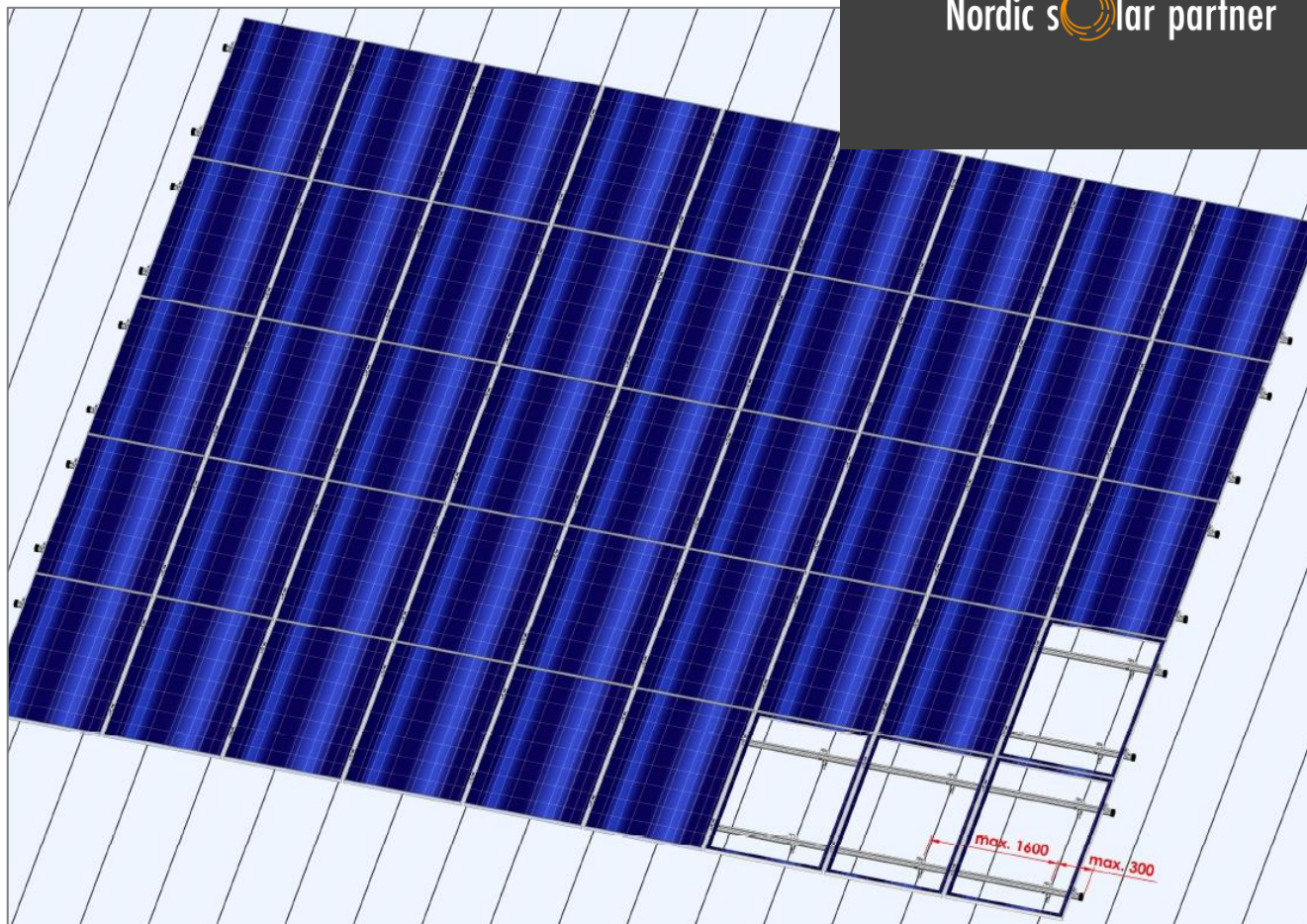


DELTA FOR PITCHED ROOFS INSTALLATION



ORIMA®

Nordic solar partner



DIMENSIONS:



Solar panels are not intended to act as snow barriers and they are always recommended to be installed as close as possible to the roof ridge. It's recommended to install the snow guards above the panels to prevent the snow retention against the panels if the distance between the uppermost panel row and the roof ridge is more than one meter. Exceptionally large snow loads (exceeding the basic snow load of roofs, etc.) can lead to damage to roof structures, roof safety products or solar panels. Monitoring the snow load and, if necessary, removing the snow is the responsibility of the property owner. The regional situation of the snow load to be monitored from the Ministry of Environment's announcements or websites.

When choosing the place to install the panels, notice the greater wind load near the roof edges. It's recommended to install the panels as center as possible the roof. Panel size may vary. Both horizontal and vertical installation is possible.

The maximum distance between the roof fasteners is 1600 mm.

The Easy Rail system is tested against the basic snow loads. We recommend to reduce the spacing of the roof fasteners from 1600 mm on areas with very heavy snow loads.

TOOLS:



- screwdriver
- hex key 6 mm
- socket wrenches
10 and 13 mm
- torque wrench

EASY RAIL

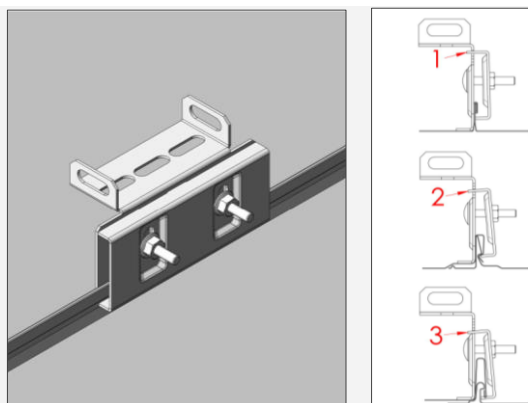
ROOF FASTENERS INSTALLATION



SEAM METAL ROOF (standing seam, lock seam)

Easy Rail Seam Roof Fastener Set 38400 includes roof fastener 38000 and Easy Rail rail bolt and nut.

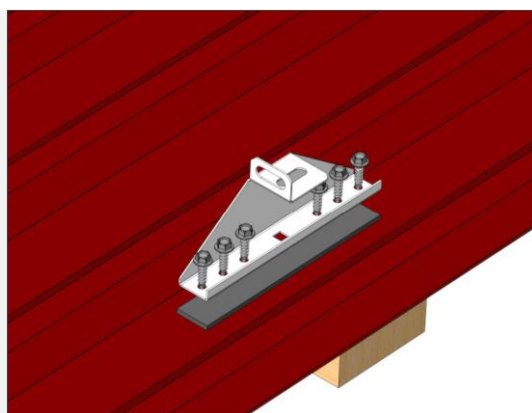
Choose the height of the counter-iron according to the roofing material; 1. traditional seam roof, 2. lock seam roof, 3. lock seam roof. Symmetrical bracket — turn the traditional seam roof according to your handiness. Tighten the bolts of the fastener until the apparent elastic limit, i.e. until the sides of the fastener have come closer to each other but have not become dented or twisted.



PROFILE SHEET ROOFS

Easy Rail Bitumen/Profile Sheet Roof Fastener set 38420 includes roof fastener 38020, 6 x HVAC screw 7x30 mm 17771, sealing strip 17160 and Easy Rail rail bolt and nut.

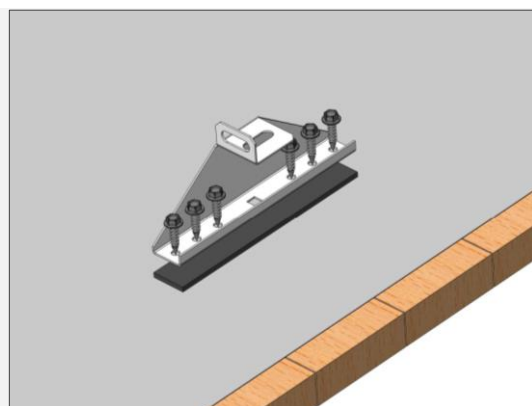
With a thin or low profile sheet, it is primarily recommended to install it on the bottom of the pattern. The aim is to place the fastener at the joist so that the loads are transmitted to the load-bearing structures of the roof. When simply attaching the sheet to the sheet, the sheet's fastening and load-carrying capacity must be ensured. When tightening the HVAC screws, make sure not to overtorque the screws.



BITUMEN ROOFS

Easy Rail Bitumen/Profile Sheet Roof Fastener Set 38420 including roof fastener 38020, 6 x HVAC screw 7x30 mm 17771, sealing strip 17160 and Easy Rail rail bolt and nut.

Can be attached to plywood, OSB board or planking. Check the condition of the roof deck boarding before installation.

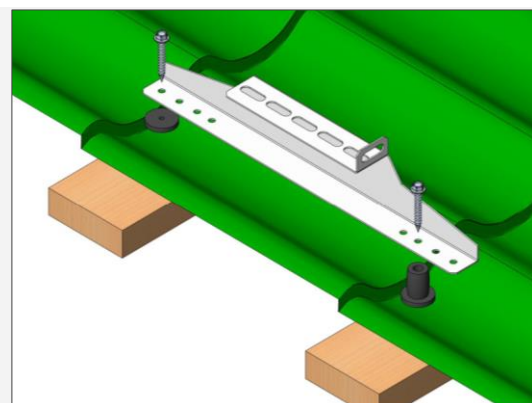


TILE PATTERNED SHEET METAL ROOF

Easy Rail Tile Sheet Roof Fastener Set 38410 including roof fastener 38010, 2 x HVAC screw 7x50 mm 17271, 2 x sealing plug 17100, spacer sleeve 17118 and Easy Rail rail bolt and nut.

300-400 mm for rod separation. The condition of the battens must be verified.

Can also be used on straight profiled roofs. In this case, screw attachment to the studs at the bottom of the pattern without an intermediate sleeve.



EASY RAIL

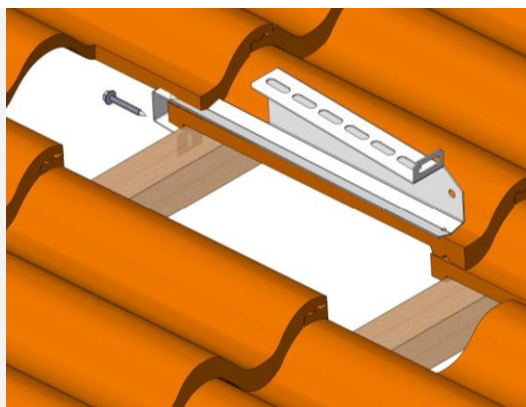
ROOF FASTENERS INSTALLATION



TILE ROOF (WAVY BRICK)

Easy Rail Tile Roof Fastener Set 38430 including roof fastener 38030, HVAC screw 7x50 mm 17271 and Easy Rail rail bolt and nut.

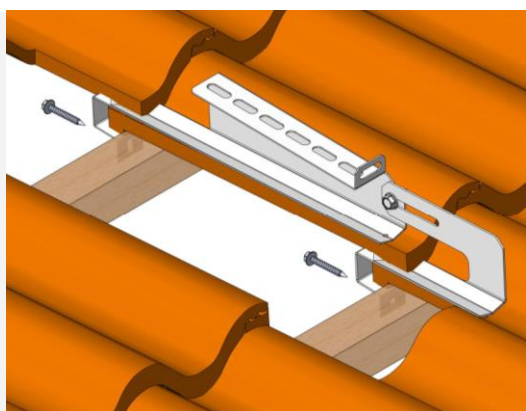
Fastening to a 50x50 square. Some tile types may require notching of the upper tile to provide proper fitting.



TILE ROOF (WAVY BRICK)

Easy Rail Tile Roof Front Fastener set 38360 including front fastener 36250, HVAC screw 7x50 mm 17271, flange screw M8x20 17285 and flange nut M8 17201.

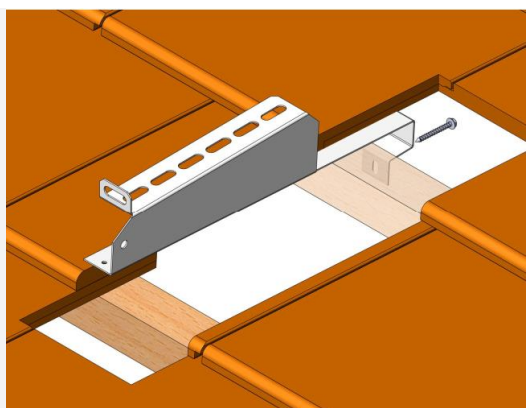
The usage of the front fastener is recommended on windy terrains e.g. at seaside or high buildings. The front fasteners are primarily installed on the edges of the roof.



TILE ROOFS (STRAIGHT BRICK)

Easy Rail Tile Roof Fastener Set 38840 including roof fastener 38470, HVAC screw 7x50 mm 17271 and Easy Rail rail bolt and nut.

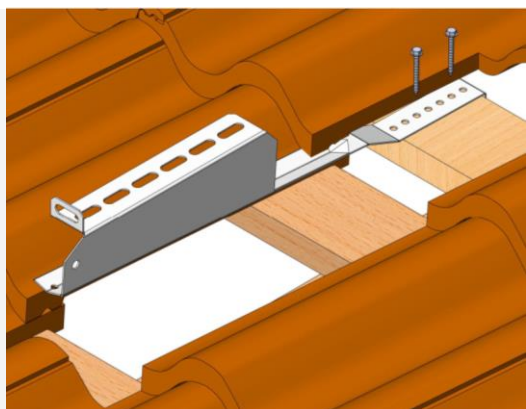
Fastening to a 50x50 square. Some tile types may require notching of the upper tile to provide proper fitting.



TILE ROOF (AUXILIARY PRODUCT, WAVY BRICK)

Easy Rail Tile Roof Fastener Set 38850 including roof fastener 38710, 2 x HVAC screw 7x50 mm 17271 and Easy Rail rail bolt and nut.

Screw attachment to the accessory. As an auxiliary product, the same timber can be used as brick waste. Ensure the fit by applying for a place for the auxiliary product. If necessary, notch the lower part of the brick that comes on top at the bracket.



EASY RAIL

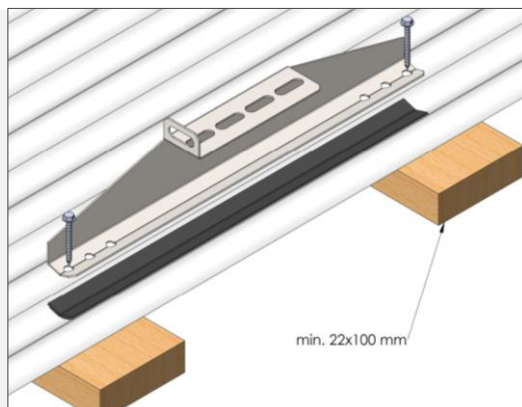
ROOF FASTENERS INSTALLATION



CORRUGATED ROOFS

Easy Rail Corrugated Roof Fastener Set 38440 including roof fastener 36680, 2 x HVAC screw 7x50 mm 17271, sealing tape 17160 and Easy Rail rail bolt and nut.

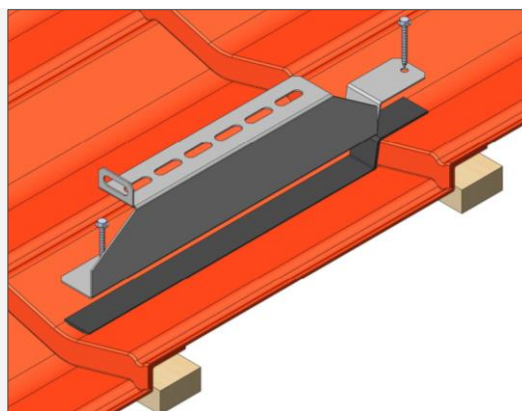
Screw attachment to the rods at the bottom of the pattern. Check the condition of the rods before installation. For rod dividers 300-400 mm.



DECRA STONE STEEL ROOF

Easy Rail Roofing Fastener Set 38600 including roofing fastener 38610, 2 x HVAC screw 7x50 mm 17271, sealing strip 17160 and Easy Rail rail bolt and nut.

Screw fastening to the reeds through the sheet. Check the condition of the rods before installation.



ROOF IMPERMEABLE FASTENER FOR BITUMEN CERAMIC ROADS

Attaching the Easy Rail rails to the UP plate:

Easy Rail rail Fastener Set for UP plate 38230

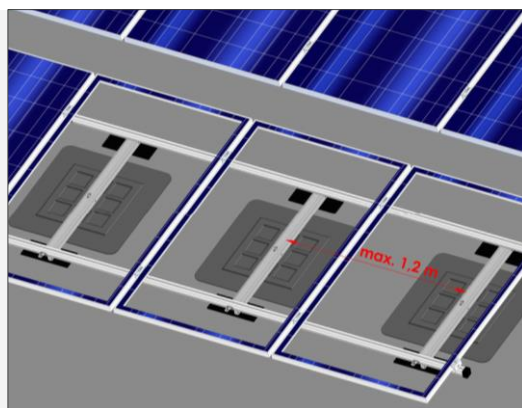
(distance of fasteners max 1.2 m)

Solar UP mounting plate 36300

Solar UP SBS Mat 36390

UP fastening set 36310

See the UP board's installation instructions for more detailed installation: Orima Solar UP — Universal Platform

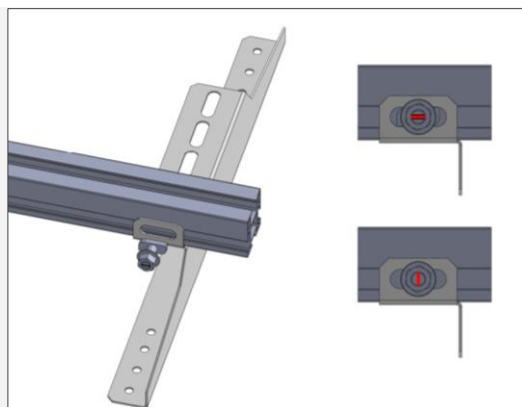


EASY RAIL MOUNTING PROFILE

Easy Rail rail screw 36900 100 pcs

Easy Rail flange nut 36910 100 pcs

Place the Easy Rail profile on the Kant in the fastener. Thread the rail screw from the fastener's oval hole into the rail groove. Thread the rail screw from the fastener's oval hole into the rail groove. Turn the rail screw clockwise so that the tab on the end of the screw is approximately in a vertical position. Tighten the flange nut. Alternatively, the Easy Rail profile can be attached from the bottom through the oval holes on the upper surface of the fastener.



EASY RAIL

INSTALLATION OF PANELS

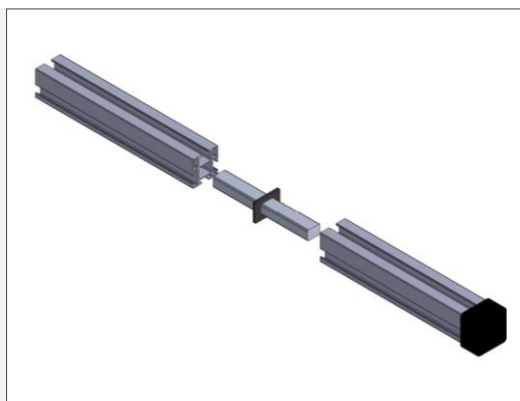


EASY RAIL MOUNTING PROFILE 3,55 m 38890

Profile diameter 40x40 mm. Each mounting profile must be fastened with at least two roof fasteners. Notice the thermal expansion: the recommended maximum length of the one profile line is 15 meters.

Rail support spacing on pitched roofs max 1600 mm (densified in areas with heavy snow and/or with large panels). Rail overhang from the lateral fasteners max 300 mm.

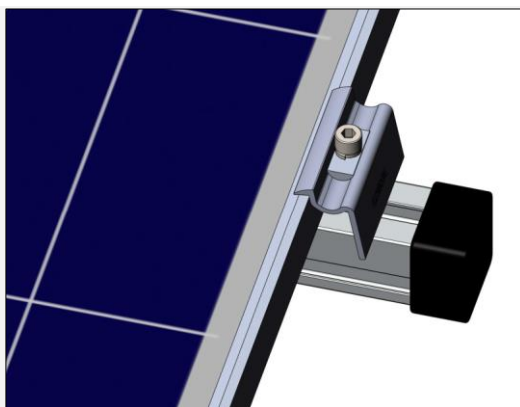
Easy Rail Profile Extension Set 36490 incl. extension piece and rubber
Easy Rail Profile End Cap Set 36590 completes the appearance of the ends



UNIVERSAL EASY RAIL CLAMP SET 30-40 mm 8 pcs 38810 UNIVERSAL EASY RAIL CLAMP SET 30-40 mm black 8 pcs 3881033

Press the panel fastener onto the rail ("click"). * Press the upper part of the fastener against the upper surface of the panel frame and tighten the hexagon screw to 15 Nm. Key spacing 6 mm. Prevent the top of the fastener from rotating when tightening. The upper part of the fastener tilts according to the thickness of the panel.

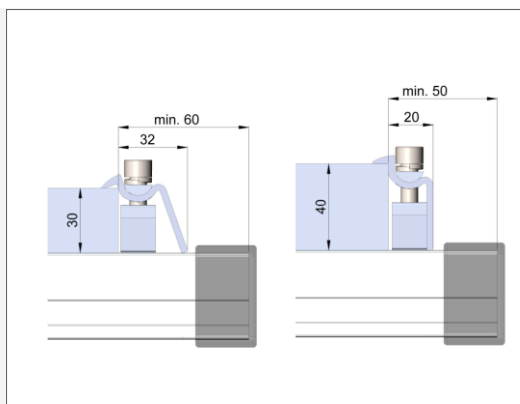
**Installation of the fastener can be made easier by bringing the fastener into place at an angle and turning the nail into the groove.*



DIMENSIONING OF THE MAIN FASTENER

The upper part of the fastener tilts according to the thickness of the panel.

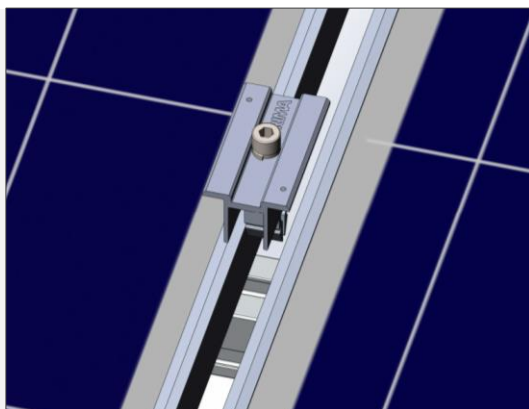
Note the space required by the protective plug, min. ~25mm.



UNIVERSAL EASY RAIL MIDDLE CLAMP SET 30-40 mm 10 pcs 38820 UNIVERSAL EASY RAIL MIDDLE CLAMP SET 30-40 mm black 10 pcs 3882033

Press the panel fastener onto the rail ("click"). * Push the panels against the sides of the fastener. Tighten the hexagon screw to 15 Nm. Key spacing 6 mm. Installation interval of the panels (fastener width) 20 mm. The grounding pins guarantee the continuity of the grounding.

**Installation of the bracket can be made easier by bringing the bracket into place at an angle and turning the nail into the groove.*



EASY RAIL

INSTALLATION OF PANELS

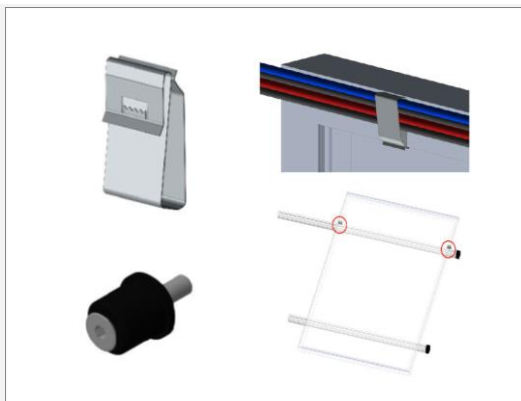


CABLE HOLDER 50 pcs. 36550

Installed in the aluminum frame of the panel, maximum 4 cables.

POSITIONING PIN 40 pcs. 36470

Makes the fastening of the panels easier, especially on steep and slippery roofs. Fasten the pins to the panel frames on the rear side. Lift the panel onto the pins on the profile rail.



NOTES:



