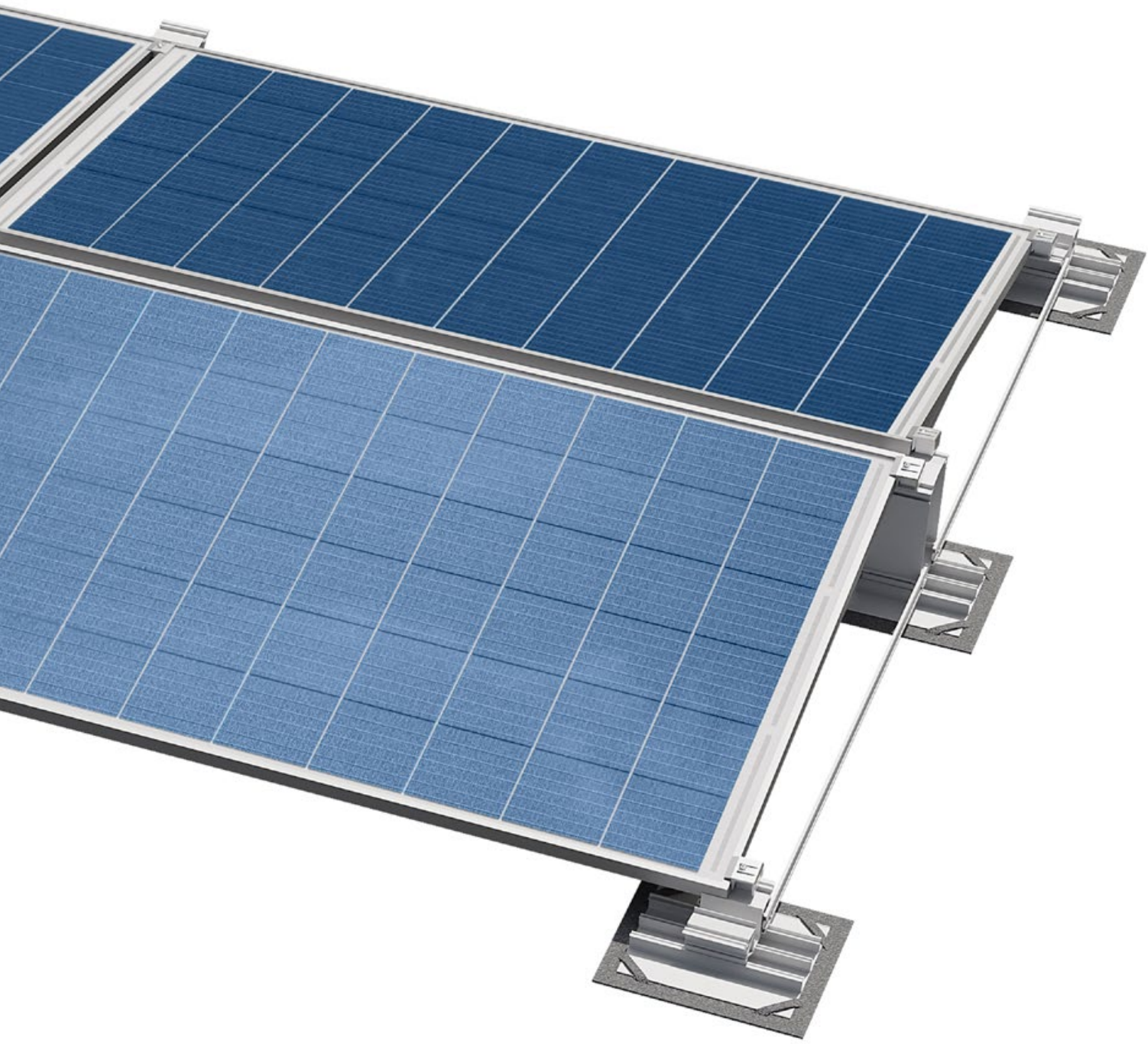
Schweizer

The sustainable support for photovoltaic modules

MSP photovoltaic mounting system



MSP – the optimal basis for photovoltaic modules

With the MSP PV mounting system by Schweizer, the use of photovoltaics (PV) has never been easier. Thanks to just a few components, extensive pre-assembly, the use of only one tool and the ingenious click system, the effort required for installation is very slight. This saves time and money. MSP is characterised by a very low intrinsic weight combined with uncompromising material quality and durability. The system is designed in such a way that it can be used very flexibly on any type of roof. And with the help of the user-friendly Solar.Pro.Tool software from Schweizer, the planning almost takes care of itself.

Foto: © Benz+Heinig Fotografen

The mounting system for all roof types

MSP-FR
The ideal solution
for flat roofs

MSP-PR
The perfect solution
for pitched roofs

MSP-TT
Specially designed
for metal roofs

Flat roof solutions with MSP-FR

MSP-FR is the perfect solution for flat roofs with foil and bitumen roofing membranes. Its intrinsic weight is low and installation is quick and easy. MSP-FR can be installed without roof penetration and allows maximum flexibility in alignment and arrangement. There are two system variants to choose from.

MSP-FR-S – flexible and universal

The south-facing system offers various options for using ballast and row spacing, thus allowing a great deal of freedom in module positioning. Thanks to pre-assembly, work on the roof is very simple and quick. For maximum utilisation of the roof area, MSP-FR-S can also be used in combination with the MSP-FR-EW mounting system.

MSP-FR-EW – efficient and economical

The east-west orientation of the system allows maximum use of the roof surface and supports solar power production according to demand. Made of high-quality aluminium, the system can be flexibly adapted to the roof topography and combines minimal load impact with high economic efficiency and reliability. Installation is quick and easy, thanks to a small number of perfectly matching elements.

Advantages at a glance

– Efficient and simple assembly thanks to modular design and little ballast requirements
– System assembly and pre-assembly possible without modules
– No penetration of the roof membrane and problem-free roof drainage
– Load-distributing base profiles in six sizes for insulation layers with different loads
– Aerodynamic with low ballast requirements
– Easy handling thanks to short profiles
– Only one tool needed (Torx 30)
– Only one earthing per block necessary (incl. module earthing)
– Flexible clamps for all modules and MSP PV mounting systems
– Cost and labour savings due to lightning current carrying capacity
– No calibration necessary
– Low number of components

Application

– Mounting system without roof penetration with low additional ballast for framed PV modules on flat roofs
– Can be used on concrete, foils (TPO/FPO, EVA, PVC, ASA, PVC-P, ECB, PIB, EPDM, etc.), bitumen, gravel and green roof on request
– Can be executed either as an east-west- or south-facing system

Technical data

– 10° nominal mounting angle
– For flat roofs up to 3° roof slope (optional with structural connection to the roof support up to 10°)
– Lightning current carrying capacity
– Earthing centre terminal or earthing screw for the permanent equipotential bonding of holding frames (module frames) as required by DIN VDE 0100-712, and for the mounting system of the PV installation
– Wind tunnel-tested, aerodynamic study according to WTG guidelines
– Unhindered water runoff
– Row spacing freely selectable
– Protective fleece layer counters chemical and mechanical environmental influences
– Low intrinsic weight and optimum ballast for every kind of project
– Rapid mounting with just one tool (Torx 30) and integrated measuring system

Pitched roof solutions with MSP-PR

MSP-PR from Schweizer is a cost-effective and durable mounting system for all common PV modules on pitched roofs. The system is characterised by the small number of stainless steel and high-quality aluminium components. They are perfectly matched statically, largely pre-assembled and work on the roof is quick and easy to manage.

MSP-PR – cost-effective and quickly assembled

The MSP-PR system consists of just five components that are largely pre-assembled. And for the work on the roof only two Torx wrenches are needed. The mounting system also features an innovative click system. This reduces the effort required for installation to a minimum. Corrosion resistance and safety, on the other hand, are guaranteed for the long term.

MSP-PR Inlay – for minimum load on the PV modules

With MSP-PR Inlay, the framed PV modules are inserted and fixed in a mounting profile. Thanks to this gentle mounting technique, the modules are largely resistant to temperature-related loads and their service life is significantly increased. The system can be fastened either with roof hooks or hanger bolts. For optimal utilisation of space, the PV modules can be installed either horizontally or vertically. And the effort required for installation is – as with all MSP systems – very low.

Advantages at a glance

– Easy mounting with innovative click system
– Pre-assembled connecting parts
– Keyed components prevent incorrect assembly
– Module installation possible from ridge to eaves
– Statically coordinated components
– Minimum mechanical load on PV modules
– Anchoring with hanger bolts and aluminium or stainless steel roof hooks
– Flexible clamps for all modules and MSP mounting systems
– Inlay rails for PV modules with 30- or 40-mm frame
– Modules can be installed in mixed rows vertically or horizontally (Inlay)
– Fast installation and excellent visual appearance
– Black painted version (RAL 9005 deep matt) also available

Application

– Mounting system for framed PV modules on pitched roofs
– Can be used on pantiled / tiled roofs as well as corrugated fibre cement and trapezoidal sheet metal roofs with hanger bolts on wooden purlins
– MSP-PR oder MSP-PR Inlay design as single-layer, double-layer or inserted on-roof system for pitched roofs

Technical data

– Roof hook variants made of aluminium or stainless steel: standard, height-adjustable for the cross bond or flat tile
– MSP-PR earthing clamp set for simplified equipotential bonding ensures continuity of the earthing section
– Effective continuity of earthing with MSP-PR-SL rail connector
– Only two bits required: Torx 30 and Torx 40 for the wood drill screws
– Easy mounting thanks to click system and adjustable roof hooks
– Screw-free assembly of the rail connectors with the help of the click system

Sheet metal roof solutions with MSP-TT

With MSP-TT, mounting PV modules on trapezoidal sheet metal and other flat metal roofs is ingeniously simple. The system consists of just a few components and is designed for the flexible use of various module sizes. With the MSP-TT metal roof solution, there is a cost-effective installation variant: horizontally on one raised bead, or with flexible trapezoidal bridges for two raised beads.

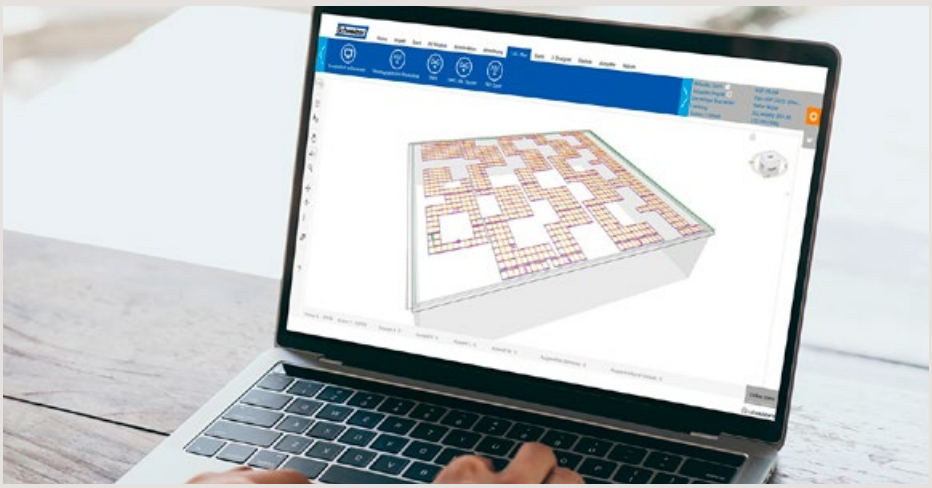
MSP-TT – ingeniously simple
The installation of MSP-TT is quick, economical and above all very simple. The system is designed in such a way that no cutting to size or additional drilling work is required on site. The completely prefabricated rails are supplied with sealing support and a flexible hole pattern. A module clamp with tested equipotential bonding is also available.

Advantages at a glance
– No cutting to size on site: the rails can be supplied in three lengths
– Self-drilling thin sheet metal screws without chip formation
– Easy handling due to short rails
– No length restriction, thermal expansion of the metal is automatically absorbed
– Direct fixing on the sheet metal raised beads
– High corrosion protection and no moisture ingress thanks to high-quality aluminium parts and EPDM tape
– Flexible clamps for all modules and MSP PV mounting systems
– Continuous equipotential bonding due to conductive centre clamp

Application
– Mounting system for attaching framed PV modules on single-skin metal roofs
– Can be used on insulated sandwich panels if approved by manufacturer
– Design in three profile lengths for fastening on one or two raised beads

Technical data
– Mounting on one raised bead horizontally or with flexible trapezoidal bridges
– Continuous equipotential bonding in the module field by means of MSP-PR-MCG centre clamp (functionality VDE-tested and -confirmed)
– No maximum length restriction, as the thermal expansion of the metal is automatically absorbed
– Pre-assembled EPDM tape ensures best sealing protection
– Thin sheet metal screws tested by the building authorities with the lowest possible chip formation for direct fastening into the aluminium or steel trapezoidal sheet metal
– Simple and quick installation due to short rail with hexagon SW8 tool directly on the sheet metal bead
– Thin sheet metal screws make additional drilling work unnecessary

Planning made easy – with Solar.Pro.Tool



With the web-based Solar.Pro.Tool software by Schweizer, PV systems can be planned quickly and easily for all mounting systems from Schweizer.

The tool can be operated intuitively and from any location. The project data are accessible online and will be saved after processing. This facilitates efficient and at the same time detailed and flexible planning for every kind of roof. The documentation includes all important technical details such as the PV generator design, parts lists, plans and the instructions for quick and secure installation. For larger installations, entire project teams can be given online access.

Advantages of the Solar.Pro.Tool
- System design, statics, electrics (Polysun) in a single environment
- Rapid project design with parts lists and prices
- Plans can be scaled to suit
- Wide variety of import options
- Building geometries from Google, PDF or DXF
- Individual dimensioning of different roof objects
- Shading simulation
- Modules and roof elements can be arranged by drag & drop
- Every MSP article has its own CO_2 equivalent (CO_2e)
- Web-based and hence location-independent application
- Simple digital transfer of project data
- Planning teams have access to projects
- Support for customer projects from Schweizer

Online training by Schweizer specialists

Would you like professional online training in using the Solar.Pro.Tool? Our specialists are at your disposal.

To use the Solar.Pro.Tool planning software, you need a personal licence. You can obtain this from your sales consultant or via msp@ernstschweizer.solar.

You can register directly and free of charge for the SPT Light version. For an upgrade to the SPT Test version, please contact your sales consultant or send an e-mail to solar@ernstschweizer.solar.

All information about licences and our training courses may be found at: **https://www.msp.solar/planungssoftware**

Other solutions from Schweizer: Solrif®, the PV in-roof system
Solrif®, the patented PV in-roof system by Schweizer, turns a frameless standard module into a solar powergenerating roof tile, thus, replacing classic roof tiling of pitched roofs. It enables aesthetic high-quality solutions on many types of pitched roofs and is quick and easy to install. www.solrif.com

January 2023/Subject to technical modifications/UD/esc_110011_03

www.msp.solar