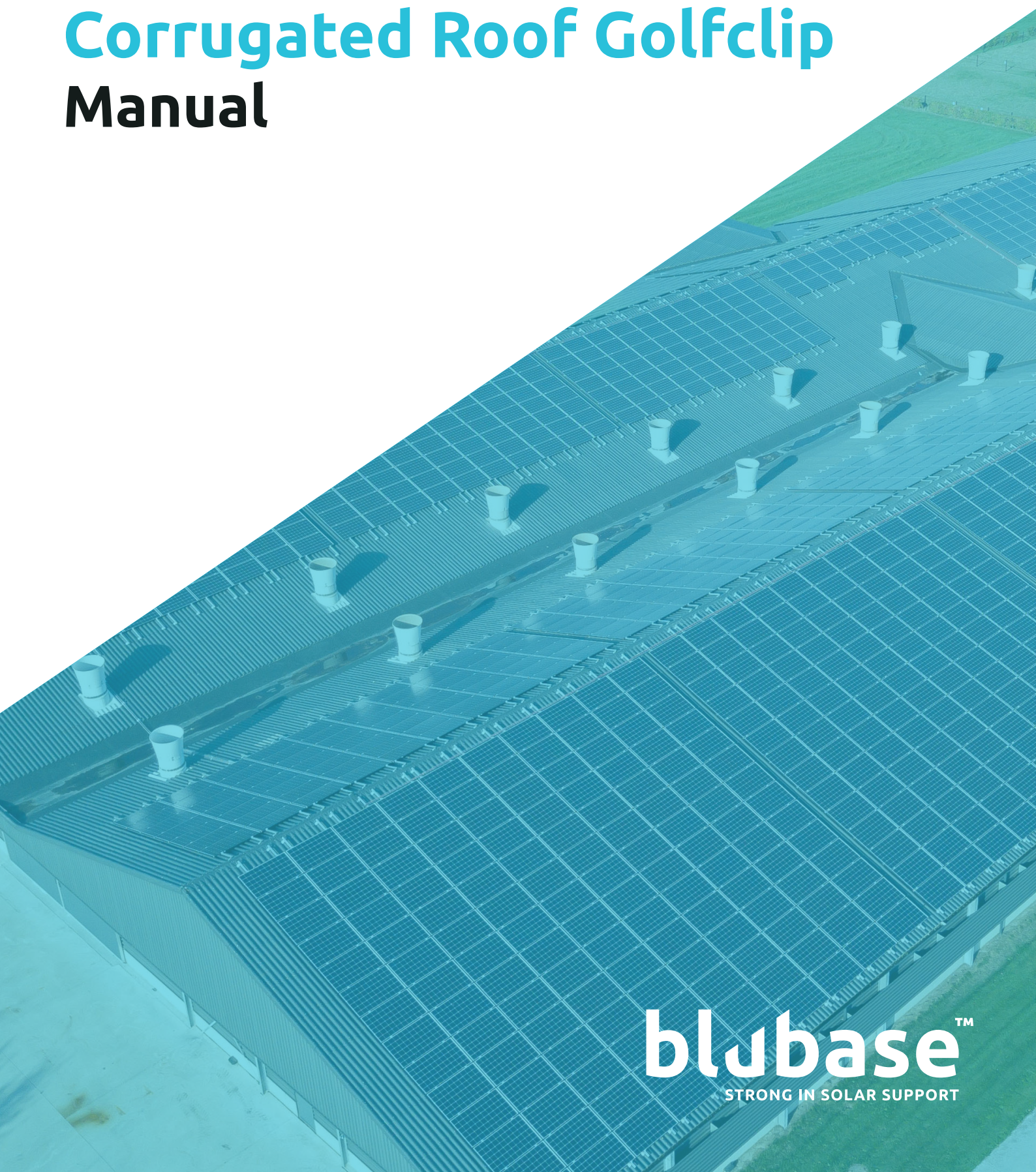


**connect**

®

# Corrugated Roof Golfclip Manual



**blubase**<sup>TM</sup>  
STRONG IN SOLAR SUPPORT

**! OBSERVE THE APPLICABLE OCCUPATIONAL HEALTH AND SAFETY REGULATIONS AT ALL TIMES**

## PREPARATION

Required tools:

- Measuring tape
- Cordless drill
- Hexagon socket 8mm
- Hexagon bit 8mm

1. Check that the roof subsurface is sufficiently strong (replace if necessary).
2. Observe the NEN standards at all times.
3. Before installing, clean the roof thoroughly and measure any obstacles or barriers before you start mounting.

## BEFORE YOU GET STARTED

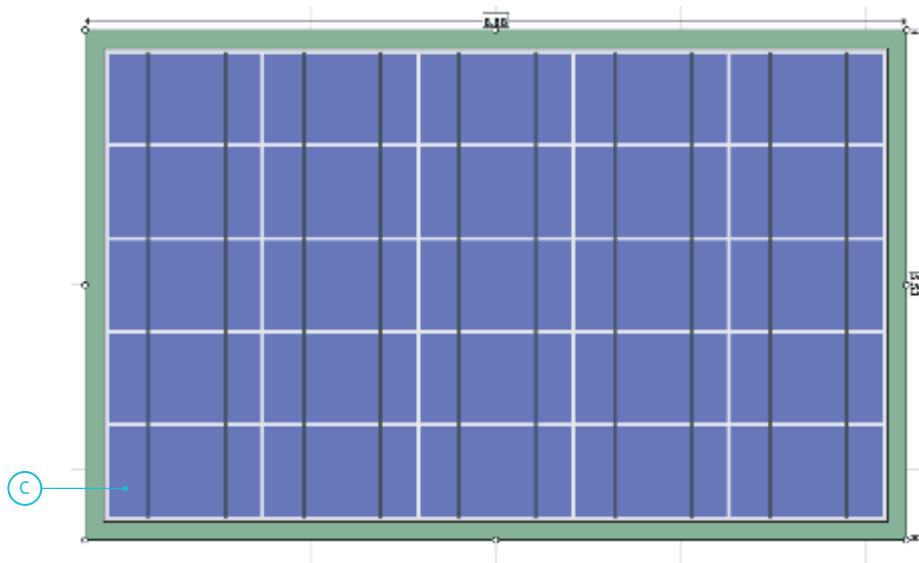
Mounting a PV system changes the building load, which may affect the load-bearing structure. You should therefore have a qualified technician recalculate this load. In doing so, take account of the latest regulations, especially NEN 6702, NEN 7250, NEN 1991-1-4 A1 + C2/NB and NEN 1991-1-3.

Also ask the insurer and the designer to approve:

- the loads on the building due to the additional weight of the PV system;
- the loads on the building due to the changed geometry of the roof plan;
- the loads on the building due to the dynamic wind pressure and precipitation;
- the loads on the building, the roofing and the insulation during mounting;
- the load of the contact points on the compatibility of the insulation and roofing;
- the compatibility of the roofing with the load-bearing structure at the contact points;
- the mutual effects from the thermal activity of the building and the PV system;
- the effects from possible movements in the roof and the PV system.

While care has been taken when producing the calculations and dimensions in the Blubase calculation tool, no rights can be derived from them. The prices are indicative and may vary; for example, due to rising prices of raw materials. You can find the general terms of delivery on **blubase.com**.





## FREE EDGE REGION

NEN 1991-1-4 stipulates that solar panels should not be installed to the very edge of the roof so as to avoid turbulent wind flows. It is important to keep a strip of the roof clear. This is the clearance area (c).

The clearance area must be at least 30 cm. This includes the distance between the solar panels and the ridge and the distance between the solar panels and the side of the roof. No solar panels should be installed in this area.

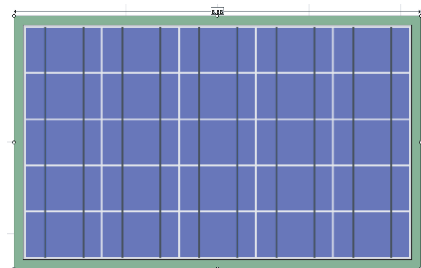
## LEVELLING

Levelling in the black panels is provided by linking the aluminium rails. This prevents the build-up of tension in the material and prevents inverter or micro-inverter malfunction (NEN 1010: 2015).

## MOUNTING PLAN

### STEP 1

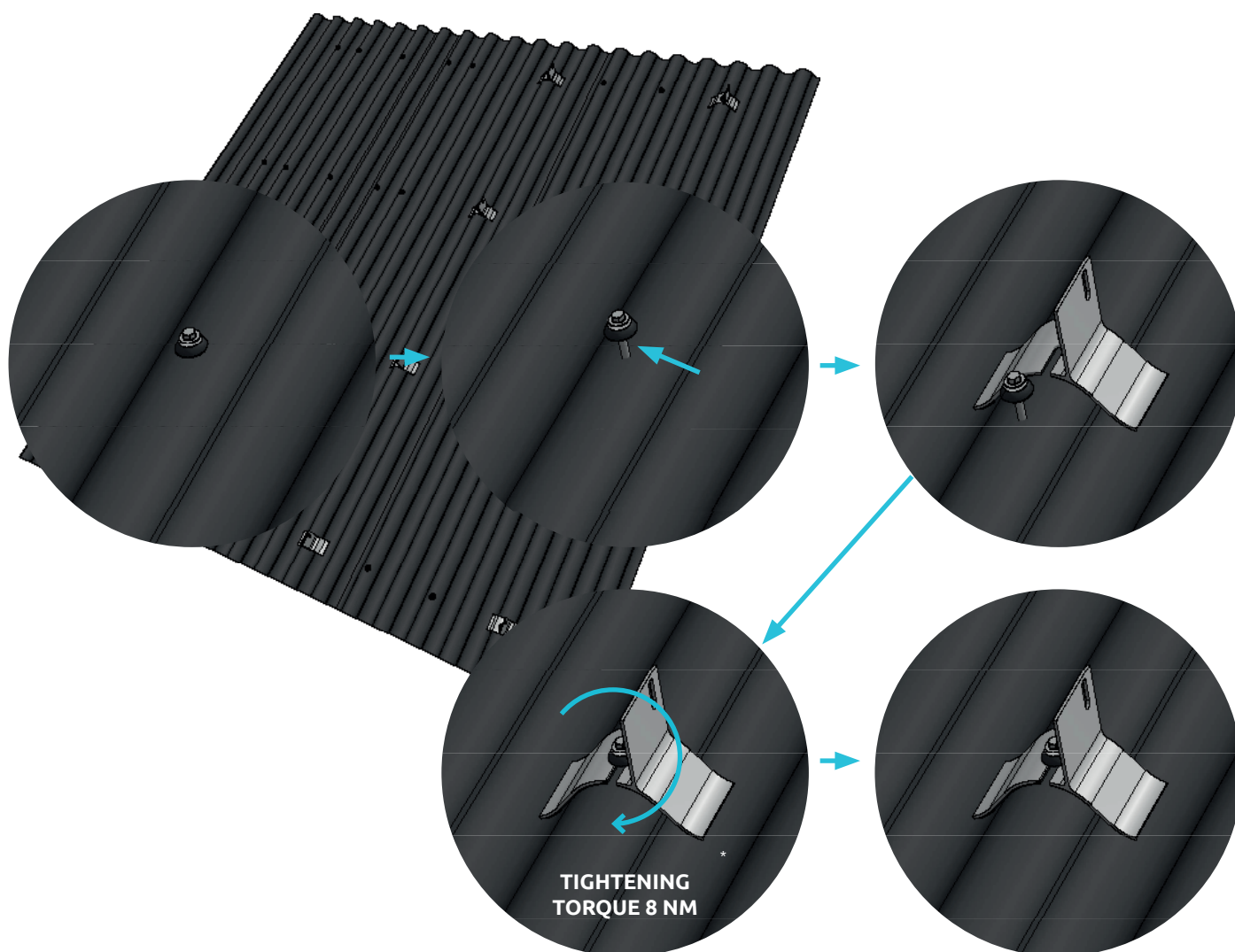
You should work to the installation plan created with the Blubase calculation tool. Determine the first installation point within the clearance area (turn to page 5) and work outwards from there.



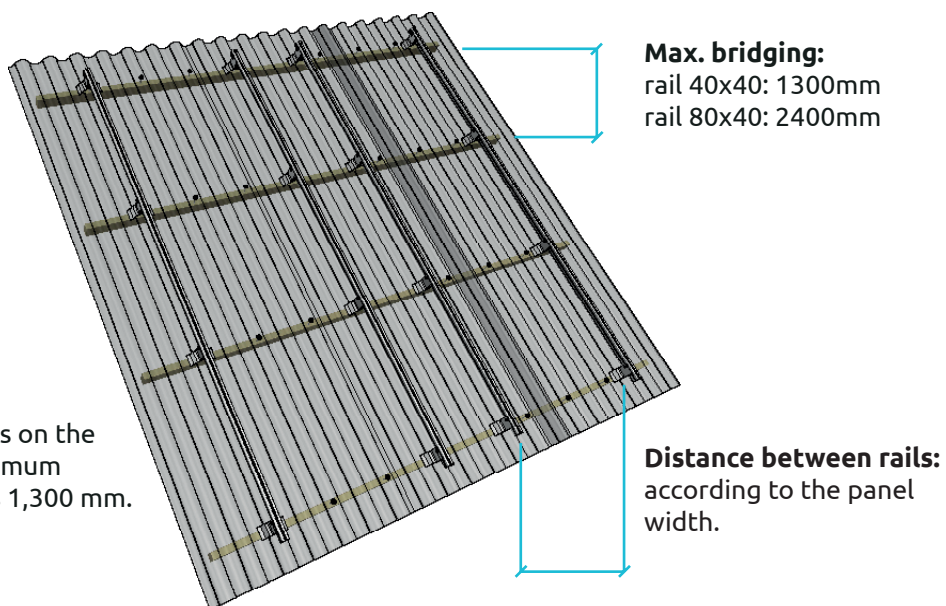
## FIRST INSTALLATION POINT

### STEP 2

Unscrew the first existing roof sheet screw and slide the Golfclip under the screw from top to bottom. Tighten the screw again.



\* According to the instructions of the corrugated roof supplier.

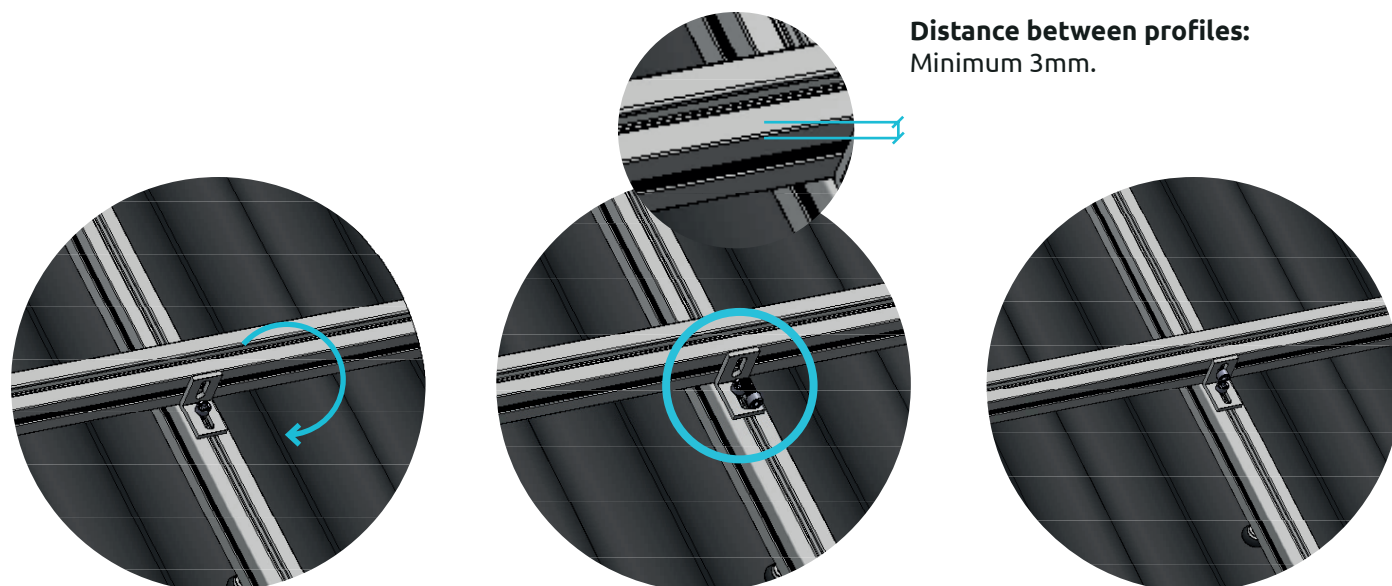


Repeat step 2 for all connection points on the roof. Note: take into account the maximum bridging of the mounting rail, which is 1,300 mm.

## EXTENDING THE RAILS

### STEP 3

You can extend the rails with a connecting strip. Mount the strip to a rail with two M8 x 20 bolts, then secure the next rail with two bolts. There should be gap of 3 mm in between.

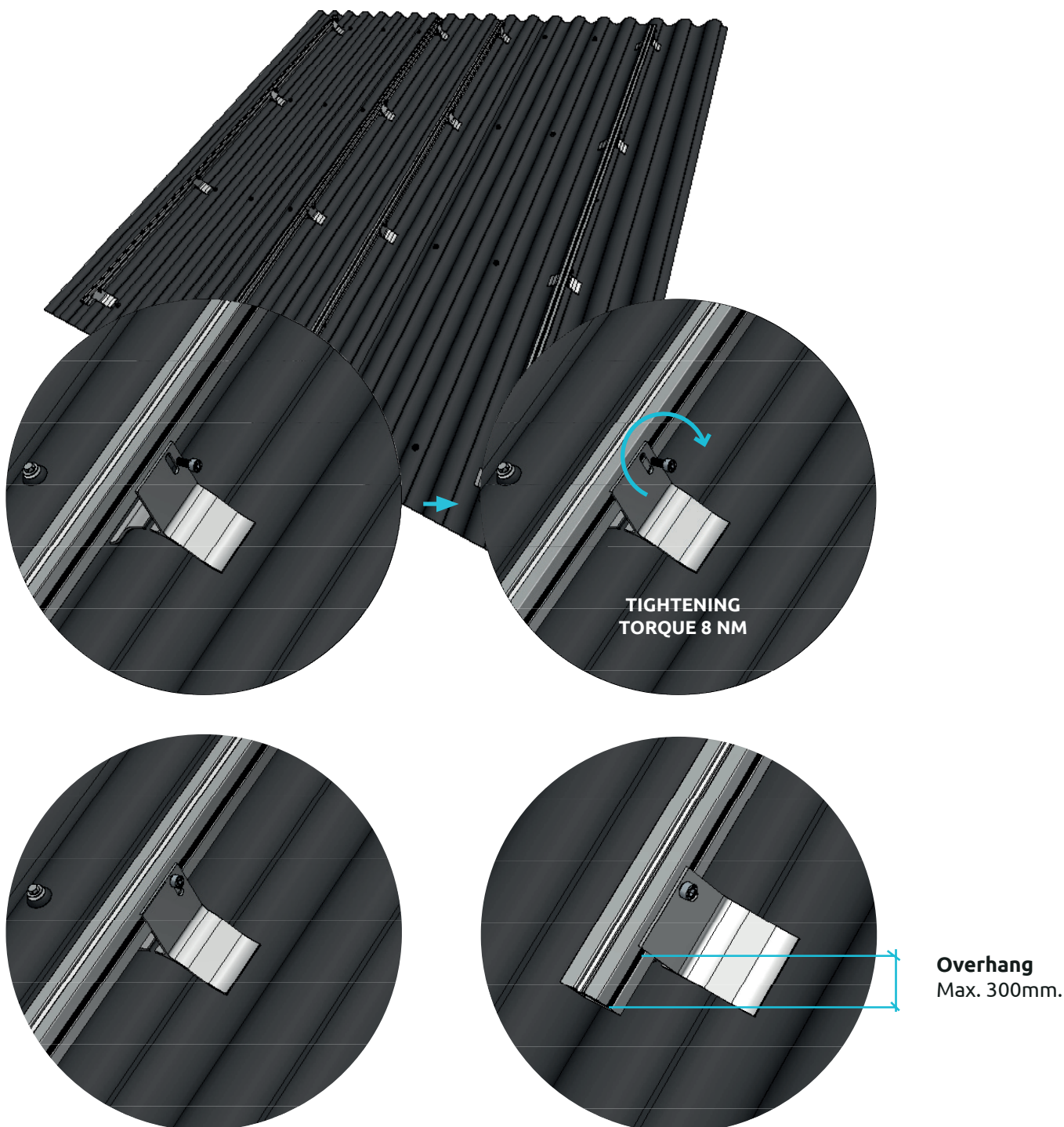


**TIGHTENING TORQUE 8 NM**

## SECURE THE RAIL

### STEP 4

Now secure the rails to the Golfclips with the M8 x 20 bolts. The tightening torque is 8 Nm. Continue in this way, following your installation plan. If the solar panels need to be installed in portrait rather than landscape orientation, turn to page 8.



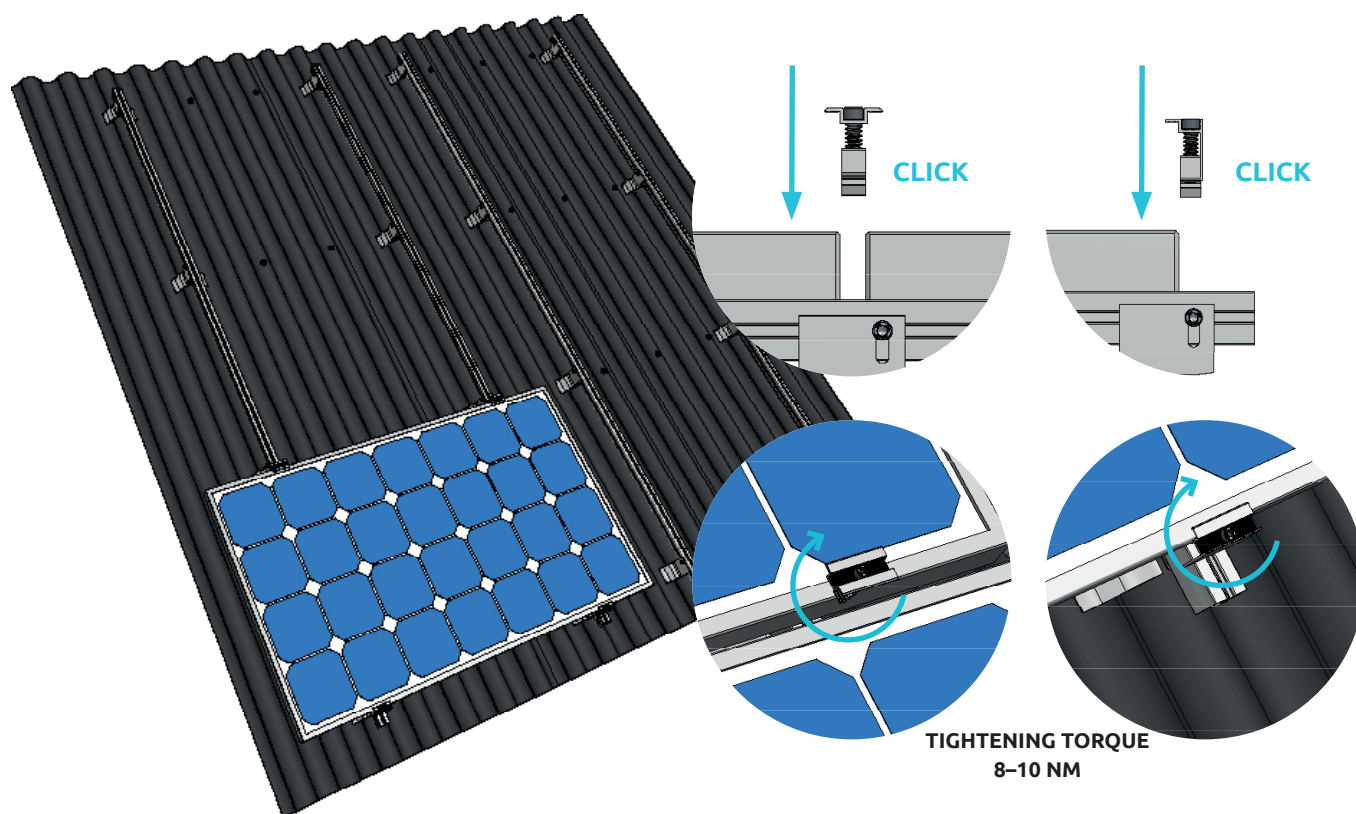
If you're working with a cross rail system with double rail beams, or with an optimiser, turn to page 11 for installation instructions.



## SOLAR PANELS

### STEP 5

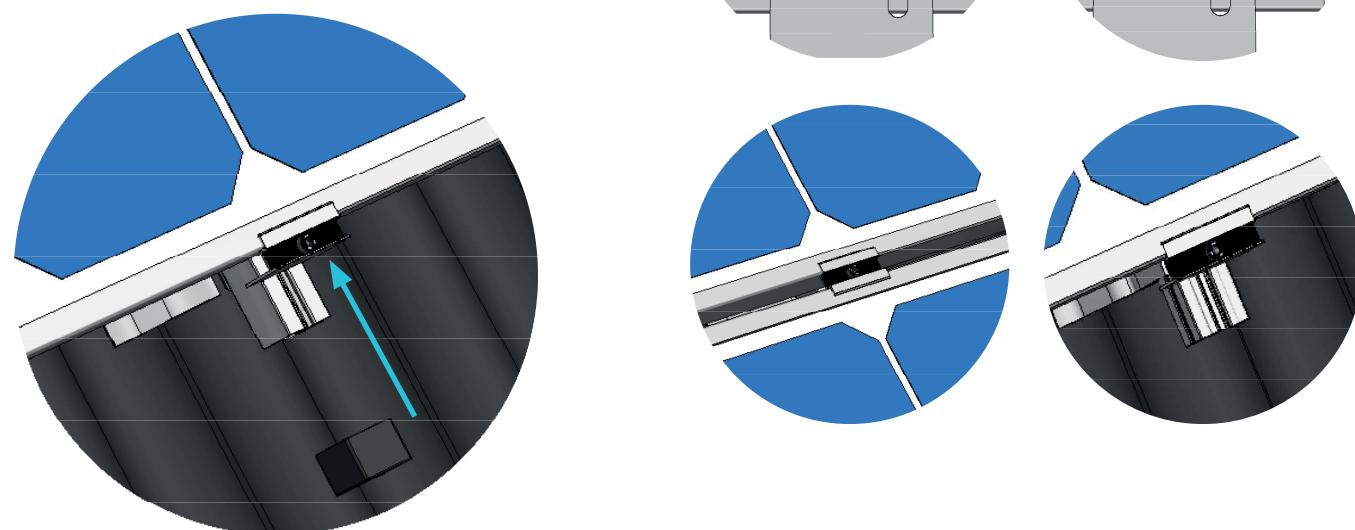
Use the easy clamps to install the solar panels. Use the centre clamp between the panels and the end clamp at the ends.



## END CAPS

### STEP 6

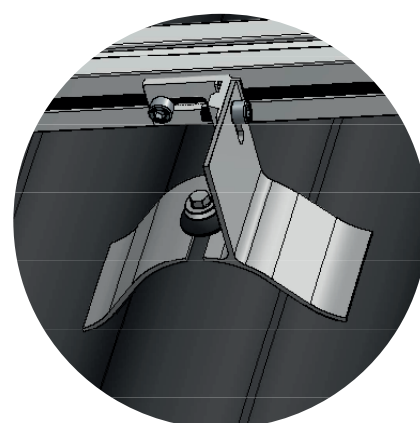
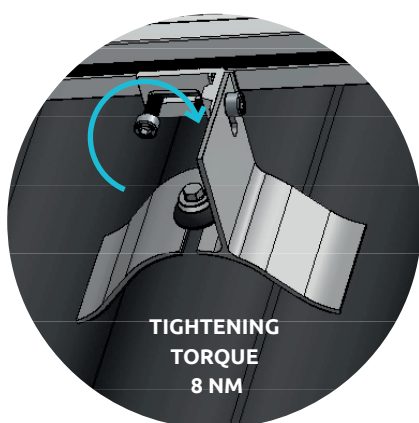
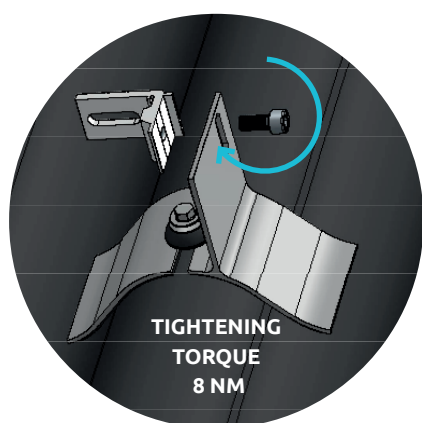
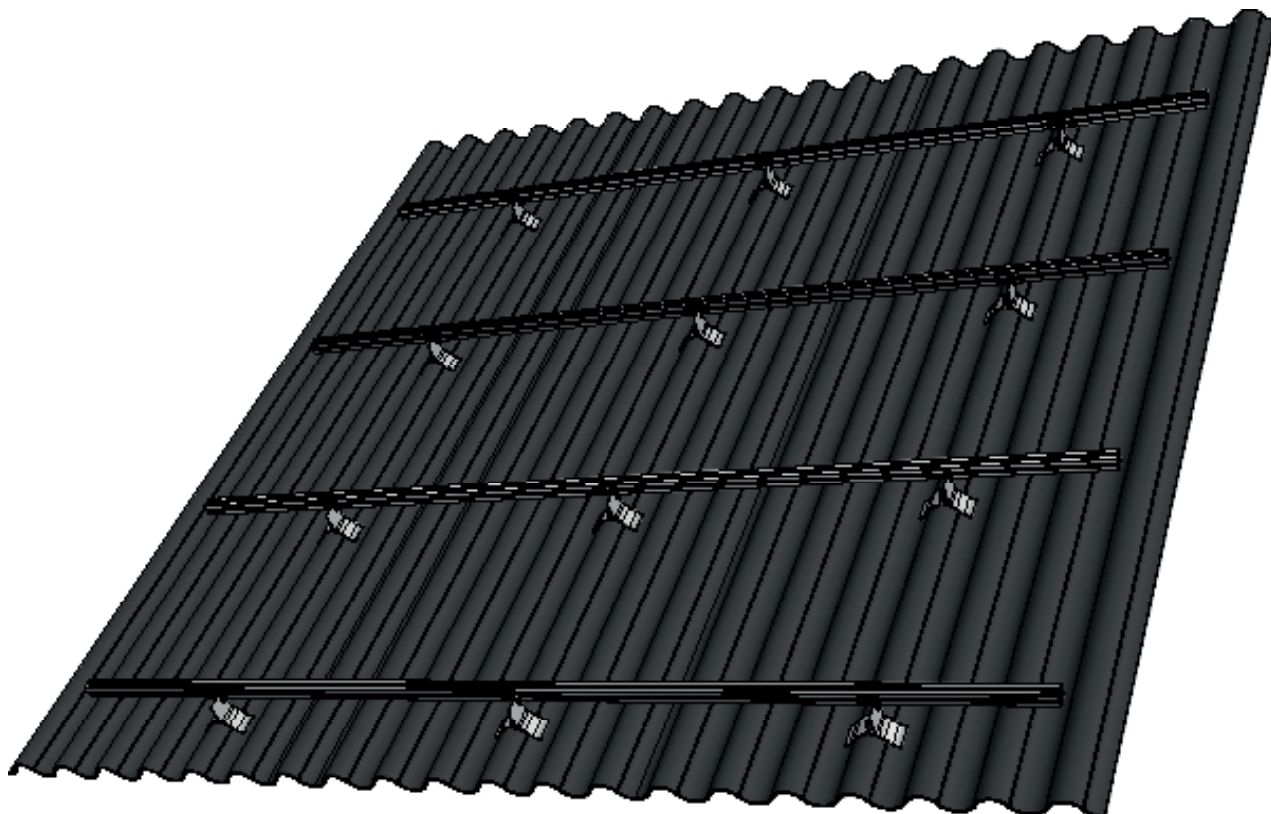
If you're using end caps on the system, secure them at the end of the rails.



## SOLAR PANELS IN PORTRAIT ORIENTATION

### STEP 7

With portrait orientation, the rails are positioned horizontally on the roof. Secure the angle connectors to the Golfclip with M8 x 20 bolts and screw the mounting rail to it with M8 x 20 bolts. Once done, proceed to step 5 on page 9.

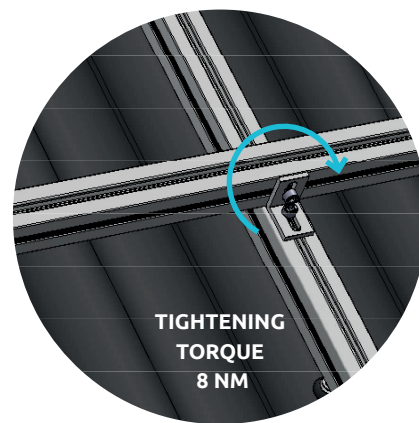
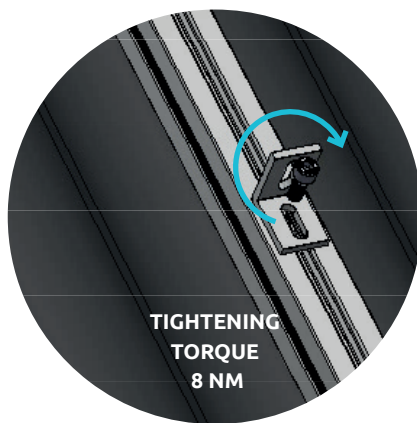
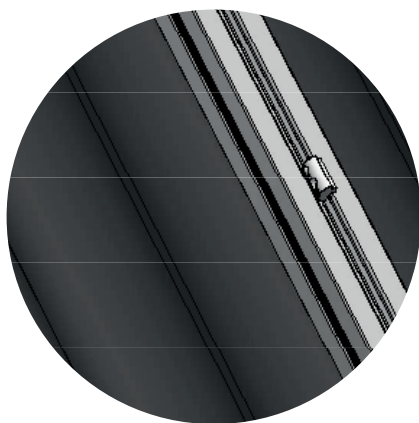




## CROSS RAIL SYSTEM

### STEP 8

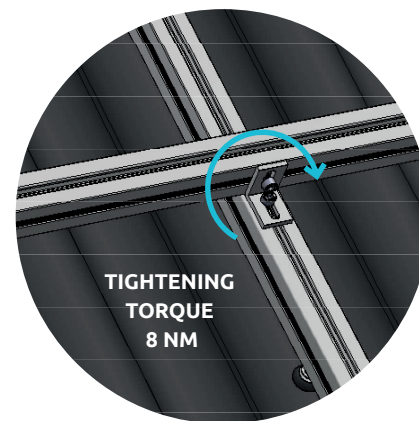
With a cross rail system, you should start installation in the same way as for landscape installation. After installing the vertical rails to the golf clips, secure the angle connectors to the vertical rails, then secure the horizontal rails to the angle connectors.



## OPTIMISER OR MICRO-INVERTER

### STEP 9

Click the optimiser clamp into the rail, then slide the installation point of the optimiser or micro-inverter into the bolt and tighten it.



## BLACK VERSION

The rails and easy clamps are also available in black.



### EASY CLAMP, CENTRE, BLACK

Item no.	Range
872630	26 - 30 mm
873134	31 - 34 mm
873540	35 - 40 mm
874145	41 - 45 mm
874650	46 - 50 mm

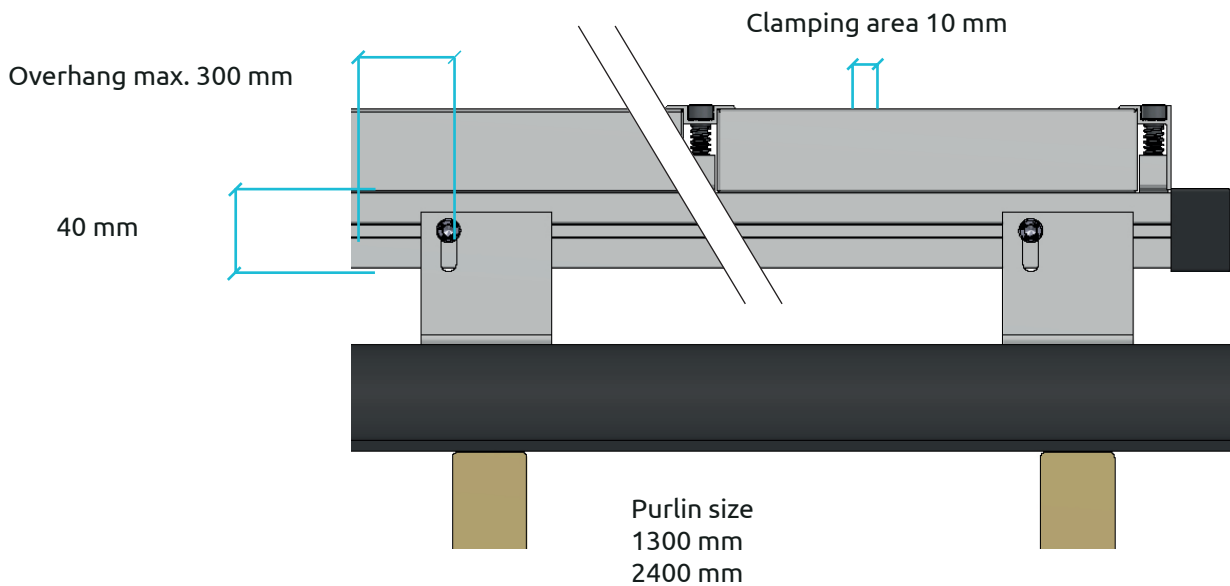
### EASY CLAMP, END, BLACK

Item no.	Clamp height
860132	32 mm
860135	35 mm
860140	40 mm
860145	45 mm
860150	50 mm

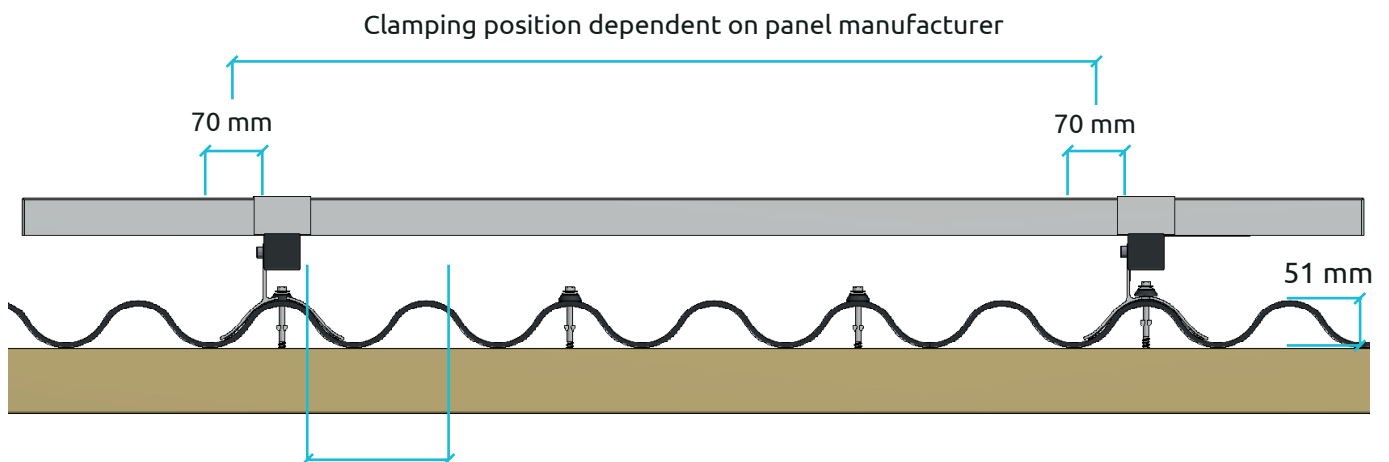
### MOUNTING RAIL, BLACK

Item no.	Length
236270	6270 mm

## FRONT VIEW



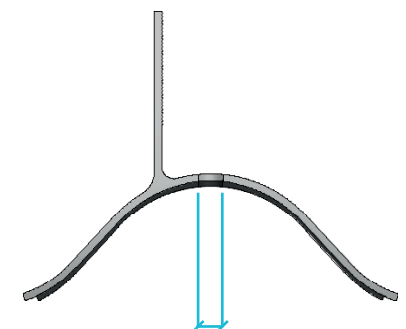
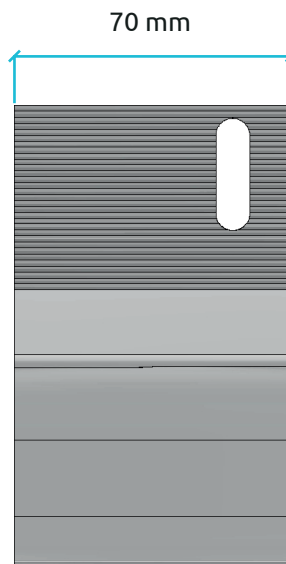
## SIDE VIEW



## AVAILABLE LENGTHS 40 X 40 MM MOUNTING RAIL

Item no. 221240	1240 mm
Item no. 222400	2400 mm
Item no. 223550	3550 mm
Item no. 224710	4710 mm
Item no. 225860	5860 mm
Item no. 226500	6500 mm
Item no. 236500	6500 mm (black)
Item no. 226188*	6100 mm

\* For 40 x 80 mm mounting rail only





## DISCLAIMER

### BLUBASE

- This manual is a general guide (and is therefore not specific to one project) for the straightforward and efficient installation of solar panels using the Blubase mounting system. No rights may be derived from this manual.
- For the installation of the Blubase mounting system the buildings should have a height of max. 12 metres. If the building is taller, please contact Blubase in advance for a project-specific, customised solution.

### IMPORTANT

- Installing solar panels on an existing building will change its structural load and/or construction. We therefore recommend that the structural calculations for an existing building are updated by a specialist, taking into account the solar panels to be placed and current regulations such as NEN6702, NEN7250, NEN1991-1-4+A1+C2:2011/NB:2011 and NPR 6708:2013 in particular for wind, snow and water loads.
- The building insurer must be contacted in advance.
- The following building-related elements should be checked and approved in view of the existing structural arrangements:
  - The additional weight load of the entire PV system that will be installed
  - Geometry change of the roof surface
  - Wind pressure, snow load and water load, with simulation of accumulations
  - The loads for the structure, roof coverings and insulation during the installation
  - The suitability of the roof covering and insulation (point pressure) at the contact points between the mounting system and the existing construction
  - The consequences of the thermal interaction between the building and the PV system
  - The consequences of any vibrations of the building and/or PV system