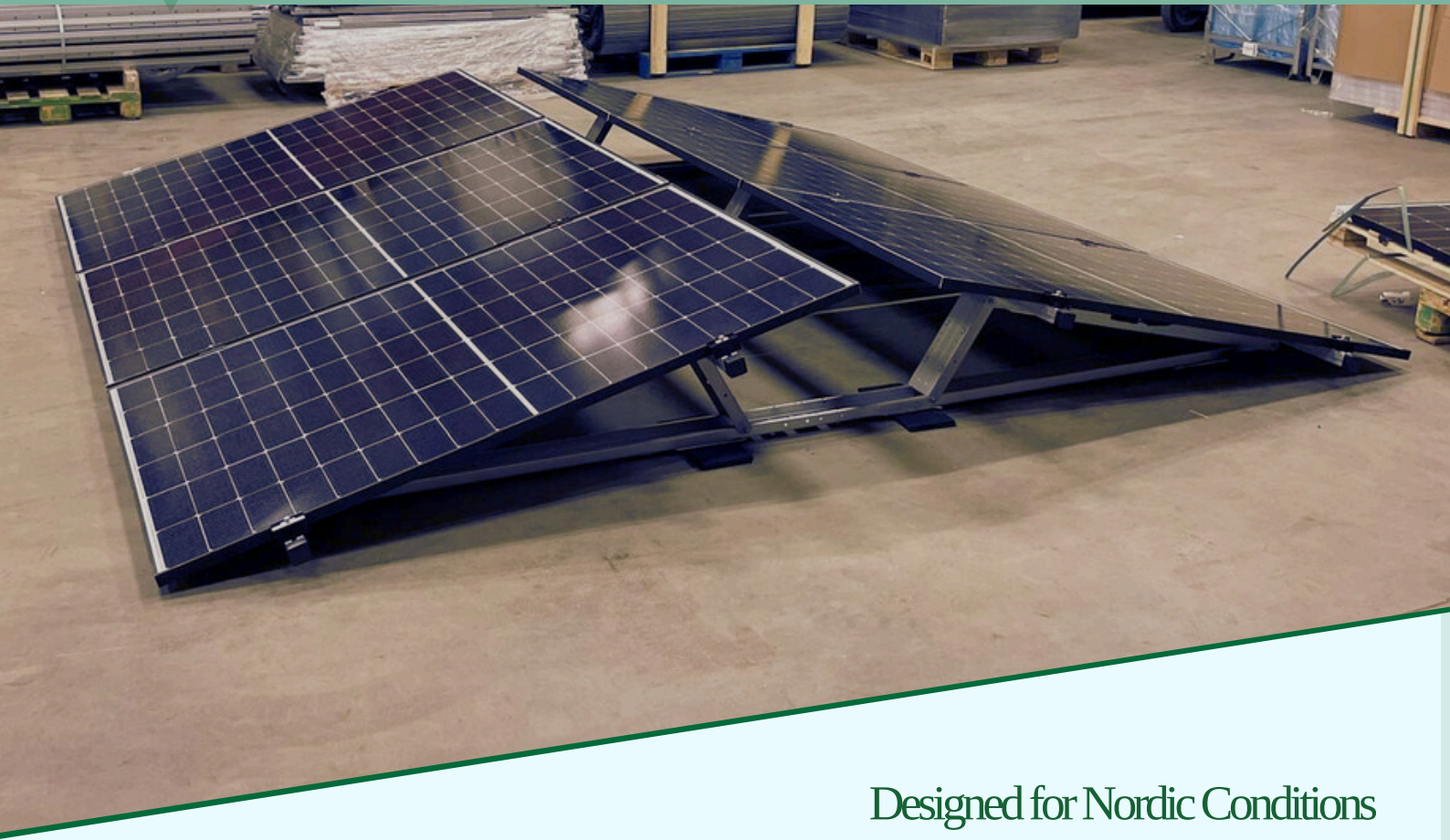


# Moisolar



Designed for Nordic Conditions

## **NORDIC FLAT**

### **EAST-WEST Portrait 15**

Mounting System for Flat Roofs

**Quick & Easy to Install | 35 Years of Material Warranty | Durable**



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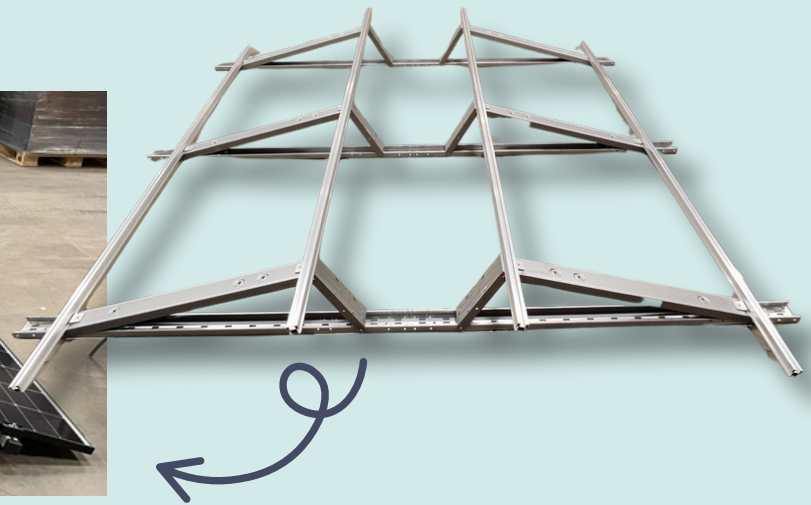
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## Durable and Reliable Solar Panel Mounting System for Flat Roofs

Moisolar Nordic Flat EAST-WEST Portrait 15 is a high-quality and durable solar panel mounting system designed for flat roofs. Engineered to ensure long-lasting performance, safety, and easy installation, it provides a secure foundation for solar panels while protecting the roof structure.

Optimized aerodynamics reduce wind loads, and site-specific calculations guarantee the best possible solution for all roof types.



### EXCEPTIONAL DURABILITY & LONGEVITY

In the East West Portrait mount, the rail lines run through the long side of the panels, achieving maximum snow load resistance.



### LOWER WEIGHTS

In favorable locations, weight reductions of up to 90% compared to south-facing mounts.



### SITE-SPECIFIC ENGINEERING

Each system is tailored to meet local building regulations and environmental conditions.



### FAST & EFFICIENT INSTALLATION

Installation on the aluminum profile is quick. Safe wiring is easy to install on the upper rail line.



### MORE POWER

Up to 50% more solar panels can be installed on the same surface area.



### OPTIMIZED WATER DRAINAGE

Smartly designed components ensure unobstructed water flow, balanced roof pressure, and sufficient panel support.



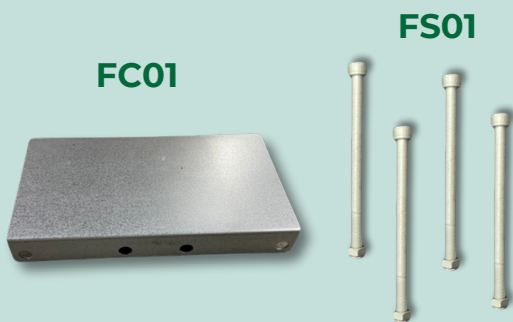


## Pre-Assembled for Quick Installation

Our mounting frames are delivered pre-assembled in the south-facing configuration. To switch to an East-West orientation, simply disassemble the frame by removing the bolts, reposition the triangle shoulders to the designated East-West slots, and reattach the bolts to the predefined mounting points.

Each frame is designed with a fixed 15° tilt angle and includes standard mounting positions for solar panel brackets, ensuring quick and secure installation.

Nordic FLAT EWP15 mounting frames come either with 8 mm butyl or 15 mm rubber mat under their base. This protects the roof surface and supports efficient water drainage.

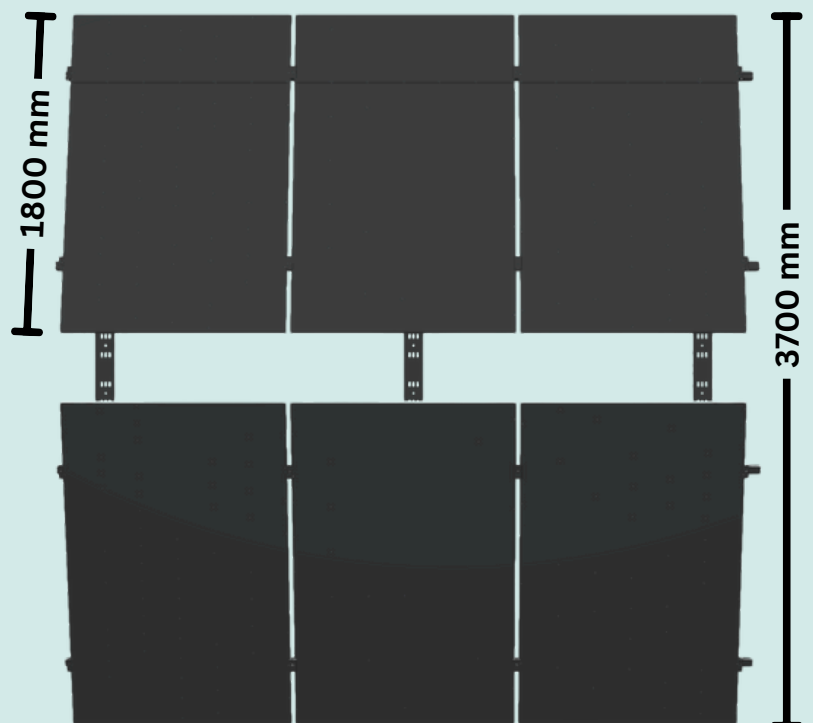


## Scalable & Secure Connections

Mounting frames can be linked together using the FC01 extension connector and secured with 4 bolt-nut sets (FS01) for a stable and reliable installation.

## Panel Size Compatibility

The system supports solar panels up to 1800 mm in length. Panels longer than 1800 mm require a custom-designed solution.





Nordic Flat EAST-WEST Portrait 15 can be mounted on flat roofs using different methods, chosen based on site-specific requirements. Wind and weight calculations, along with the characteristics of the roofing material, determine the optimal solution. Often, the most reliable and long-lasting option is a combination of bitumen welding and ballast weights, ensuring both durability and safety.

## Method 1 - Bitumen Welding for Flat Roofs

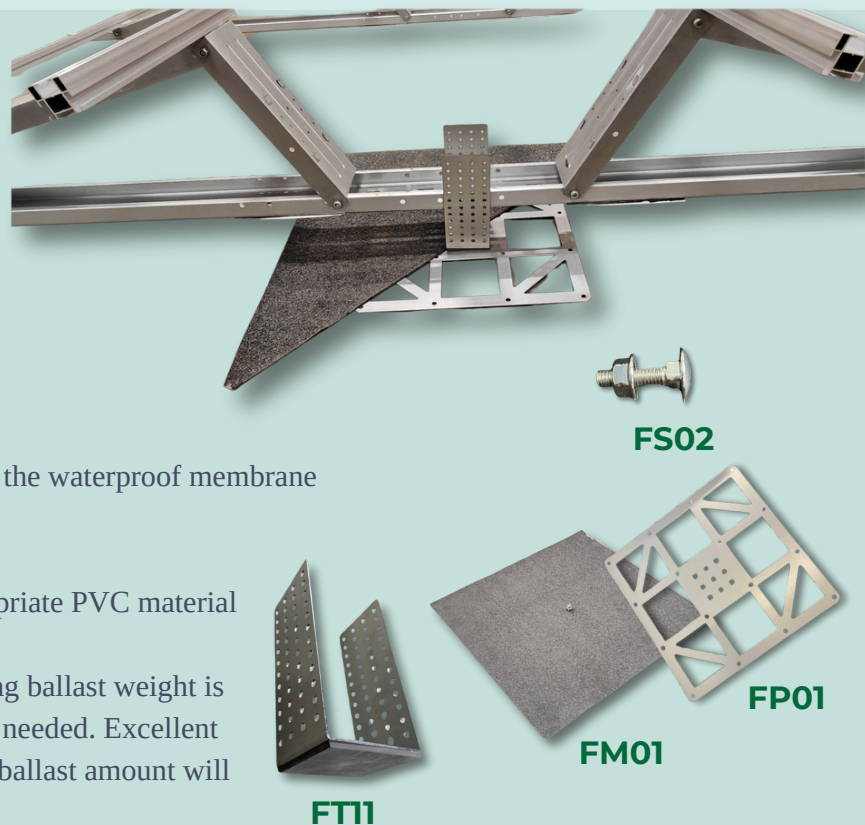
### Materials:

- **FP01** – Base plate steel
- **FS02** – Bolt-nut set
- **FM01** – 700 × 700 mm felt mat

### Key Features:

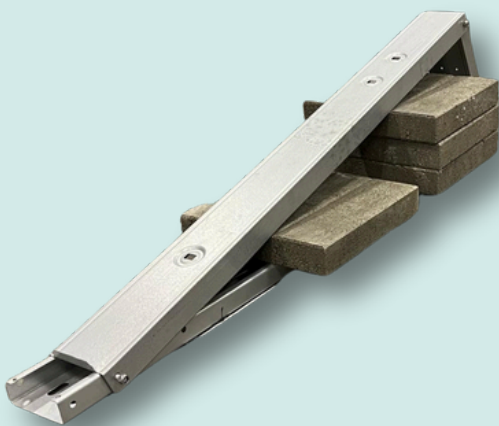
- Secure roof attachment without compromising the waterproof membrane
- Strong and leak-proof connection
- Large contact area for even load distribution
- Compatible with PVC roofs when using appropriate PVC material

This method is ideal for installations where reducing ballast weight is necessary or more load sharing area against roof is needed. Excellent solution for locations with high wind loads, where ballast amount will increase too much.



## Method 2 - Ballast Weights

- The windshield tray accommodates ballast plates up to 50 mm thick, with a recommended side length of 200 mm (max 300 mm).
- Bitumen welding and ballast weights can also be used together for enhanced stability.
- The ratio and amount of ballast and bitumen welding are determined case-by-case based on project requirements.
- The triangular frame can hold 4 pieces of 300 × 300 × 50 mm ballast weights for additional support.





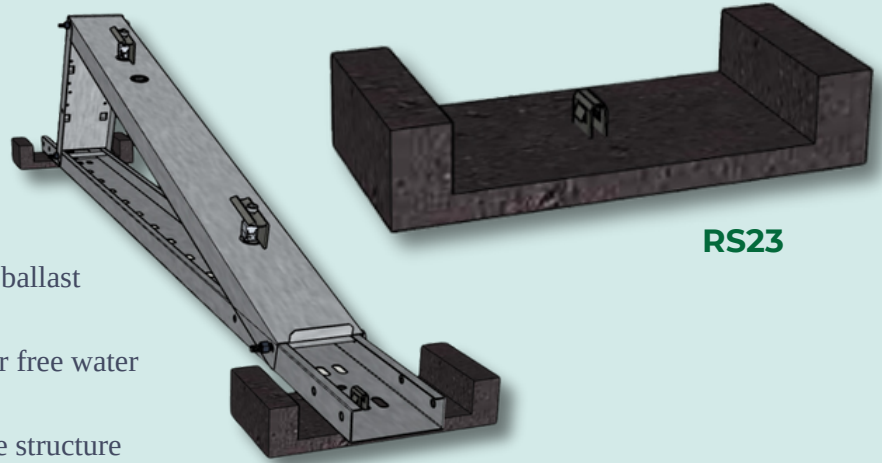
## Method 3 – Cold Adhesion with Rubber Feet

### Materials:

- RS23 – Rubber feet
- Special adhesive

### Key Features:

- Roof-friendly solution when used with ballast weights
- Provides 15mm gap under the frame for free water drainage
- Reduces slippage risk while the flexible structure absorbs forces from wind and thermal expansion
- Special adhesive available for PVC roofs
- Can also be used without adhesive as a weight holder to increase support surface area on the roof

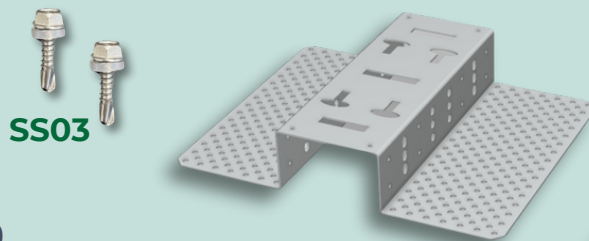


RS23

## Method 4 – Cold Adhesion with Adhesive Steel Plate

### Materials:

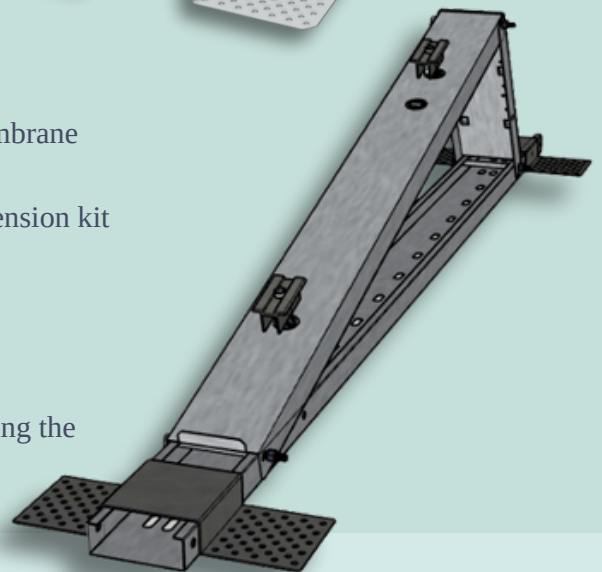
- Adhesive steel plate (72023)
- Special adhesive will be recommended by Moisolar based on the roof material and other specifications
- Bolt (BN01) or self-drilling RST screw (SS03)



SS03

### Key Features:

- Strong roof attachment without damaging the waterproof membrane
- Quick and easy installation
  - Adhesion applied after installation, can be used as an extension kit replacement or inside the triangular frame
  - No pre-measuring required for installation
  - No hot work permits needed
- Can be used together with ballast weights for added stability
- Allows system elevation up to 65 mm from the roof, positioning the panel's lower edge 105 mm above the roof surface





## Tilting part - Solution for Uneven Roof Surfaces

Flat roofs often have slopes, drains, edge areas, or other local height variations that can pose significant challenges for system installation.

The tilting part ensures that the base rail is properly supported in areas where it would otherwise be suspended, reducing the risk of structural strain on the mounting system and preventing potential damage to the roof.

- ✓ Stabilizes uneven areas where the base rail lacks direct support
- ✓ Compatible with the universal wedge piece for precise vertical alignment in complex locations
- ✓ Can be used selectively to level and elevate the system as needed

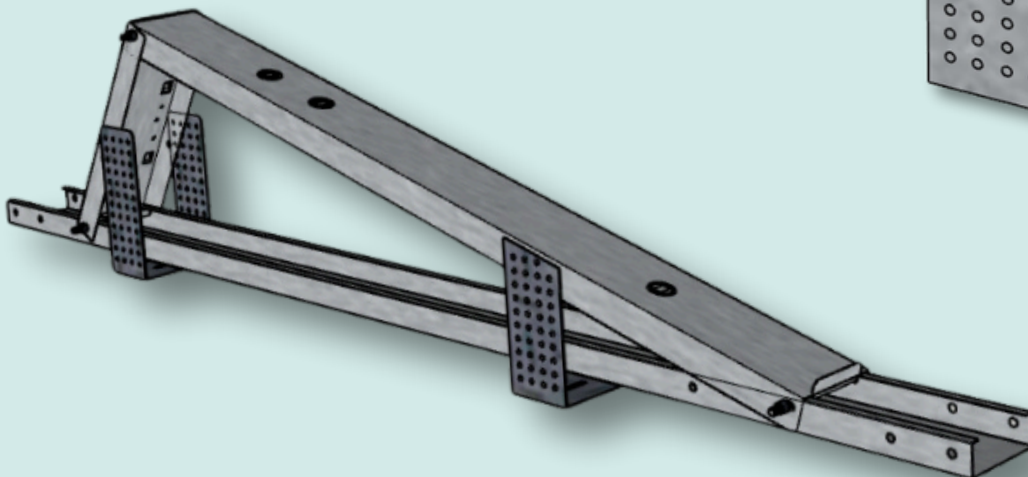
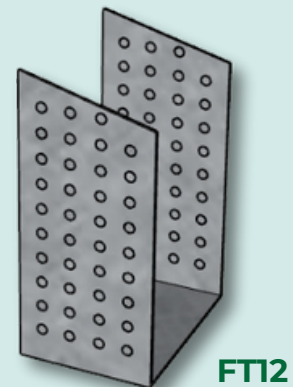
### Materials:

- **FT11** and/or **FT12** – Tilting part
- **SS03/SS04**: 4–8 self-drilling screws
- Compatible with adhesive steel plate SP01 and bitumen welding plates base plate FP01



### Key Features:

- Fully adjustable to accommodate varying roof heights
- Highly durable and stable for long-term support
- Compensates for roof slopes, ensuring a level and secure installation
- Patent pending solution for tilt adjustment





- **FS01** – Bolt and Nut Set



- **SS03** – Self-Drilling Screw



- **SS04** - High-density thread screw



- **CC01** – Cable Holder with Panel Mounting, Reinforced Frame



- **CC02** – Cable Tie with Panel Mounting, Adjustable Orientation



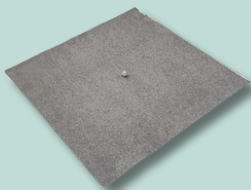
- **PV01** – PV Cable Set
  - 3×6 mm<sup>2</sup> cables in UV protected flexible Ø25 mm tube
  - 100 m reel for efficient installation
  - Other customized PV cable-set solutions available upon request



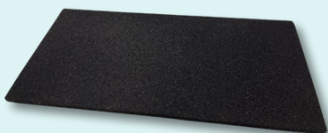
- **CL02** – End Clamp for Solar Panel



- **CL11** – Middle clamp with grounding pins



- **FM01** – Felt Mat 700×700 mm



- **BM01** – Protective Mat 140×300 mm, thickness 8 mm

