

**roboost**

®

# Roof Tile Screw Anchor Manual

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

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

## PREPARATION

Required tools:

- Tape measure
- Angle grinder
- Hex key 5mm
- Open-end wrench 13mm

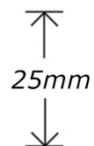
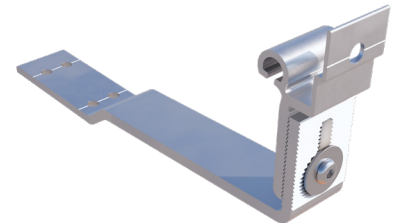
1. Check that the roof subsurface is sufficiently strong (replace if necessary).
2. Observe the NEN standards at all times.

## SCREW ANCHOR

### STEP 1

Install the screw anchors by spacing them according to the results of the Blubase calculation tool.

Take into account that the mounting profile should not extend more than 200mm beyond the outermost screw anchor and that the distance between the solar panels and the roof edge should be 500mm at all times.



### STEP 2

Ensure that a fixing bar to which the screw anchor can be affixed is installed behind the roof tiles. This spruce wood bar must have a minimum thickness of 25mm and a width of 80mm.



### CAUTION!

When using a screw anchor, the solar panels can be placed only in portrait layout. The original crew anchors must be used for landscape layout.

We advise the use of an angle grinder to create space for the screw anchor hook in the underlying roof tile. This ensures that the roof tiles still fit neatly together.



### STEP 3

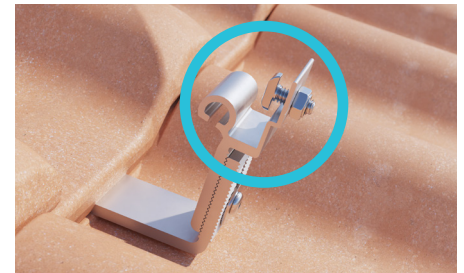
The screw anchor can be mounted after installing a fixing bar. Use four screws to secure the screw anchor to the fixing bar. Then replace the top roof tile in its original position.



## MOUNTING PROFILE

### STEP 4

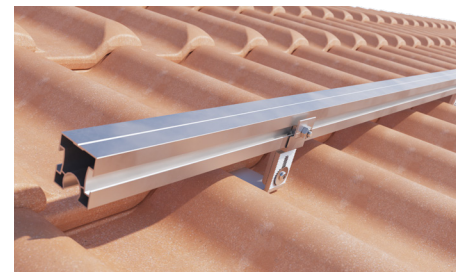
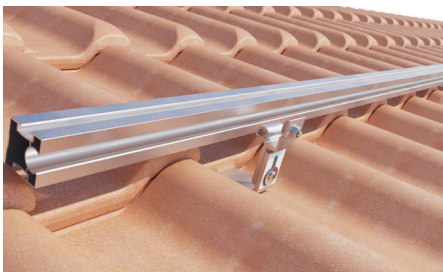
Insert a hammer-head screw with lock nut into the **outermost** screw anchors.



### STEP 5

Place the mounting profile against the screw anchors and rotate the mounting profile around the rotation element of the screw anchors. Ensure that the profiles left and right are aligned.

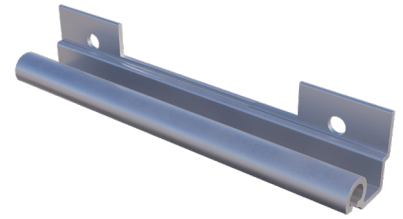
The hammer-head screw is now engaged in the mounting profile. Tighten the lock nut into the **outermost** screw anchors on the hammer-head screw so that the profile can no longer rotate or slip free from the screw anchor.



## PROFILE COUPLING

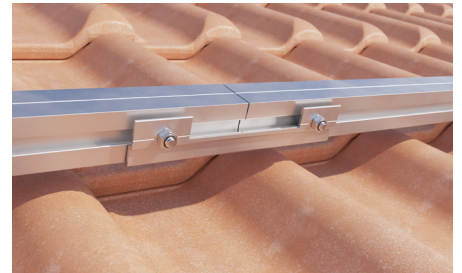
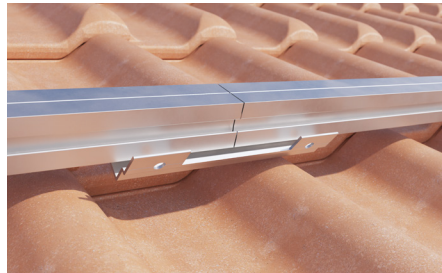
### STEP 6

If necessary, fit a profile coupling to connect two mounting profiles. Rotate the profile coupling into the mounting profiles.



### STEP 7

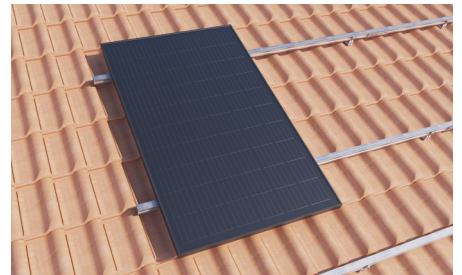
Install the profile coupling using two hammer-head screws and lock nuts. Two hammer-head screws per profile coupling are sufficient. Tighten the lock nuts to prevent the profile from rotating or slipping free.



## SOLAR PANELS

### STEP 8

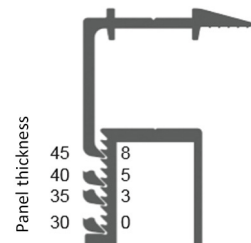
Place the first panel onto the mounting profiles.



### STEP 9

Attach an end clamp to the ends.

**Caution!** The tightening torque of the screw connection is 9 Nm.



#### STEP 9.1

Hook in the universal clamp behind the lip on top of the hammer-head chamber (see illustration).

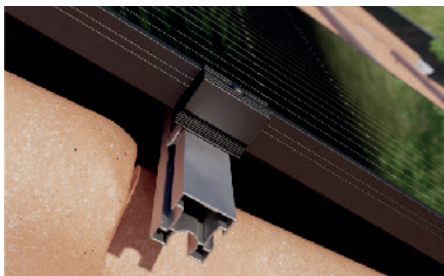
#### STEP 9.2

Twist the clamp smoothly over the rail until it clicks into place on the other side of the hammer-head chamber.



#### STEP 9.3

Check that the clamp is securely in place, as illustrated.

**STEP 9.4**

Slide the clamp towards the panel.

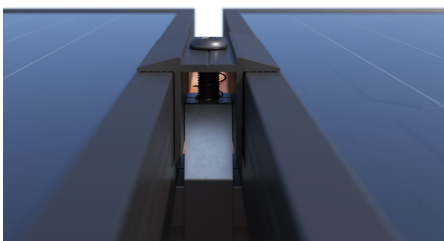
**STEP 9.5**

Press the end clamp tightly against the panel.

The end clamp is positioned correctly if it rests against both the panel and the mounting profile.

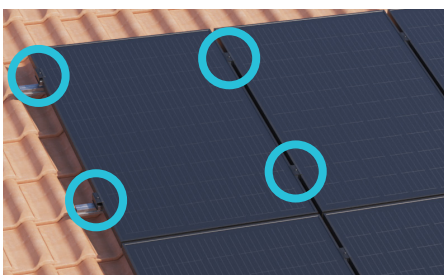
**STEP 10**

Place the second panel on top of the mounting profiles.

**STEP 11**

Install an intermediate clamp in between the panels. Press the panels tightly against the intermediate clamp.

**Caution!** The tightening torque of the screw connection is 9 Nm.



All panels are clamped at four points.

## 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 roboost 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