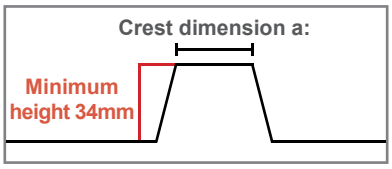
SingleFix-HU

The fastening system for self-supporting trapezoidal sheet metal roofs and sandwich elements

- direct fastening
- can be fastened quickly
- validated system structural analysis

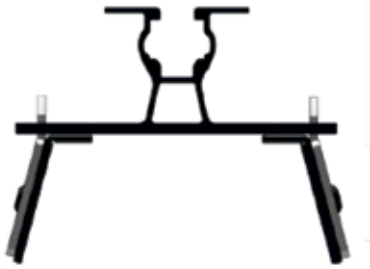


Spacing between components is dependent upon the size of module!
The SingleFix-HU clamps are suitable for crest dimensions of 20 to 60 mm!

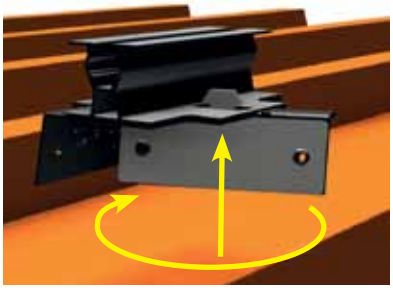
Self-supporting trapezoidal sheet metal roofs do not always allow for the connection of fastening systems to the substructure, but often have a sufficient load-bearing capacity for quick and simple direct fastening. In the majority of cases, trapezoidal roofs composed of sandwich elements provide sufficient stability in the upper deck but do not allow for penetration with fastening elements as this can lead to an accumulation of condensation. Fix2000 is an unrivaled simple and quick fastening option.

Schletter SingleFix-HU can be referenced in the system structural analysis. It utilizes approved screw-types and verified fastening forces. The distribution of fastening elements and their respective approved loads can be referenced in clearly laid out tables.

Please note, however, that the clamp spacing must be observed exactly when mounting, as, structurally, there is no further compensation available in ridge - eaves direction. This is possible with little effort by using string lines. With glass-glass laminates, we recommend that assembly begins not prior to, but in line with the module delivery, thus allowing for appropriate responsive action to any potential plus-tolerances of the module.

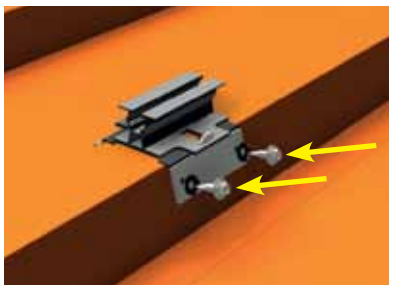


Mounting steps:



❶ Hook the side-pieces with rubber into the profile. To do this, feed the hook at a 90° angle into the slotted hole.

❷ Turn the side-piece back through 90° and snap-lock in place.



❸ Position SingleFix-HU clamp onto the corrugation crest of the trapezoidal sheet. Secure the side-pieces with sealing washers and self-drilling screws 6 x 25. To do this, feed the screws through the lower holes.

Notes - Mounting

The SingleFix-HU-elements must be able to withstand specifically defined forces so that a reliable structural analysis can be provided for the entire system. The following must therefore be considered:

- Clamps must sit firmly against the sheeting when tightening screws (transfer of load pressure).
- The utmost care must be taken not to over-tighten screws (use a depth-stop!)
- After mounting, screws must not be removed and redeployed in the same hole.
- To comply with the technical approval for screws, a minimum sheet thickness of 0.5 mm must be observed with steel sheeting and 0.5 mm with trapezoidal aluminium sheet metal.
- The roof must be able to support the additional load of the PV-plant.
- The trapezoidal sheet fastening must be capable of absorbing the wind suction forces.
- With sandwich components, a mutually sufficient holding force must be guaranteed between the layers.
- When arranging the rails, please note that profile connectors should not sit on the corrugation crests.

Notes - Sealing

The supplied screws are equipped with sealing washers which prevent the permeation of water into the clamps through drilled fastening holes. This generally guarantees impermeability to rain water.

- It should be noted that, in extreme conditions (wet snow), water can rise from below into the drilled holes.
- The presence of water in the drilled holes does not lead to corrosion problems with galvanised sheeting (anodized protection of edge zones).
- Water permeating the drill-holes of sandwich elements cannot penetrate the foam layer seal and therefore does not lead to problems.

Notes - Structural analysis

- Verified fastening forces of the SingleFix-HU clamps in the trapezoidal roof can be referenced in the general Schletter structural analysis (please note the specific details relating to roof edge areas!).
- When calculating the maximum snow load the mass per unit area of the PV-plant must also be taken into account (individual verification required in certain cases). To ensure even load distribution of the trapezoidal roof, the point at which a cross beam intersects with the trapezoidal metal ribs should be underlaid with rubber for pressure resistance (EPDM rubber available as an accessory).
- When calculating wind suction forces it must be ensured that forces in the selected clamp arrangements are absorbed by the trapezoidal sheeting and are discharged into the roof construction (individual verification may be required). In such cases, where clamps are positioned one above the other, it can be useful to stagger the distribution!

Technical data

Material	Fastening elements: Aluminium, Screws: High-grade steel
Forms	Suitable for all current trapezoidal sheet metal designs and sandwich elements
Structural analysis	Structural analysis in accordance with current national standards (in Germany DIN1055 and EC1). Appendices for dimensioning the number of required fastening points, based on structural analysis. Please ensure you observe the structural analysis information for each case. Verification for adhesive forces of a roof to the substructure is not included in any of the general structural analysis appendices!
Calculation and ordering	Calculation and/or ordering can be effected using our Autokalkulator software, for example - check list required! Free approval model with larger-volume orders

System prices can be obtained quickly and easily with our auto-calculator!

© Schletter GmbH · Gewerbegebiet an der B15 · Alustraße 1 · 83527 Kirchdorf/Haag i. OB · Germany · Tel.: +49 8072 9191-200
Fax: +49 8072 9191-9200 · E-mail: solar@schletter.eu · www.schletter.eu · Updated 03/2012 · Subject to change without notice
Your contact in the UK: Schletter UK Limited, Tel.: +44 1296 461 800, Fax: +44 1296 461 801, E-mail: info@schletter.co.uk