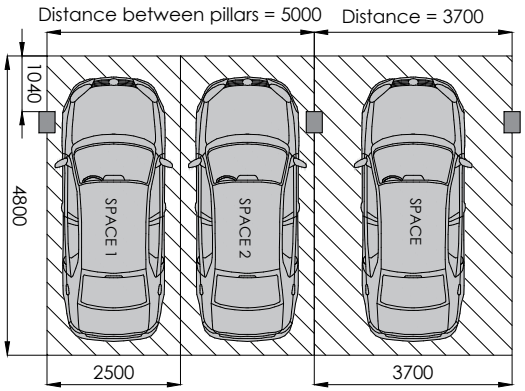
PR1-WT-EN

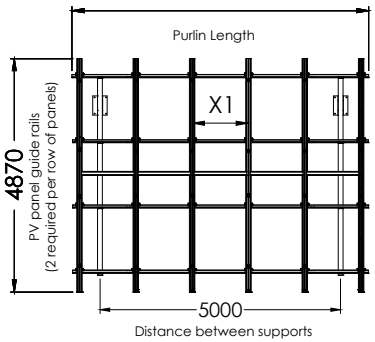
Assembly Plans

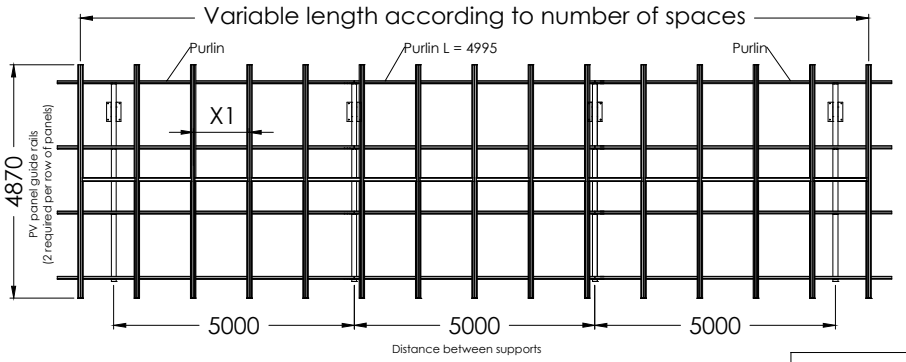
PR1-WT-EN

SUNFER

CANOPIES WITH EVEN NUMBER OF SPACES







X_1 - The distance between guide rails may be determined by PV panels

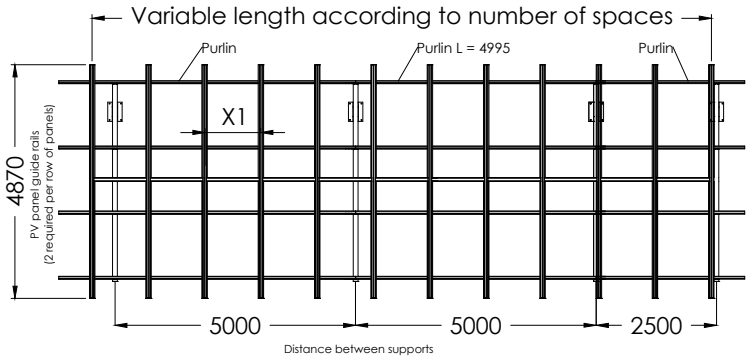
- PV panels have vertical orientation
- Standard pitch of 5°
- Minimum interior clearance 2.20 m

Materials:
Pillars, beams and purlins are hot-dip galvanised according to UNE-EN ISO 1461.
S275 structural steel.
Aluminum bars are EN AW 6005A T6.
Fasteners are A2-70 stainless steel.

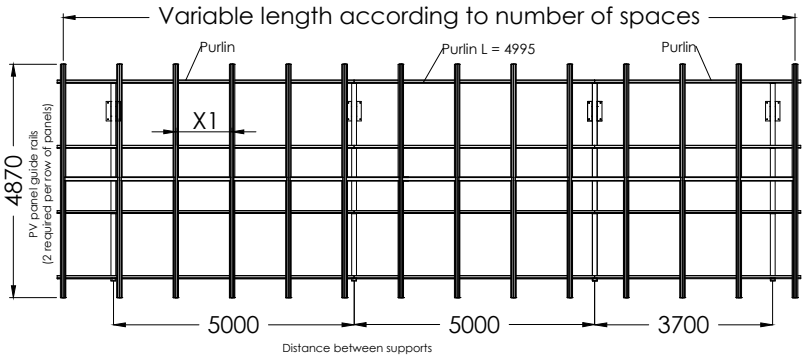
Finishes:
Steel pillars, beams and purlins have a hot-dip galvanised finish.

Installation:
The maximum slope of the terrain will be 2% continuous (between extreme supports)

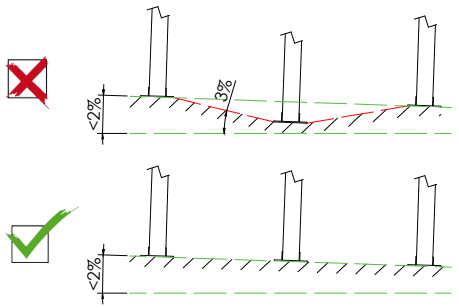
CANOPIES WITH ODD NUMBER OF SPACES

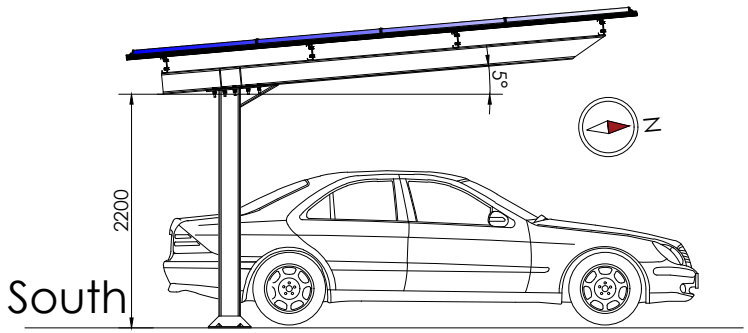


CANOPIES WITH ODD NUMBER OF SPACES INCLUDING FUNCTIONAL DIVERSITY SPACES



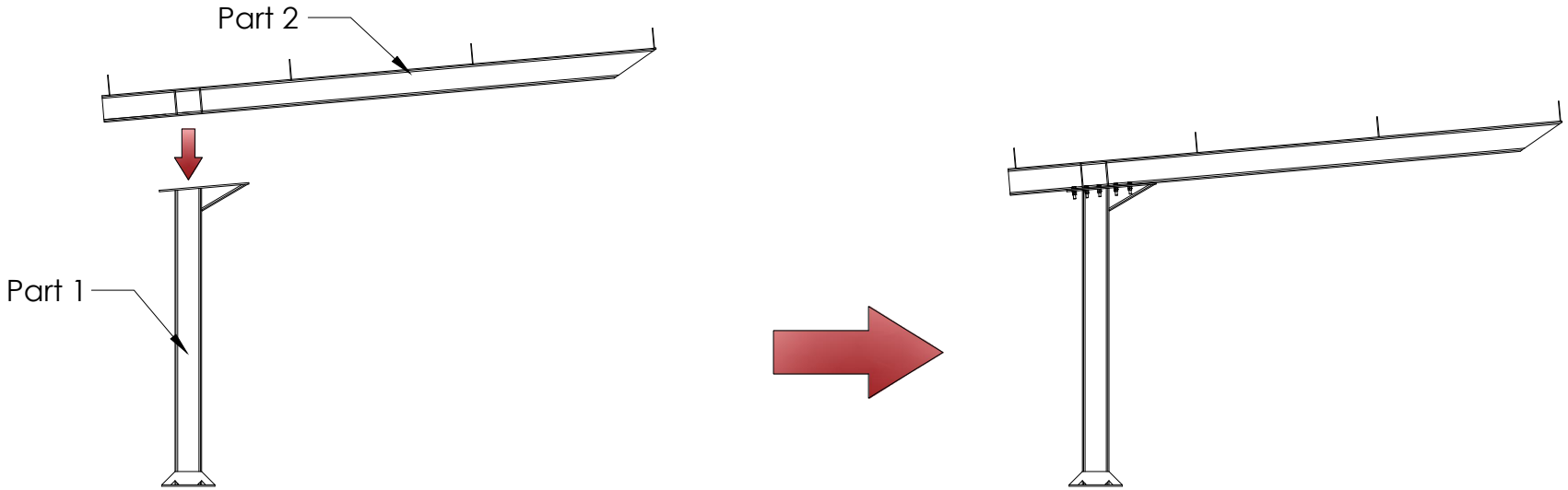
PARKING CANOPY





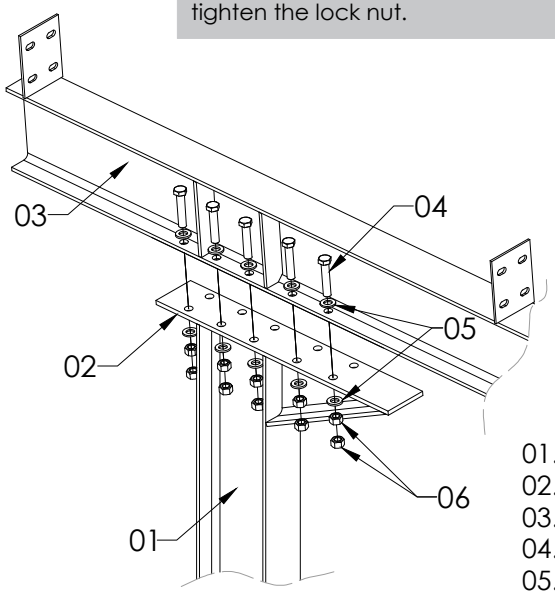
The foundation will need to be prepared before installing the parking canopy. Anchoring fasteners are not included.

It is recommended to carry out a geotechnical investigation.

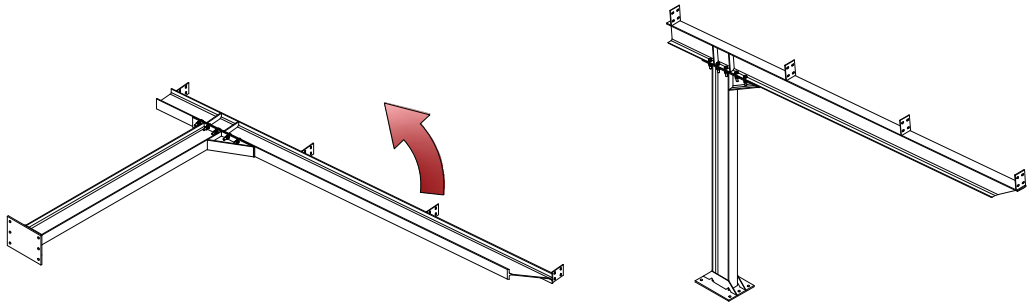


STEP 1: The PR1-EN car park supports are supplied in two parts. Both parts are connected by means of connecting plates with 10 bolts, 5 on each side of the beam.

First tighten the nut to the marked torque and then tighten the lock nut.



01. Pillar IPE
02. Connecting plate pillar-beam
03. Beam IPE
04. Hexagonal screw M16x60 (x10)
05. Flat Washer M16 (x20)
06. Hexagonal nut M16 (x20)



To facilitate assembly, it is recommended that this step is carried out on the ground and, once the connection has been made, lift the completed support.

Tightening torque:	
Screw S43.1/S42	***1800 Rpm***
Hexagonal screw M6.3	***10 Nm***
Allen screw M6	***7 Nm***
Hexagonal screw M8	***17 Nm***
Hexagonal screw M12	***57 Nm***
Hexagonal screw M16	***140 Nm***

PR1-WT-EN

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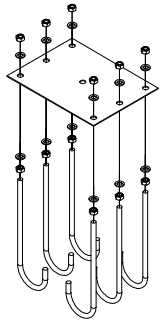
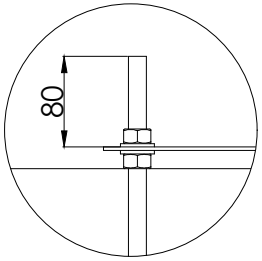
CP1 ANCHOR ASSEMBLY

PARKING CANOPY

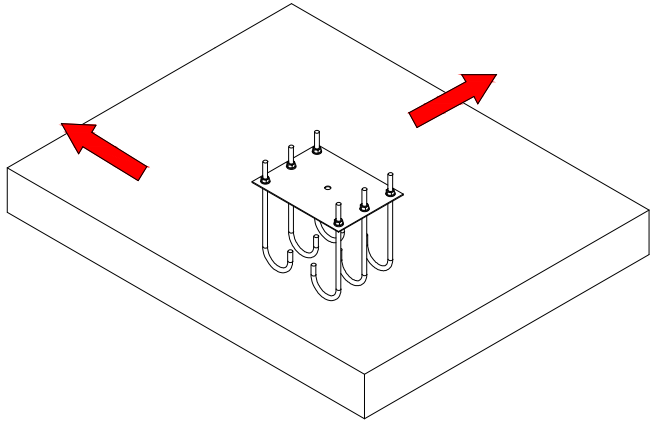
1. Use 1 nut and 1 washer beneath each side to position the bolts on the plate prior to concreting.



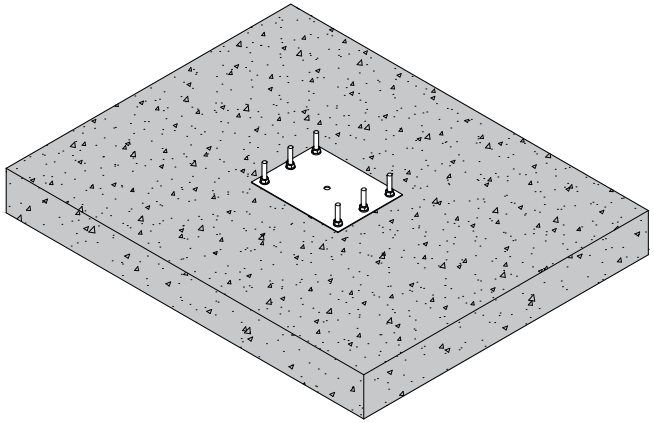
2. Leave 80 mm of rod protruding from the plate.



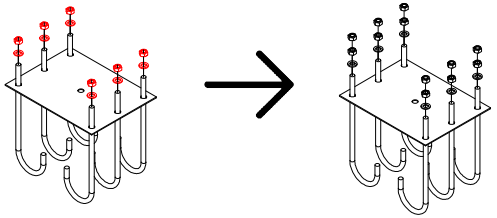
3. Level the plate with it in place. Make certain that it is level about both axes to ensure correct installation. Do not use screws for leveling.

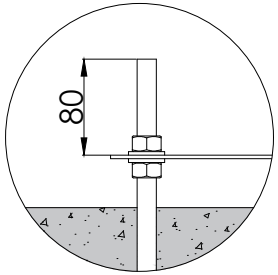


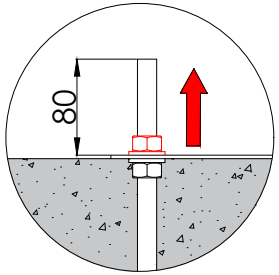
4. Once concrete is poured, plate will be fixed in place.

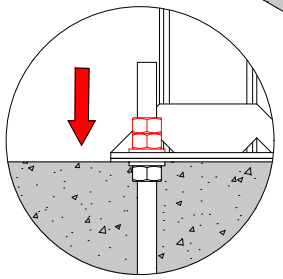


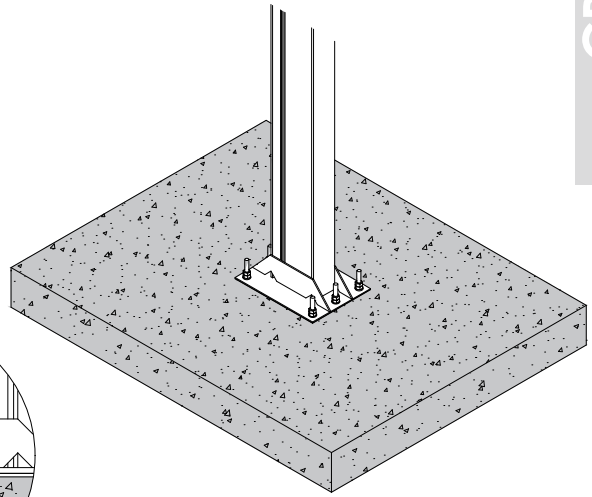
5. Remove the nuts and washers from the exposed side (Red) and place the pillar with the correct fasteners.

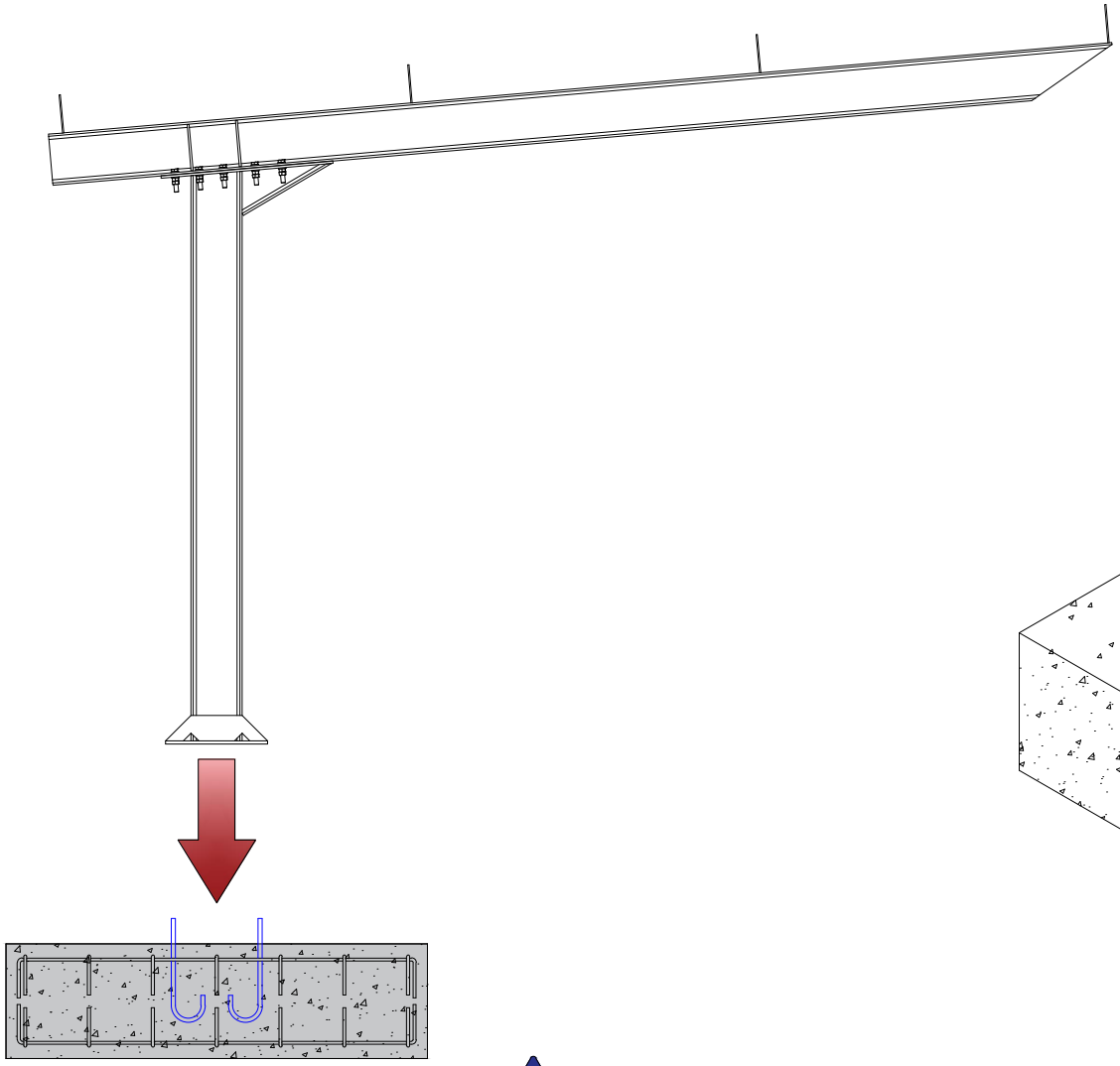


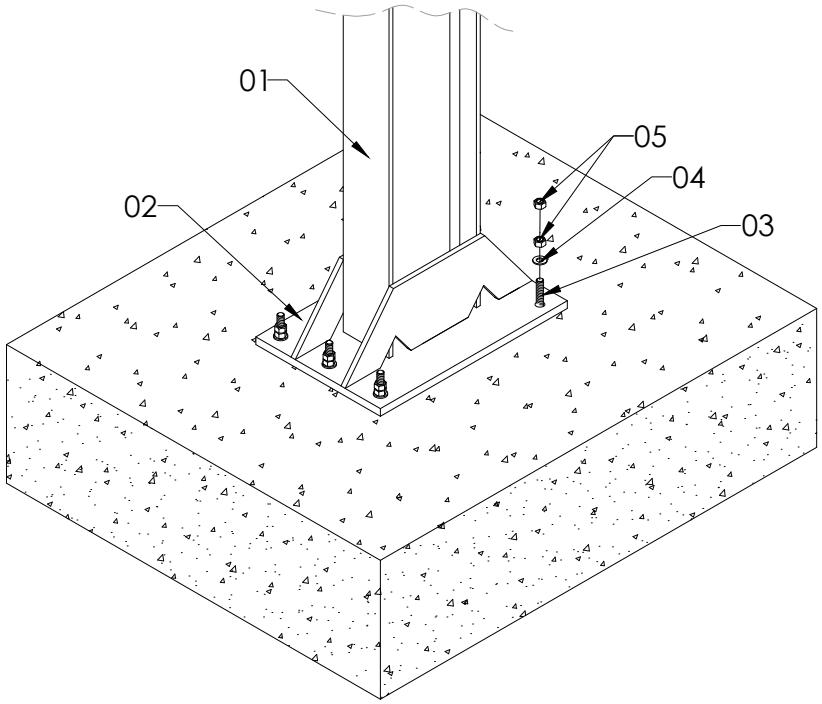












Tighten the nut first to the marked torque and then tighten the lock nut.

01. Pillar IPE
02. Base plate (400x300x12)
03. Anchor bolts M16 (NOT INCLUDED)
04. Flat washer M16 (NOT INCLUDED)
05. Nut M16 (NOT INCLUDED)

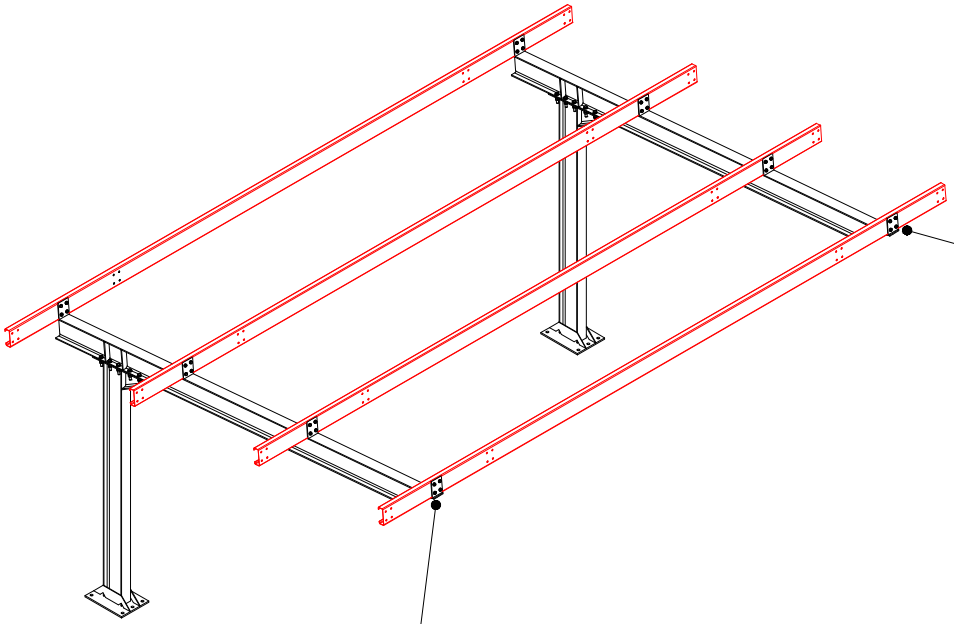
STEP 2: Connect the base plate to the pillar by matching the holes with the anchor bolts. Then insert the washers and nuts into the anchorage hook.

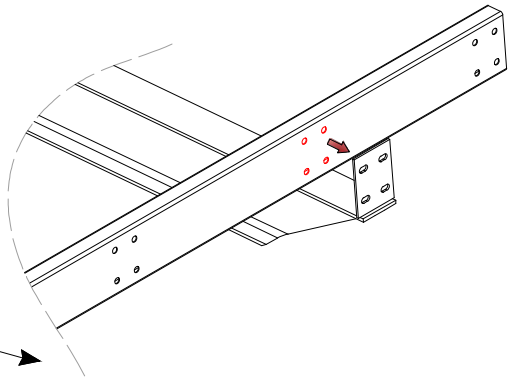
PR1-WT-EN

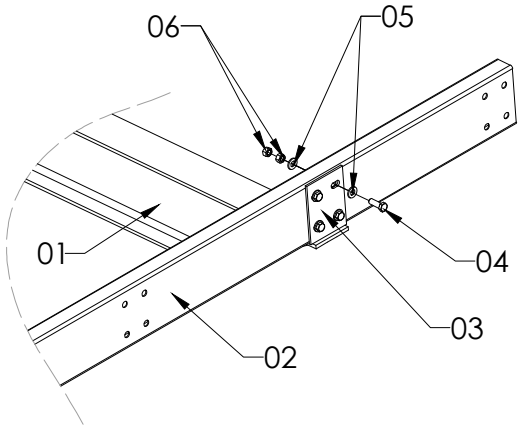
SUNFER

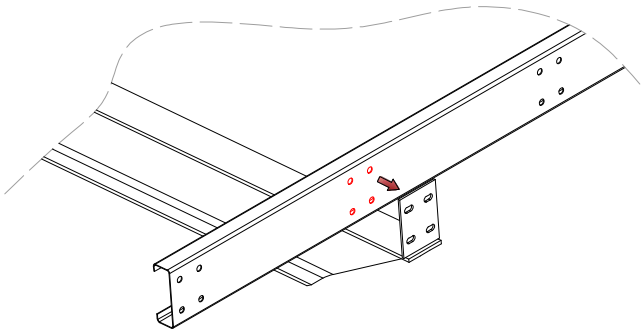
PURLINS ASSEMBLY - 2 PORTICOS

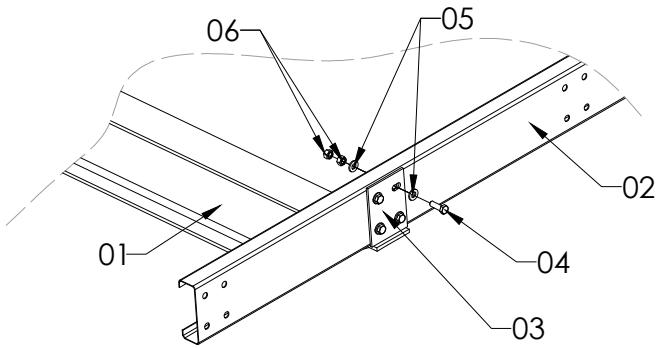
PARKING CANOPY











Tightening torque:	
Screw S43.1/S42	***1800 Rpm***
Hexagonal screw M6.3	***10 Nm***
Allen screw M6	***7 Nm***
Hexagonal screw M8	***17 Nm***
Hexagonal screw M12	***57 Nm***
Hexagonal screw M16	***140 Nm***

01. Beam IPE
02. Purlin L=6167 mm
03. Cleat
04. Hexagonal screw M12x35
05. Flat washer M12
06. Hexagonal nut M12

First tighten the nut to the marked torque and then tighten the lock nut.

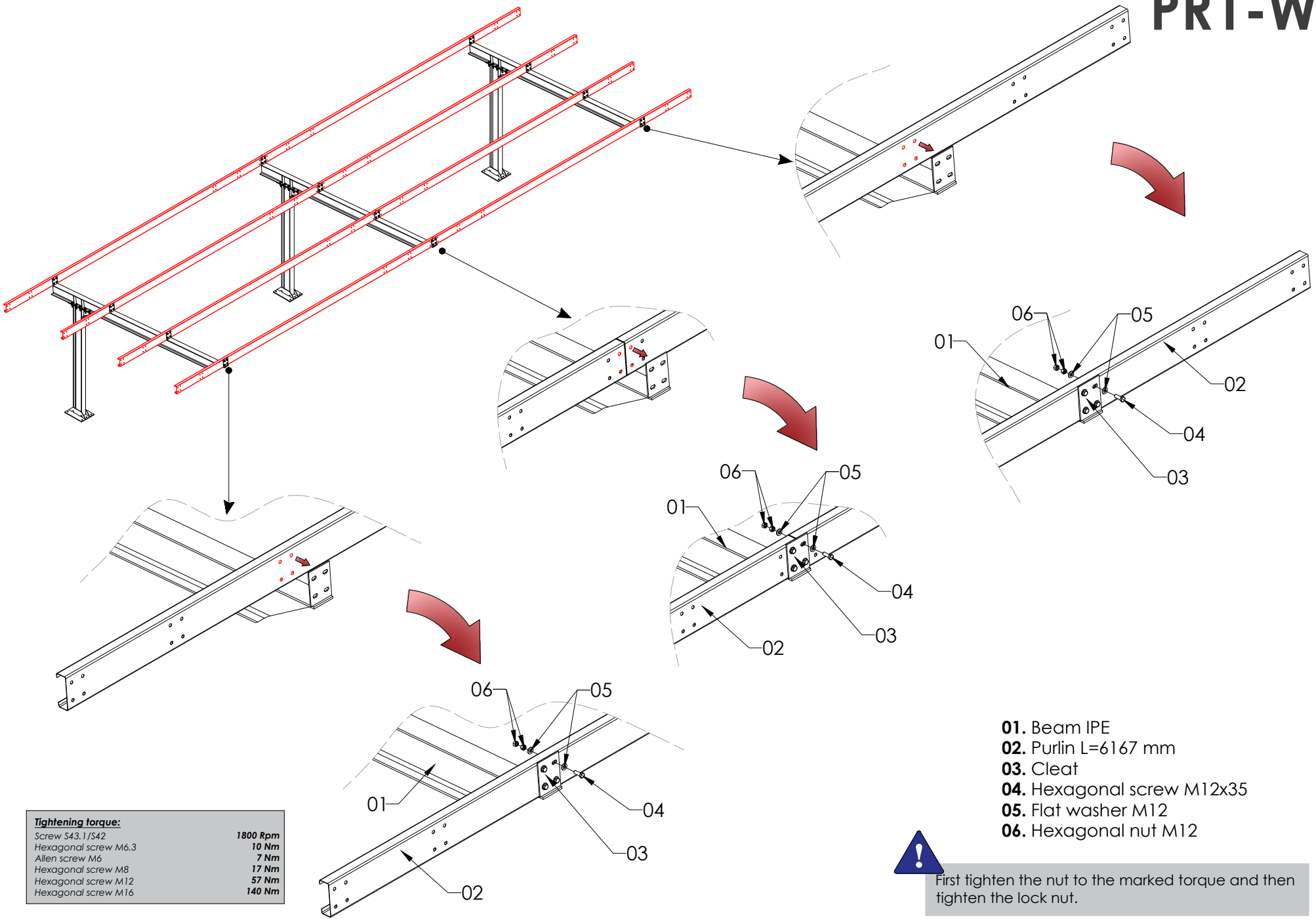
STEP 3: Place the purlin on the beams and match the red coloured holes of the purlin with the holes of the cleat. Screw the connection with 4 screws for each cleat.

PR1-WT-EN

SUNFER

PURLINS ASSEMBLY - 3 PORTICOS

PARKING CANOPY



01. Beam IPE
02. Purlin L=6167 mm
03. Cleat
04. Hexagonal screw M12x35
05. Flat washer M12
06. Hexagonal nut M12

Tightening torque:	
Screw S43.1/S42	***1800 Rpm***
Hexagonal screw M6.3	***10 Nm***
Allen screw M6	***7 Nm***
Hexagonal screw M8	***17 Nm***
Hexagonal screw M12	***57 Nm***
Hexagonal screw M16	***140 Nm***

First tighten the nut to the marked torque and then tighten the lock nut.

STEP 3: Place the purlin on the beams and match the red coloured holes of the purlin with the holes of the cleat. Screw the connection with 4 screws for each cleat.

PR1-WT-EN

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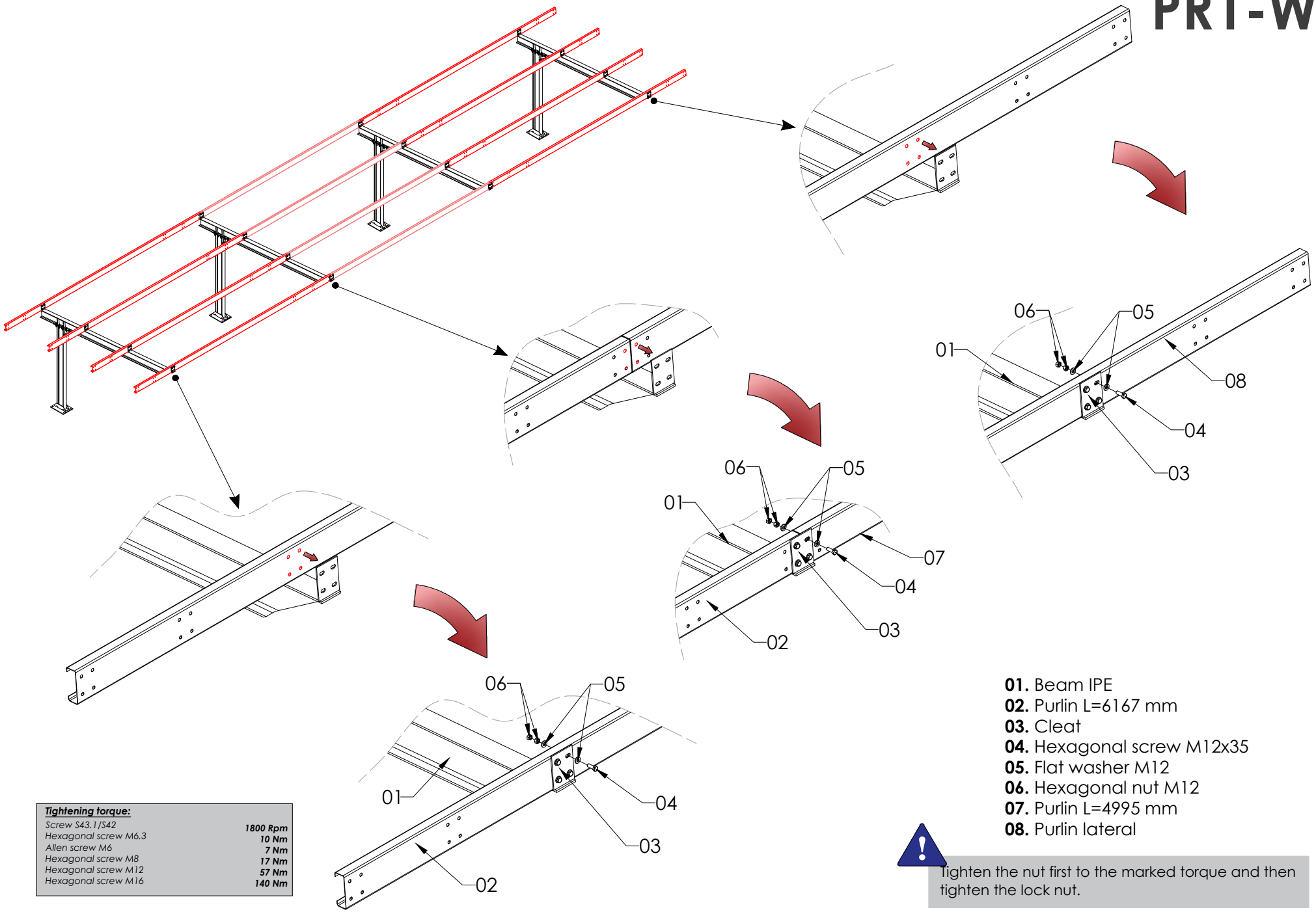
PURLINS ASSEMBLY - + 3 PORTICOS

PARKING CANOPY

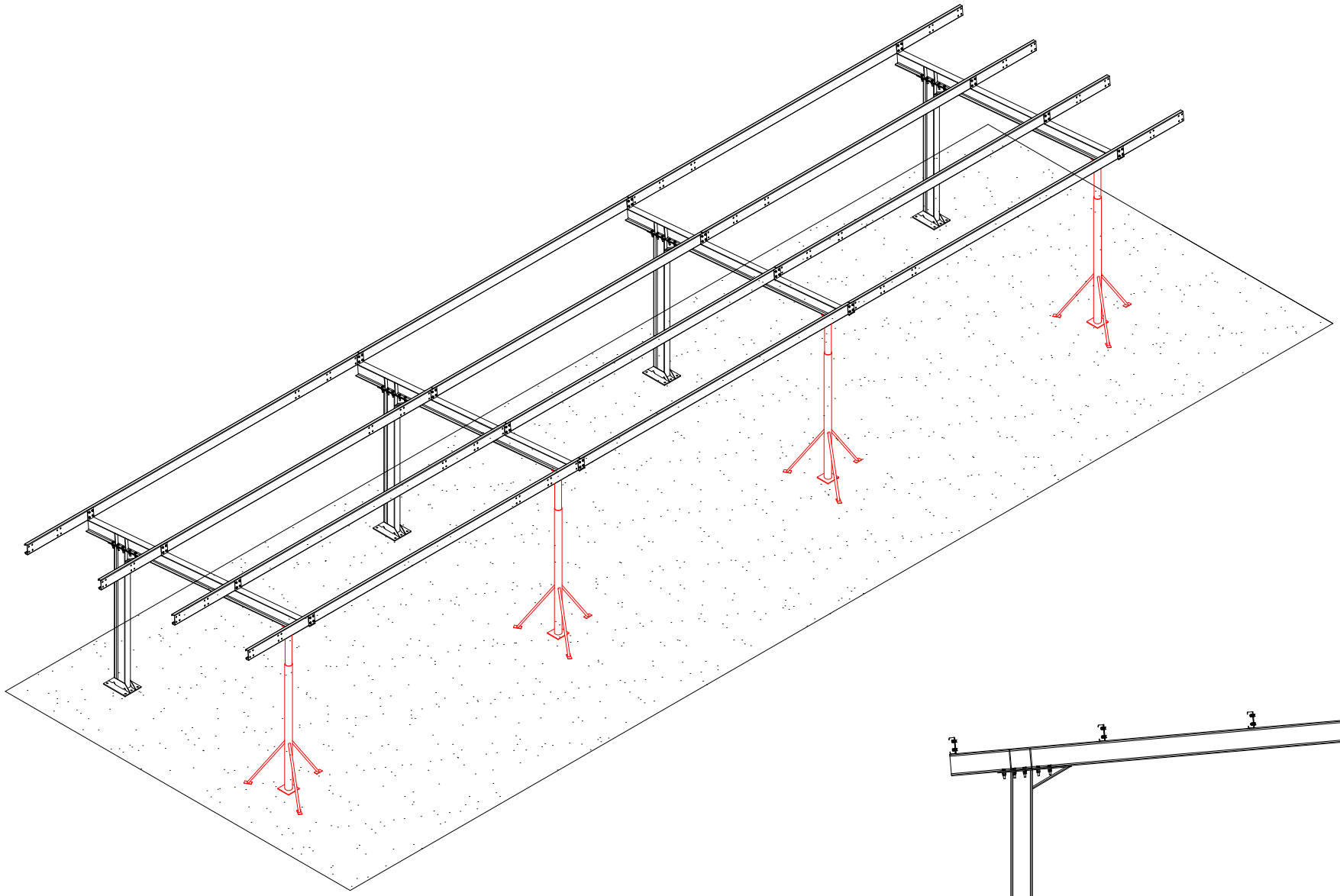


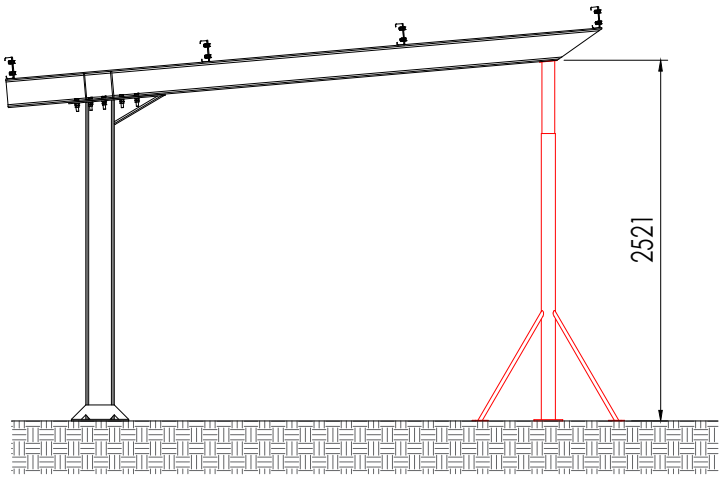
01. Beam IPE
02. Purlin L=6167 mm
03. Cleat
04. Hexagonal screw M12x35
05. Flat washer M12
06. Hexagonal nut M12
07. Purlin L=4995 mm
08. Purlin lateral

Tightening torque:	
Screw S43.1/S42	***1800 Rpm***
Hexagonal screw M6.3	***10 Nm***
Allen screw M6	***7 Nm***
Hexagonal screw M8	***17 Nm***
Hexagonal screw M12	***57 Nm***
Hexagonal screw M16	***140 Nm***

Tighten the nut first to the marked torque and then tighten the lock nut.

STEP 3: Place the purlin on the beams and match the red coloured holes in the purlin with the holes in the cleat. Screw the connection with 4 screws per cleat.





STEP 4: Once the purlins have been assembled, brace the porticos to prevent movement in any direction during the assembly of the rest of the car park.

PR1-WT-EN

SUNFER

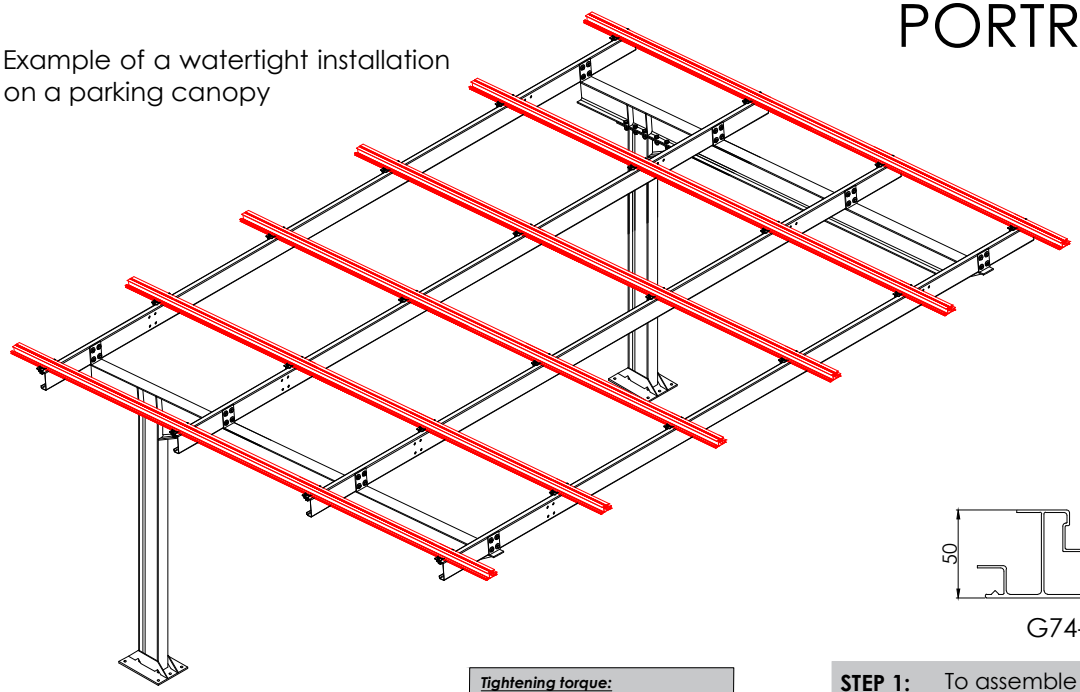
GUIDE PROFILE ASSEMBLY

WATERTIGHT STRUCTURE

This system is valid for any structure made of CPN profiles, whether it is a parking canopy or a special roof structure, as long as it is to be covered with a watertight photovoltaic system.

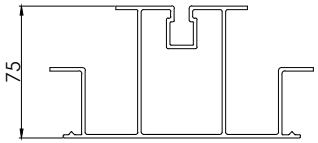
PORTRAIT

Example of a watertight installation on a parking canopy

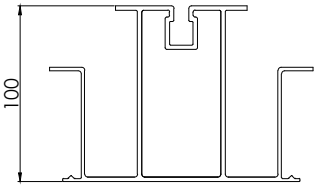


Watertight profiles available:

G74-EN



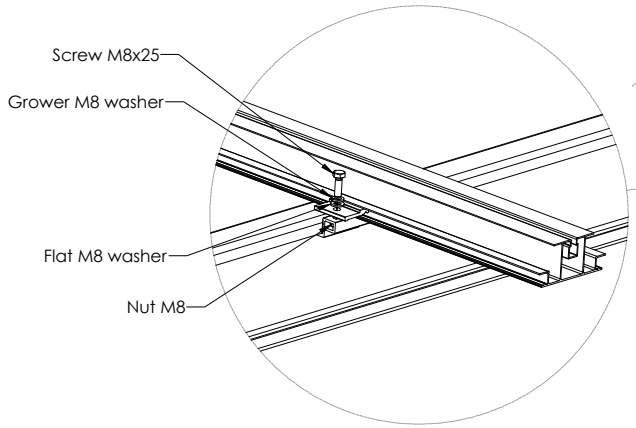
G75-EN

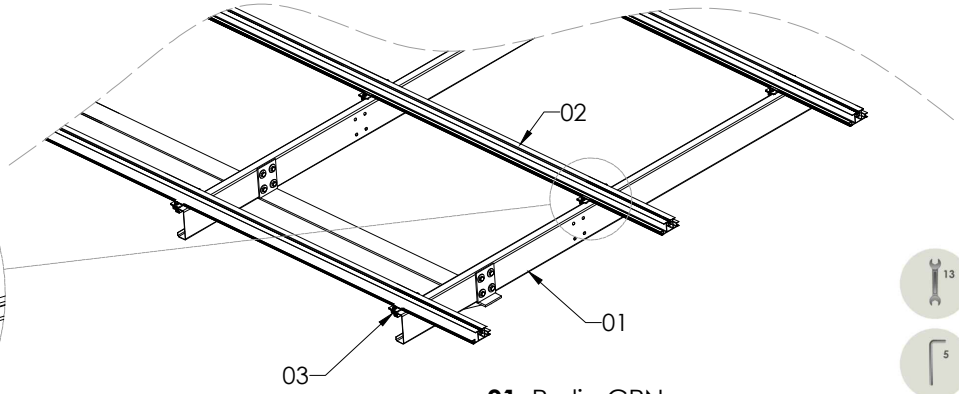


G76-EN

Tightening torque:	
Screw hexagonal M8	***17 Nm***
Screw Allen M8	***7 Nm***

STEP 1: To assemble the watertight guide profiles to the CPN straps, place the S97-EN fastening on the rubber side of the strap and tighten the screw on the strap when the watertight profile is in the correct position.





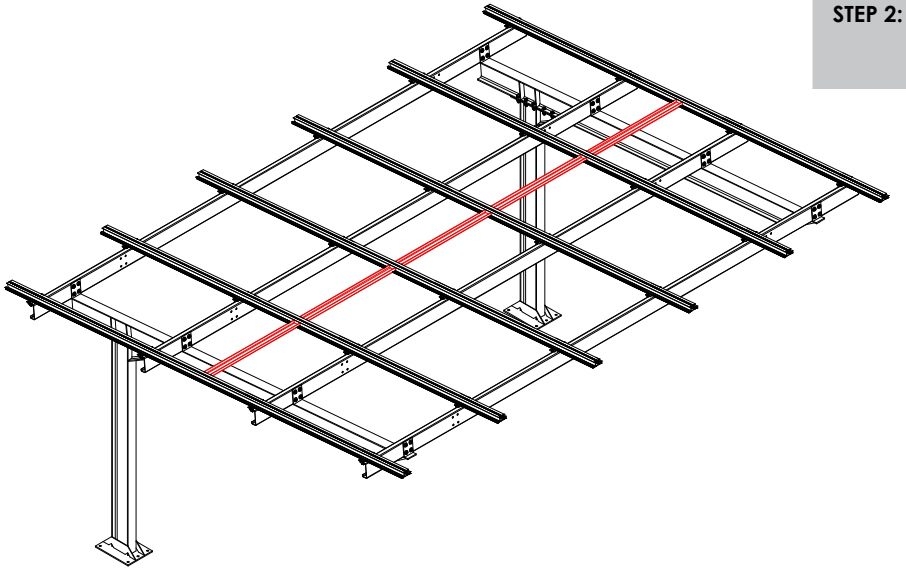
01. Purlin CPN
02. Watertight guide profile
03. Fixation S97-EN

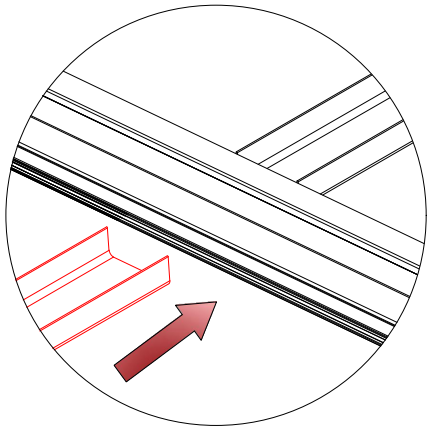
SUNFER

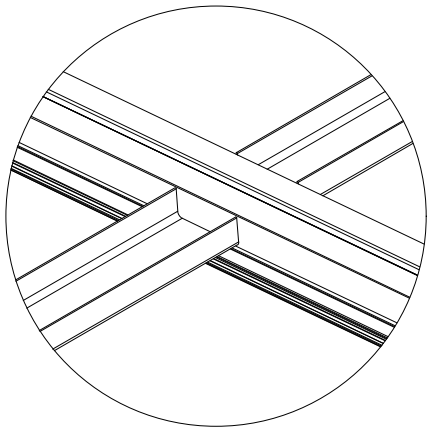
LONGITUDINAL PROFILE ASSEMBLY

WATERTIGHT STRUCTURE

STEP 2: Insert the longitudinal profiles G77 between the watertight guide profiles along their central position. Position and glue onto the fins of the watertight profiles using the adhesive on the underside of the profiles.

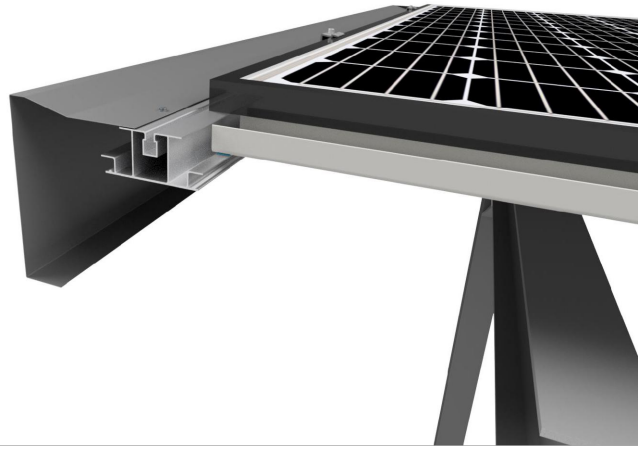


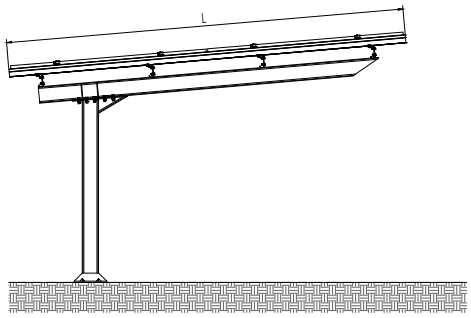




Tightening torque:

Screw hexagonal M8	***17 Nm***
Screw Allen M8	***7 Nm***



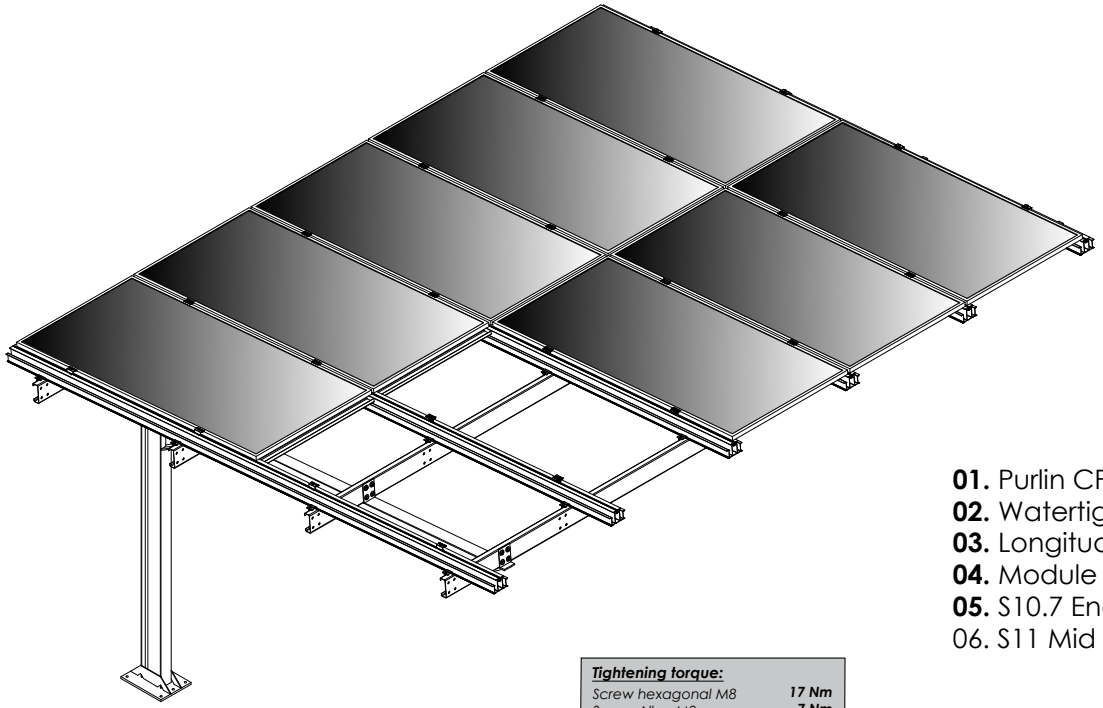


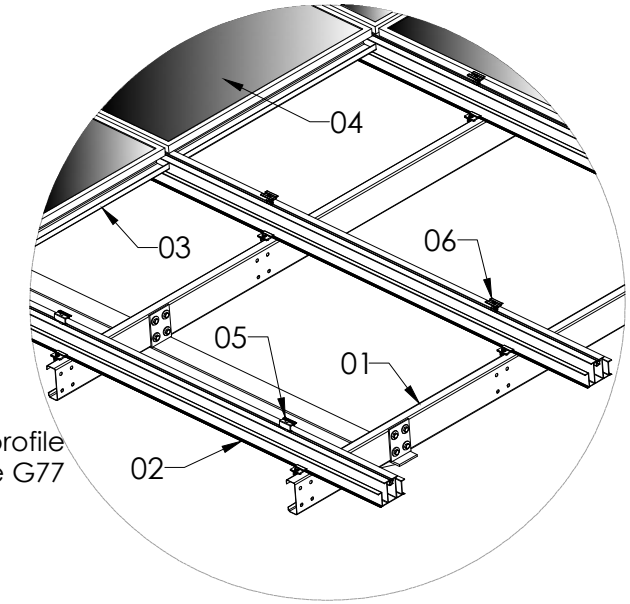
PR1-WT-EN

SUNFER

MODULES ASSEMBLY

WATERTIGHT STRUCTURE



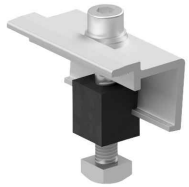


01. Purlin CPN
02. Watertight guide profile
03. Longitudinal profile G77
04. Module
05. S10.7 End clamp
06. S11 Mid clamp

Tightening torque:	
Screw hexagonal M8	***17 Nm***
Screw Allen M8	***7 Nm***

STEP 3: Position the modules and fix them with the S10.7-EN clamps on the sides and the S11-EN clamps in the central areas. The distance between the anchoring points of the module will depend on the size of the module. Consult the technical data sheet of the module to be installed.

Pressures compatible with watertight profiles:



S10.7-EN

S11-EN