

Duraklick

A brand of SOLTOP Energie GmbH



Mounting system South SR 10° / 20°

Assembly instruction



approved by
German Institute
for Building
Technologies

Welcome!

We are delighted that you have chosen the Duraklick-ECO mounting system. This guide explains the professional installation of the mounting system. If you have questions or suggestions, we will be happy to hear from you.

Your team
SOLTOP

The PV mounting system SR consists of the following components:



Module end clamp



Module center clamp



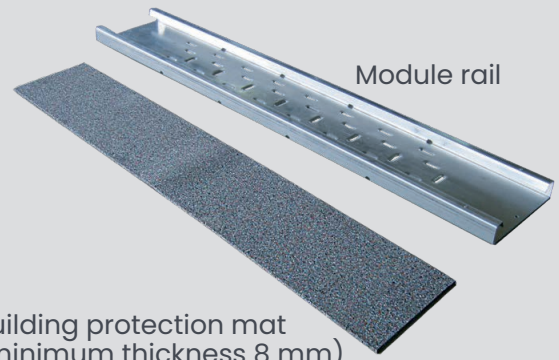
Wind plate



Bottom module support

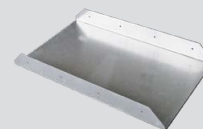


Top module support



Module rail

Building protection mat
(minimum thickness 8 mm)



Connectors for
floor rails



Self-tapping screws



Spoiler
right & left

Direction determination

Directional information always refers to the view of the module field from the front:



Left

Right

For assembly you need:

- ▶ Cordless screwdriver
- ▶ Allen key 6 mm for the middle and end clamps
- ▶ 8 mm socket attachment for the self-tapping screws
- ▶ Measuring tape and tape measure
- ▶ Plastic hammer
- ▶ Gloves

Compliance with regulatory and safety standards

During installation of the assembly system, it is necessary to ensure compliance with safety regulations and precautions applicable in the respective country. In Germany these are:

Electrical installation::

- ▶ DIN VDE 0100-712 (IEC 60364-7-712) Low-voltage installations – Part 7-712: Requirements for premises, rooms and special installations – Solar photovoltaic (PV) power supply systems
- ▶ DIN VDE 0126 Solar systems for private use
- ▶ DIN EN 62305 Lightning protection
- ▶ VDEW guideline (2001)
- ▶ VDI 6012, Sheet 2, Decentralized energy systems in buildings – Photovoltaics
- ▶ TAB Technical connection conditions of the energy supply companies

Accident prevention regulations::

- ▶ BGV A1 Principles of prevention
- ▶ BGV A3 Electrical installations and operating equipment
- ▶ BGV C22 Construction work
- ▶ BetrSichV, supplementary “Instructions for handling ladders and steps” (BGI 694)

Other:

- ▶ VDS (Association of Property Insurers) guidelines
- ▶ DIN EN 1991-1-4 Wind loads
- ▶ DIN EN 1991-1-3 Snow loads
- ▶ DIN 1052 Design, calculation and dimensioning of timber structures – General design rules and design rules for building construction
- ▶ Current local provisions and regulations must be observed.

Photograph roof damage!

Before installation, check whether there is damage of any kind, in particular water beading or damage to the roof cladding.

These should be documented with a digital camera to avoid later claims for compensation.

Roof preparation

The roof surface to be covered must be free of impurities, e.g. sharp stones, moss, leaves, dirt, etc., to ensure that the floor rails can be laid flat. Clean the roof!



Attention!

Personal danger!

Module installation and laying of DC cables must be performed by expert personnel. (Danger of electric shock! Danger of arcing! etc.) If there are lightning protection systems already in place, have a specialist company check whether they may be integrated into the system. Also check for changes to lightning protection requirements as a result of the installation.

TIPP



Take photos of roof damage!



Clean the roof!

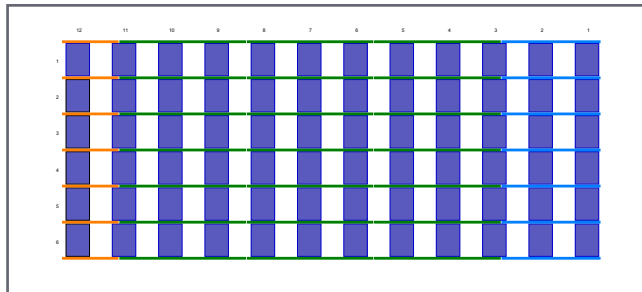


Wear gloves during assembly!
Risk of injury from sharp edges!

1. Mounting the module rail

1. Calibration

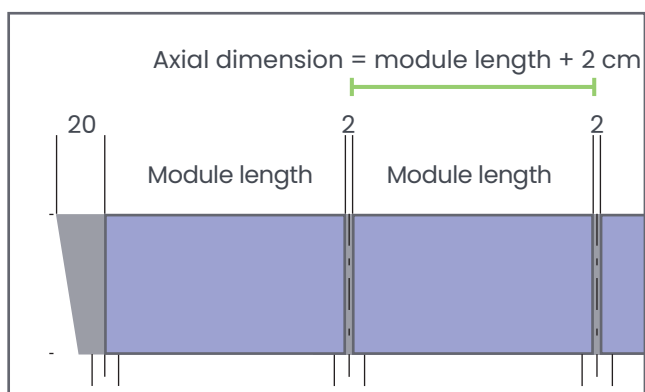
Take the installation plan to hand. Use the installation plan to measure the module field. Observe the distances according to the system statics.



Calibrating the module fields

2. Laying building protection mats

Lay out the building protection mats at a distance from the floor rails. The axis dimension is always the module length plus 20 mm for the module center clamp.



Fleece-laminated building protection mats are used for foil roofs.

Option 1:

Laying the building protection mat (minimum thickness 4 mm) in rolls when installing along the direction of water flow (roof pitch)



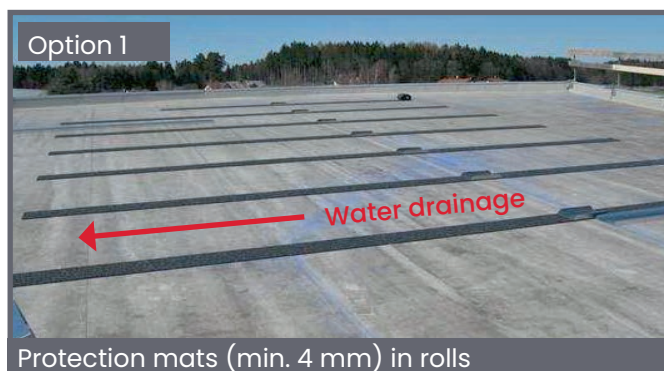
(Photo: Example of fleece-laminated building protection mat)

Option 2:

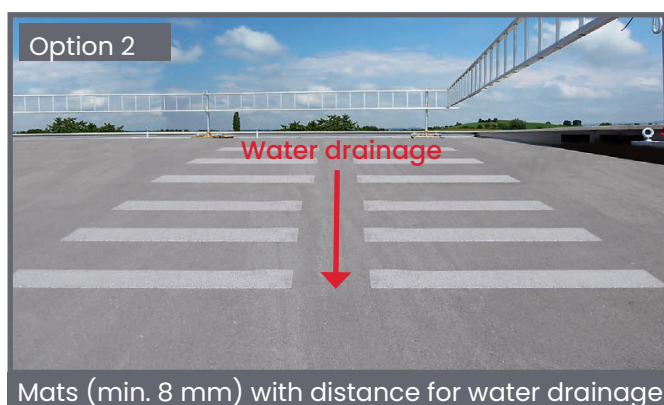
Lay building protection mats (minimum thickness 8 mm) to size (length 100 cm) parallel to each other - especially in the module area. This ensures better water drainage when installed across the direction of water flow.



Apply the protection mat

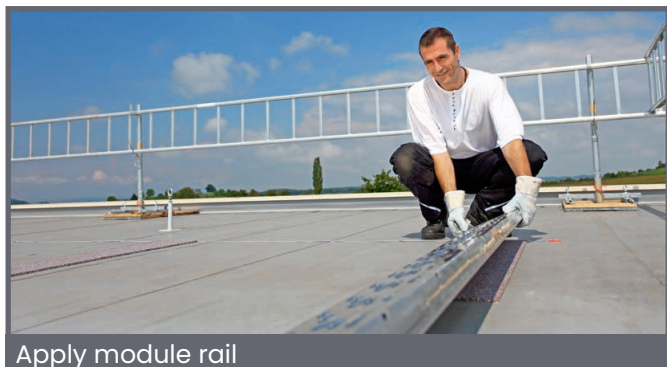


Protection mats (min. 4 mm) in rolls



Mats (min. 8 mm) with distance for water drainage.

1. Mounting the module rail



Apply module rail

1.3 Applying the module rail

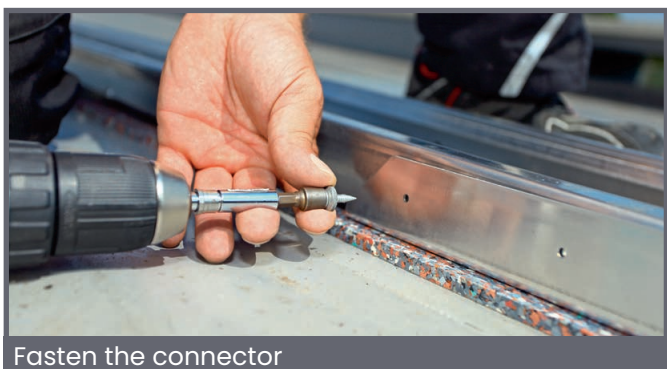
Apply the module rail on the protection mat following the installation diagram.



Insert connector in the middle of the rail

1.4 Connecting the module rail

Insert the connector between the module rails.

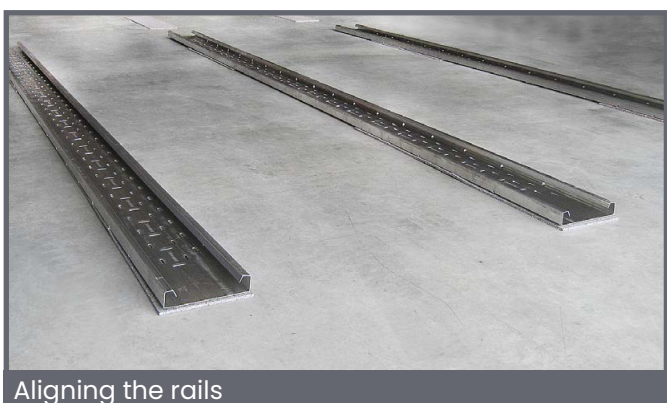


Fasten the connector

Fasten the connector and the module rail using 8 self-tapping screws (tightening torque reference value indicated by manufacturer 2–3 Nm).



All other rails are arranged according to the design.



Aligning the rails

1.5 Adjustment and checks

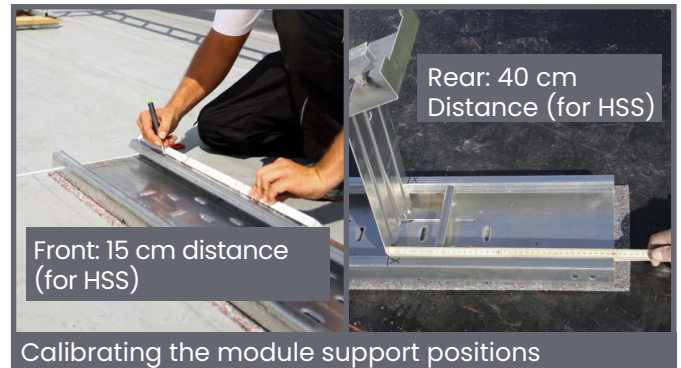
Check the orientation of the module rail according to the installation plans. Check angle and parallelism of the rails.

2. Mounting the supports

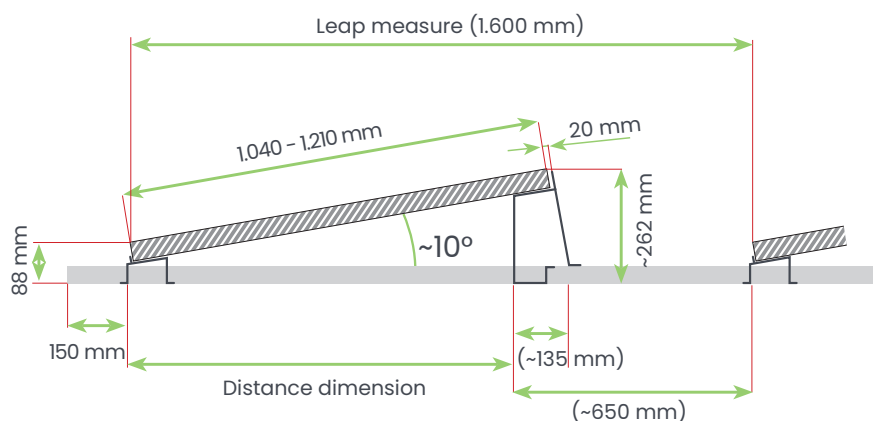
1. Calibration

Calibrate the position of the supports:

- The front support must be mounted **150 mm** from the front edge of the module rail. (Assembly HSS).
- Measure the rear module supports (long). The respective distances can be found in the following tables:
- When installing HSS the last rear support at least 40 cm from the edge of the bottom rail.



SR 10°



Distances

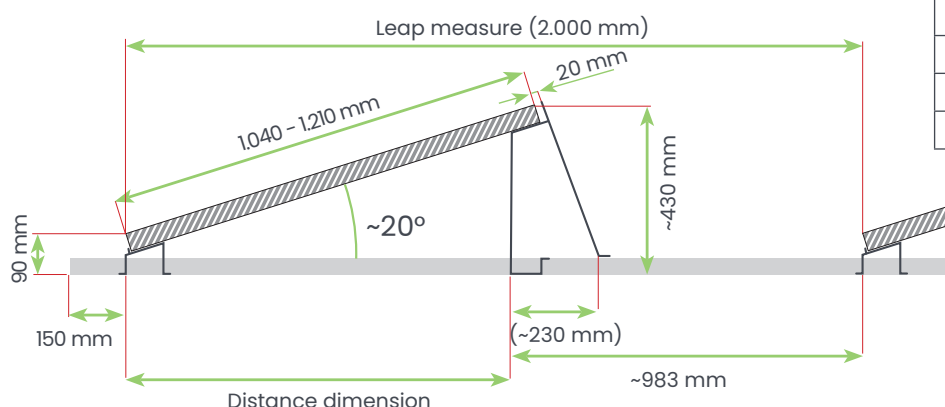
Front edge to front edge

Module width	Distances
1.040 mm	951 mm
1.122 mm	1.034 mm
1.134 mm	1.046 mm
1.210 mm	1.123 mm

Module width 1134 / 30 mm

Height specifications = module frame 30 mm

SR 20°



Distances

Front edge to front edge

Module width	Distances
1.040 mm	913 mm
1.122 mm	1.000 mm
1.134 mm	1.012 mm
1.210 mm	1.092 mm

Module width 1134 / 30 mm

Height specifications = module frame 30 mm

2. Mounting the supports



Floor rail used as a cable duct for the string cables

2. Insert string cable

Attention: the floor rails can be used as a cable duct. Before the module supports are clicked into place the string cables should be laid!



Inserting the front (short) module support

3. Installing the module supports

Insert the front module support (short) of the first module row...



Clicking in the front module support

...and click into place with the foot.



Clicking in the upper (high) module support

Click in the rear module supports (long) of the first row of modules click into place.



Fully assembled module supports for the first row of modules

Module supports of the first module row completely install.

We recommend installing the first row of modules completely to prevent the floor rails from slipping.

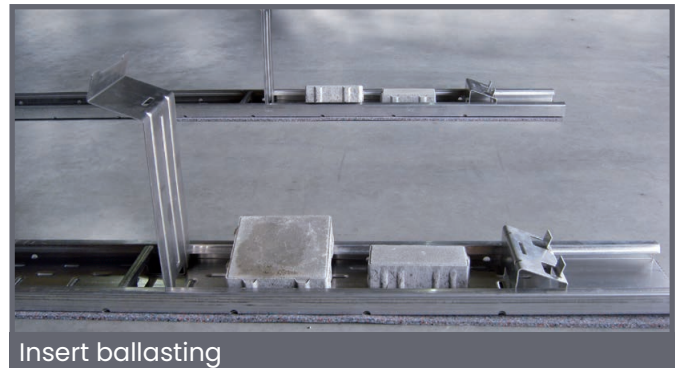
2. Mounting the supports

Ballasting

Where ballasting is required, this should now be installed. The remains of building protection mats can be placed under the stones.



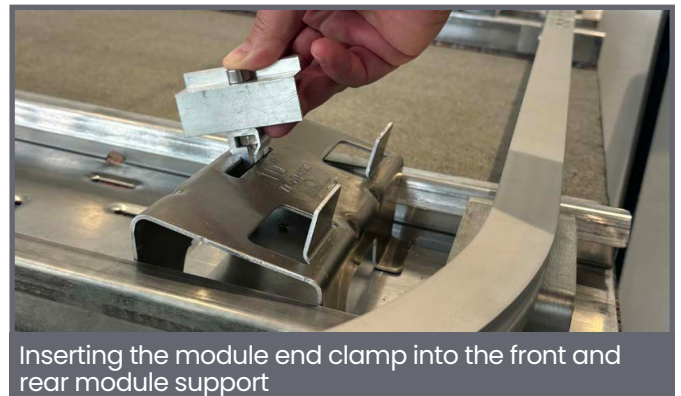
The specified ballast values are must be adhered to!



Insert ballasting

1. Inserting the one-piece Duraklick end clamp

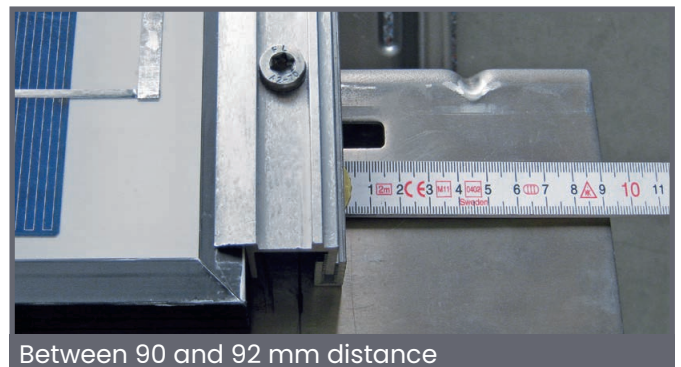
On the first row of modules, first insert the module end clamps into the front and rear module support of the side to be started.



Inserting the module end clamp into the front and rear module support

The distance between the end clamp and the outer edge of the support (rear module support) must be between 90 mm and 92 mm!

This ensures that the spoiler fits on the spigot of the module support and the outer edge of the end clamp.



Between 90 and 92 mm distance

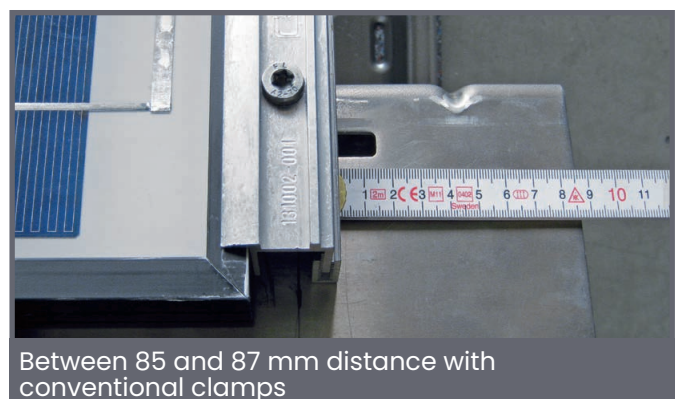
Inserting conventional module end clamps

Conventional end clamps, e.g. from Schletter, must first be adjusted to the respective frame height. The adjustable aluminum profile is used for this purpose.

The numbers correspond to the possible frame heights.

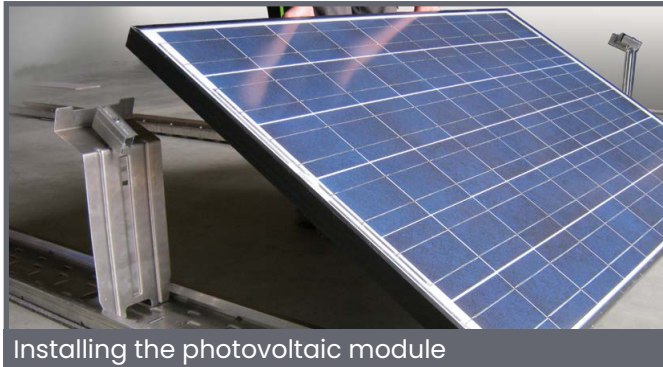
The distance between the end clamp and the outer edge of the upright (rear module upright) must be between 85 mm and 87 mm!

This ensures that the spoiler then fits on the pin of the module support and the outer edge of the end clamp.



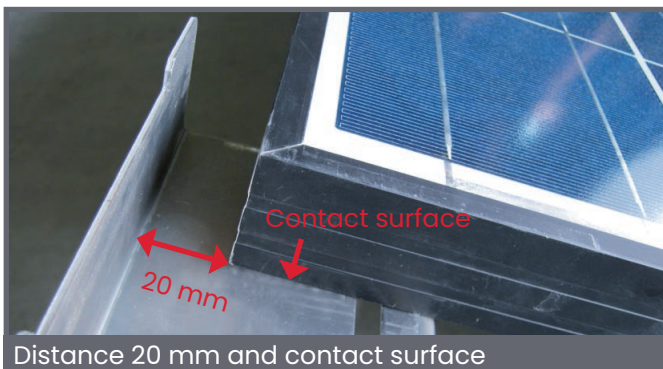
Between 85 and 87 mm distance with conventional clamps

3. Installing the modules



2. Insert modules

Start on the right and place the first module on on the module supports.



Please maintain a distance of approx. 20 mm between the module and the rear wall of the support (rear ventilation)!

Ensure that the module frame rests on the entire surface of the module support. module support.



3. Inserting the module center clamps

Then insert the module center clamps into the module supports (front and rear) click in.



Then fit the next module.

3. Installing the modules

4. Attach modules

All module center terminals and module end terminals must be tightened with a TX40 Torx screwdriver. Tightening torque approx. 10 – 15 Nm.



5. Finish mounting the first row of modules

Repeat all work steps until the first row of modules has been installed. The first row of modules should be installed completely to prevent the floor rails from slipping.



Wind hazard!

If installation is interrupted or stopped, all modules or rows that have already been installed must be closed with wind deflectors and spoilers.

ATTENTION: Wind attack! Loose rails must be secured or weighted down!



6. Attaching the cabling

Once the modules have been fully assembled, the modules are wired. The string cables can be laid in the recess in the upper module support and secured with cable ties.



4. Fitting the wind deflectors and spoilers



Attach spoiler to side

1. Install the spoiler

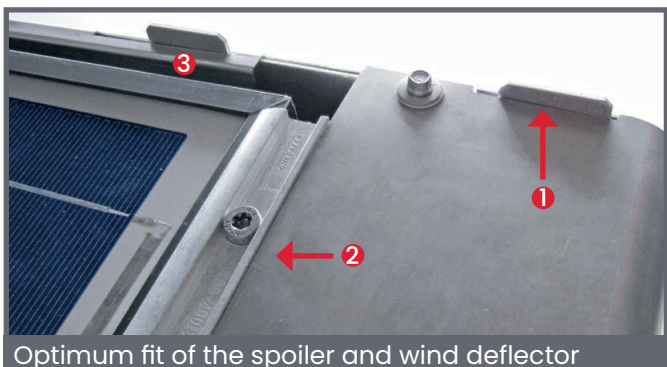
Attach the right spoiler to the right-hand side of the module row.



Attaching the wind deflector

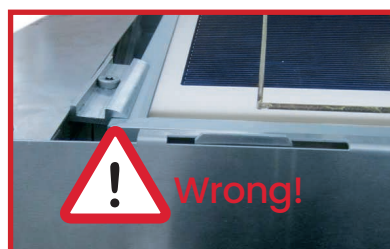
2. Hook in the wind deflector

Then attach the first wind deflector behind the right-hand module.



Optimum fit of the spoiler and wind deflector

The spoiler should fit snugly into the **1** nose and rest on the **2** module end clamp. The wind deflector should also be easy to hook into the **3** nose.



3. Spoiler and wind deflector screw on

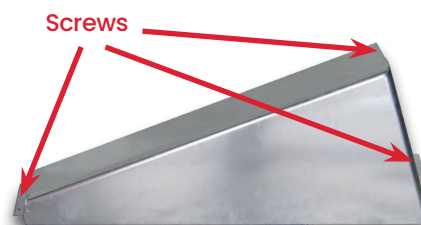
Fix the spoiler and the wind deflector to the floor rail using self-tapping screws (tightening torque 2-3 Nm).



Screw on the spoiler at the front and rear using self-tapping screws



Screw the wind deflector to the rear of the floor rail.



4. Fitting the wind deflectors and spoilers

4. Hook in all wind deflectors

Fit all modules with wind deflectors from right to left until the end of the module row is reached.

5. Screw on the wind deflectors

Check the position of the elements and screw the wind deflectors together at the top and bottom using the holes provided.



Screw the top and bottom wind deflectors together.

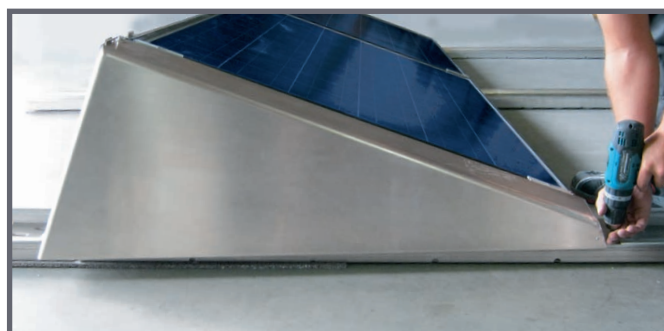
Fix the wind deflectors to the floor rails.



Wind deflectors fixed to floor rail

6. Attach left spoiler

Complete the module row with the left spoiler on the left-hand side.



Attach spoiler at the end



Danger of wind!

If installation is interrupted or stopped, all modules or rows must be fully installed. **ATTENTION: Wind attack! Loose rails must be secured or weighted down!**



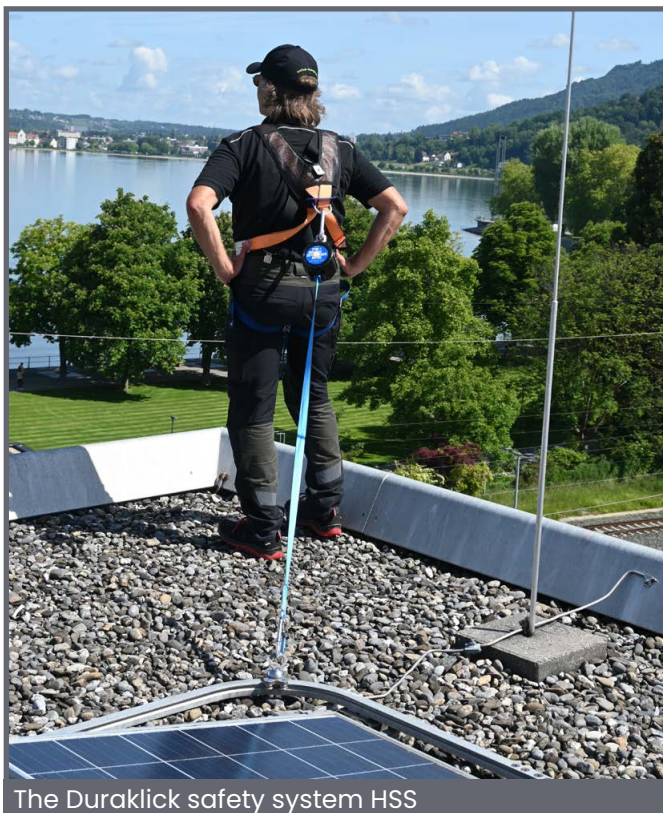
5. Finishing work + accessories



1. Check

After completing the installation of all wind deflectors and spoilers, check the entire system for strength:

- Check the fastening of the module clamps.
- Check the entire construction for stability and stability and strength.
- Check screw and clamp connections



Accessories

We offer the following accessories for our systems accessories:

HSS fall protection

The certified height safety system is a flexible and economical fall protection system that can be fitted to Duraklick substructures (including existing ones).

For more safety when working on roofs!

Exclusion of liability

The manufacturer will not be held liable for the use of the mounting system for purposes other than those intended.

Warranty conditions

The terms provided by law shall apply.

Manufacturer information

The Duraklick PV mounting system South SR 10° / 20° is manufactured by:

SOLTOP Energie GmbH
Lindauer Straße 15
D-88145 Hergatz
www.soltop-energie.eu



Duraklick



Warranty certificate

On all Duraklick mounting systems supplied by us you will receive

10 years durability guarantee on all parts.

If damage occurs during normal use and despite proper installation and handling, we will immediately replace the affected component within the warranty period.

The obligation to provide warranty service does not apply if the damage occurred in connection with exceptional stress (e.g. storm damage, exposure to instability of the substrate, special chemical or biological effects), unless it can be proven that the damage was not caused by this, but was essentially caused by a material or design defect. The installation and handling shall be governed by the technical the technical product descriptions and installation instructions supplied by us for the respective products, the legally prescribed or or generally accepted standards and principles of construction principles of construction as well as, if applicable, the plans, structural analyses and instructions prepared by us individually for the customer shall have priority.

The warranty is limited to the subsequent delivery of defective parts upon notification of the damage within the warranty period. Any statutory warranty or liability claims shall remain unaffected.

Insofar as a possible shorter service life is expressly stated for certain components in general or for a certain type of use, or replacement within a shorter period is provided for within the framework of plans individually drawn up by us, the warranty period shall be limited to this service life or period.

If the damage is covered by an insurance policy against storms and similar events (elementary insurance) or can be can usually be covered, there are no claims.

This warranty only substantiates claims by our contractual partner, through whom all warranty claims are to be processed. Claims may only be asserted by third parties if we agree to this. In all other respects, our General Terms and Conditions shall apply in their currently valid version.



For more information, please visit www.soltop-energie.ch & www.soltop-energie.eu

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Nummer:
Z-14.4-691

Antragsteller:
SOLTOP Energie GmbH
Lindauer Straße 15
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Gegenstand dieses Bescheides:
Flachdach-Montagesystem "Duraklick"

Der oben genannte Regelungsgegenstand wird hiermit allgemein bauaufsichtlich zugelassen/ genehmigt.
Dieser Bescheid umfasst neun Seiten und drei Anlagen mit 25 Seiten.
Der Gegenstand ist erstmals am 10. März 2014 allgemein bauaufsichtlich zugelassen worden.



Eine vom Bund und den Ländern gemeinsam getragene Anstalt des öffentlichen Rechts

Zulassungs- und Genehmigungsstelle für Bauprodukte und Bauarten

Datum: 24.09.2025
Geschäftszeichen: I 85-1.14.4-113/24

Geltungsdauer
vom: 24. September 2025
bis: 24. September 2030



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For more information, please visit www.soltop-energie.ch & www.soltop-energie.eu

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