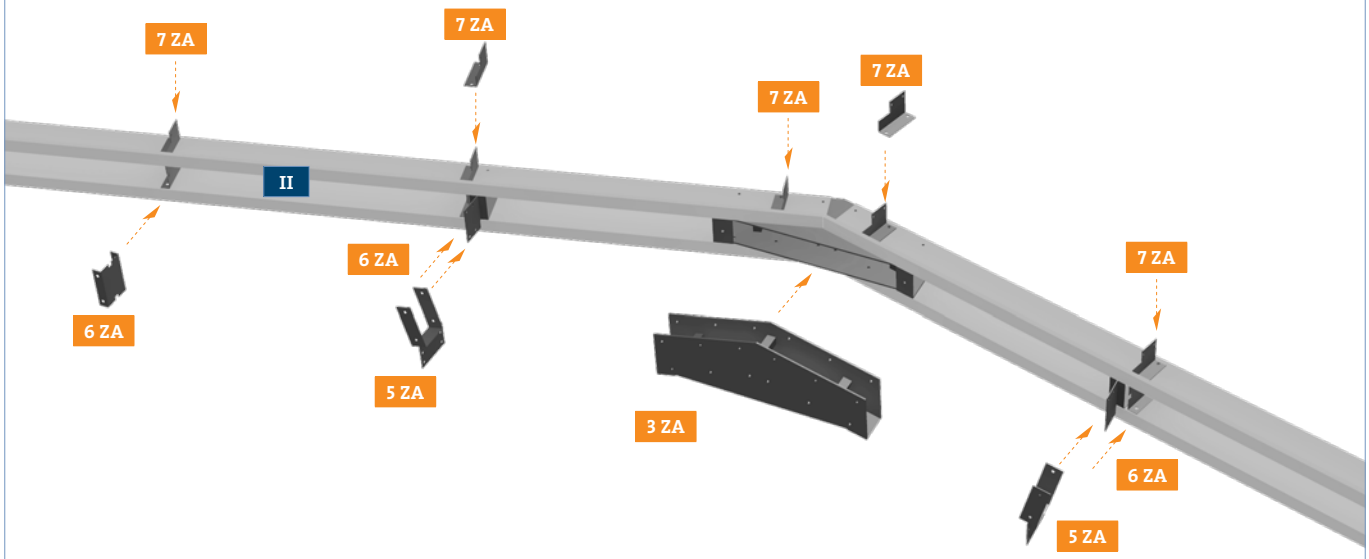
3 | FIT THE WALL PURLIN [III] IN BETWEEN THE COLUMNS [I]

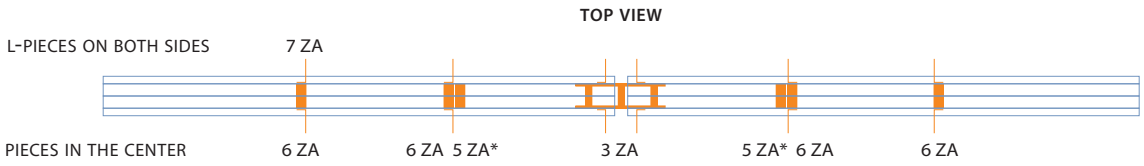




The Z-profiles are fixed onto the L-pieces [7ZA] of the columns, with the wide flange facing downwards on the outside of the building.

4 | ASSEMBLE THE BEAMS [II]

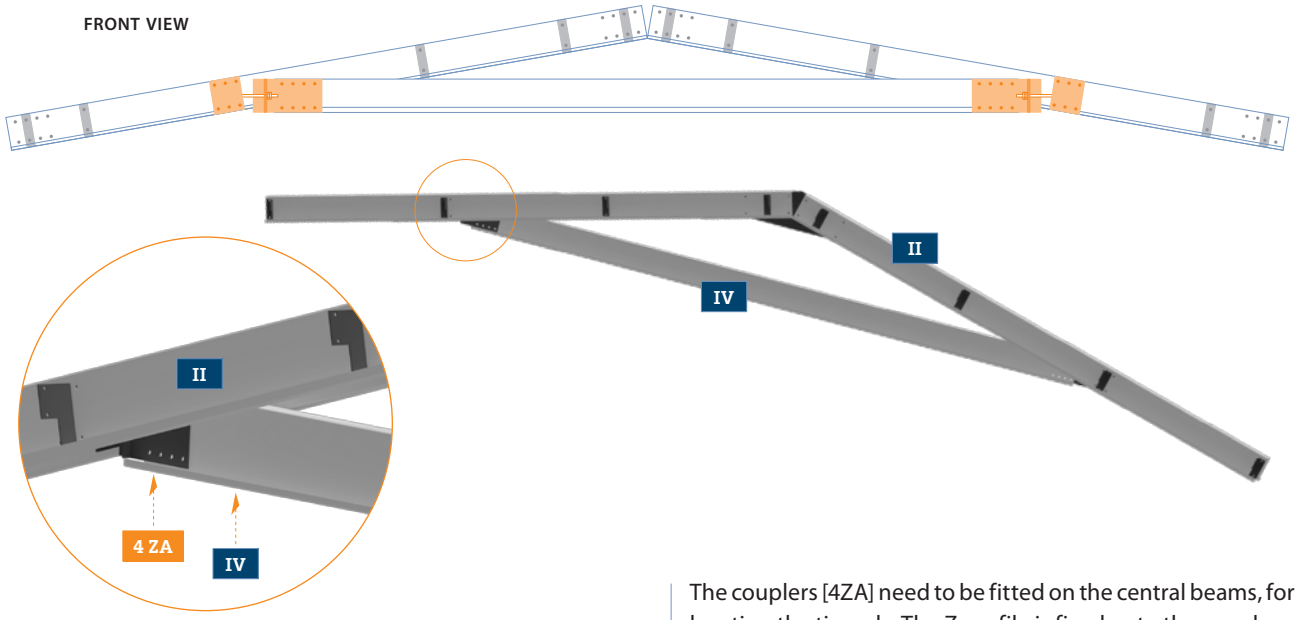




The beams are formed by double-mounting the Z-profiles at the ridge piece [3ZA]. The U-pieces [6ZA] and L-pieces [7ZA] are then mounted in the positions where the roof purlins are to go (see floor plan). * The special U-pieces [5ZA] have to be provided on the front and the back beam for the mounting of the vertical profiles in the gable.

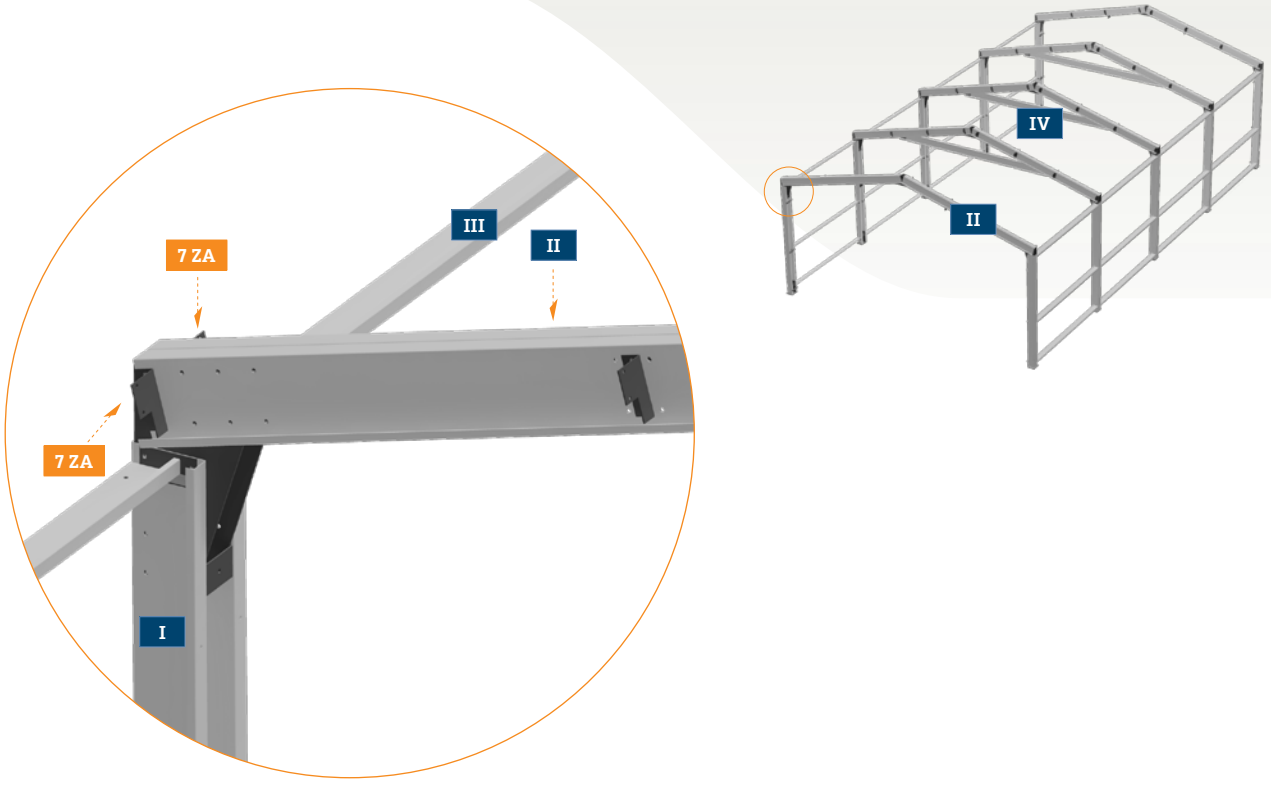
ASSEMBLY OF A Z-STRUCTURE

5 | FASTEN THE TIE RODS [IV] TO THE MIDDLE BEAMS [II]



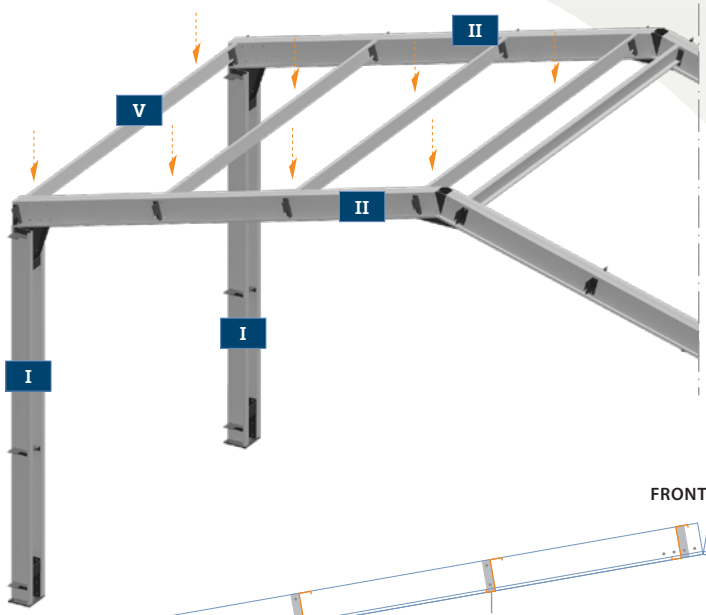
The couplers [4ZA] need to be fitted on the central beams, for locating the tie rods. The Z-profile is fixed onto the couplers.

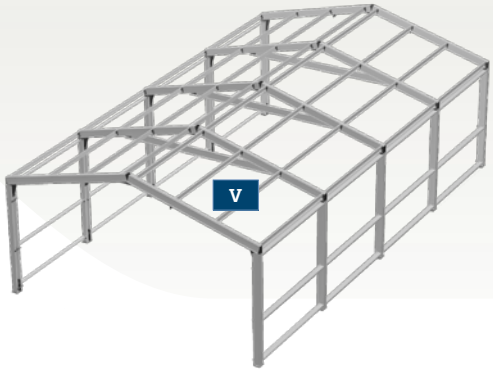
6 | ATTACH THE BEAMS [II] TO THE COLUMNS [I]



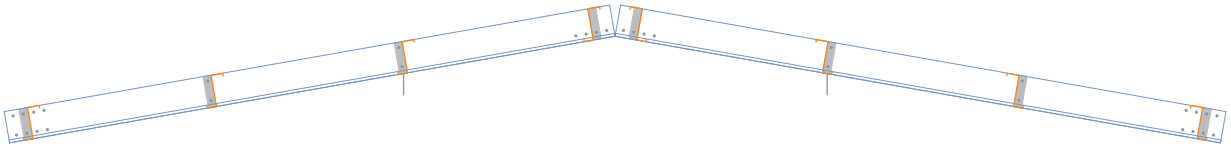
The beams can now be slid gingerly over the corner pieces [2ZA] of the columns. Put on the outer L-pieces [7ZA] and fix the whole beam unit to the column.

7 | FIT THE ROOF PURLINS [V] IN BETWEEN THE BEAMS [II]



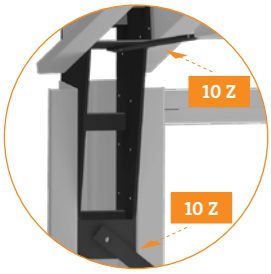


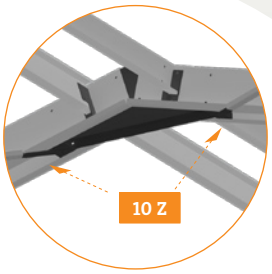
FRONT VIEW

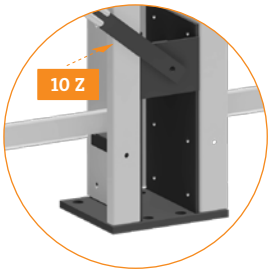


The Z-profiles are mounted to the L-pieces [7ZA] of the beams. The golden rule, here, is that the Z-profiles should always be fitted with their wide flange facing towards the ridge.

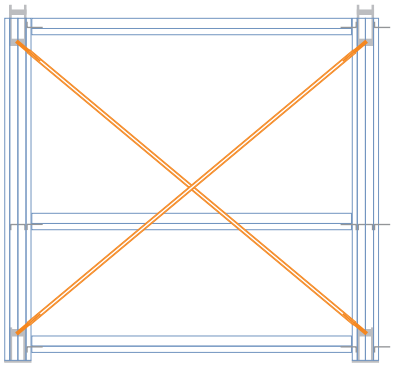
8 | ATTACH THE DIAGONAL WIND BRACES [VI] TO THE COLUMNS AND BEAMS

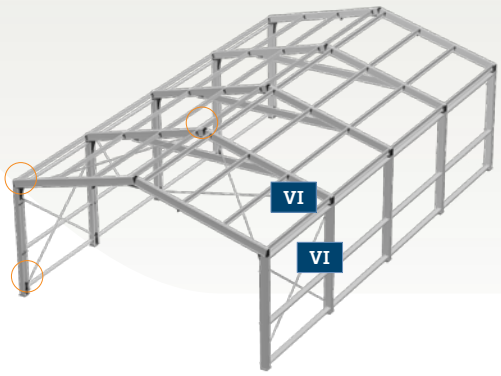






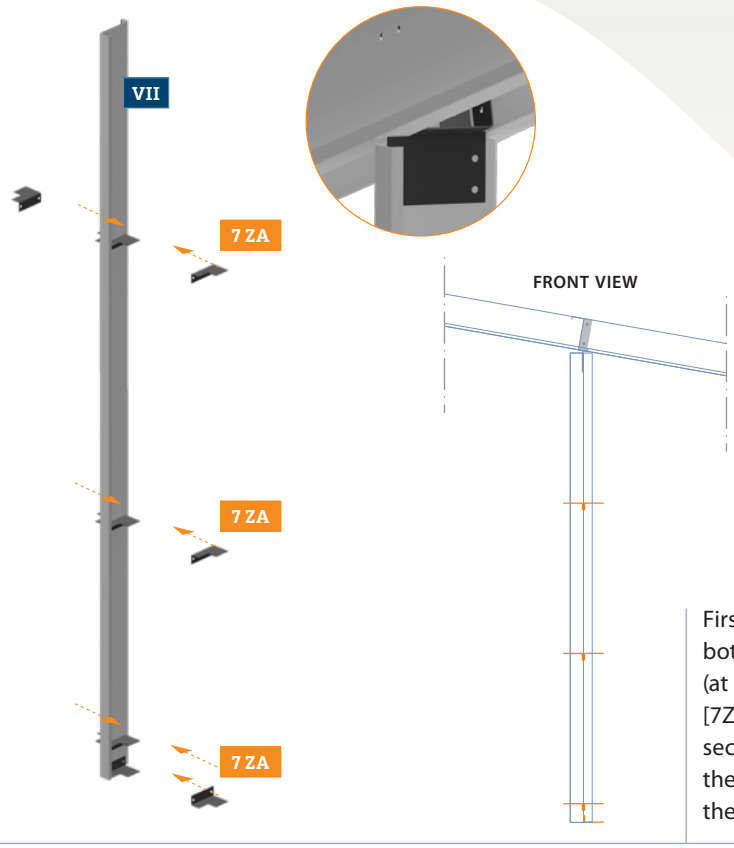
SIDE VIEW FROM INSIDE

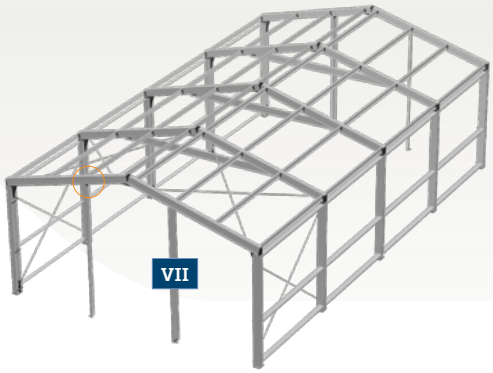




At the first bay of the building, diagonal braces have to be fastened on. Fix the end pieces [10] on both ends of the rails. On the wall, mount the diagonal braces on top of the column to the corner piece [2ZA] and below to the foot [1ZA] of the other column.
On the roof, mount the diagonal braces on top of the beam to the ridge piece [3ZA] and below to the corner piece [2ZA] of the column.

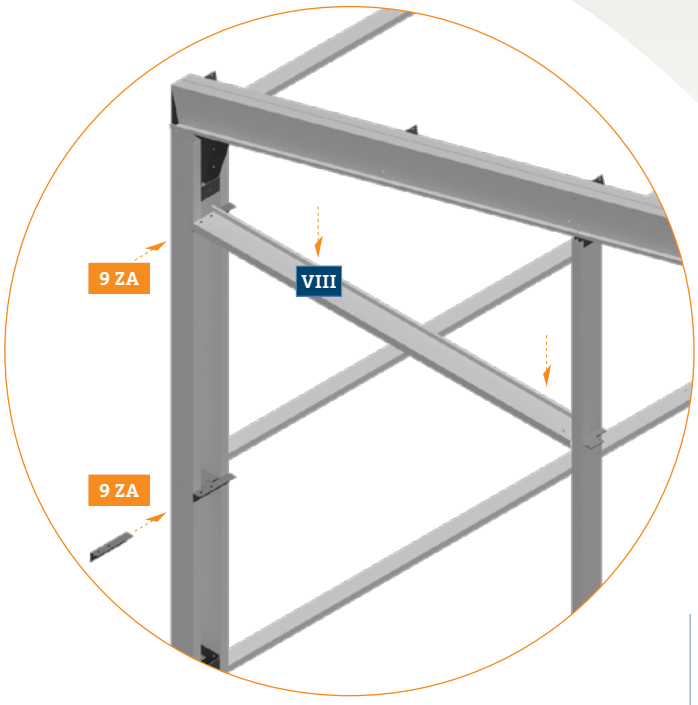
9 | ATTACH THE VERTICAL PROFILES OF THE GABLE [VII]

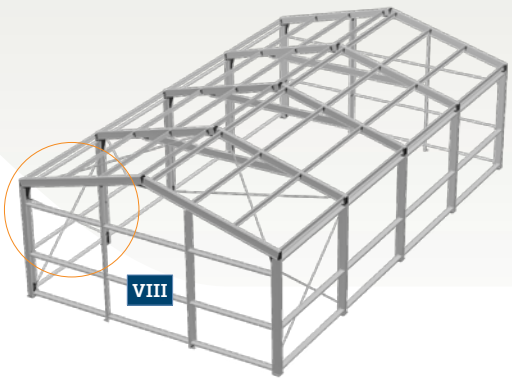




First of all, on the ground, the L-pieces [7ZA] are fixed onto both sides of a Z-profile, at the bottom and in the middle (at the height of the wall purlins). At the bottom, an L-piece [7ZA] is attached in the other direction whereby the profile is secured (with anchoring bolts) to the foundation. At the top, the vertical gable is fastened to the roof beam by means of the special U-piece [5ZA].

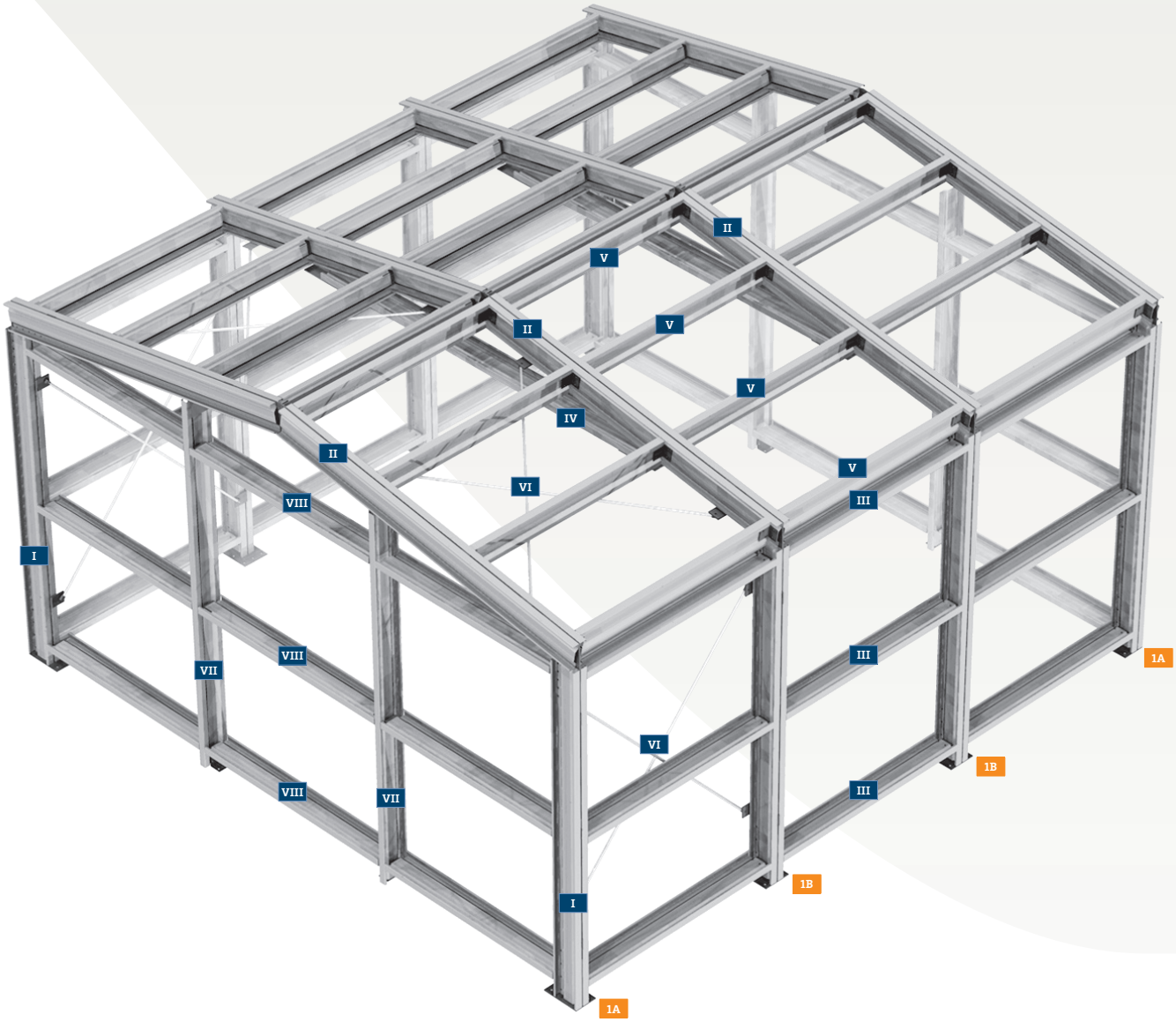
10 | ATTACH THE HORIZONTAL PROFILES OF THE GABLE [VIII]

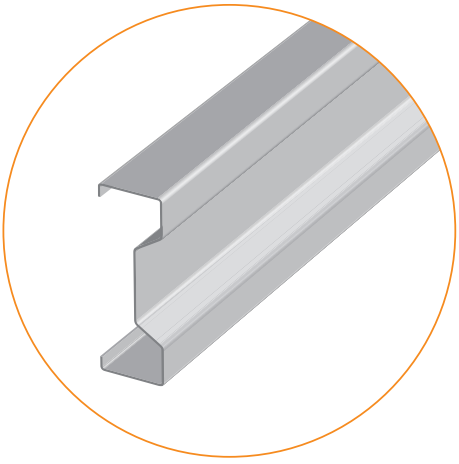




Firstly, the L-pieces for the gable [9ZA] need to be fastened to the column profiles. Next, the Z-profiles are laid on the L-pieces, with the wide flange facing downwards on the outside of the building, and then fixed in place.

ASSEMBLY OF A Σ-STRUCTURE





SEQUENCE OF CONSTRUCTION:

1 | FEET [1A - 1B]

2 | COLUMNS [I]

3 | WALL PURLINS [III]

4 | BEAMS [II]

5 | TIE RODS [IV]

6 | ROOF PURLINS [V]

7 | DIAGONAL BRACES [VI]

8 | VERTICAL GABLES [VII]

9 | HORIZONTAL GABLES [VIII]

ASSEMBLY OF A Σ-STRUCTURE

Σ-STRUCTURE

A Σ-structure is built with cold-rolled sections.

In the normal loading case, the type of profile to choose is principally influenced by the width of the building:
1/ width up to 10m: Σ-profiles
2/ width 10m and more: Z-profiles of 300mm

STRUCTURAL PROFILES

The column profiles and the roof beams are composed of double-mounted profiles.

I	column
II	beam

Single-mounted profiles are used to make the roof- and wall purlin and the gables.

III	wall purlin
IV	tie rod
V	roof purlin
VI	diagonal brace
VII	vertical gable
VIII	horizontal gable

ASSEMBLY PARTS

1A foot for gable columns

1B feet for middle columns

2 spacer

3A L-piece

3B L-piece

4 corner piece

5 ridge piece

6 coupler for the tie rod

7 L-piece for the gable

8 L-piece for the gable

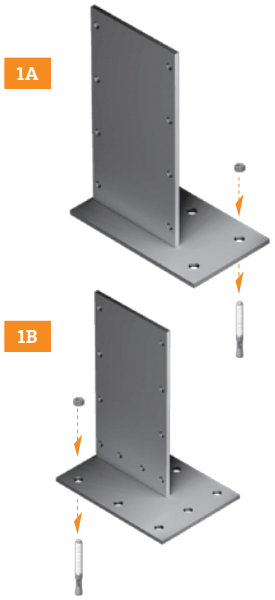
9 L-piece for wind bracing

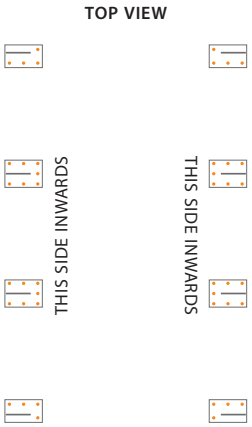
10 end piece for wind bracing

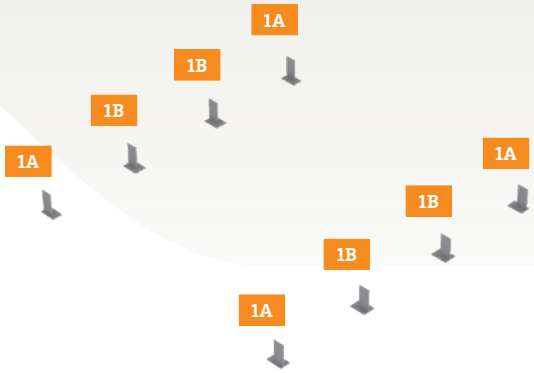
rail 50/2 for wind bracing

anchor bolts and bolts

1 | FASTEN THE FEET [1] TO THE FOUNDATION WITH ANCHORING BOLTS

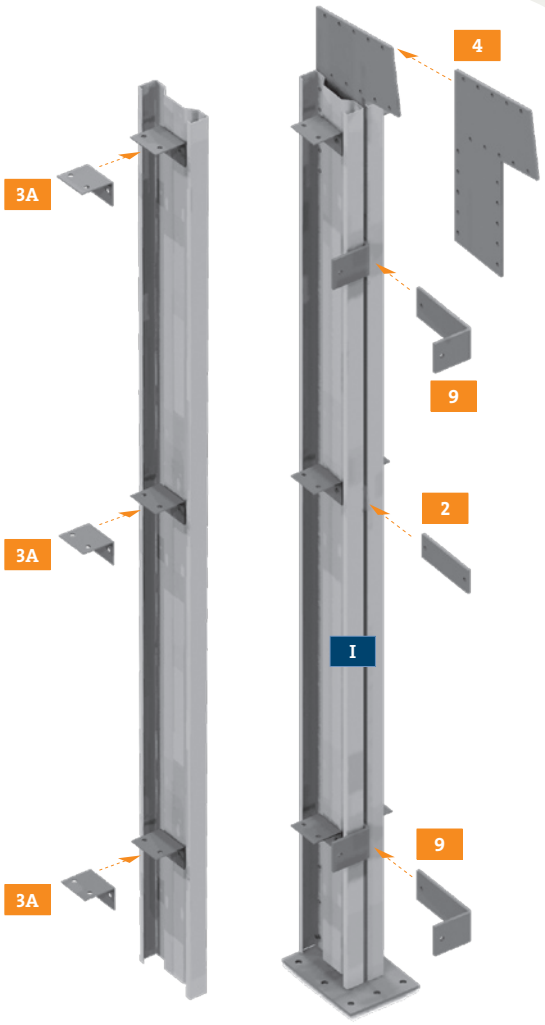


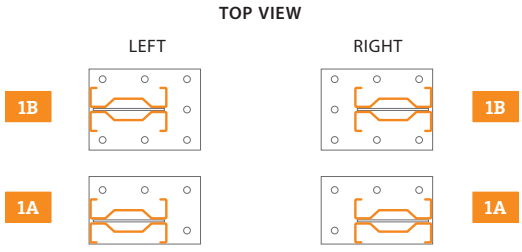




All the feet are in a straight line per row. The exact position for the feet is shown on the appended technical floor plan.

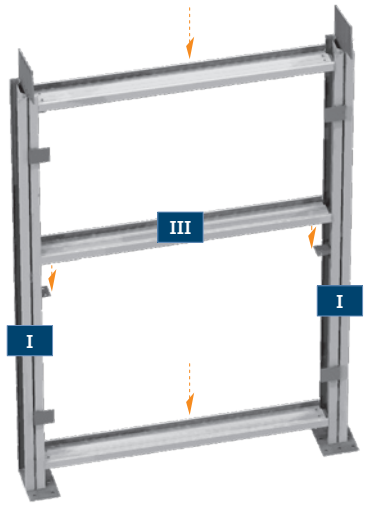
2 | ASSEMBLE THE COLUMNS [I] AND THEN INSTALL THEM ON THE MATCHING FEET



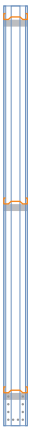


First of all, on the ground, the L-pieces [3A] are fixed onto single Σ-profiles. Then, the columns are formed by double-mounting the Σ-profiles back to back at the corner piece [4] at the top and a spacer in the middle [2]. The special L-pieces for the wind bracing [9] need to be mounted on the columns of the first span. Once all the pieces have been assembled, the column profile is slid gingerly over the foot [1] and it's fixed in place.

3 | FIT THE WALL PURLIN [III] IN BETWEEN THE COLUMNS [I]

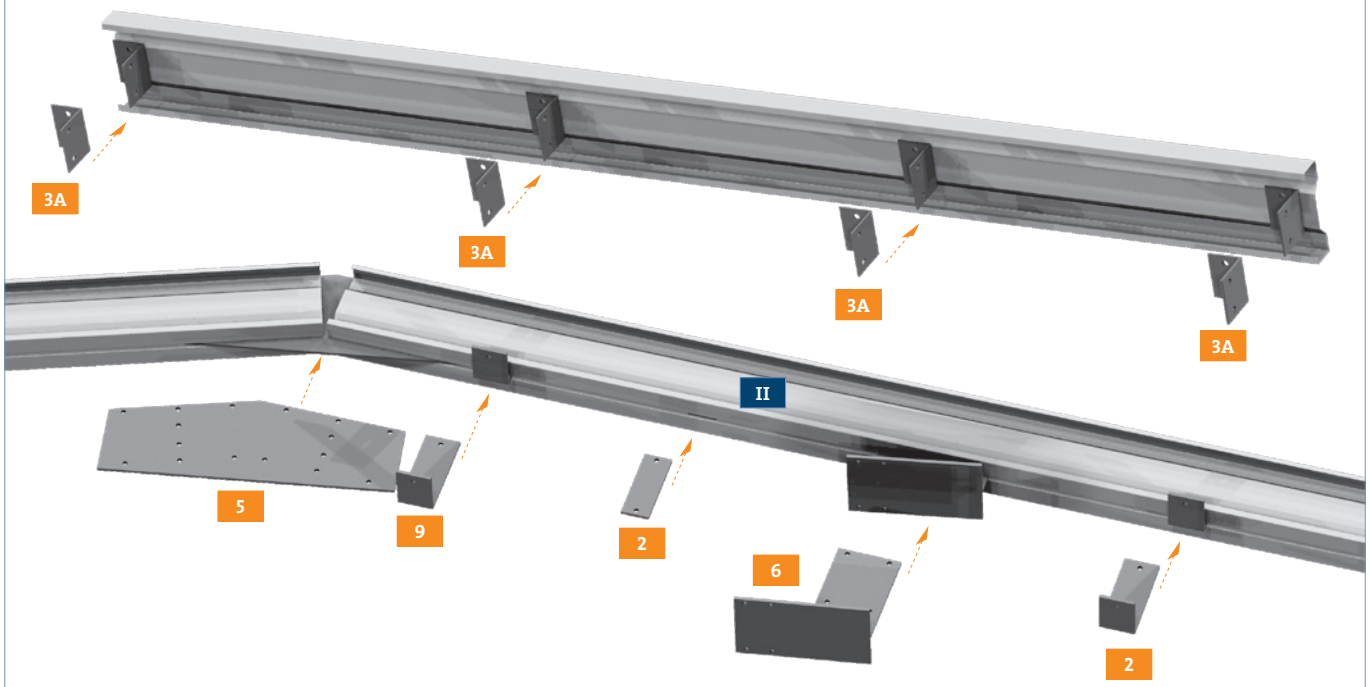


FRONT VIEW

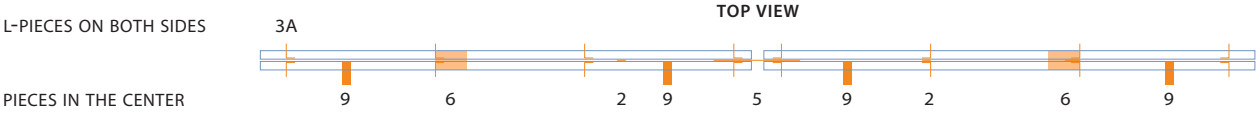


The Σ-profiles are fixed onto the L-pieces [3A] of the columns, with the open side upwards.

4 | ASSEMBLE THE BEAMS [II]

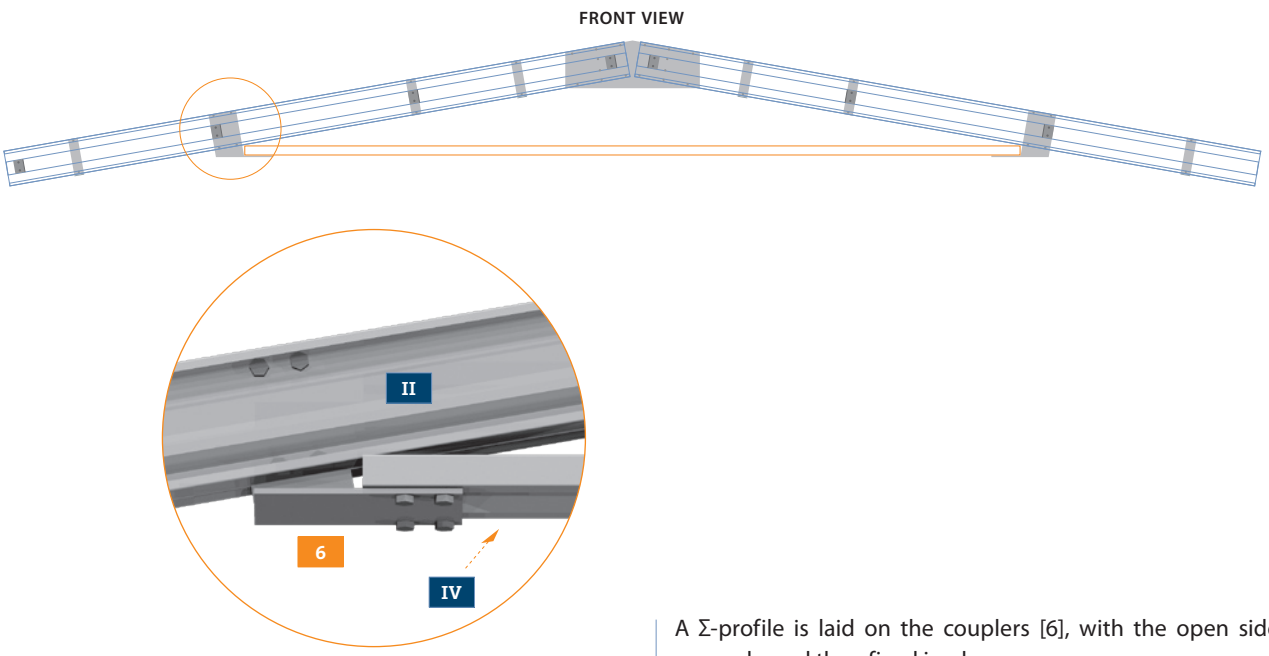


TOP VIEW



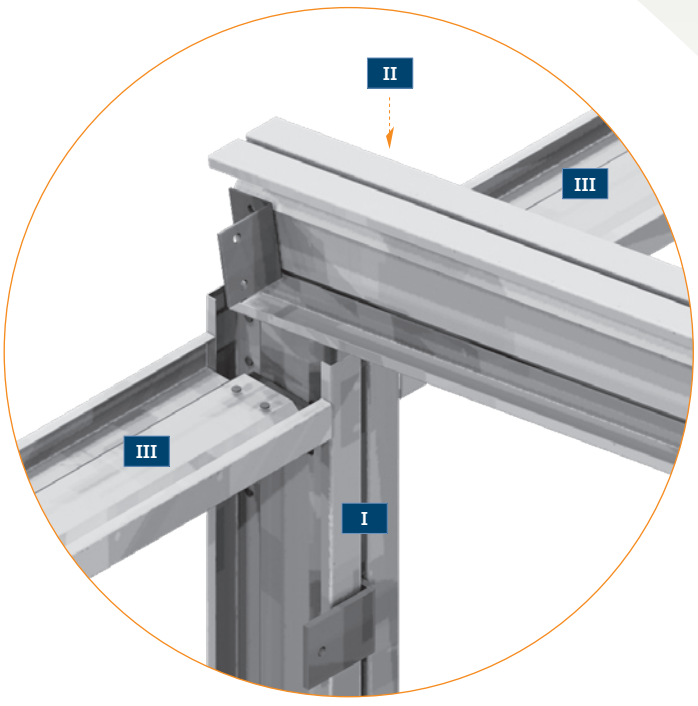
Again, first of all, on the ground, the L-pieces [3A] are fixed onto single Σ-profiles. Then, the beams are formed by double-mounting the Σ-profiles back to back at the ridge piece [5] and the pacers [2]. The couplers for the tie rod [6] have to be mounted on the beams for the middle spants. The special L-pieces for the wind bracing [9] need to be mounted on the beams of the first span.

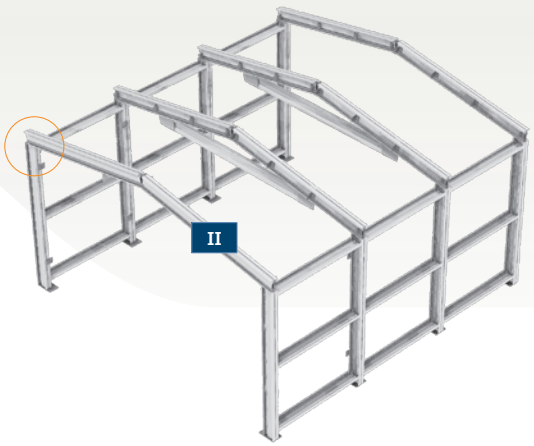
5 | FASTEN THE TIE RODS [IV] TO THE MIDDLE BEAMS [II]



A Σ-profile is laid on the couplers [6], with the open side upwards, and then fixed in place.

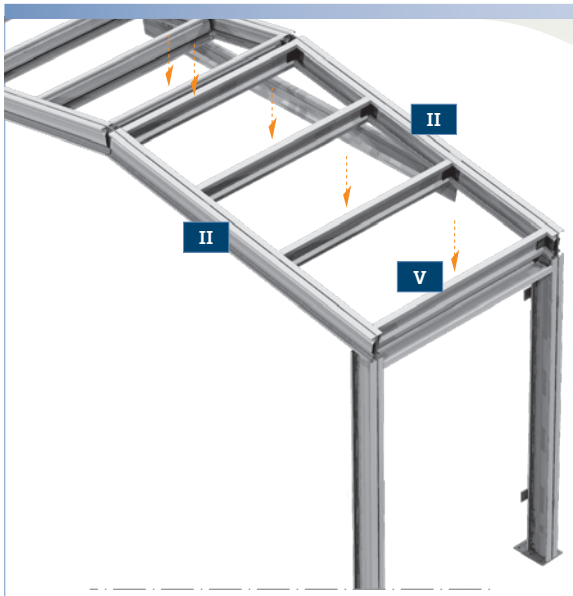
6 | ATTACH THE BEAMS [II] TO THE COLUMNS [I]

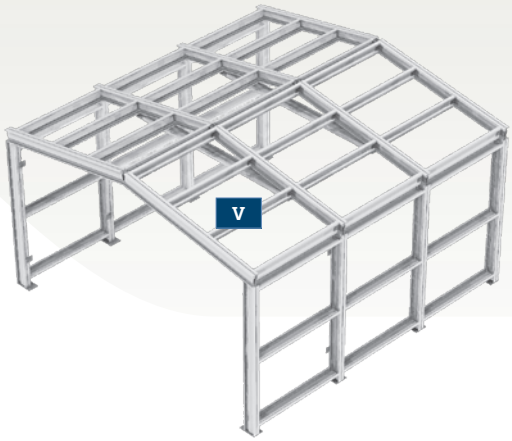


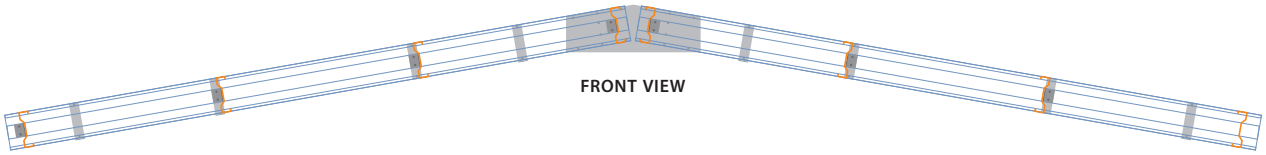


The roof beams can now be slid gingerly over the corner pieces [4] of the columns and fixed.

7 | FIT THE ROOF PURLINS [V] IN BETWEEN THE BEAMS [II]

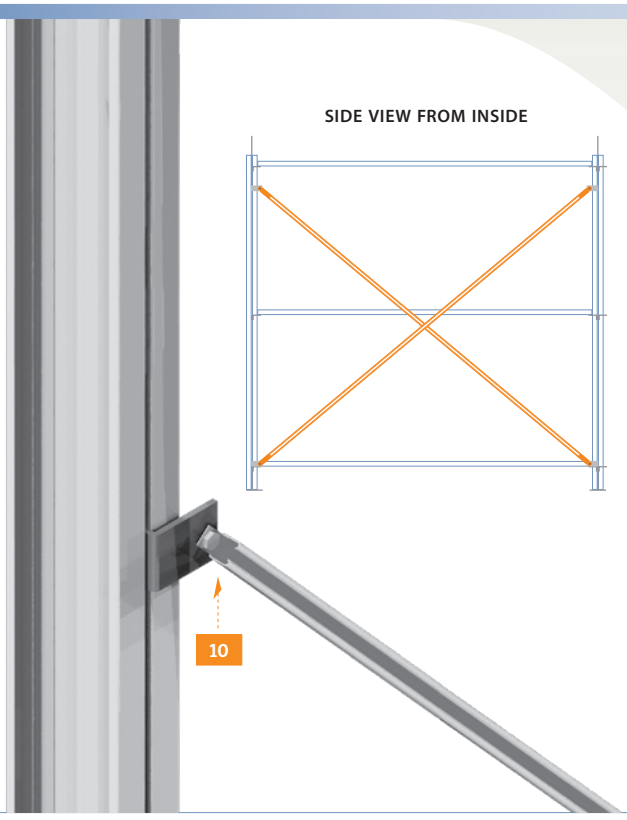


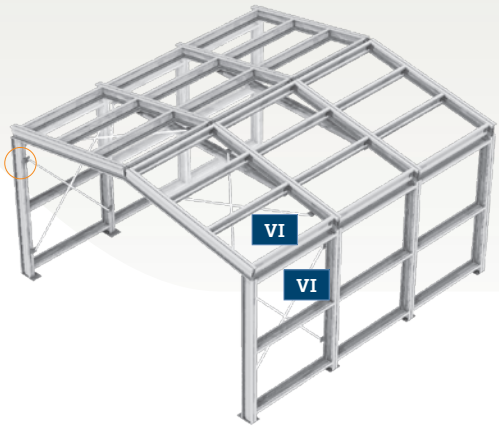




The Σ-profiles are mounted to the L-pieces [3A] of the beams. The golden rule is that the Σ-profiles should always be fitted with the open side towards the ridge.

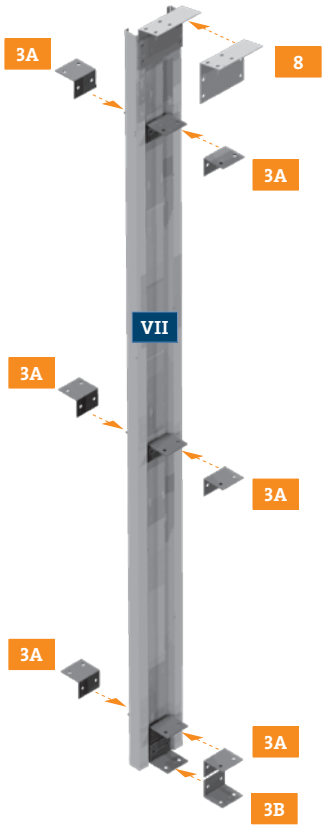
8 | ATTACH THE DIAGONAL WIND BRACES [VI] TO THE COLUMNS [I]

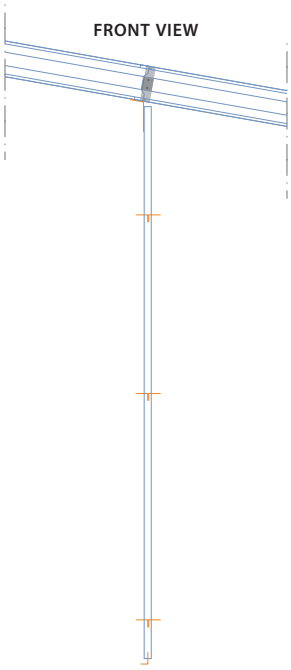


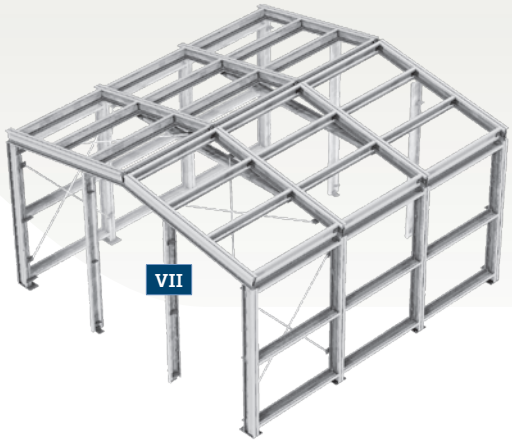


At the first bay of the building, diagonal braces have to be fastened on. Fix the end pieces [10] on both ends of the rails. Connect the wind braces to the L-pieces [9] which are already mounted on the columns and beams.

9 | ATTACH THE VERTICAL PROFILES OF THE GABLE [VII]

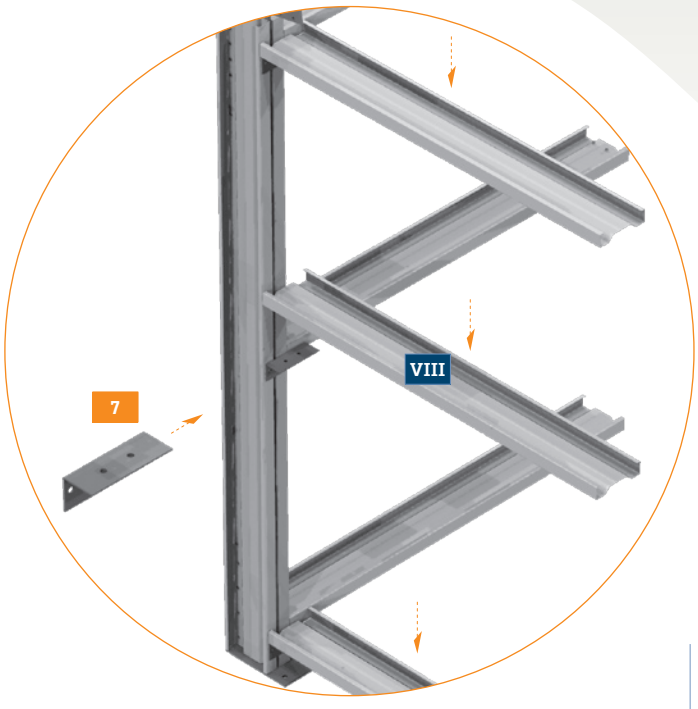






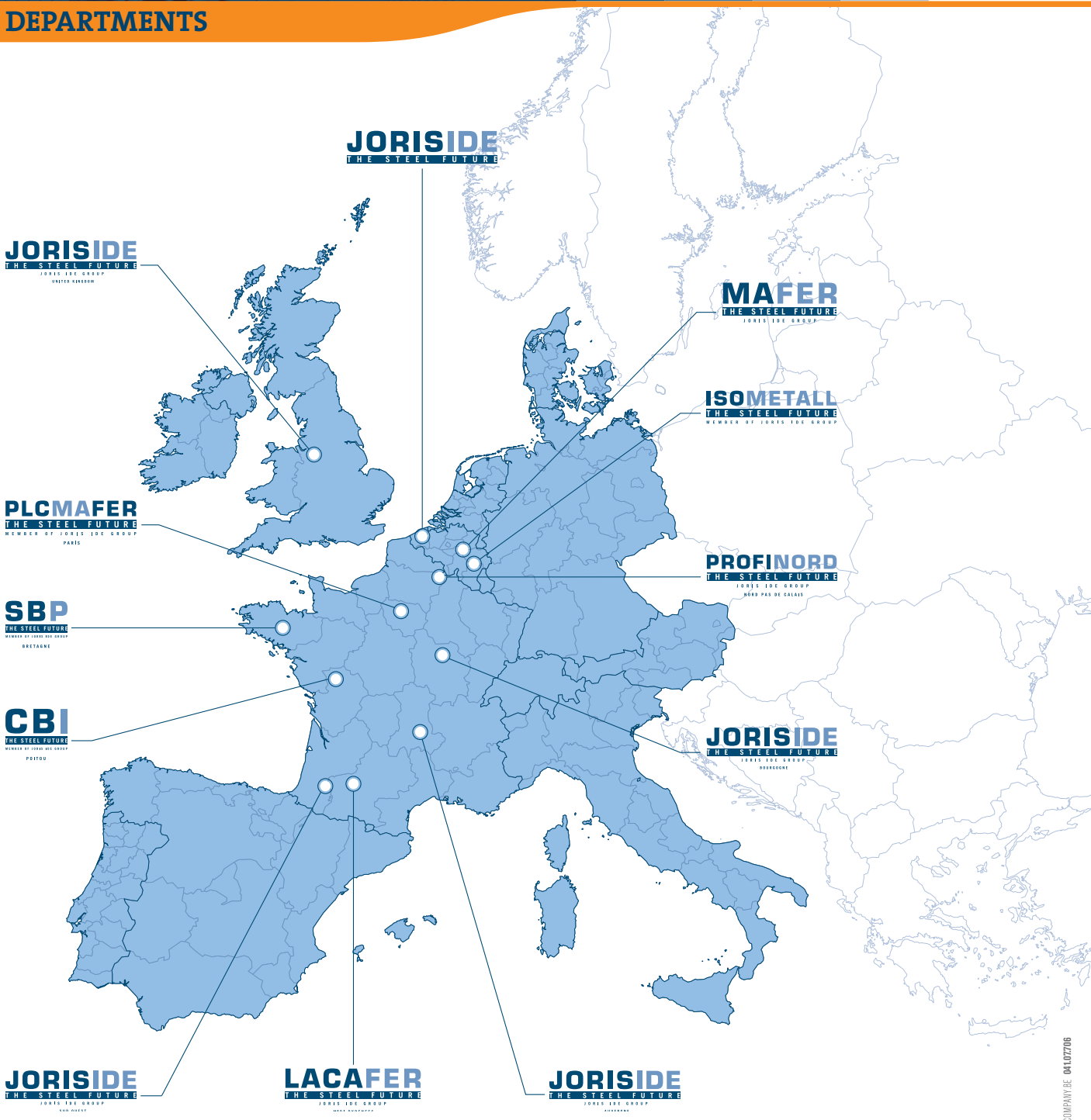
Again, on the ground, the L-pieces [3A] are fixed onto both sides of a Σ-profile. At the bottom, a L-piece [3B] is attached whereby the profile is secured (with anchoring bolts) to the foundation. At the top, the vertical gable is fastened to the roof beam by means of the special L-piece [8].

10 | ATTACH THE HORIZONTAL PROFILES OF THE GABLE [VIII]



Firstly, the L-pieces for the gable [7] need to be fastened to the column profiles. Next, the Σ-profiles are laid on the L-pieces, with the open side upwards, and then fixed in place.

DEPARTMENTS



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