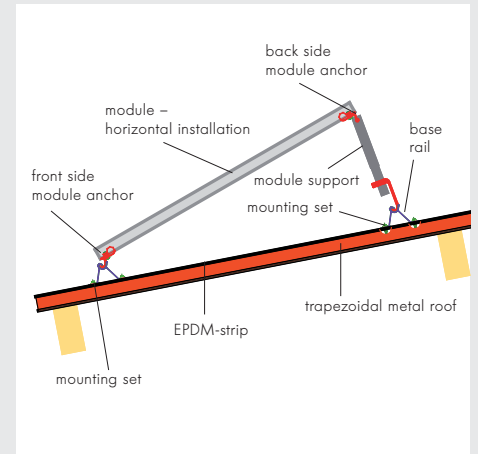


MHHnovotegra for Trapezoidal Metal Roof



MHHnovotegra in an elevated installation



Construction of an elevated installation

Easy, Stable, and Flexible

MHHnovotegra is our mounting system with exceptional qualities: it is easy to install on a variety of roof types and remains extremely stable, no matter what application you choose. The system is constructed from durable and corrosion resistant materials under DIN 1055 regulations* and is extremely resilient—even under high snow and wind load conditions.

Elevated Installation

In an elevated configuration on a trapezoidal sheet metal roof, the base rail is mounted directly onto the roofing with self-drilling screws. The optimal configuration is achieved when the base rails run across multiple seams; this ensures the equal distribution of weight on the roof. Included in each mounting set is an EPDM sealant strip which is layed under the base rail to keep the roof leak-proof. We offer five different lengths of module supports depending on the desired angle of elevation for your modules. This enables even modules installed on a north facing roof to be configured facing the southern sky. The specially designed module anchors are attached directly to the module frames. To mount the modules, the module anchors are simply layed into the base rail and the module supports are attached to the elevated edge of the module frame. Each module support has ten centimetres of threading so that the angle of the modules can be fine-tuned. This allows you to achieve the exact desired angle and to create a perfectly uniform module array, regardless of imperfections in the roof.

Because the MHHnovotegra system is modularly designed, installations on east or west facing roofs are also possible. The MHHnovotegra C-rail can also be combined with the new elevated installation system in a variety of different configurations.

Advantages

- Very lightweight and durable
- Quick and easy installation
- Outstanding price-performance ratio
- Secure connection to roof surface across multiple seams, even when under extreme load conditions
- Modules can be installed parallel to the roof or at an angle between 13° and 40° from the roof surface
- System can also be installed on east-west facing roofs
- Material saving design with no triangle supports or cross rails needed
- Pre-configured fasteners for quick installation
- Easy layout to DIN 1055 regulations
- 10 year product guarantee

* New DIN 1055 Load Norms

The MHHnovotegra system has been developed within the guidelines for load bearing structures set out by the German Institute for Norms (DIN) in section 1055. This guarantees a stable construction that can withstand extremely high snow and wind loads. Due to country specific variations in load bearing regulations, an independent assessment of building and mounting system statics maybe required for the installation of MHHnovotegra components outside of Germany.

MHHnovotegra for Trapezoidal Metal Roof

Elevated Installation

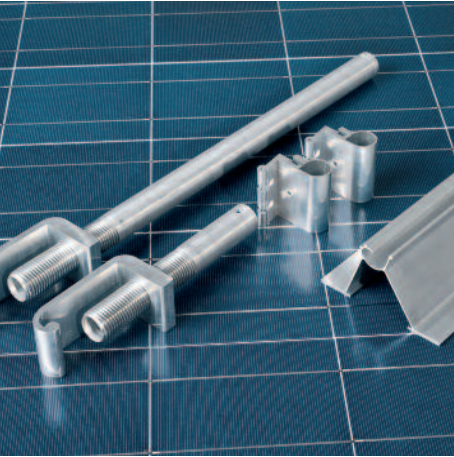
Roof Mounting Hardware	Description	Material	Pieces/ Pkg.	Art. Nr.
Base rail 6,18 m	for the elevated installation of modules	Alu	28	215500
Base rail mounting set	consists of two self-drilling mounting screws and EPDM sealant strip 130 x 40 mm	Stainless Steel/ EPDM	250	210050

Supports and Module Anchors

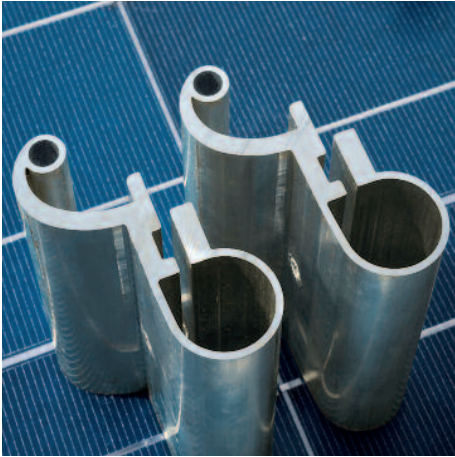
Module anchor set front	pre-assembled with all necessary mounting hardware; 2 per module required	Stainless Steel/Alu	50	210030
Module anchor set back	pre-assembled with all necessary mounting hardware; 2 per module required	Stainless Steel/Alu	50	210035
Module support set 200 mm	module support for elevated installation with threading for fine tuning; 2 per module required	Alu	25	210010
Module support set 280 mm	module support for elevated installation with threading for fine tuning; 2 per module required	Alu	25	210012
Module support set 360 mm	module support for elevated installation with threading for fine tuning; 2 per module required	Alu	25	210014
Module support set 440 mm	module support for elevated installation with threading for fine tuning; 2 per module required	Alu	25	210016
Module support set 520 mm	module support for elevated installation with threading for fine tuning; 2 per module required	Alu	25	210018
Self-locking cable tie	with clip to attach to module frame, UV stabilized and weatherproof		100	213600

Accessories

Special lock nut SW8	lock nut SW8 with clamp effect for module supports and elevated mounting set		1	219001
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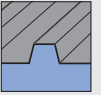
Module supports, module anchors, and base rail



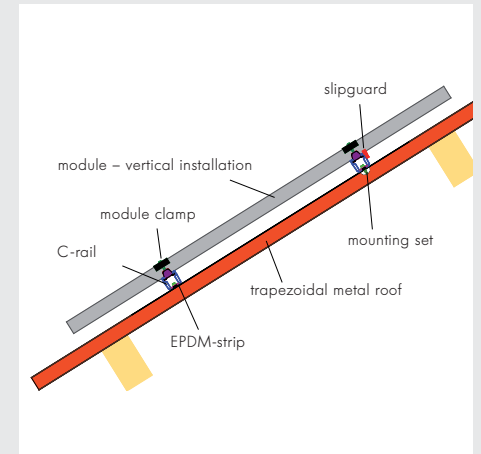
Front side module anchors



Connection of module supports on base rail



Roof parallel installation on a trapezoidal metal sheet roof



Construction of a roof parallel installation

Roof Parallel Installation

In a roof parallel configuration, the C-rail is attached directly to the roof surface with our mounting set. The roof remains water tight thanks to the included sealing washers and optional EPDM-strips. In an optimal layout, the upper and lower rails are installed in a staggered configuration along the seams: this ensures an evenly distributed load on the roof as well as creating enough space behind the modules for ventilation.

Because changes in temperature can cause the length of the railing to vary slightly, we recommend a maximum rail length of 2 meters for roof parallel installations. The inside of the C-railing offers plenty of room for both wiring and module connections to keep your array clean and organized. Thanks to proven MHH clamp technology, modules can be quickly and safely mounted onto the railing. Individual modules can even be easily removed and remounted at will.

All of our end and middle clamps are shipped ready to install and are also available in anodized black to better match modules with black frames.

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MHHnovotegra for Trapezoidal Metal Roof

Roof Parallel Installation

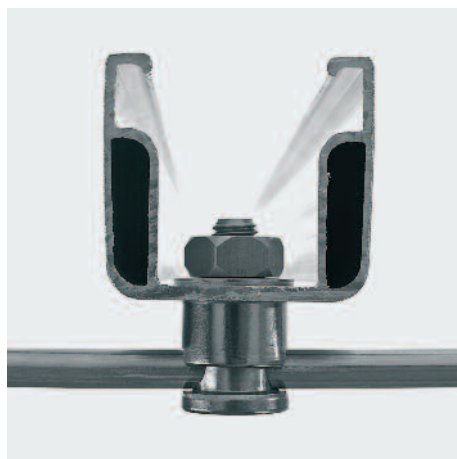
Roof Mounting Hardware and Rails	Description	Material	Pieces/Pkg.	Art. Nr.
C-rail 4,20 m	with slotted holes every 10 cm	Alu	70	21500
C-rail 6,12 m	with slotted holes every 10 cm	Alu	70	215110
C-rail direct mounting set	enables C-rail to be mounted directly to sheet metal roof	Stainless Steel/Alu/EPDM	500	214175
EPDM sealant strip for C-rail 50 x 35 mm	sealant strip	EPDM	500	210070

Module Clamps

Middle clamp set 34–42	for frame heights between 34–42 mm	Stainless Steel/Alu	100	216010
Middle clamp set 34–42 in black	for black frame heights between 34–42 mm	Stainless Steel/Alu	100	216011
Middle clamp set 43–52	for frame heights between 43–52 mm	Stainless Steel/Alu	100	216012
Middle clamp set 43–52 in black	for black frame heights between 43–52 mm	Stainless Steel/Alu	100	216013
End clamp set 34–42	for frame heights between 34–42 mm	Stainless Steel/Alu	20	216210
End clamp set 34–42 in black	for black frame heights between 34–42 mm	Stainless Steel/Alu	20	216211
End clamp set 43–52	for frame heights between 43–52 mm	Stainless Steel/Alu	20	216212
End clamp set 43–52 in black	for black frame heights between 43–52 mm	Stainless Steel/Alu	20	216213
Module slip guard M6	for frame holes between 6–8 mm	Stainless Steel	50	21640
Module slip guard M8	for frame holes between 8–10 mm	Stainless Steel	50	21645

Accessories

C-rail end cap	for an aesthetic look for rail ends	Stainless Steel/Alu	50	210600
Special lock nut SW8	lock nut SW8 with clamp effect for module supports and elevated mounting set		1	219001



The C-rail—shown here with grounding connector—with enough room for cables and connectors



Middle and end clamps for easy installation



Almost perfectly flush end clamp

Your specialty dealer: