

Solar Systems of Schweizer:

List of components – MSP PV mounting system.



MSP PV Mounting Systems:

- MSP-PR for Pitched Roofs
- MSP-PR Inlay for Pitched Roofs with Inlay Profiles
- MSP-TT for Trapezoidal Metal Roofs
- MSP-FR-EW for Flat Roofs (East-West)
- MSP-FR-S for Flat Roofs (South)

Please note that: Items marked with an **E** expire and are only available for a limited time. Articles marked with **N** are new. Please check availability.

Solar Systems of Schweizer:


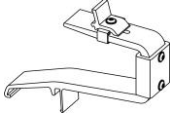
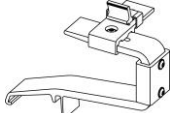

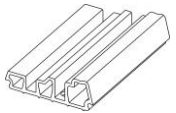

PV mounting system for Pitched Roofs MSP-PR.

The **MSP-PR PV mounting system** is designed for attaching to pitched roofs. A range of aluminium roof hooks with a sophisticated click-in fastening, supplemented by classic stainless steel roof hooks and also hanger bolts are available for attaching to roof structures. Supporting rails are fastened either in single-layers or cross-connected grid-systems using preassembled clamps. Connectors can be used to extend rails in large arrays. There are 2 types of module clamps for all common PV modules with frame heights between 30 mm and 50 mm.




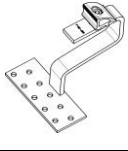
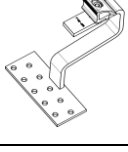
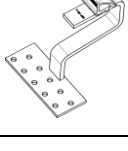
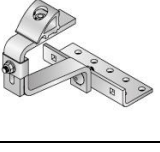
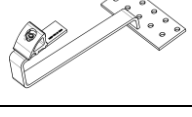
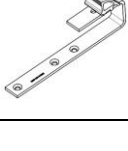



Benefits

- Fast mounting thanks to clever click-in system.
- User-friendly: Parts pre-assembled means no screws or other small parts.
- Components don't rotate out of place.
- Rails can be trod on which helps speed up installation.
- Saves costs: Only as many roof hooks as actually required per site.
- High quality and components balanced and all matched to the system for maximum safety.

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|--|---|---------------------------------|--------------------|--------------|----------|
| Roof hook MSP-PR-RHF |  | Aluminium EN AW- 6063 T66 | MSP-PR-RHF | 12 | 2048538 |
| Roof hook adjustable MSP-PR-RHA |  | Aluminium EN AW- 6063 T66 | MSP-PR-RHA | 12 | 2048539 |
| Roof hook for grid installation MSP-PR-RHC |  | Aluminium EN AW- 6063 T66 | MSP-PR-RHC | 12 | 2048610 |
| Roof hook MSP-PR-RHL low profile |  | Aluminium EN AW- 6063 T66 | MSP-PR-RHL | 12 | 2065899 |
| Base plate MSP-PR-BP height 39 mm |  | Aluminium EN AW- 6063 T66 | MSP-PR-BP 39 mm | 24 | 2048535 |
| Base plate MSP-PR-BP height 45 mm | | Aluminium EN AW- 6063 T66 | MSP-PR-BP 45 mm | 24 | 2048536 |
| Spacer plate MSP-PR-SP |  | PA66 GF 30 | MSP-PR-SP | 25 | 2048537 |








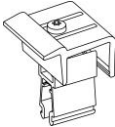
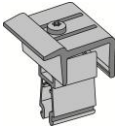
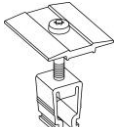


Solar Systems of Schweizer:

PV mounting system for Pitched Roofs MSP-PR.

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|---------------------------------------|---|-----------------------------|-----------------------|--------------|--|
| Roof hook MSP-PR-RHC 45/5 |  | Stainless steel A2 | MSP-PR-RHC 45/5 | 10 | 435495 |
| Roof hook MSP-PR-RHC 55/5 |  | A2Stainless steel A2 | MSP-PR-RHC 55/5 | 10 | 435496 |
| Roof hook MSP-PR-RHC 41/8 |  | Stainless steel A2 | MSP-PR-RHC 41/8 | 10 | 435499 |
| Roof hook MSP-PR-RHC 55/8 |  | Stainless steel A2 | MSP-PR-RHC 55/8 | 10 | 435500 |
| Roof hook MSP-PR-RHC AA 35-45/8 |  | Stainless steel A2 | MSP-PR-RHC AA 35-45/8 | 10 | 435502 |
| Roof hook MSP-PR-RHC-B 30/5 |  | Stainless steel A2 | MSP-PR-RHC-B 30/5 | 10 | 435504 |
| Roof hook MSP-PR-RHC-S 50/5 |  | Stainless steel A2 | MSP-PR-RHC-S 50/5 | 10 | 435505  |
| Wood screw MSP-PR-HS TX 40 |  | Stainless steel A2 | MSP-PR-HS 8x100 A2 | 100 | 424777 |
| | | | MSP-PR-HS 8x120 A2 | 100 | 424778 |
| Hanger bolt MSP-PR-HB A2 |  | Stainless steel A2 (1.4301) | MSP-PR-HB 10x200 A2 | 20 | 2045294 |
| | | | MSP-PR-HB 12x200 A2 | 50 | 2096330 |
| | | | MSP-PR-HB 12x300 A2 | 20 | 424751 |

Solar Systems of Schweizer:

PV mounting system for Pitched Roofs MSP-PR.

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|---|---|---|-----------------------|--------------|---|
| Hanger bolt plate MSP-PR-HBP for M10 and M12 |  | Aluminium EN AW- 6063 T66 | MSP-PR-HBP | 20 | 2065896 |
| Carrier profile MSP-PR-CH |  | Aluminium EN AW- 6063 T66 | MSP-PR-CH 2,07 m | 6 | 2050010  |
| | | | MSP-PR-CH 3,3 m | 1 | 2048618 |
| | | | MSP-PR-CH 6,0 m | 168 | 2048617  |
| | | | MSP-PR-CH 6,3 m | 168 | 2050015 |
| Sleeve MSP-PR-SL |  | Aluminium EN AW- 6063 T66 | MSP-PR-SL | 8 | 2048619 |
| Cross connector MSP-PR-CC |  | Aluminium EN AW- 6063 T66 and stain- less steel 1.4404 | MSP-PR-CC | 24 | 2048622 |
| End cap MSP-PR-CAP for carrier section MSP-PR-CH |  | Polypropyl- ene | MSP-PR-CAP | 20 | 2065895 |
| End clamp MSP-PR-EC 30-50 mm |  | Various | MSP-PR-EC | 12 | 2048616 |
| Middle clamp MSP-PR-ECB 30-50 mm, black |  | | MSP-PR-ECB | 12 | 2066231 |
| Middle clamp MSP-PR-MC |  | | MSP-PR-MC 30-50 mm | 24 | 2048615 |
| Middle clamp MSP-PR-MCG grounding | | | MSP-PR MCP 30-50 m | 24 | 21855  |
| Middle clamp MSP-PR-MCB black |  | | MSP-PR-MCB | 24 | 2066232 |
| Middle clamp MSP-PR-MCBG black, grounding | | | MSP-PR-MCBG | 24 | 2091461 |

Solar Systems of Schweizer:

PV mounting system for Pitched Roofs MSP-PR Inlay.

In addition to the MSP-PR product range an **insertion rail system** is available for mounting PV modules without clamping. Modules are inserted into the inlay rails which are the top layer of a grid system and with MSP-PR-CC cross connecting to a lower level of vertically mounted MSP-PR-CH rails. Insertion rails can be extended with rail connectors and the PV modules are secured against shifting with a stopper.




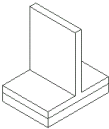
Benefits

- Insertion system for mounting with only minimal loading of the PV modules.
- Compatible with the MSP-PR mounting system.
- Flexible attachment options include aluminium and stainless steel roof hooks and also hanger bolts.
- For PV modules with 35 mm or 40 mm high frames
- Module orientation can even be mixed (though not within each row).
- Available in black (RAL 9005 Jet Black)

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|---------------------------------------|--|---|------------------------|--------------|------------------------|
| Insertion channel MSP-PR-IC 35 | | Aluminium EN AW-6063 T66 | MSP-PR-IC 35 3.3 m | 6 | 21863 from March 2021 |
| Insertion channel MSP-PR-ICB 35 black | | Aluminium EN AW-6063 T66 | MSP-PR-ICB 35 3.3 m | 6 | 21864 from March 2021 |
| Insertion channel MSP-PR-IC 40 | | Aluminium EN AW-6063 T66 | MSP-PR-IC 40 3.3 m | 6 | 21865 from March 2021 |
| Insertion channel MSP-PR-ICB 40 black | | Aluminium EN AW-6063 T66 | MSP-PR-ICB 40 3.3 m | 6 | 21866 from March 2021 |
| | | | MSP-PR-ICB 40 6.3 m | 1 | 21021 |
| Sleeve MSP-PR-SL | | Aluminium EN AW-6063 T66 | MSP-PR-SL | 8 | 2048619 |
| Cross connector MSP-PR-CC | | Aluminium EN AW-6063 T66 and stainless steel 1.4404 | MSP-PR-CC | 24 | 2048622 |
| Edge stop MSP-PR-ESB | | Stainless steel A2 | MSP-PR-ESB | 20 | 21025 |

Solar Systems of Schweizer:

PV mounting system for Pitched Roofs MSP-PR Inlay.

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|--------------------------------|---|-------------------|-----------|--------------|----------|
| Screw MSP-FR-S M6x16 |  | ZnNi-coated steel | MSP-FR-S | 200 | 2013705 |
| Insertion stopper MSP-PR-IS |  | Various | MSP-PR-IS | 12 | 21156 |

Solar Systems of Schweizer:

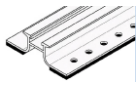



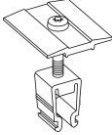
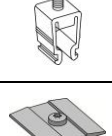
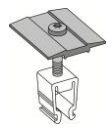

PV mounting system for Trapezoidal Metal Roofs MSP-TT.

MSP-TT is for mounting on trapezoidal metal roofs and consists new of no more than 2 components apart from the clamps. Tracks come in 3 pre-cut lengths and it is a simple system suitable for all common types of trapezoidal metal roofs. Tracks are screwed directly to the roof with special thin-sheet screws without pre-drilling. High-quality EPDM sealing tape is applied between tracks and the roof providing weather sealing. Universal clamps - the same as in all MSP mounting systems - are used to fix the PV panels.



Benefits

- Minimal number of components
- Universal clamps – same as in all MSP mounting systems
- Flexibility: Array length unlimited, thermal expansion automatically absorbed
- No special trapezoidal sheet metal fasteners or bridges: Attachment is straight onto the metal beads without the need for custom parts

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|---|---|--|------------------------|--------------|----------------|
| Track MSP-TT-CHA preassembled |  | Aluminium EN AW- 6063 T66, EPDM | MSP-TT-CHA 270 mm | 12 | 21859 N |
| | | | MSP-TT-CHA 370 mm | 12 | 21560 |
| Thin Sheet Metal Screw MSP-TT-TS 6x25 TX 8 |  | Stainless steel A2 | MSP-TT-TS 6x25 | 200 | 19944 |
| End clamp MSP-PR-EC 30-50 mm |  | Various | MSP-PR-EC | 12 | 2048616 |
| Middle clamp MSP-PR-ECB 30-50 mm, black |  | | MSP-PR-ECB | 12 | 2066231 |
| Middle clamp MSP-PR-MC |  | | MSP-PR-MC 30-50 mm | 24 | 2048615 |
| Middle clamp MSP-PR-MCB grounding ¹⁾ |  | | MSP-PR-MCG 30-50 mm | 24 | 21855 N |
| Middle clamp MSP-PR-MCB black |  | | MSP-PR-MCB | 24 | 2066232 |
| Middle clamp MSP-PR-MCBG black, grounding |  | | MSP-PR-MCBG | 24 | 2091461 |

¹⁾ Equipotential tested by VDE with track MSP-TT-CHA

Solar Systems from Schweizer:

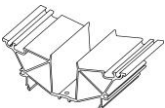

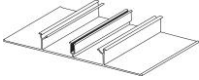

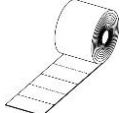
PV mounting system for Flat Roofs MSP-FR-EW.

MSP-FR-EW is for mounting PV modules on **flat roofs facing East-West**, though azimuth deviation hardly matters. The amount of ballasting required is uniquely low. Base plates (supports) do not interfere with roof drainage (avoiding water build-up) and are available in various sizes to suit all types of thermal insulation. A special wind-deflector is available (MSP-FR-EW-WD) and can be used in parts of an array where there is not enough space for a full East-West module gable.






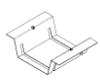


Benefits

- No roof penetrations required
- Fast installation: less than 20 minutes per kW and installer
- Highly efficient installation work flow
- No interference with water drainage
- Optimal spread of loading to minimize impact on roofing membrane
- Minimal ballasting required
- Very low area loads, starting at 7 kg/m²
- Excellent mechanical and chemical protection of roofing membrane

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|--|---|---------------------------------|----------------------|--------------|----------|
| Support low MSP-FR-EW-SL |  | Aluminium EN AW- 6063 T66 | MSP-FR-EW-SL | 18 | 2072553 |
| | | | MSP-FR-EW-SL 8 | 18 | 19927 |
| Support high MSP-FR-SH |  | Aluminium EN AW- 6063 T66 | MSP-FR-EW-SH | 12 | 2072554 |
| Base profile MSP-FR-EW-BP width 250 mm |  | Aluminium EN AW- 6063 T66 | MSP-FR-EW-BP 150 | 10 | 2072555 |
| | | | MSP-FR-EW-BP 300 | 10 | 2072556 |
| | | | MSP-FR-EW-BP 450 | 10 | 2072557 |
| | | | MSP-FR-EW-BP 600 | 10 | 2072558 |
| | | | MSP-FR-EW-BP 900 | 10 | 2072559 |
| | | | MSP-FR-EW-BP 1200 | 10 | 2072560 |
| Wind deflector MSP-FR-EW-WD for EW support |  | Aluminium EN AW- 6063 T66 | MSP-FR-EW-WD | 5 | 20771 |
| Protection sheet MSP-FR-EW-PSF perforated 10 m roll |  | Fleece | MSP-FR-EW-PSF | 1 | 2072561 |



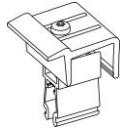
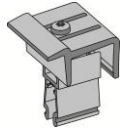
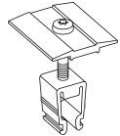

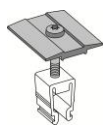
Solar Systems from Schweizer:

PV mounting system for Flat Roofs MSP-FR-EW.

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|--|---|--|---|---------------------------|--------------------------|
| Protection sheet MSP-FR-PSF 150 with corner slots for MSP-FR-BP 150 |  | Fleece | MSP-FR-PSF 150 | 60 | 21034 |
| Protection sheet MSP-FR-PSF 300 with corner slots for MSP-FR-BP 300 | | | MSP-FR-PSF 300 | 30 | 21035 |
| Connection channel MSP-FR-EW-C |  | Aluminium EN AW- 6063 T66 | MSP-FR-EW-C 300-360 | 12 | 2072368 |
| MSP-FR-EW-C 950-1010 | | | 24 | 2072369 | |
| MSP-FR-EW-C 1011-1075 | | | 24 | 21464 | |
| MSP-FR-EW-C 1230-1290 | | | 10 | 19945 | |
| MSP-FR-EW-C 1495-1559 | | | 10 | 19616 | |
| MSP-FR-EW-C 1620-1680 | | | 10 | 2072551 | |
| MSP-FR-EW-C 1685-1749 | | | 10 | 21465 | |
| MSP-FR-EW-C 1750-1814 | | | 10 | 21794 | |
| MSP-FR-EW-C 1815-1879 | | | 10 | 21856 N | |
| MSP-FR-EW-C 1880-1944 | | | 10 | 21857 N | |
| MSP-FR-EW-C 1945-2005 | | | 10 | 2072552 | |
| MSP-FR-EW-C 2010-2174 | | | 10 | 21810 | |
| MSP-FR-EW-C 2075-2139 | | | 10 | 21793 | |
| Ballast tray MSP-FR-S-WD | | |  | Galvanized sheet steel | MSP-FR-S-WD 1620-1684 |
| MSP-FR-S-WD 1685-1749 | 6 | 21562 | | | |
| MSP-FR-S-WD 1750-1814 | 6 | 21811 | | | |
| Ballast tray holder MSP-FR-S-SB |  | Galvanized sheet steel SVZ EN 10346 | MSP-FR-S-SB | 24 | 20682 |
| Screw MSP-FR-S M6x16 |  | ZnNi- coated steel | MSP-FR-S | 200 | 2013705 |
| Screw MSP-FR-TS 6,3x22 |  | Stainless steel A2 | MSP-FR-TS | 200 | 21348 |

Solar Systems from Schweizer:

PV mounting system for Flat Roofs MSP-FR-EW.

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|---|---|-----------------------|------------------------|--------------|---|
| Grounding screw MSP-FR-GS 6x60 |  | Stainless steel A2 | MSP-FR-GS | 100 | 2013706 |
| Cable holder MSP-FR-CH8 |  | PA6 UV-resistant | MSP-FR-CH8 | 100 | 418916 |
| End clamp MSP-PR-EC 30-50 mm |  | Various | MSP-PR-EC | 12 | 2048616 |
| Mid clamp MSP-PR-ECB 30-50 mm, black |  | | MSP-PR-ECB | 12 | 2066231 |
| Middle clamp MSP-PR-MC |  | | MSP-PR-MC 30-50 mm | 24 | 2048615 |
| Middle clamp MSP-PR-MCB grounding | | | MSP-PR-MCB 30-50 mm | 24 | 21855  |
| Middle clamp MSP-PR-MCB black |  | | MSP-PR-MCB | 24 | 2066232 |
| Middle clamp MSP-PR-MCBG black, grounding | | | MSP-PR-MCBG | 24 | 2091461 |

Solar Systems from Schweizer:

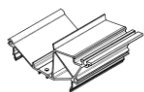

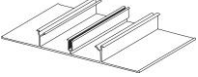


PV mounting system for Flat Roofs MSP-FR-S.

MSP-FR-S is for mounting PV modules on **flat roofs facing South**. The amount of ballasting required is very low. Base plates (supports) do not interfere with roof drainage (avoiding water build-up) and are available in various sizes to suit all types of thermal insulation and not to damage roofing membranes. MSP-FR-S for flat roofs South is compatible with MSP-FR-EW for flat roofs East-West and most components are common with both mounting systems.



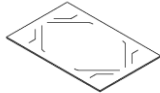











Benefits

- No roof penetrations required
- Fast installation: less than 20 minutes per kW and installer
- Highly efficient installation work flow
- No interference with water drainage
- Optimal spread of loading to minimize impact on roofing membrane
- Minimal ballasting required
- Very low area loads, starting at 7 kg/m²
- Excellent mechanical and chemical protection of roofing membrane

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|--|---|--------------------------------|-------------------|--------------|----------|
| Support low MSP-FR-S-SL |  | Aluminium EN AW-6063 T66 | MSP-FR-S-SL | 30 | 20678 |
| Support high MSP-FR-SH |  | Aluminium EN AW-6063 T66 | MSP-FR-SH | 12 | 20677 |
| Base profile MSP-F-EW-BP width 250 mm |  | Aluminium EN AW-6063 T66 | MSP-FR-EW-BP 150 | 10 | 2072555 |
| | | | MSP-FR-EW-BP 300 | 10 | 2072556 |
| | | | MSP-FR-EW-BP 450 | 10 | 2072557 |
| | | | MSP-FR-EW-BP 600 | 10 | 2072558 |
| | | | MSP-FR-EW-BP 900 | 10 | 2072559 |
| | | | MSP-FR-EW-BP 1200 | 10 | 2072560 |
| Protection sheet MSP-FR-EW-PSF perforated 10 m roll |  | Fleece | MSP-FR-EW-PSF | 1 | 2072561 |
| Protection sheet MSP-FR-PSF 150 with corner slots for MSP-FR-BP 150 |  | Fleece | MSP-FR-PSF 150 | 60 | 21034 |

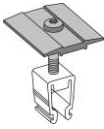
Solar Systems from Schweizer:

PV mounting system for Flat Roofs MSP-FR-S.

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|--|---|---|--------------------------|--------------|---|
| Protection sheet MSP-FR-PSF 300 with corner slots for MSP-FR-BP 300 |  | Fleece | MSP-FR-PSF 300 | 30 | 21035 |
| Connection channel MSP-FR-EW-C |  | Aluminium EN AW-6063 T66 | MSP-FR-EW-C 300-360 | 12 | 2072368 |
| | | | MSP-FR-EW-C 470-530 | 12 | 20679 |
| | | | MSP-FR-EW-C 950-1010 | 24 | 2072369 |
| | | | MSP-FR-EW-C 1011-1075 | 24 | 21465 |
| Wind deflector / ballast tray MSP-FR-S-WD |  | Galvanized sheet steel | MSP-FR-S-WD 1620-1684 | 6 | 20680 |
| | | | MSP-FR-S-WD 1685-1749 | 6 | 21562 |
| | | | MSP-FR-S-WD 1750-1814 | 6 | 21811 |
| Ballast tray holder MSP-FR-S-SB |  | Galvanized sheet steel SVZ EN 10346 | MSP-FR-S-SB | 24 | 20682 |
| Screw MSP-FR-S M6x16 |  | ZnNi-coated steel | MSP-FR-S | 200 | 2013705 |
| Screw MSP-FR-TS 6,3x22 |  | Stainless steel A2 | MSP-FR-TS | 200 | 21348 |
| Grounding screw MSP-FR-GS 6x60 |  | Stainless steel A2 | MSP-FR-GS | 100 | 2013706 |
| Cable holder MSP-FR-CH8 |  | PA6 UV-resistant | MSP-FR-CH8 | 100 | 418916 |
| End clamp MSP-PR-EC 30 - 50mm |  | Various | MSP-PR-EC | 12 | 2048616 |
| Middle clamp MSP-PR-ECB 30 - 50mm, black |  | | MSP-PR-ECB | 12 | 2066231 |
| Middle clamp MSP-PR-MC |  | | MSP-PR-MC 30-50 mm | 24 | 2048615 |
| Middle clamp MSP-PR-MCB grounding | | | MSP-PR-MCB 30-50 mm | 24 | 21855  |

Solar Systems from Schweizer:

PV mounting system for Flat Roofs MSP-FR-S.

| Part Description | | Material | Code | Packing Unit | Art.-No. |
|---|---|----------|-------------|--------------|----------|
| Middle clamp MSP-PR-MCB black |  | Various | MSP-PR-MCB | 24 | 2066232 |
| Middle clamp MSP-PR-MCBG black, grounding | | | MSP-PR-MCBG | 24 | 2091461 |