# Multi-Trapezoidal Bracket MTH

# **Data Sheet and Installation Instructions**





Has the national technical approval by the DIBt: Z-14.4-706





The Multi-Trapezoidal Bracket MTH, made of 5mm stainless steel V2A, is fitting most trapezoidal sheet profiles with and without intermediate insulation (Crown width max. 43mm according the DIBt approval).

It comes with self-adhesive sealing strips and a angle mounting bracket (56mm and 65mm side length) with slotted holes M11.

# Packed with 50 pieces per box.

During installation and application, the information and regulations in accordance with the national technical approval Z-14.4.706 must be observed. 4 stainless steel drilling screws with a thread diameter of at least 6mm and a sealing washer of at least 14mm according to building authority approval Z-14.1-4 or Z-14.1-537 must be used for fastening.

## Advantages:

- Flexible adaptation to many trapezoidal sheet shapes
- Height-adjustable angle mounting bracket thus less tensions on the rails
- Mounting fixation with self-adhesive sealing strips
- Optimum tightness due to EPDM sealing strips
- Fixing with 4 x Hexagon Bi-Metal drilling screws, 6,0 x 25mm, with sealing washer 16 mm (sold separately). Packed with 100 pieces per box.



# **Applications:**

- For mounting rail systems with bottom or side screw channel for various applications.
- Direct mounting of PV-modules with the S-5!®-PV-Kit. (this requires an additional M8 counter nut with locking teeth).
- Installation of cable trays, roof-walk solutions, etc..



### Not suitable for snow guard and fall protection applications !

Proof of the introduction and transfer of loads into the trapezoidal profile as well as proof of the add-on parts and their connection must be provided separately. The manufacturer and RoofTech GmbH do not assume any responsibility for the suitability, installation and applications. The installation instructions and the information and regulations according to the building authority approval Z-14.4.706 must be observed (please request if necessary).

Please don't hesitate to contact us for more information, the information instructions, technical assistance and quotation.

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# Installation Instructions Multi-Trapezoidal Bracket MTH



The Multi-Trapezoidal Bracket MTH is mounted directly onto the crown of the panel, straddling the profile. No surface preparation is necessary; simply wipe away excess oil and debris, align, and apply. Secure through its pre-punched holes, using approved Hexagon Bi-Metal drilling screws with sealing washer.

During installation and use, the information and regulations in accordance with the DIBt approval Z-14.4.706 must be observed. Four stainless steel drilling screws with a thread diameter of at least 6 mm and a sealing washer of at least 14 mm are required for fastening in accordance with DIBt approval Z-14.1-4.706 or Z-14.1-537 can be used.

To ensure brackets are installed in a straight line, install a single Multi-Trapezoidal Bracket MTH each end of the roof at a measured, consistent distance from the bottom edge of the roof. Use a string line between the two brackets. Mount the remaining Multi-Trapezoidal Bracket MTH along the string line, directly into the sheeting of the trapezoidal rib of the roof. The verification of the transfer of loads into the trapezoidal profile as well as the verification of the attachments and their connection must be carried out separately. In cases of doubt, a structural engineer must be consulted to determine the load and its transfer.

#### During assembly, suitable tools with torque control must be used (the use of impact screwdrivers is not permitted).

### To install the Multi-Trapezoidal Bracket MTH:

- Determine the location of assembly. The only surface preparation necessary is to simply wipe away excess oil and dirt from panel surface (1).
- To create the appropriate fit, place Multi-Trapezoidal Bracket MTH onto the panel rib and tighten the hinge bolt to secure the bracket's proper position (you will use a tool to tighten the hinge bolt to the specified torque at the end of Step 4).
- Note that the slotted L-flange should be oriented on the long side of the Multi-Trapezoidal Bracket MTH base (see illustration below 4.).
- Next, align carefully, and apply in the proper orientation. While the Multi-Trapezoidal Bracket MTH is reversible, when installing multiple brackets, be sure that brackets on the same row have the same orientation, i.e. the longer side of the bases should face the same direction. Do not remove the EPDM sealant as this is for weather-proofing.
- Secure the Multi-Trapezoidal Bracket MTH directly into the crown of the roof profile by screwing the provided self-tapping stainless steel screws through the pre-punched holes of the Multi-Trapezoidal Bracket MTH, alternating from one side of the bracket to the other, and back again.
- Be sure to use all four pre-punched hole locations to achieve tested holding strength. Be careful not to overtighten the screws; slight compression extrusion of rubber around the washer is a good visual check. If a fastener has been stripped, it is important to remove the fastener and replace it with a waterproof bulb rivet or larger diameter fastener. To avoid stripping, use screw gun with depth sensing nose piece or adjustable torque clutch.
- Lastly, hold the slotted L-flange firmly in place and tighten the hinge bolt/nut connection with a tongue moment of 20 Nm in each case.

### Please note in general:

The Multi-Trapezoidal Bracket MTH is now ready to install other ancillaries, such as rails and the S-5-PV Kit. When used in conjunction with the S-5-PV Kit, an extra nut is necessary to secure Multi-Trapezoidal Bracket MTH's slotted L-flange to the universal PV stud and mounting disk .

The suitability for the intended use is checked by the user himself. The user and/or installer of these parts is responsible for all necessary engineering and design to ensure the Multi-Trapezoidal Bracket MTH has been properly spaced and configured.

RoofTech recommends that the planned installation, PV system, etc. be checked by a qualified professional who takes the responsibility for snow and wind loads, the loads of the installation, the statics and assembly as well as the planning and construction of and on metal roofs.

Any loads imposed on the fixing products will be transferred to the panels. Panel seams must have sufficient flexural strength to carry these loads. Panels must also be adequately attached to the building structure, and the structure must be sufficient to carry these loads. The makers and RoofTech make no representations with respect to these variables. For statically relevant brackets, a distance of at least 500 mm to the end of the profile must be maintained. It is the responsibility of the user/installer to verify this information, or seek assistance from a qualified design or structural professional, if necessary.

PLEASE USE THE PRODUCTS RESPONSIBLY! Panels must be adequately attached to building structure to resist these loads. For critical installations, inquire for specific test data of ultimate tensile load on specific panel materials and seam types. When tabled values are used, screw tensions should be verified and factors of safety should be used as appropriate. The manufacturer and RoofTech expresses no opinions as to the suitability of the products for any specific application or project condition.

The Multi-Trapezoidal Bracket MTH is unsuitable for snow retention and fall protection applications!

The respective installation instructions must always be observed. The user and/or installer bears also the responsibility not only for the professional installation, but also for the roof on which he is mounted. The user and/or installer must always clarify in advance the application possibilities and application of our products in connection with the other used materials and products at the single project.

It must be ensured by the planner and the specialist company responsible for the installation that the planning and installation are carried out strictly in accordance with the national and site-specific building regulations, occupational safety and accident prevention regulations, standards and environmental protection regulations.

The responsibility for the assembly and the applications is in principle not accepted from the producer and RoofTech GmbH. The photographs and drawings herein are for the purpose of illustrating installation, tools and techniques, not system designs.

### Please don't hesitate to contact us for more information and technical assistance.

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