



MONTAGE HANDLEIDING

APERSA PALLETSTELLING

dè online magazijninrichter van Nederland

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1. ASSEMBLY PREPARATIONS. SECURITY MEASURES

Prior to start the assembly work, the work area must be delimited and mark to forbid the entry to unauthorized personnel and vehicles.

Verify that you have all the materials and tools necessary for the assembly prior to the start of work. Ensure that operators have received the required training in occupational risk prevention and have been informed about the specific risks of the work to be performed.

Verify that the assembly crew wears the KPI required by the regulations.

Respect the regulations applicable to work at heights, ensuring that personnel have and correctly fasten the safety harness.

Define the anchoring points of the safety harnesses to a lifeline. Remember that it is forbidden to climb the racks and climb onto the mounting rack.

It is forbidden to climb on forklifts standing on the nails, or on pallets or on non-approved bins.

Name the Security Coordinator of the work and ensure their presence at the beginning of the work and their supervision during the assembly development.

Present the Assembly Safety Plan to the property before starting work and ensure that you have the necessary authorizations before starting the assembly work.

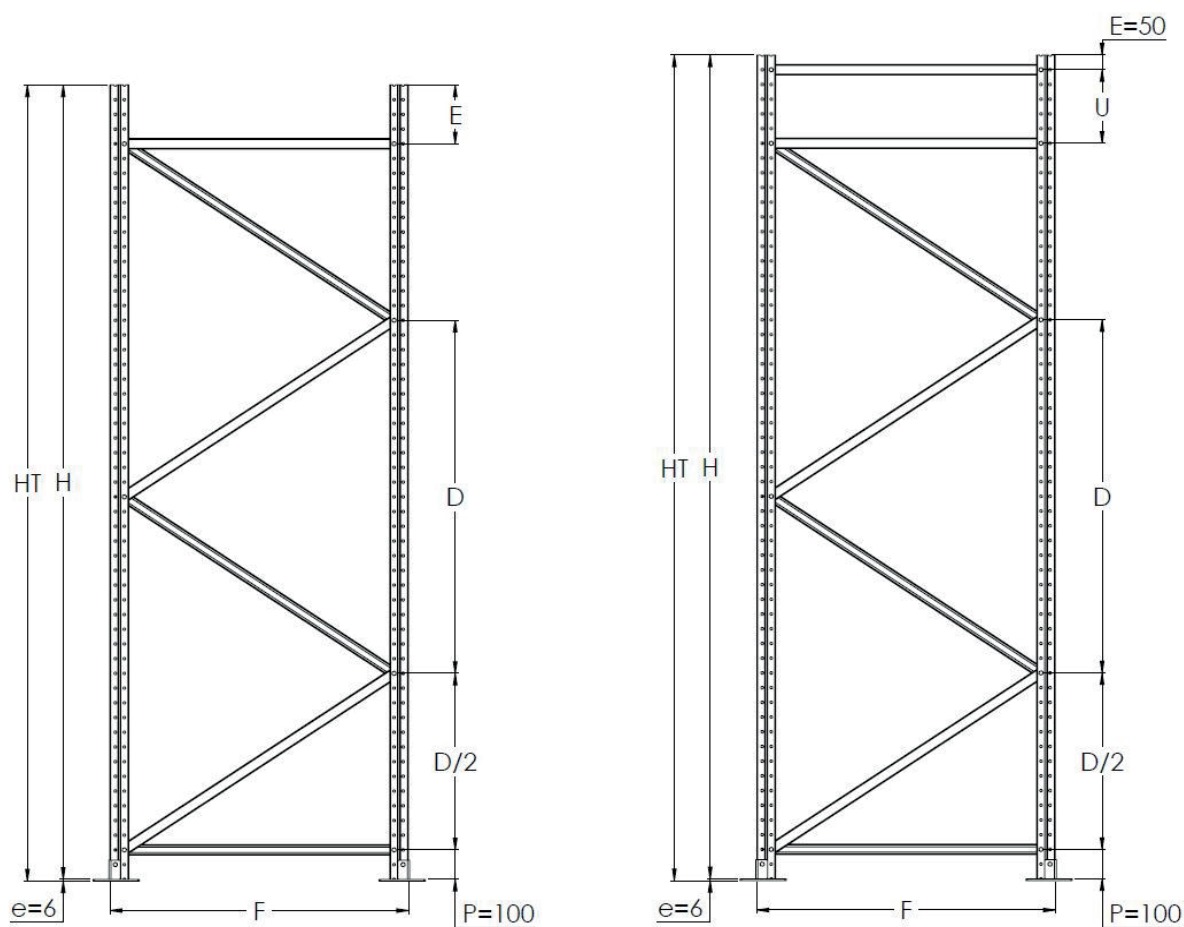
The person responsible for assembly must know the Product Manual and this Assembly Manual. The rack must be assembled according to the load notice panel of the installation made by the manufacturer.

2. CONFIGURATION OF THE FRAMES

The frames constitute the structure through which the loads of the rack are transmitted to the concrete slab

The frames are bolted structures composed by the following elements:

- Uprights
- Bracing: horizontals and diagonals
- Base anchored to the ground



Picture 1. Configuration of the frames

The frame is defined by its total height (dimension HT) and its depth (dimension F). The parameters indicated in Table 2 (see page 4) must be met in its assembly.

Thickness of standard baseplates is 6 mm, therefore its total height is $H_T = 6 \text{ mm} + H$, being H the height of the upright.

| FRAME TYPE | AP7679 |
|--|---------|
| e - Thickness of the base plate (mm) | 6 |
| P - Distance between 1st horizontal and base plate (mm) | 100 |
| D - Max distance between diagonals (mm) | 1200 |
| U - Span between upper horizontals. Min/Max (mm) | 250/550 |
| E - Free height of the upright without bracing. Min/Max (mm) | 50/250 |

Table 2. Range of validity of dimensional parameters of frames

The standard APERSA frames are configured by attaching the first horizontal at 100 mm height of the base (dimension P expressed in mm).

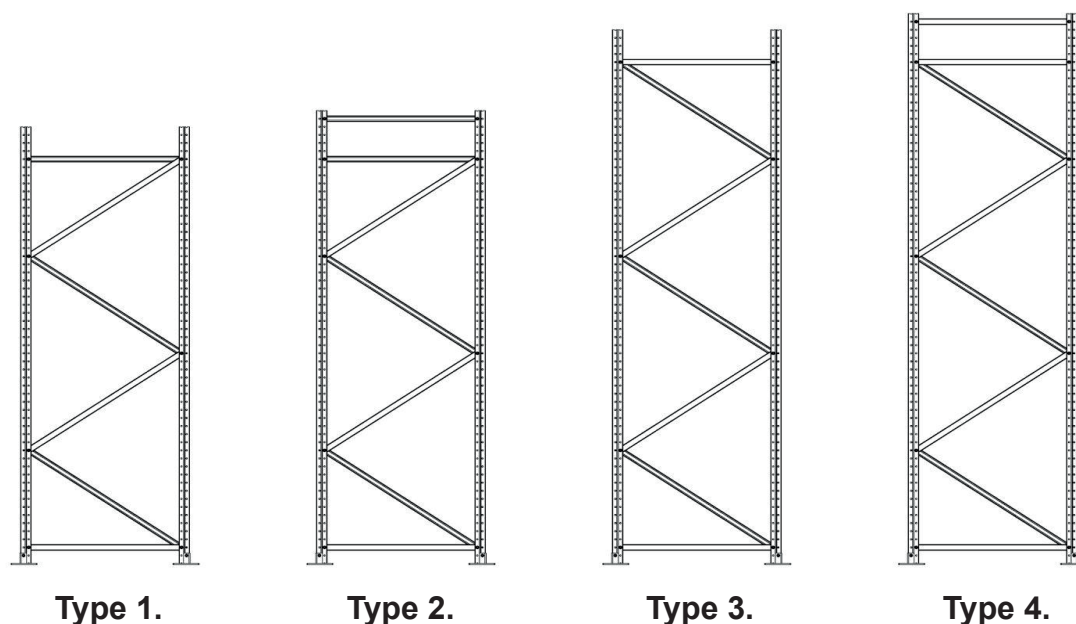
The maximum distance between diagonals is 1200 mm (dimension D). This is the standard configuration adopted by APERSA, who provides the diagonals to the corresponding size according to the type of frame and its depth F.

The free height of upright (dimension E) must be between 50 and 250 mm. If the height of the upright H, would result into an E dimension greater than 250 mm, a second upper horizontal must be provided.

The distance between the two upper horizontals (dimension U) must be between 250 and 550 mm. See Picture 1 (on page 2) for an easy comprehension.

3. TYPES OF FRAME

To facilitate the assembly process and the preparation of material lists, APERSA has defined four types of frames per model (see Picture 2 below).



The assembly of one of the four types is defined according to dimension H (height of the upright).

To facilitate the work of the distributors and the assembly team, APERSA has defined the types of frame and list of materials according on dimension H in the Table 5. (page 5)

| UPRIGHT HEIGHT (H) | TYPE | | | | QUANTITY OF HORIZONTALS | QUANTITY OF DIAGONALS | NS SIMPLE KNOT | ND DOUBLE KNOT | U (mm) | E (mm) |
|--------------------|------|---|---|---|-------------------------|-----------------------|----------------|----------------|--------|--------|
| | 1 | 2 | 3 | 4 | | | | | | |
| 2.000 | | | X | | 2 | 3 | 2 | 4 | 0 | 100 |
| 2.250 | | | | X | 3 | 3 | 4 | 4 | 300 | 50 |
| 2.500 | | | | X | 3 | 3 | 4 | 4 | 550 | 50 |
| 2.750 | X | | | | 2 | 4 | 2 | 5 | 0 | 250 |
| 3.000 | | X | | | 3 | 4 | 4 | 5 | 450 | 50 |
| 3.250 | | | X | | 2 | 5 | 2 | 6 | 0 | 150 |
| 3.500 | | | | X | 3 | 5 | 4 | 6 | 350 | 50 |
| 3.750 | X | | | | 2 | 6 | 2 | 7 | 0 | 50 |
| 4.000 | | X | | | 3 | 6 | 4 | 7 | 250 | 50 |
| 4.250 | | X | | | 3 | 6 | 4 | 7 | 500 | 50 |
| 4.500 | | | X | | 2 | 7 | 2 | 8 | 0 | 200 |
| 4.750 | | | | X | 3 | 7 | 4 | 8 | 400 | 50 |
| 5.000 | X | | | | 2 | 8 | 2 | 9 | 0 | 100 |
| 5.250 | | X | | | 3 | 8 | 4 | 9 | 300 | 50 |
| 5.500 | | X | | | 3 | 8 | 4 | 9 | 550 | 50 |
| 5.750 | | | X | | 2 | 9 | 2 | 10 | 0 | 250 |
| 6.000 | | | | X | 3 | 9 | 4 | 10 | 450 | 50 |
| 6.250 | X | | | | 2 | 10 | 2 | 11 | 0 | 150 |
| 6.500 | | X | | | 3 | 10 | 4 | 11 | 350 | 50 |
| 6.750 | | | X | | 2 | 11 | 2 | 12 | 0 | 50 |
| 7.000 | | | | X | 3 | 11 | 4 | 12 | 250 | 50 |
| 7.250 | | | | X | 3 | 11 | 4 | 12 | 500 | 50 |
| 7.500 | X | | | | 2 | 12 | 2 | 13 | 0 | 200 |
| 7.750 | | X | | | 3 | 12 | 4 | 13 | 400 | 50 |
| 8.000 | | | X | | 2 | 13 | 2 | 14 | 0 | 100 |
| 8.250 | | | | X | 3 | 13 | 4 | 14 | 300 | 50 |
| 8.500 | | | | X | 3 | 13 | 4 | 14 | 550 | 50 |
| 8.750 | X | | | | 2 | 14 | 2 | 15 | 0 | 250 |
| 9.000 | | X | | | 3 | 14 | 4 | 15 | 450 | 50 |
| 9.250 | | | X | | 2 | 15 | 2 | 16 | 0 | 150 |
| 9.500 | | | | X | 3 | 15 | 4 | 16 | 350 | 50 |
| 9.750 | X | | | | 2 | 16 | 2 | 17 | 0 | 50 |
| 10.000 | | X | | | 3 | 16 | 4 | 17 | 250 | 50 |
| 10.250 | | X | | | 3 | 16 | 4 | 17 | 500 | 50 |
| 10.500 | | | X | | 2 | 17 | 2 | 18 | 0 | 200 |
| 10.750 | | | | X | 3 | 17 | 4 | 18 | 400 | 50 |
| 11.000 | X | | | | 2 | 18 | 2 | 19 | 0 | 100 |
| 11.250 | | X | | | 3 | 18 | 4 | 19 | 300 | 50 |
| 11.500 | | X | | | 3 | 18 | 4 | 19 | 550 | 50 |
| 11.750 | | | X | | 2 | 19 | 2 | 20 | 0 | 250 |
| 12.000 | | | | X | 3 | 19 | 4 | 20 | 450 | 50 |

Table 5. Frame types and material list based on the height of the upright H

5. CONSTITUENT PARTS OF THE FRAME

As we previously said in section 3, the frame is made up with the components listed in table 6. According to the type of frame (1, 2, 3, 4) different quantities of each item will be needed.

| FRAME COMPONENTS | TYPE OF FRAME | | | |
|------------------------|----------------------------|---|---|---|
| | 1 | 2 | 3 | 4 |
| UPRIGHTS | 2 | 2 | 2 | 2 |
| UPRIGHT BASE PLATE | 2 | 2 | 2 | 2 |
| UNION BASE AND UPRIGHT | 2 | 2 | 2 | 2 |
| DIAGONAL CZ36/CZ42 | (H-150)/600 = Whole number | | | |
| HORIZONTAL CZ36/CZ42 | 2 | 3 | 2 | 3 |
| SIMPLE KNOT | 2 | 4 | 2 | 4 |
| DOUBLE KNOT | N° Diagonals + 1 | | | |

Table 6. List of components depending on the type of frame

6. ASSEMBLY OF FRAMES SERIE AP 76

As explained previously in section 3, the frame consists of all components listed in table 6.

According to the type of frame 1/2/3/4 different quantities of each component will be needed.

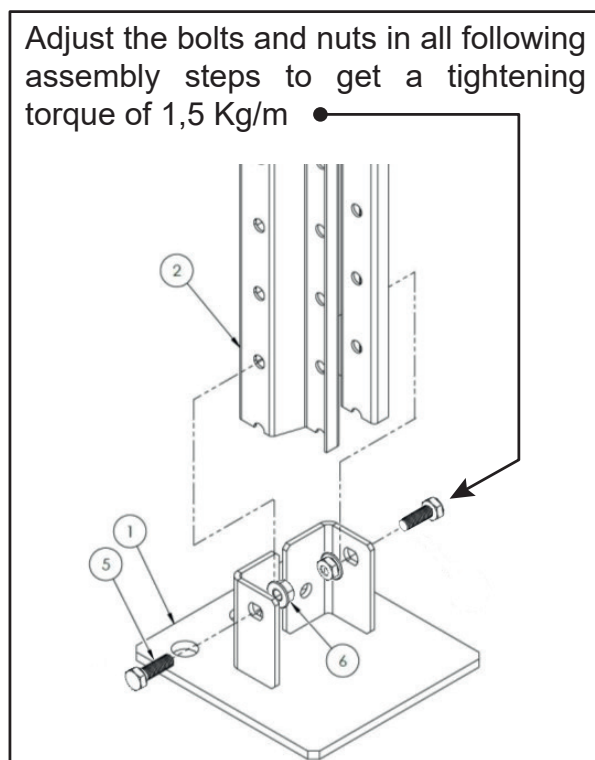
6.1. Items list and positions

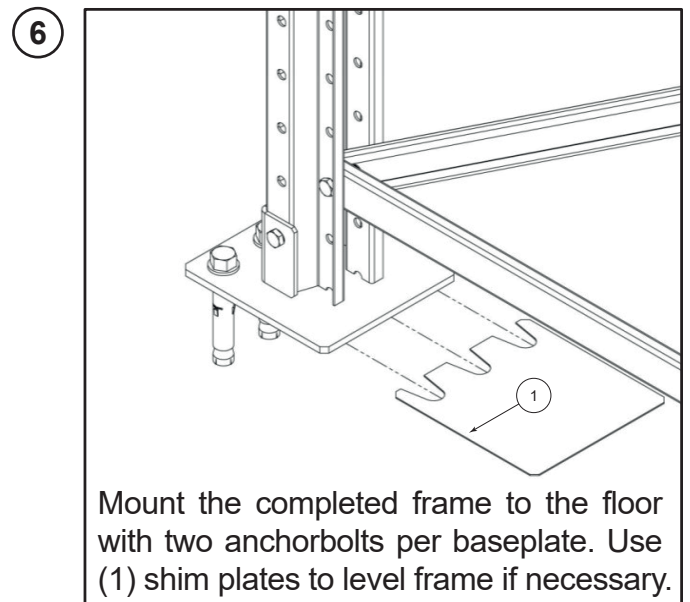
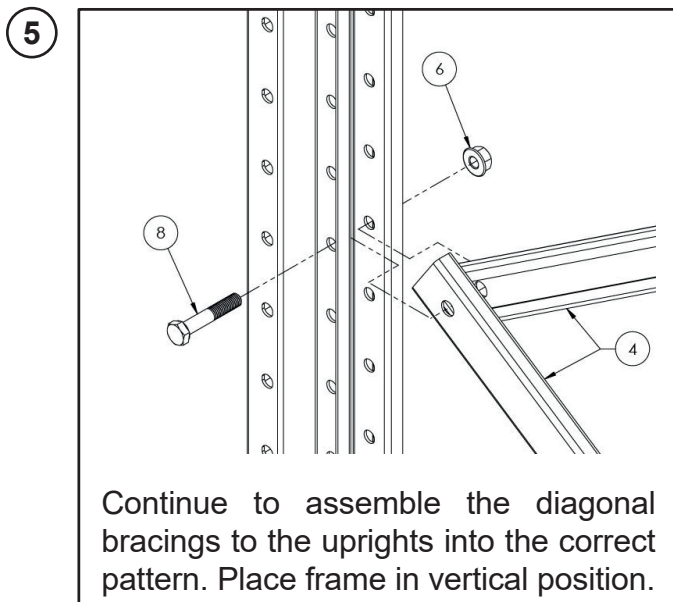
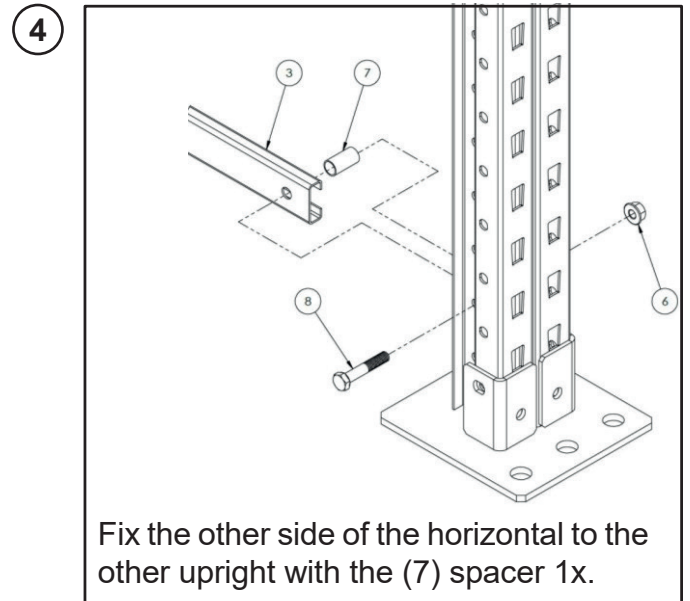
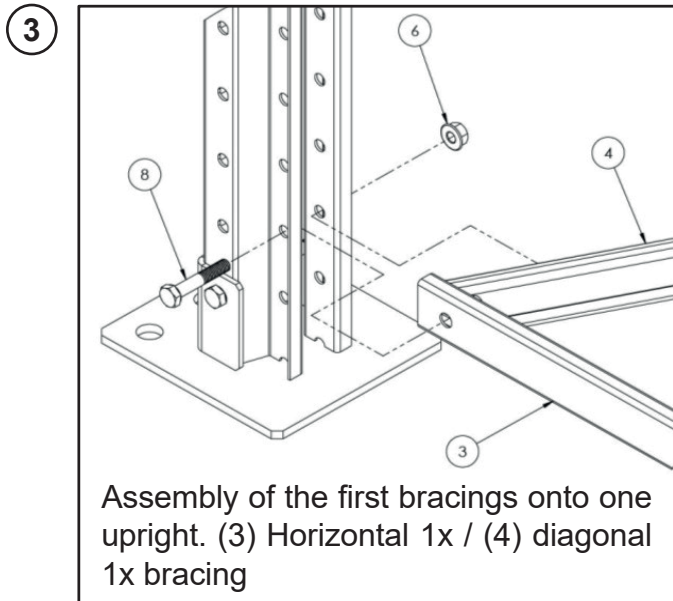
| POSITION | DESCRIPTION |
|----------|--------------------------------------|
| 1 | BASE PLATE FOR UPRIGHT FRONT 76 |
| 2 | UPRIGHT AP7679 |
| 3 | HORIZONTAL CZ36 AP7679 |
| 4 | DIAGONAL CZ36 AP7679 |
| 5 | BOLT DIN 931 CAL. 8.8 M8X20 ZINCATED |
| 6 | NUT DIN 6923 CAL. 8 M8 ZINCATED |
| 7 | SOCKET 13/11 X 25 ZINCATED |
| 8 | BOLT DIN 931 CAL. 8.8 M8X45 ZINCATED |

6.2. Assembly Sequence

- Position both uprights in a stable horizontal position, easily accessible for assembly.

- Adjust the bolts and nuts in all following assembly steps to get a tightening torque of 1,5 Kg/m

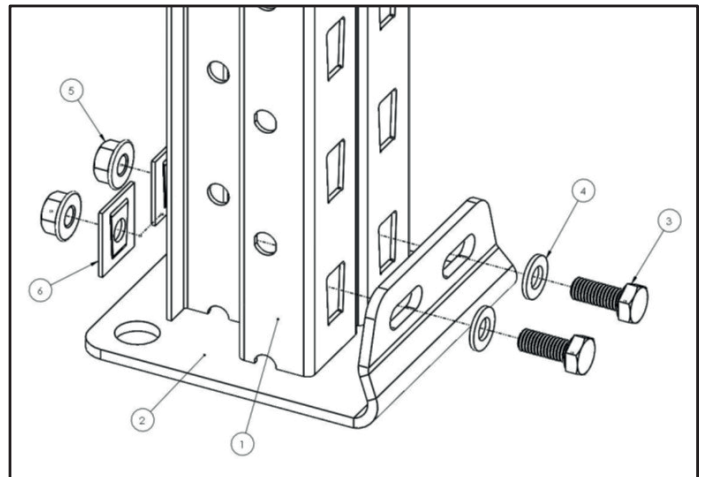




7. SELECTIVE PALLET RACKING

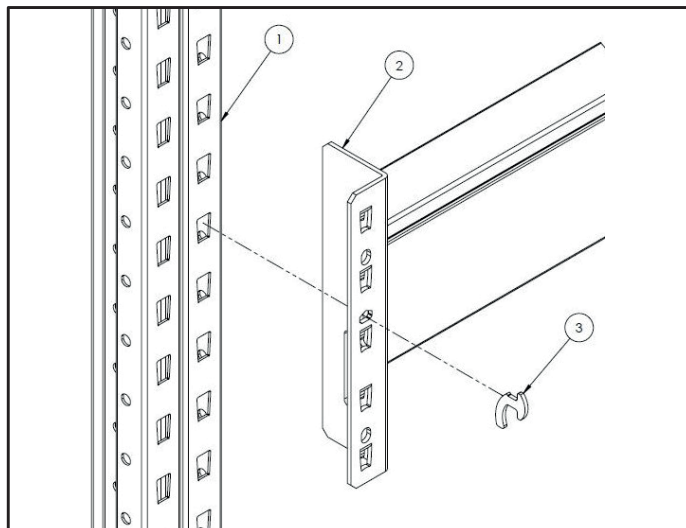
7.1. Items list for assembly of the stamped baseplate

| POSITION | DESCRIPTION |
|----------|--------------------------------------|
| 1 | UPRIGHT |
| 2 | STAMPED BASE PLATE |
| 3 | BOLT DIN 933 CAL. 8.8 M8X20 ZINCATED |
| 4 | WASHER DIN125 M8 ZINCATED |
| 5 | NUT DIN 6923 CAL. 8 M8 ZINCATED |
| 6 | TRAPEZOIDAL WASHER |



7.2. Assembly of the beams

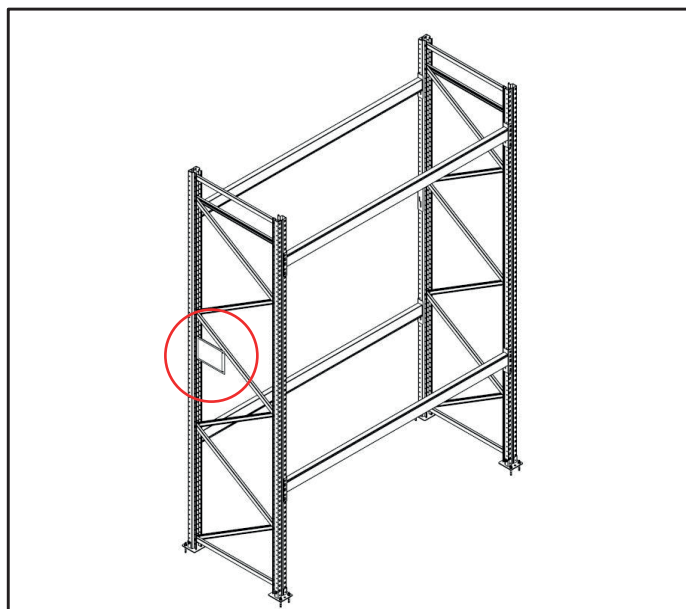
Place the beam in front of the frames and connect the pin pattern into the frame. lock the beam into the frame with the safety clip



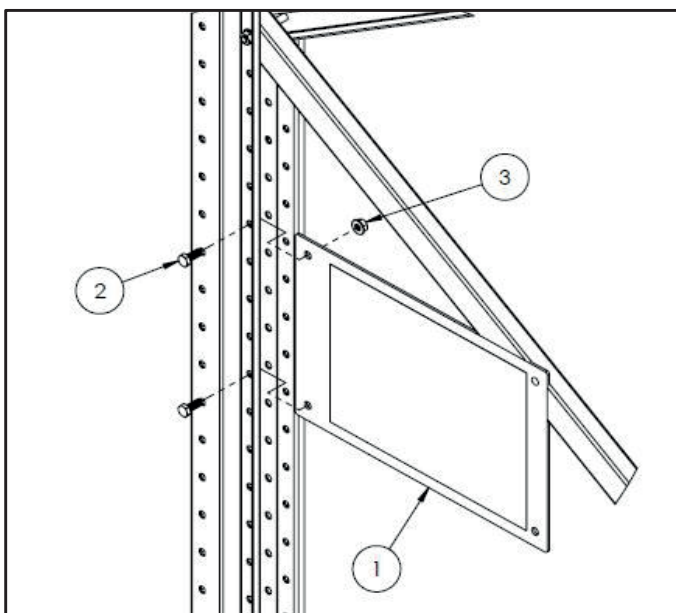
| POSITION | DESCRIPTION |
|----------|-------------|
| 1 | UPRIGHT |
| 2 | BEAM |
| 3 | SAFETY CLIP |

7.3. Assembly of the load notice panel

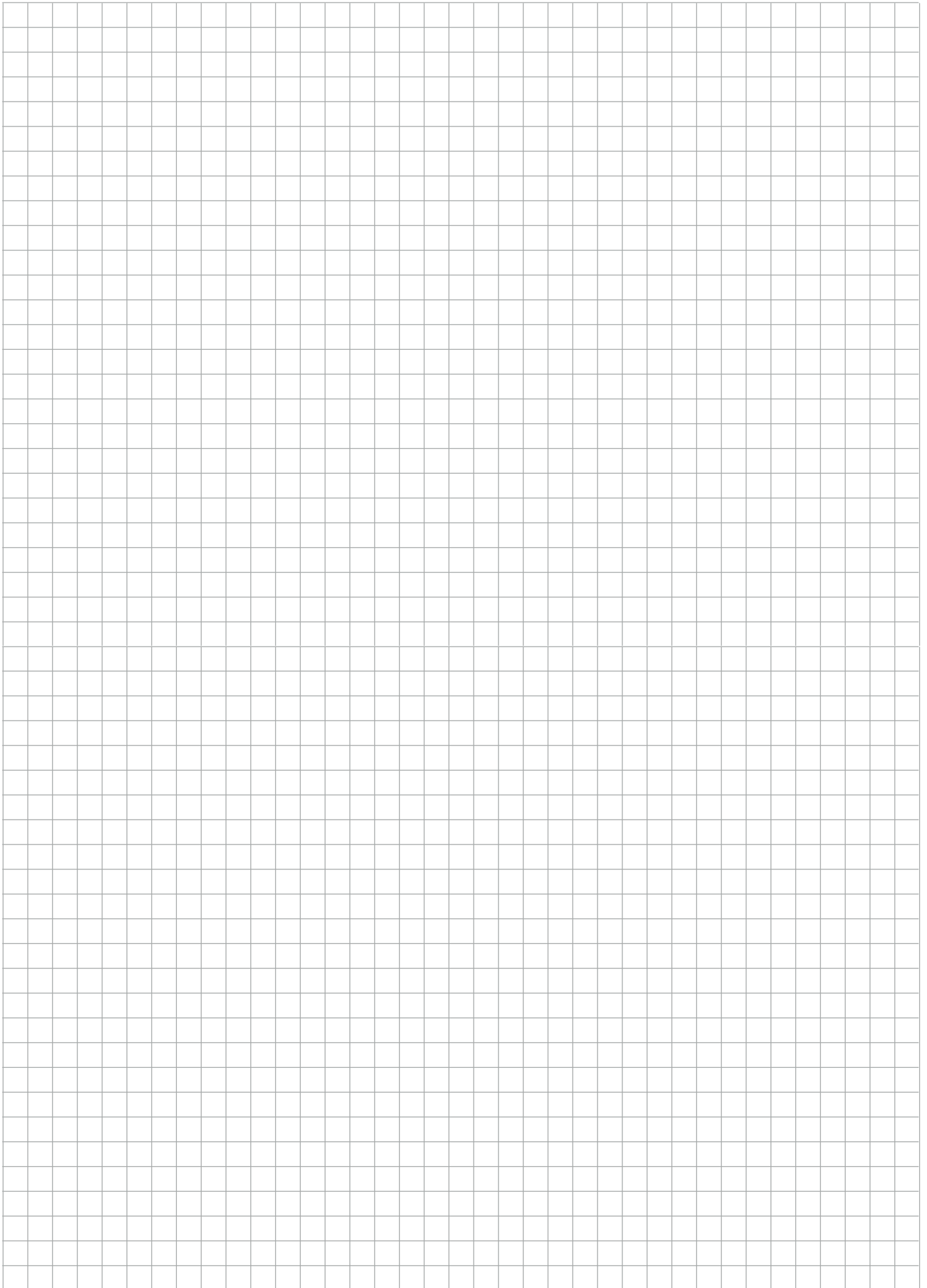
Mount the load notice panel on the outside of pallet racking section. Make sure that the panel is clearly visible for reading.



| POSITION | DESCRIPTION |
|----------|--------------------------------------|
| 1 | LOAD NOTICE PANEL |
| 2 | BOLT DIN 933 CAL. 8.8 M8X20 ZINCATED |
| 3 | NUT DIN 6923 CAL. 8 M8 ZINCATED |



Notes:





IJsselstraat 13 \ 5347 KG Oss \ The Netherlands \ +31 (0) 85 273 60 61 \ info@qshop.nl \ www.qshop.nl
KVK Oost Brabant 69179999 \ **BTW** 857770391B01