

## SingleFix-V

### Features and Benefits

- Works with all trapezoidal sheet metal roofs
- Structurally sound by lateral screwing
- Quick installation
- System structural analysis included



Self-supporting trapezoidal sheet metal roofs do not allow mounting hardware to be fastened to the substructure, but do have sufficient load-bearing capacity for quick and simple direct mounting. Engineered to allow quick and simple direct mounting, SingleFix-V is an unrivaled solution for trapezoidal sheet metal roofs.

The SingleFix-V system is made up of a combination of Schletter standard rails and SingleFix-V fastening elements. The system is intended for vertical module mounting.

### Mounting Instructions

For each project, Schletter provides detailed drawing packages which include spacing requirements for the SingleFix-V. Depending on how the system is designed additional spacing information is provided for items such as Rapid2+ clamps and rail spans. As with all projects, follow proper system layout steps before creating roof penetrations.

#### Step One

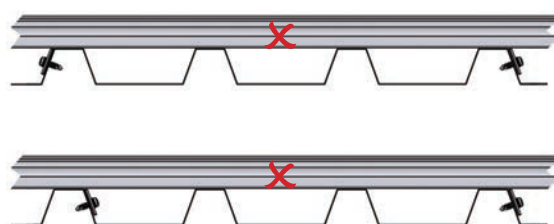
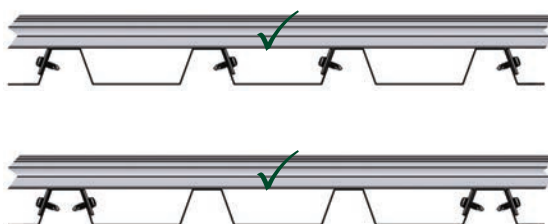
Once span locations for SingleFix-V are marked, place each side of the SingleFix-V into the receiving groove in rail. Note: The EPDM sides of the SingleFix-V should be facing each other.

#### Step Two

Position SingleFix-V sides in predetermined span locations (reference drawing package for appropriate locations). It is important to position the SingleFix-V as noted on the drawings in order to follow proper structural safety requirements and load considerations.

#### Step Three

Install remainder of system. If modules are attached to a rail, proceed with module and clamp installation. For other system installation, please refer to applicable installation guidelines.



## Mounting Suggestions

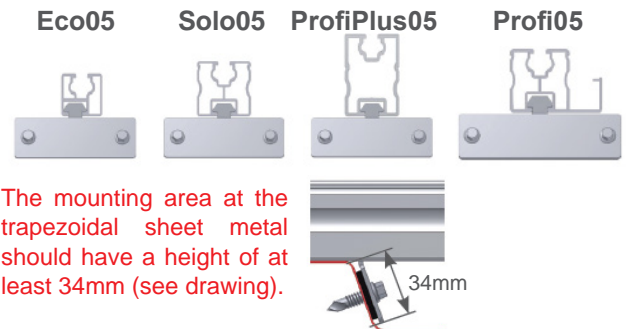
The structural analysis for the system requires that the SingleFix-V components be installed so they transmit exactly defined forces. To this end, the following items should be considered:

- When the SingleFix-V fastening element is screwed into place, it should pull the module bearing profile onto the upper corrugation of the sheet metal, so that pressure loads can be transmitted. In order to achieve this, the screws should be drilled in slightly inclined from top to bottom.
- The screws should not turn without grip when mounting (use a depth stop and proper torque).
- Screws should not be loosened after mounted and screwed again into the same hole.
- A minimum sheet metal thickness of 0.5mm is required if steel sheet metal is used, and a minimum thickness of 0.8 mm is required if aluminum sheet metal is used.
- To prevent surface damage to the coating of the trapezoidal sheet metal by thermal elongation, use individual rubber underlayments at the crossing points of the cross girder with the corrugation top surfaces (EPDM rubber is available as an accessory item (item no. 973000-014), 48mm wide, roles with a length of 10m).
- The roof must be able to bear the additional load of the PV system.
- The fastening of the trapezoidal sheet metal must be able to absorb the wind suction forces.
- In case of overlapping elements, the layers must have sufficient holding forces to one another.
- For a better load distribution, the SingleFix-V fastening elements should be distributed on several corrugations.
- When arranging the rails, ensure that the profile connectors are not positioned at the corrugation tops.
- Due to thermal elongations, do not use rails longer than 10m.



**SingleFix Solo Twin Kit**  
Item No. 113009-100

**SingleFix Profi Twin Kit**  
Item No. 113009-101



## Sealing Suggestions

- The screws that are included are equipped with sealing discs which prevent water entry at the fastening points.
- The SingleFix-V elements are equipped with EPDM rubber at the inner side to serve as a seal between the SingleFix-V and the sheet metal roof.
- Please note that while Schletter offers components that can help to seal penetrations, responsibility for sealing penetrations lies with the installer.

## Structural Suggestions

- Verification of the holding forces for the SingleFix-V can usually be found in the structural analysis.
- In regards to snow load, consider that the distributed load of the PV system has to be supported by the roof cladding.
- In regards to wind suction forces, consider that the respective forces have to be absorbed by the chosen SingleFix-V arrangement and have to be transmitted into the roof construction.
- To relieve the trapezoidal sheet metal, equip the first two corrugation tops at the roof edge with fasteners.

## Technical Data

<b>Material</b>	Fastening elements: Quality steel 1.4301; Screws: High-grade steel
<b>Application</b>	Suitable for all trapezoidal sheet metal roofs
<b>Structural Analysis</b>	Structural analysis according to current national standards. Dimensions and number of required penetrations according to structural analysis. General structural analysis does not include specific holding forces of the roof to the roof substructure.
<b>Kit</b>	Two SingleFix-V Solo or Profi elements and four self-drilling screws 6x25