

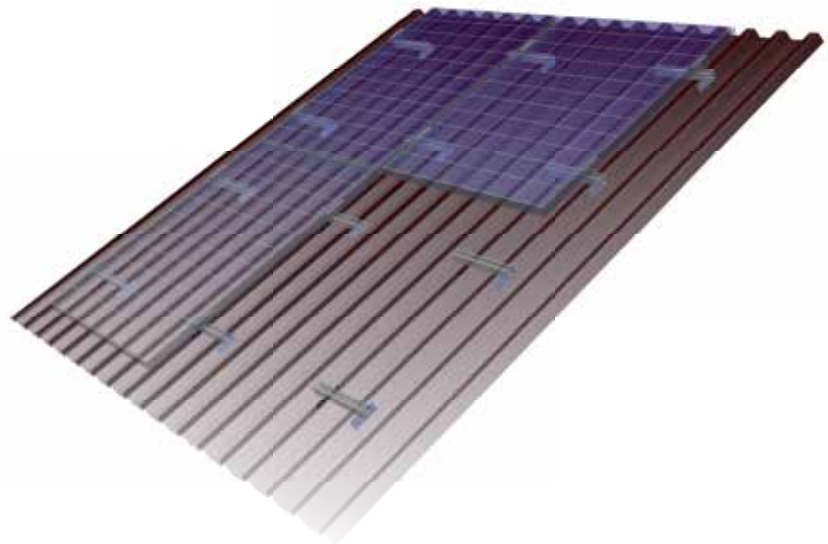
SingleFix-V

The universal fastening system for self-supporting trapezoidal sheet metal roofs and sandwich elements - now even easier and faster to assemble!

- suitable for all current trapezoidal sheet metal roofs
- structurally optimized by lateral fastening
- can be fastened quickly
- validated system structural analysis
- optimized warehousing
- minimum costs for material



The structure of self-supporting trapezoidal metal roofs does not always allow for the connection of fastening systems to the substructure, but often presents an adequate load-bearing capacity for quick and simple direct fastening. In the majority of cases, sandwich elements provide sufficient stability in the upper deck, but do not allow for roof penetration with fastening components as this can lead to an accumulation of condensation. **SingleFix-V** is an unrivalled simple and swift fastening option that only requires little material.



Schletter **SingleFix-V** is a safe fastening option for vertical module mounting with minimized need for material. **SingleFix-V** can be referenced in the system structural analysis. It utilizes approved screw-types and verified fastening forces. The arrangement of fastening components and their respective approved loads can be referenced in clearly laid out tables.

When assembling the **SingleFix-V** system, **make sure** to place the mounting kits correctly and observe the fastening points specified by the module manufacturer.

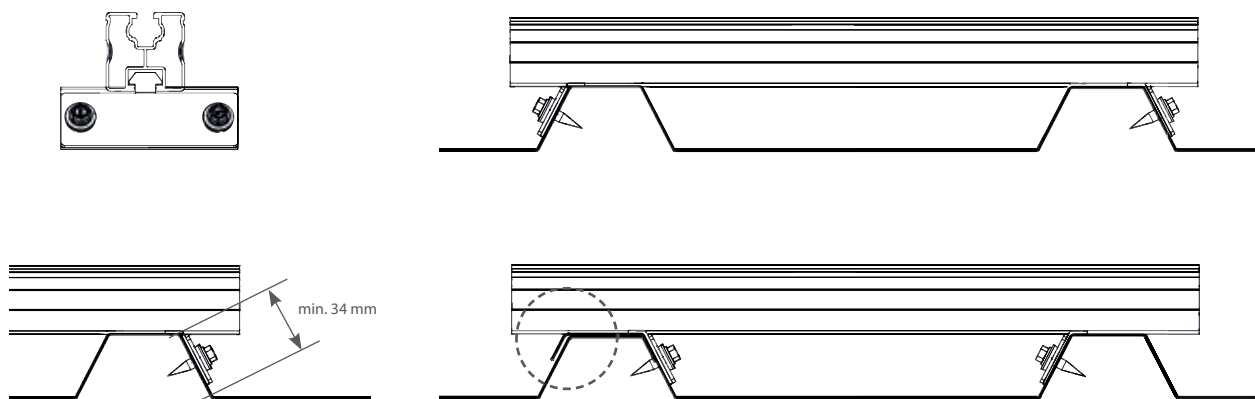


*The terms of guarantee can be referenced at www.schletter.de/AGB_en

Guidelines for assembly

The SingleFix components must be able to transmit specifically defined forces so that a reliable structural analysis can be provided for the entire system. Thus, the following issues must be considered:

- When fastening the screws, the SingleFix fastening component has to pull the module-bearing rail onto the upper crown so that pressure loads can be transmitted. Put the self-drilling screws at the lower hole edge and fasten them - in order to maintain water tightness, the washer disc must not be flattened completely, it still has to be a little arched after fastening.
- The utmost care must be taken not to over-tighten screws.
- Once screws are in place, they must not be removed and redeployed into the same hole.
- Steel sheeting and trapezoidal aluminium sheet metal must present a thickness of min. 0.5 mm to comply with the technical type approval for screws.
- The roof must be capable of bearing the additional load of the PV plant.
- The trapezoidal sheet fastening must be able to absorb the wind suction forces.
- With sandwich components, an adequate holding force must be guaranteed between layers.
- Fastening the SingleFix at joints of trapezoidal metal sheets is not recommended; above all not if the edge of the trapezoidal sheet is placed directly near the SingleFix fastening. If possible, better choose an adjacent trapezoidal crown (corrugation top) for fastening. In any such case, please make sure that the trapezoidal sheet plates at the joint area are additionally fastened and bolted at the trapezoidal crown (corrugation top). Besides, particular attention has to be paid to ensure that the roof is tight.
- Please ensure that SingleFix is mounted evenly and flush.



The mounting surface at the trapezoidal sheet must be at least 34mm high!

Recommendation:

Do not fasten the screws at the joint area of the trapezoidal sheet!

Guidelines for sealing

- The screws that are included in delivery are equipped with sealing washers that prevent water entry in the SingleFix fastening drillings.
- In order to safeguard a tight sealing between the SingleFix-V and the sheet metal roof, the inner sides of the SingleFix-V are equipped with EPDM rubber seals.
- 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 galvanized sheeting (anodized protection of edge zones).
- Water permeating the drilled holes of sandwich elements cannot penetrate the foam layer seal and therefore does not lead to problems.

Important information on structural analysis

- The verification of the fastening forces of the SingleFix-V in the trapezoidal sheet metal roof can usually be looked up in the general structural analysis of the Schletter system (pay regard to the special information about roof edge areas!).
- When calculating the maximum snow load, it has to be taken into account that the roof also has to bear the distributed load / basis weight of the solar plant (individual verification required in certain cases).

Component overview

113009-200 SingleFix-V Solo mounting kit

(2 x SingleFix-V Solo, 4 self-tapping screws
rail piece Solo 450 mm)

113009-203 SingleFix-V Solo pair mounting kit - Fischer

113009-202 SingleFix-V 20 mounting kit

(2 x SingleFix-V 20, 4 self-tapping screws, rail piece Solo 450 mm)
With particularly low corrugation crowns, min. 20mm!



In order to safeguard an uninterrupted potential connection, we recommend interconnecting the rail pieces by means of an aluminium grounding tape (item no.119015-000) and a self-tapping screw (item no. 943000-700).

For cable routing, our cable fasteners have proven to be a perfect solution (see Schletter cable fasteners - product sheet)

Technical data

Material	Fastening components: High-grade steel 1.4301; screws/bolts: High-grade steel, cross beam: aluminium, gaskets/sealing: EPDM rubber seals
Different designs	Suitable for all current trapezoidal sheet metal designs and sandwich elements
Planning aid	Configuration and structural dimensioning with the AutoCalculator Easy and the Schletter Configurator.
Structural analysis	Structural analysis in accordance with current national standards (in Germany DIN EN 1991, EC1). Structural analysis attachments on the dimensioning of the number of required fastening spots, based on structural calculation. By all means, please ensure you observe the structural analysis information! The verification of the holding force of the roof to the substructure is not included in the general structural analysis attachments!

Further information at: www.schletter.eu