

GRUNDACH SOLAR SYSTEMS

Solar Mounting System for Pitched Roof



www.grundach-solarsystems.com

Grundach Solar Systems offers photovoltaic mounting systems for pitched roofs.

Grundach Solar Systems is a company specializing in the design and manufacture of advanced mounting hardware for solar panels.

Since its inception, the company has been committed to providing innovative and high-quality mounting solutions for solar installations, meeting the changing needs of the industry.

Our extensive product range perfectly adapts to various projects, whether for residential, commercial, or industrial installations.

Safety, durability, and ease of installation are at the core of our philosophy, and each product undergoes rigorous testing to ensure its quality and reliability.

As a trusted partner in the field of solar mounting systems, Grundach Solar Systems stands out with its innovation-focused approach and customer satisfaction. We are committed to offering high-performance and durable solutions, ensuring the success of your solar projects of any scale.





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1 Required Tools



Cordless Screwdriver



Pencil



Torque Wrench



TX25 / TX40 Bit



8mm / 10mm / 13mm / 17mm
Socket



SW5 / SW6 Bit



Chalk Line



Angle Grinder



Tape Measure

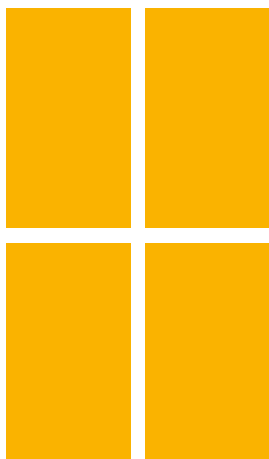


Hacksaw



Slate Cutter

2 Symbols: Portrait or Landscape Assembly



Portrait
Assembly



Assemblage Paysage

3 Fasteners

Self-tapping Screw with EPDM Washer



Ref. :

Self-tapping Screw 6.0x25.....**301018**
Without Material Removal

Lag Screw with Flange Head



Ref. :

8x60 TX40**301014**
8x80 TX40**301015**
6x60 TX25**301073**
6x80 TX25**301074**

M10 Hex Head Screw [DIN 933]



Ref. :

M10 - 25mm**301009**

Socket Head Cap Screw [DIN 912]



Ref. :

DIN912 A2 M8x16.....**301000**
DIN912 A2 M8x20.....**301001**
DIN912 A2 M8x25.....**301002**
DIN912 A2 M8x30.....**301003**
DIN912 A2 M8x35.....**301004**
DIN912 A2 M8x40.....**301005**

Square Nut [DIN 557]



Ref. :

M8**301007**

Hex Flange Nut [DIN 6923]



Ref. :

M10.....**301013**

Hammer Head Bolt



Ref. :

M10 - 25mm**301011**

Square Head Bolt



Ref. :

M10 - 25mm**301012**

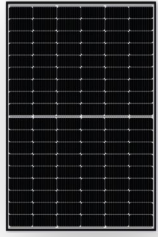
M8 Quick Nut



Ref. :

M8 Quick.....**301006**

4 Aperçu : système de montage toiture inclinée



Tile Roof



Slate Roof and
Flat Tile Roof



Corrugated
Sheet Roof



Trapezoidal
Sheet Roof

Roof Mounting



301045
Tile Hook
Double Adjustment



301051
Tile Hook
Single Adjustment



301145
Tile Hook
Double Adjustment - Long



301046
Hook - Simple



301047
Hook - Single Adjustment



301146
Hook - Single Adjustment - Long



301050
Hook - Single Adjustment



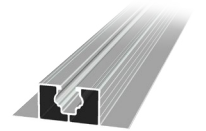
301048
Hook - Simple



301052
Lag Screw with Mounting Plate
for Corrugated Sheet

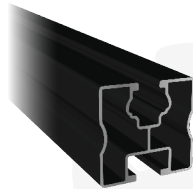


301078
Mini-Rail - Trapezoidal Sheet



301072
Trapezoidal Sheet Profile - 6m

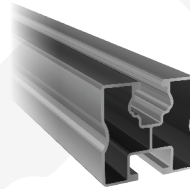
Profile - Rails



301058
Profile - Black - 600 cm

301149
Profile - Black - 365 cm

301150
Profile - Black - 250 cm



301059
Profile - Aluminum - 600 cm

301151
Profile - Aluminum - 365 cm

301152
Profile - Aluminum - 250 cm

Clamps



301020
Mid Clamp



301024
End Clamp - 30 mm



301025
End Clamp - 32 mm



301028
End Clamp - 35 mm



301031
Mid Clamp - Quick
With Spring



301030
End Clamp - Quick - 30 mm
With Spring



301035
Mid Clamp - Quick
Without Spring

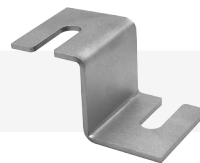


301037
End Clamp - Quick - 30 mm
Without Spring

Accessoires



301086
Rail Junction



301085
Z-Shaped Piece - Rail Crossing



301088
Rail End Cap - Black

5 Mounting System: TILES

5.1 Different Models of Tile Roof Hooks



Tile Roof Hook with Double-Adjustment



Tile Roof Hook with Single-Adjustment



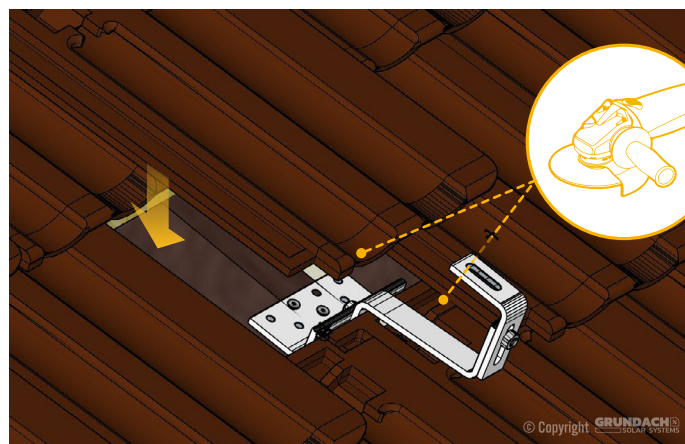
Tile Roof Hook with Double-Adjustment - Long Type

These hooks are placed directly on the rafter to secure the aluminum rail that supports the solar panels.

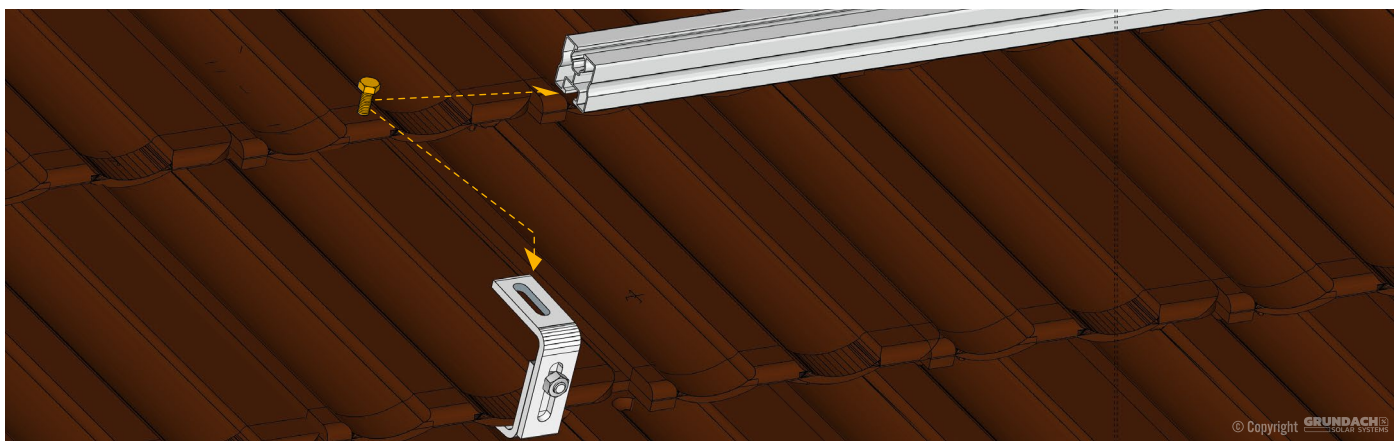
5.2 Installation Diagram for Tile Roof



1. Remove the top tile. Secure the hook to the rafter. (Use lag screw with flange head)!! Minimum 2 screws. 1 on each row of holes. The hook is now in place!

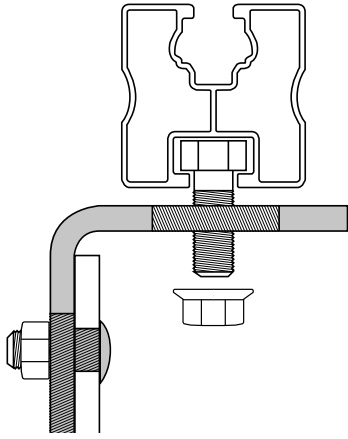


2. Then, replace the tile. If the tile is raised due to the hook, notch it with an angle grinder to allow the hook to pass through. In the case of a double interlocking tile, it will also be necessary to notch the lower tile.



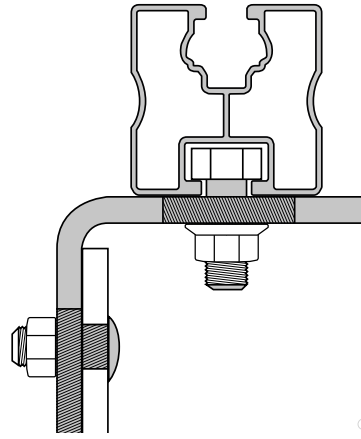
3. Rail installation.

To attach the rail to the hook, insert the head of an M10 hex head bolt or hammer head bolt into the slot of the rail. Then, place the shaft of the bolt into the hole at the end of the protruding hook. Tighten everything with an M10 flange nut (DIN 6923).



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Cutaway View A.
Interlocking of the three elements (Rails / Bolts / Hook) before tightening.



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Cross-Section View B.
Interlocking of the three elements (Rails / Bolts / Hook) with a flange nut. Ensure that the three elements are properly tightened using the M10 flange nut (DIN 6923).

5.3 Notes and Placement: Positioning



4. Positioning of the hooks on the roof.
Determine the position of the hooks based on the number of panels to be installed. △ The spacing between each hook is a MAXIMUM of 1 METER.



6 Mounting System: SLATES

6.1 Different Models of Flat Hooks for Slate Roofs



Slate Roof Hook - Simple - Flat

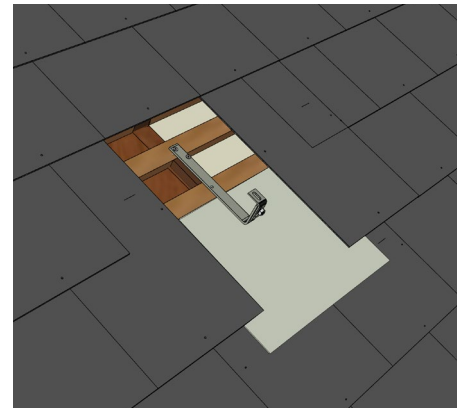
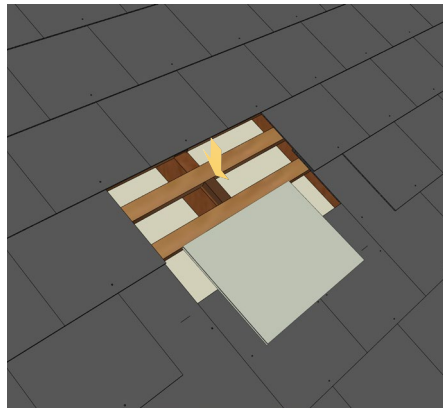
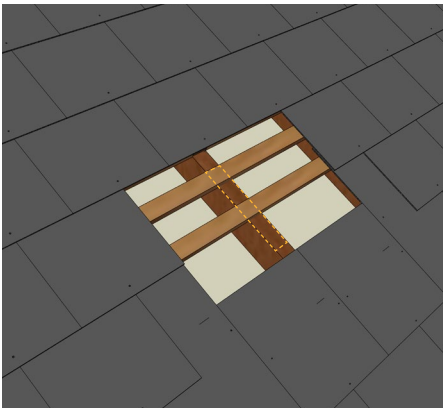


Slate Roof Hook - Adjustable - Flat

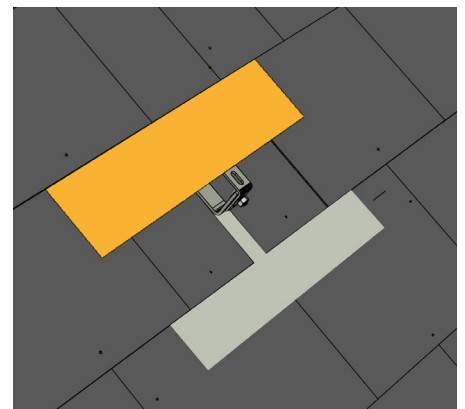
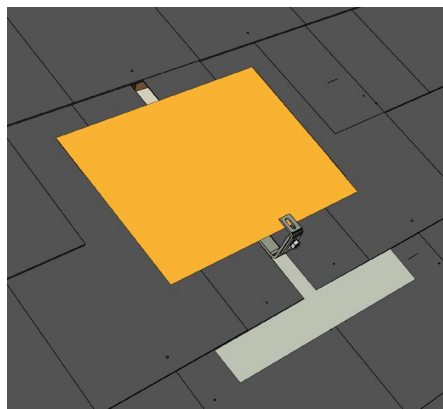
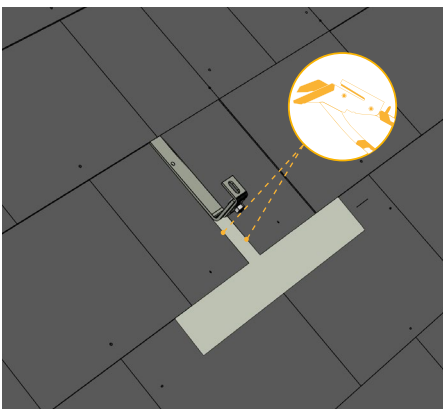


Slate Roof Hook - Adjustable - Flat/Long

6.1.1 Installation Diagram for Slate Roof (Flat Hooks)



1. Locate the position for the hook where it will be installed. Remove the slates in that area. 2. Place a metal plate underneath where the hook will be fixed to reinforce the structure. 3. Insert a shim between the battens to ensure a solid attachment of the hook. 4. Secure the hook to the battens, ensuring that the lag screw penetrates the battens to fix into the rafter. Δ If necessary, add a board between the battens and secure it to the rafter. Ensure the watertightness of the battens before placing the hook.



5. Place a sheet of lead or zinc (not provided) over the hook to ensure watertightness. Make sure the lead or zinc sheet covers the area sufficiently and is placed low enough to ensure a perfect seal. 6. Replace the slates, making the necessary cuts to accommodate the hook. Ensure the watertightness with the lead or zinc sheet if needed. 7. To attach the rail to the hook, insert the head of an M10 hex head screw (DIN 933) into the slot of the rail. Then, place the shaft of the screw into the hole of the protruding hook. Tighten everything with an M10 flange nut (DIN 6923) (see diagram 6.3). 8. Determine the position of the hooks on the roof based on the number of panels to be installed. Δ The spacing between each hook is a MAXIMUM of 1 METER. For steps 7 and 8, see 6.3.

6.2 Different Models of Hooks for Slate Roofs



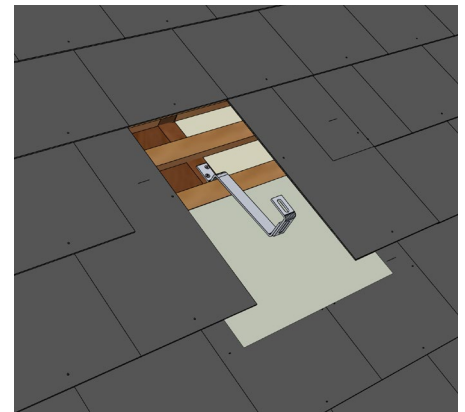
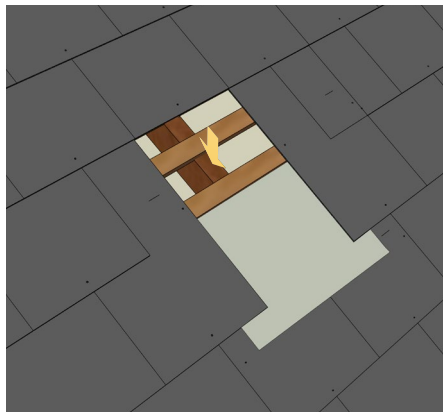
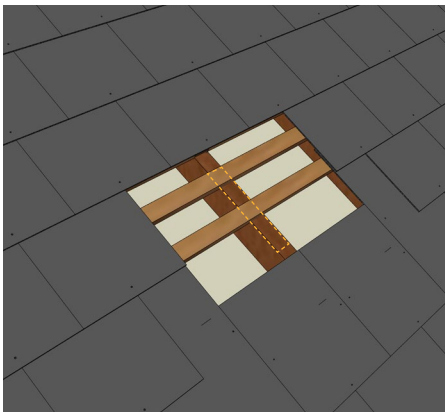
Slate Roof Hook - Simple - Long



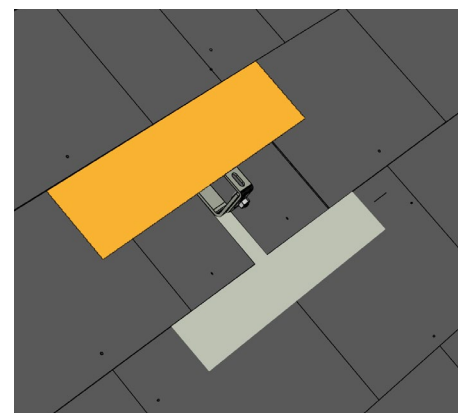
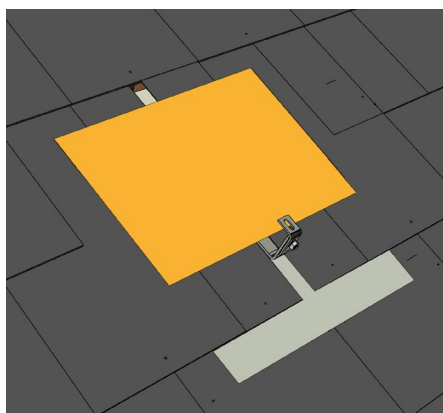
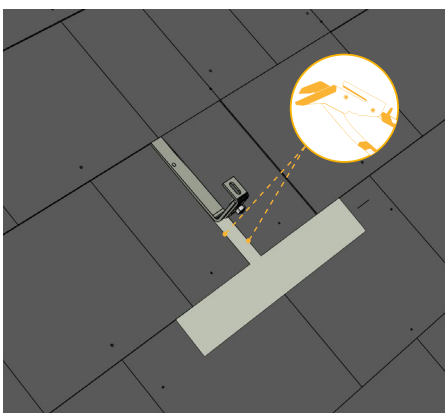
Slate Roof Hook - Adjustable - Long

These hooks are placed directly on the rafter to secure the aluminum rail that supports the solar panels.

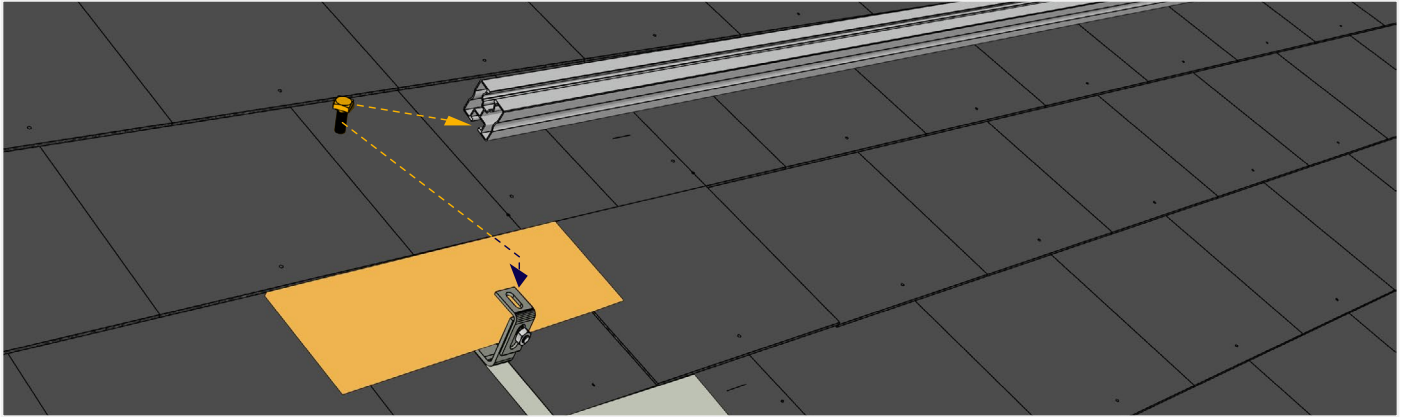
6.2.1 Installation Diagram for Slate Roof (on Rafter)



1. Locate the position where the hook will be installed. Remove the slates in that area. 2. Place a metal plate underneath where the hook will be fixed to reinforce the structure and ensure watertightness. 3. Ensure the watertightness of the battens before placing the hook directly on the rafter. 4. Cut the slates on either side of the hook to allow its passage.



5. Place a sheet of lead or zinc (not provided) over the hook to ensure watertightness. Ensure that the lead or zinc sheet covers the area sufficiently and is placed low enough to ensure a perfect seal. 6. Replace the slates, making the necessary cuts to accommodate the hook. Ensure watertightness with the lead or zinc sheet if needed. 7. To attach the rail to the hook, insert the head of an M10 hex head screw (DIN 933) into the slot of the rail. Then, place the shaft of the M10 screw into the hole of the protruding hook. Tighten everything with an M10 flange nut (DIN 6923) (see diagram 6.3). 8. Determine the position of the hooks on the roof based on the number of panels to be installed. \triangle The spacing between each hook is a MAXIMUM of 1 METER. For steps 7 and 8, see 6.3.

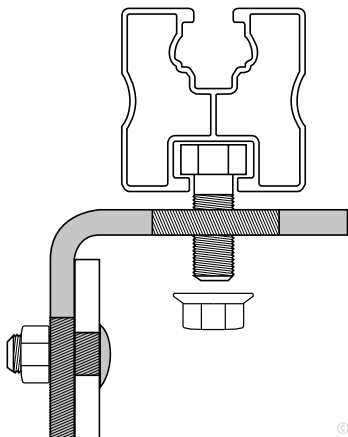


5. Rail Installation..

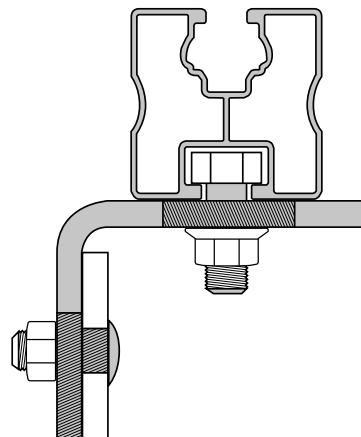
To attach the rail to the hook, insert the head of an M10 hex head screw (DIN 933) into the slot of the rail. Then, place the shaft of the screw into the hole at the end of the protruding hook. Tighten everything with an M10 flange nut (DIN 6923).

6.3 Assembly on Rail Cross-Section View and Placement of Hooks on Roof

(all types of slate hooks)

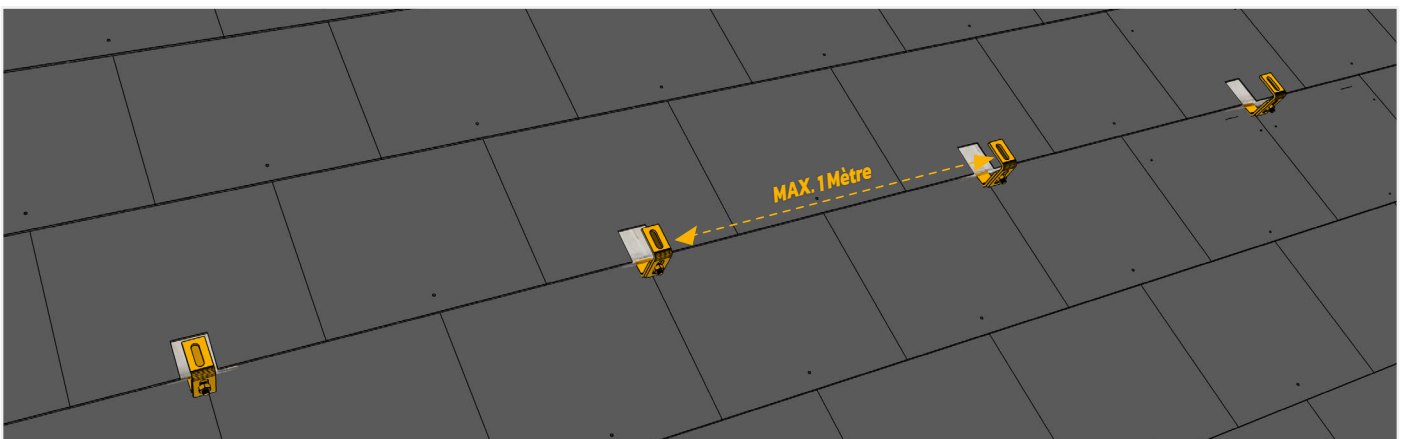


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6. Cross-Section Views of Aluminum Rail Placement



7. Positioning of Hooks on the Roof.

Determine the position of the hooks based on the number of panels to be installed. Δ The spacing between each hook is a MAXIMUM of 1 METER.

7 Mounting System: Corrugated Iron Roofing

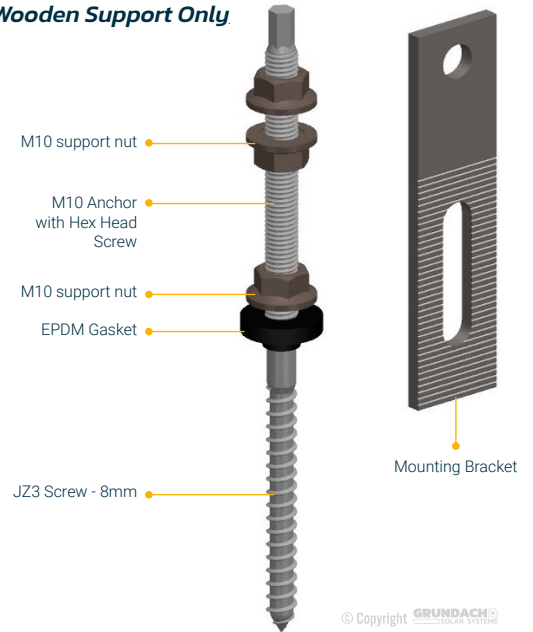
7.1 Lag Screw for Mounting on Corrugated Iron Roofing (Wooden Support Only)



Solar Panel Mounting Screw for Corrugated Sheet Roof, with Mounting Plate. This fixation can also be used on corrugated Eternit roofing. Dimensions: M10x180mm

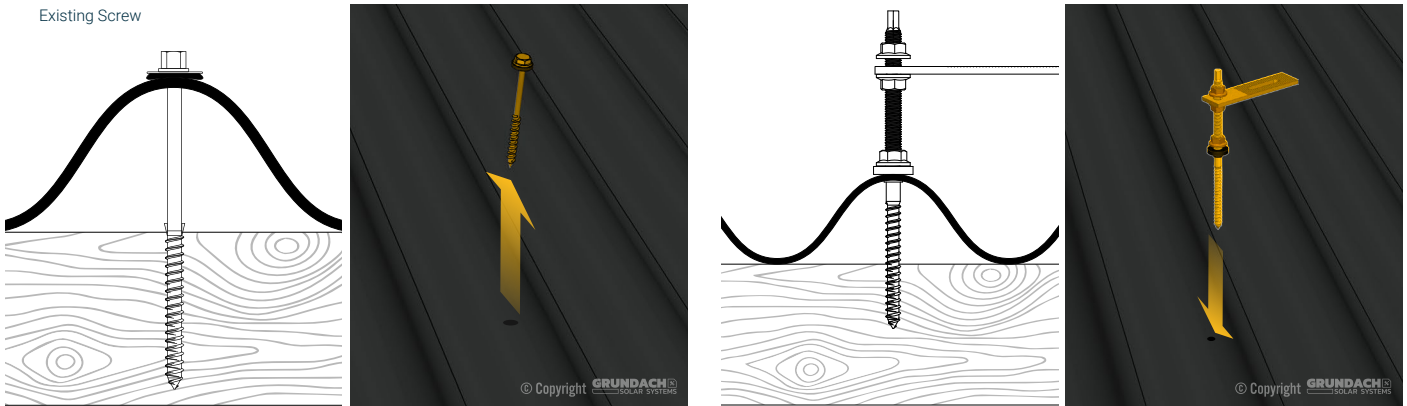
In the case of corrugated sheet roofing, this mounting system uses a special double-threaded screw that is driven through the roofing material to secure it to the roof structure.

A UV-resistant EPDM gasket with a conical seal and a supporting collar is tightened with a mounting nut to ensure a watertight seal of the mounting hole. The mounting plate is then used to attach the aluminum rail that supports the solar panels.



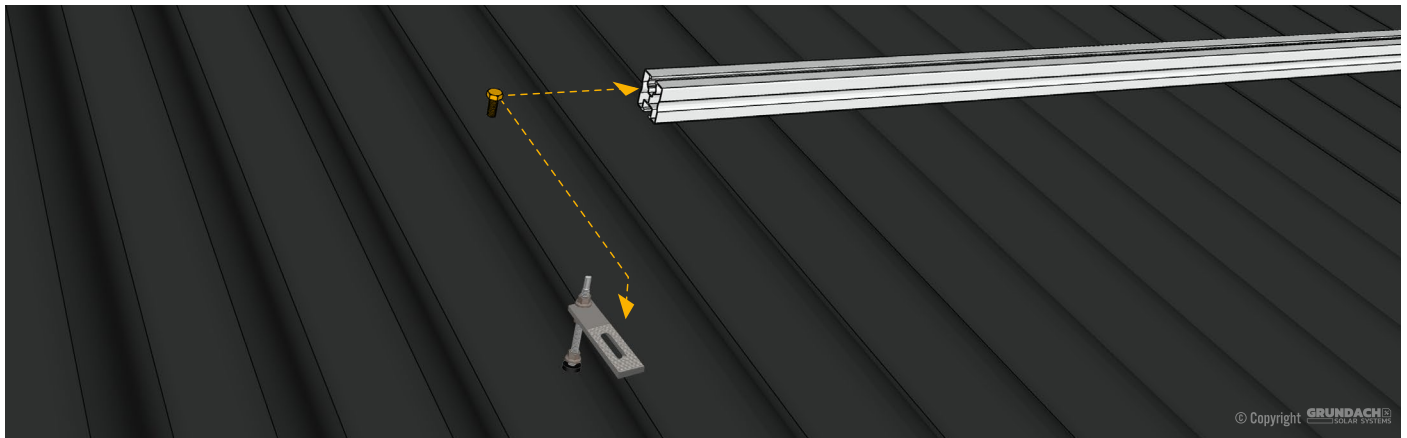
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7.2 Installation Diagram for Corrugated Iron Roofing



1. Remove the existing fixing screws and replace them with the lag screw and mounting plate. If the existing fixings are insufficient, drill new holes using a 12mm drill bit and pre-drill the wood with a 7mm bit to ensure the spacing between fixings is adequate. \triangle Always drill on the top of the wave.

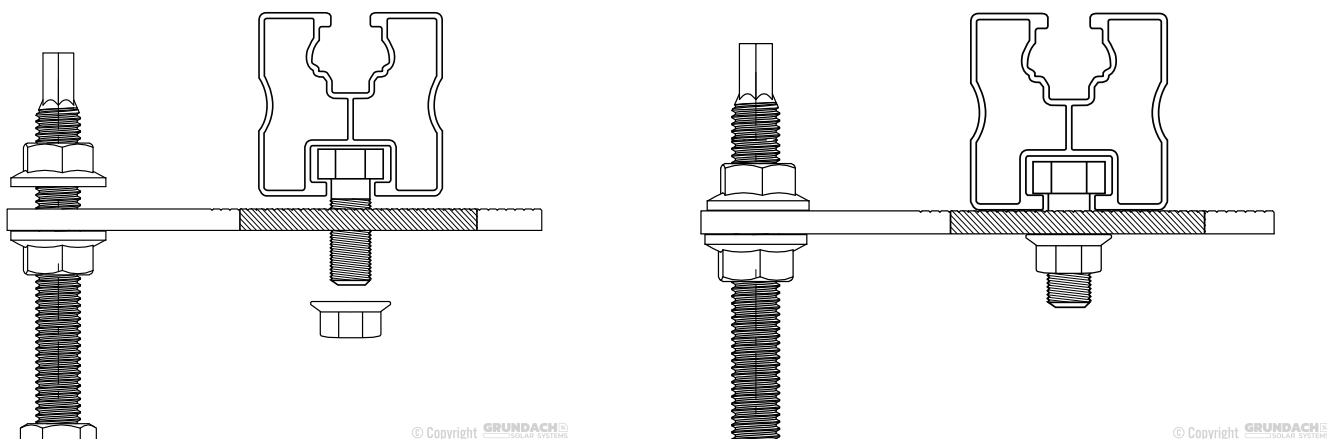
2. Secure the lag screw so that the EPDM gasket is tightly compressed to ensure a watertight installation. Orient the plate to optimally accommodate the aluminum rail (either vertically or horizontally).



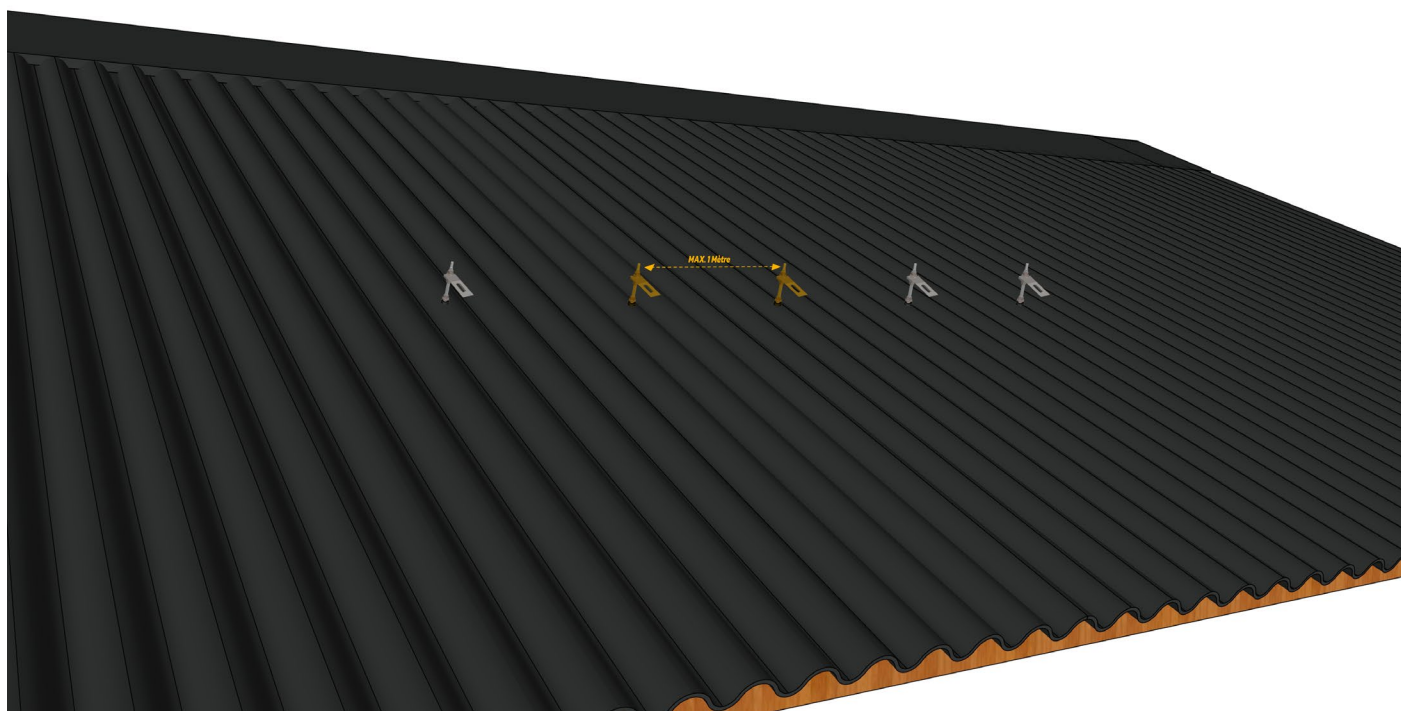
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Rail Installation: To attach the rail to the hook, insert the head of an M10 hex head screw (DIN 933) into the slot of the rail. Then, place the shaft of the screw into the hole at the end of the protruding hook. Tighten everything with an M10 flange nut (DIN 6923).

7.3 Assembly on Rail: Cross-Section View and Arrangement on Corrugated Sheet Roof



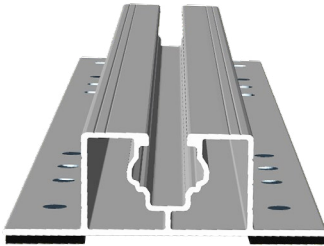
3. Cross-Section View of the Positioning and Fixing of the Rail Using an M10 Hex Head Screw (DIN 933) and an M10 Flange Nut (DIN 6923).



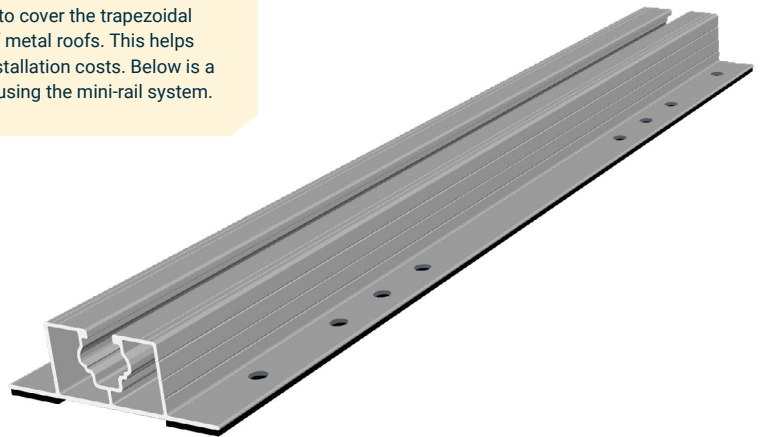
4. Determine the position of the lag screws with mounting plates based on the number of panels to be installed. Δ The spacing between each lag screw with mounting plate is a MAXIMUM of 1 METER.

8 Mounting System: Trapezoidal Sheet Steel Pan

8.1.1 Mini-Rail for Mounting on Trapezoidal Sheet Steel Pan

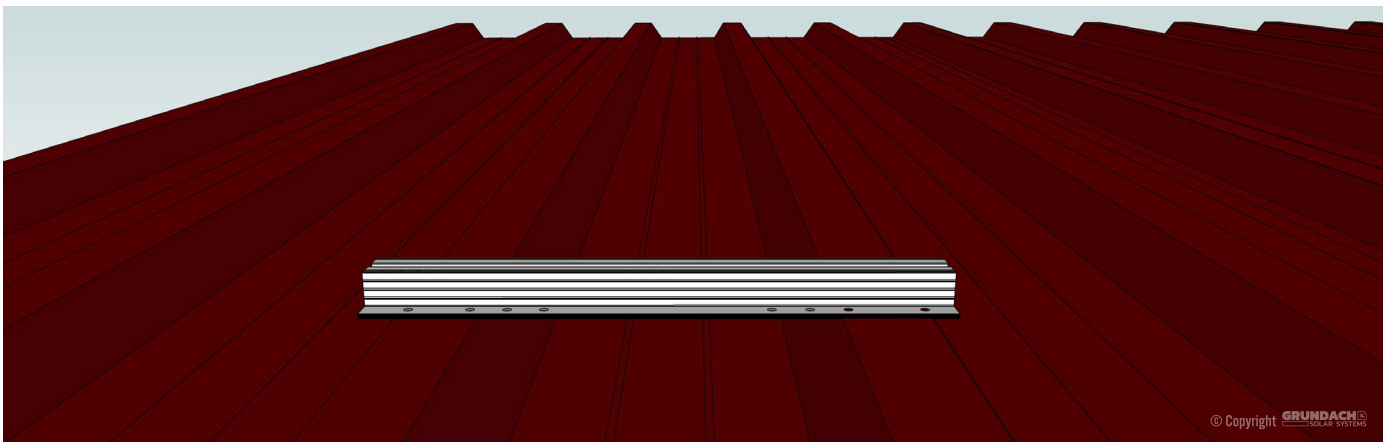


The mini-rail system has been designed to cover the trapezoidal section of metal roofs. This helps reduce installation costs. Below is a guide for using the mini-rail system.

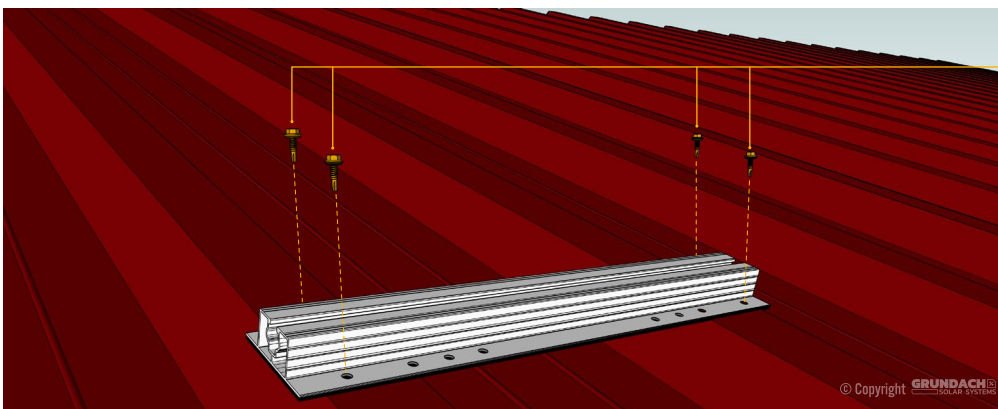


Mini Rail for Mounting on Trapezoidal Sheet Steel Pan

8.1.2 Installation Diagram for Trapezoidal Sheet Steel Pan



1. Align and position the mini-rail correctly as shown in the diagram below.

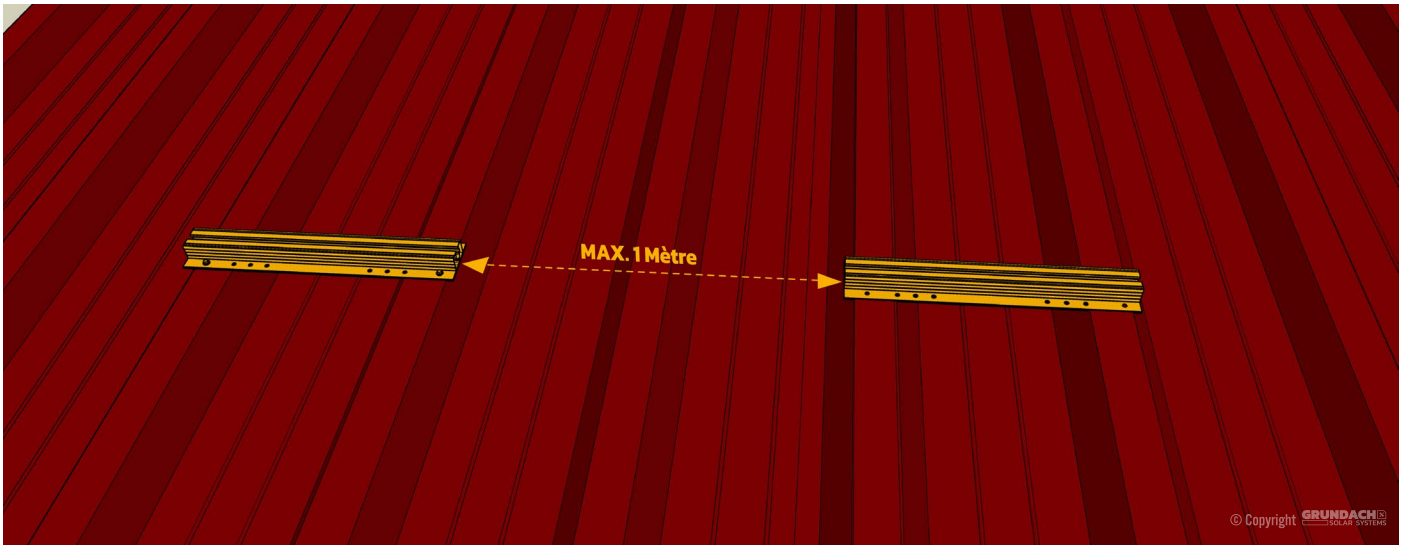


2. The mini-rails are fixed to the trapezoidal sheet with 4 self-drilling sheet metal screws (see appendix). The EPDM gasket under the rail can be compressed by up to 50%. The center of the screw must be at least 8 mm from the edge of the trapezoidal groove to ensure proper sealing.

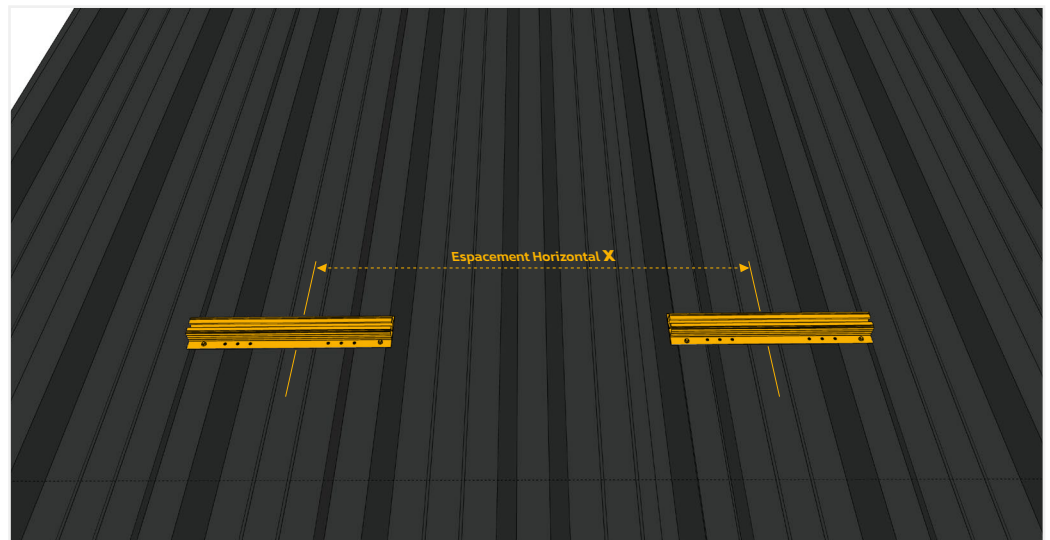


Self-Drilling Screw with EPDM Sealing Washer (8mm Socket)

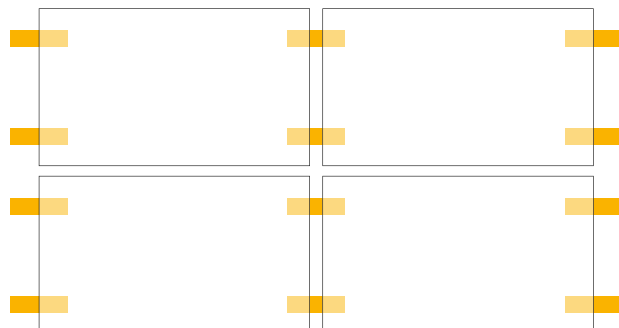
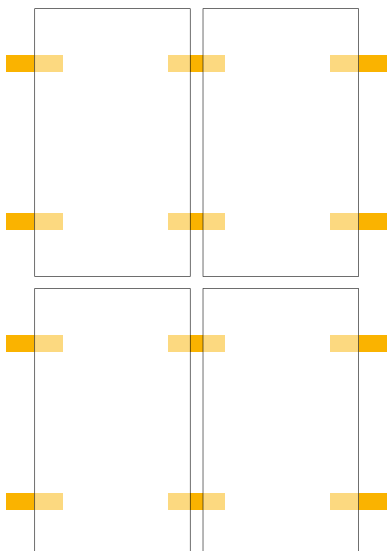
8.1.3 Positioning of Mini-Rails on Trapezoidal Sheet Steel Pan




3. Positioning and Placement.
 Measure the rail for portrait installation. To ensure proper alignment and adjustment of the lower rail, we recommend using a chalk line. The horizontal spacing X between the functional areas of the mini-rails depends on the width of the panels used. For example, if a module has a width of 1000 mm, the functional areas of the rails should also cover this spacing. After correct adjustment, the lower row of rails is fixed as described previously.



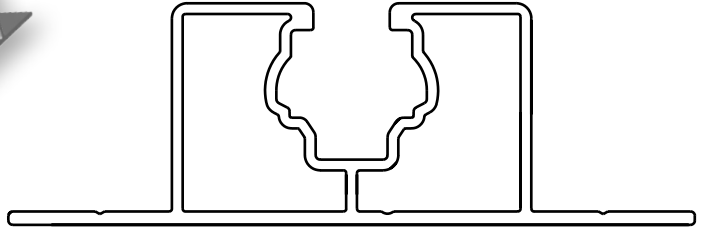
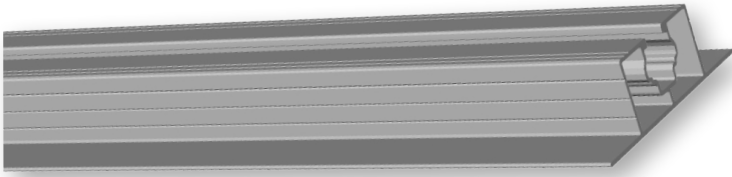
Recommendations for Placing Mini-Rails



4. Distribution of Mini-Rails Relative to the Panels (Landscape or Portrait Positioning).
 Refer to the diagrams on the side, always maintaining the 20%-60%-20% distribution.

 = mini rail

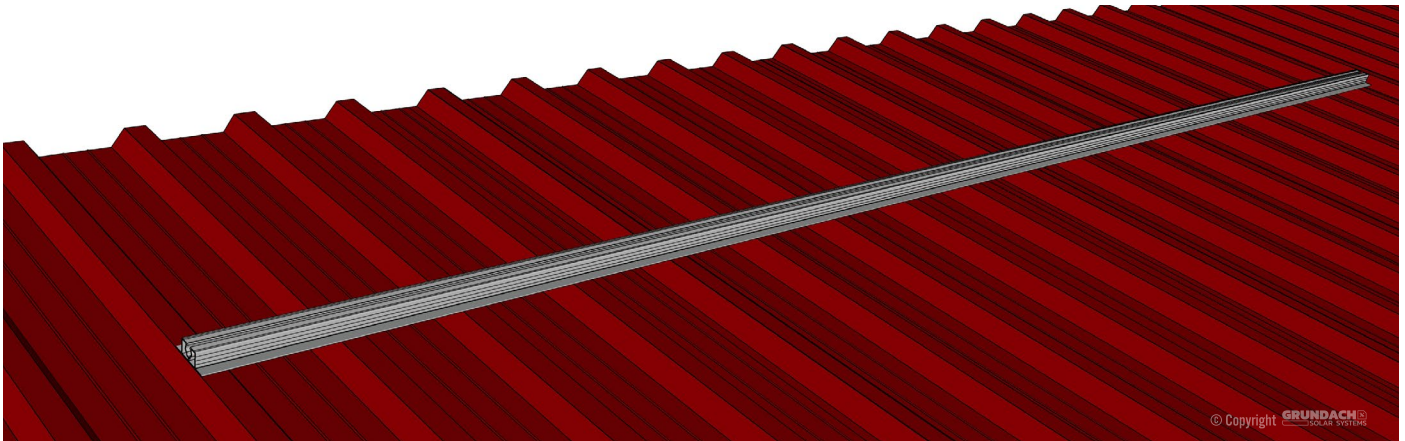
8.2 6m Profile for Mounting on Trapezoidal Sheet Steel Pan



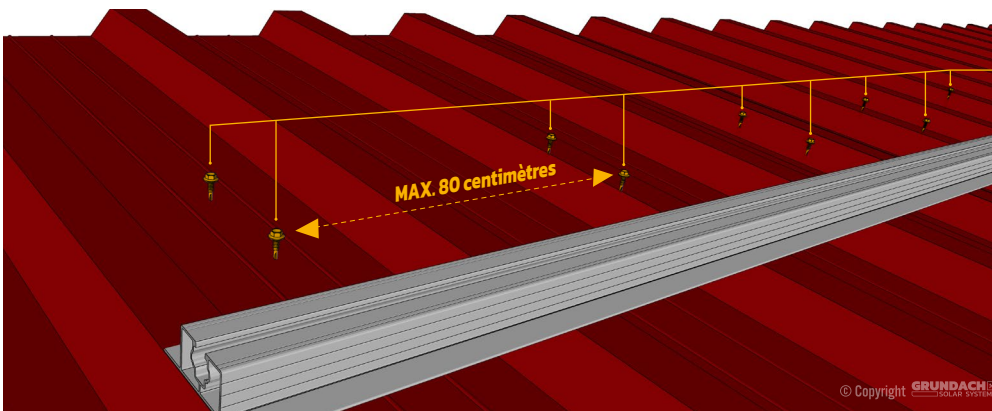
6-Meter Profile for Fixing on Trapezoidal Sheet Steel Pan

Cross-Section View - 6-Meter Profile

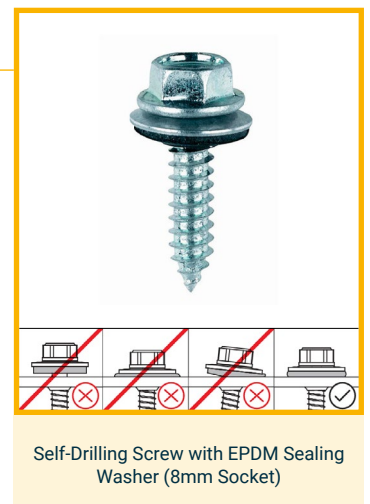
8.2.1 Installation Diagram for Trapezoidal Sheet Steel Pan



1. Align and position the aluminum profile correctly as shown in the diagram below.



2. The profile is secured to the trapezoidal sheet using self-drilling sheet metal screws (see appendix). The center of each screw must be at least 8 mm from the edge of the trapezoidal groove to ensure a proper seal. For rail placement, see section 9.3. Δ The maximum spacing between screws is 80 CENTIMETERS.



Self-Drilling Screw with EPDM Sealing Washer (8mm Socket)

9 Clamps

9.1 Different Models of Clamps

9.1.1 Classic



Mid Clamp



End Clamp - Available Sizes: 30 mm - 32 mm - 35 mm

9.1.2 Quick Clamp

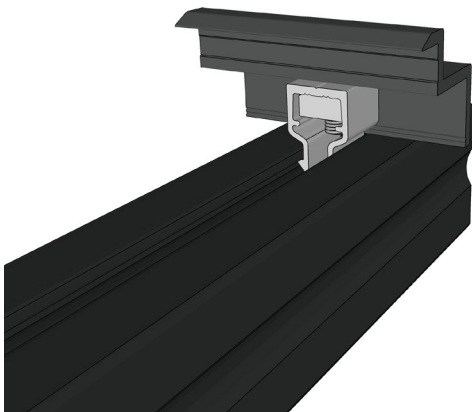


Mid Clamp

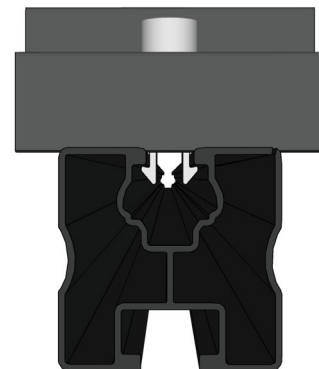


End Clamp - Available Size: 30 mm

9.2 Placement of Quick Clamps in the Rail



Insert the quick clamp into the rail as illustrated above.

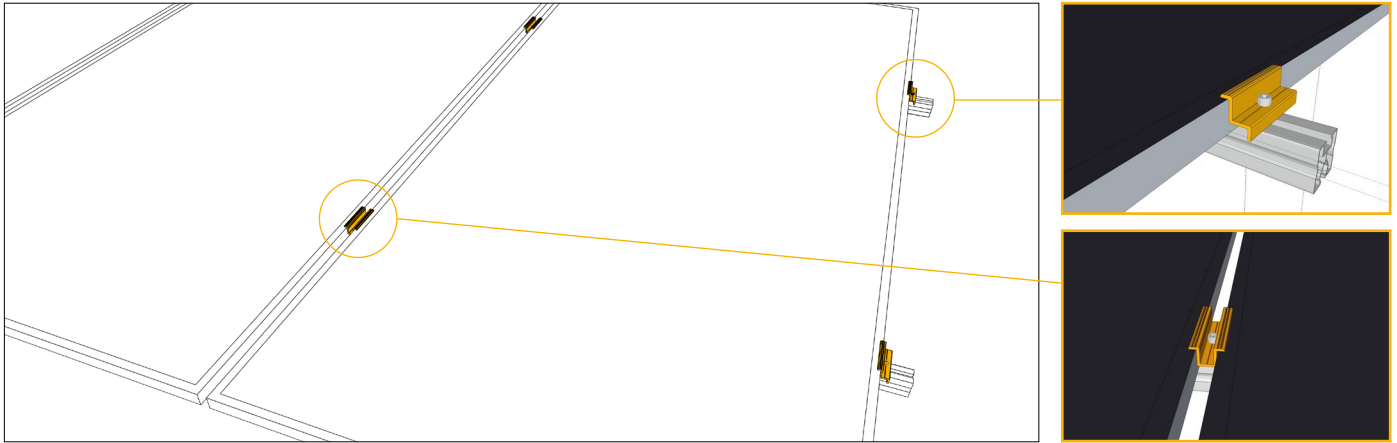


Cross-section view of the placed quick clamp. The placement of quick clamps follows the same method as classic clamps (see section 9.3).

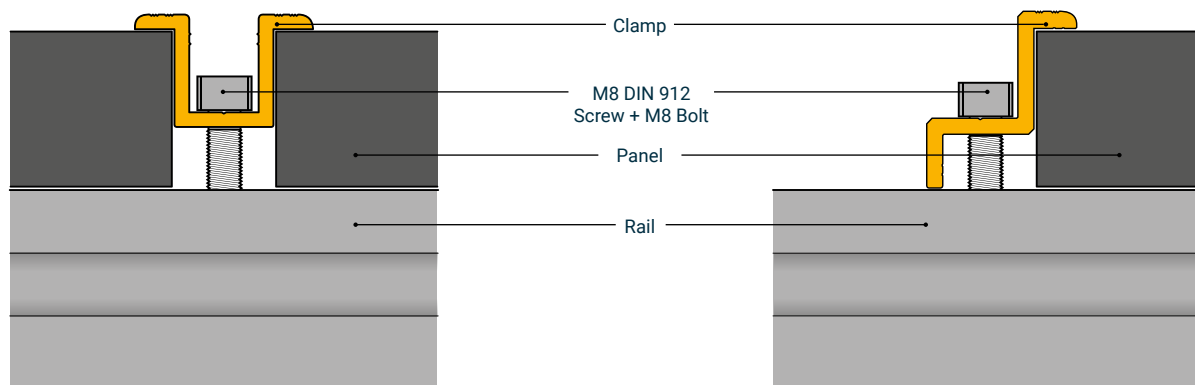
Mid clamps and end clamps are used to secure solar panels onto the rails.

9.3 Clamp Installation Diagram

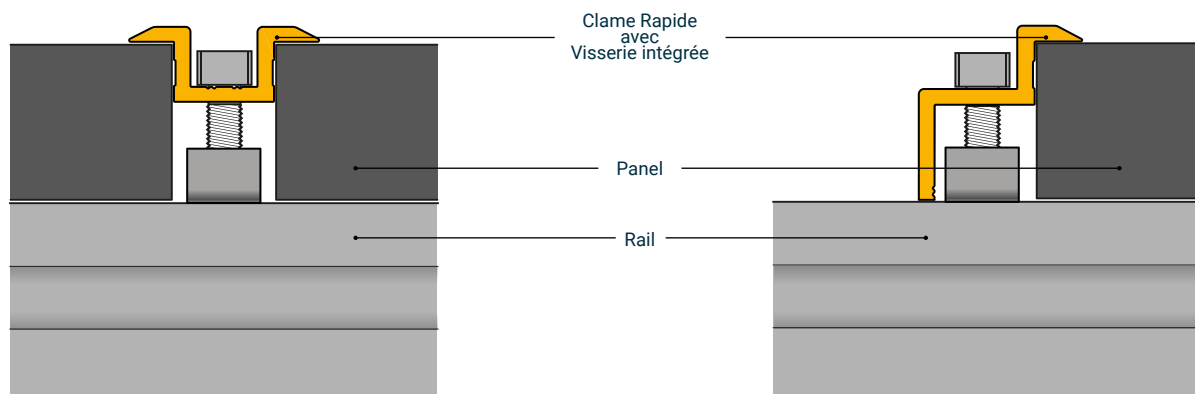
9.3.1 Arrangement of Mid Clamps and End Clamps



9.3.2 Classic Mid Clamp and End Clamp (Cross-Section View)

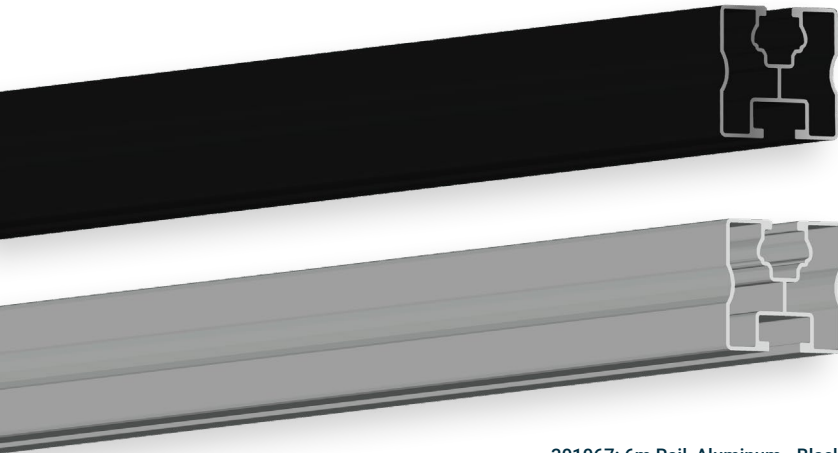


9.3.3 Quick Mid Clamp and End Clamp (Cross-Section View)

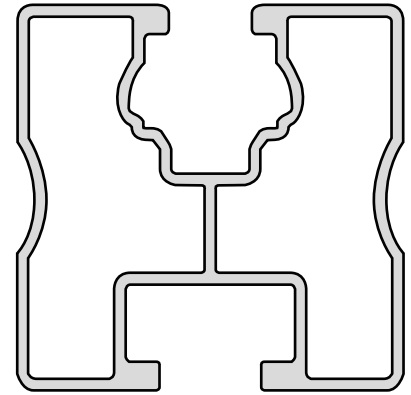


10 Rails

10.1 Different Models of Rails

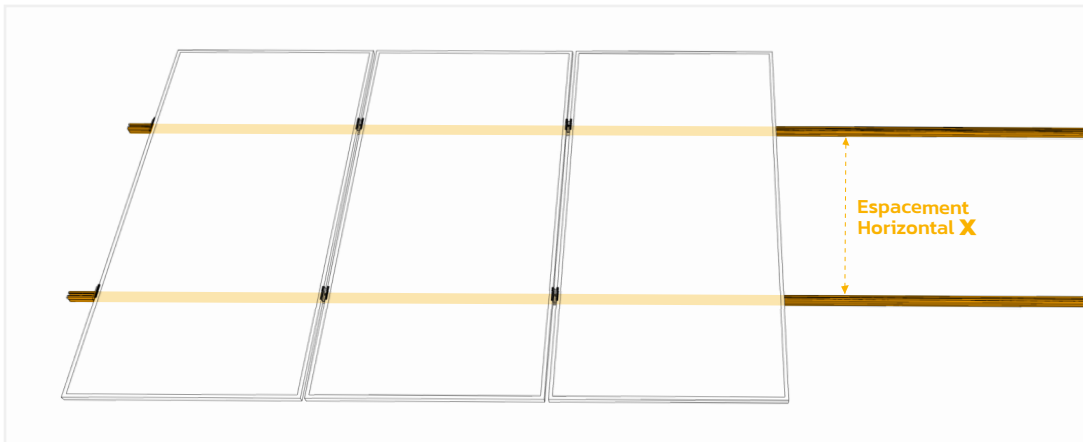


301067: 6m Rail, Aluminum - Black
301068: 6m Rail, Aluminum
OTHER LENGTHS



Cross-Section View
Aluminum Rail 40 x 40 mm

10.2 Rail Installation Diagram



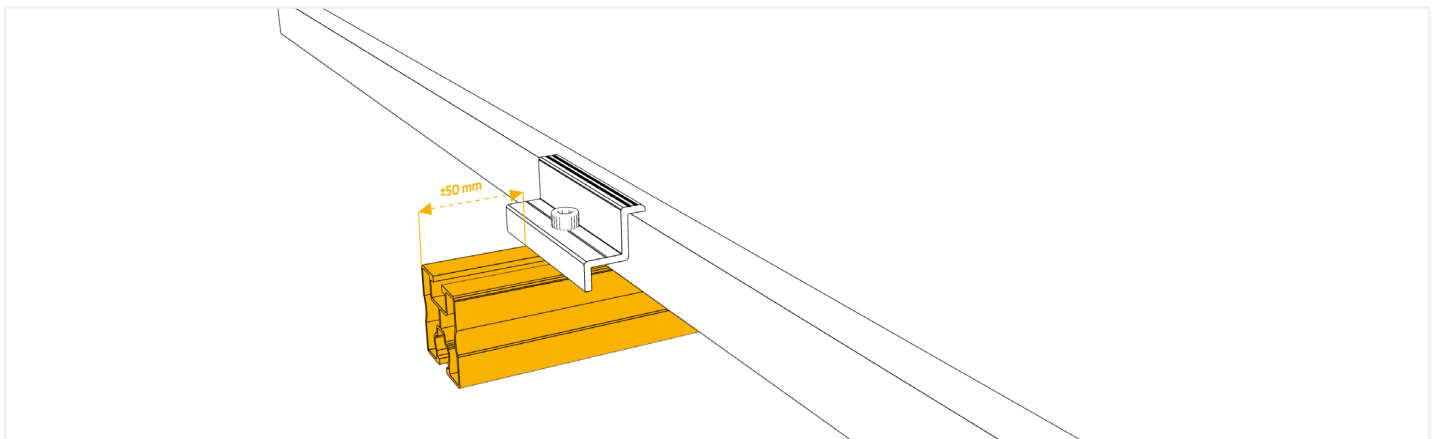
Horizontal Spacing
The horizontal spacing X between rails depends on the length of the panels being used. For example, if a panel is 1000 mm wide, the functional areas of the rails should also cover this spacing.

After adjusting correctly, the rails in the lower row are fixed as described previously.

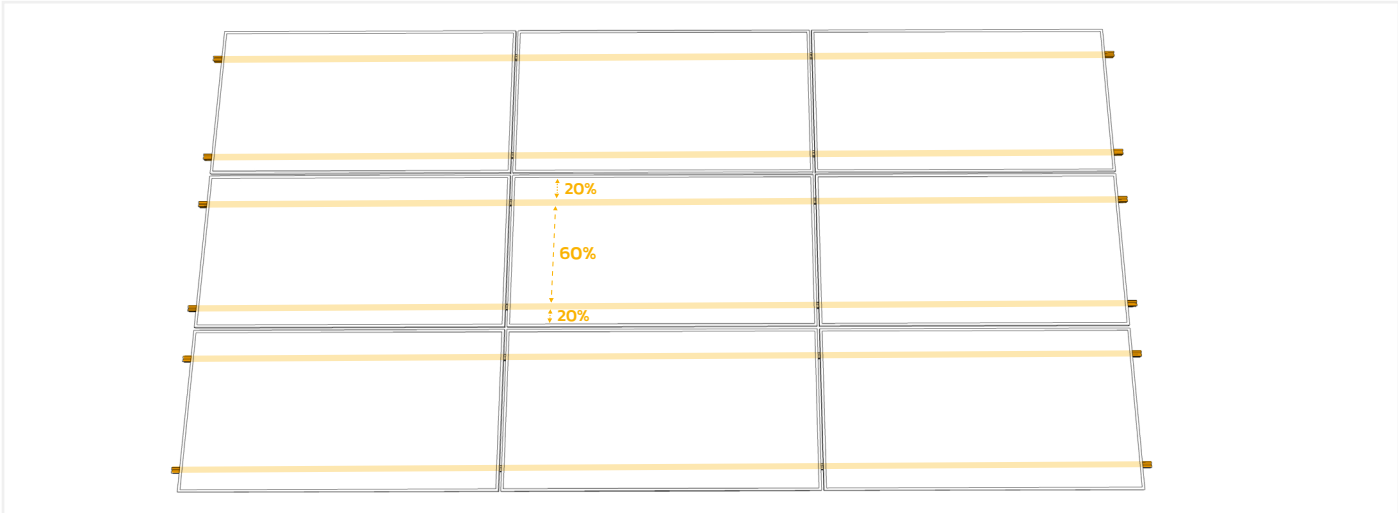
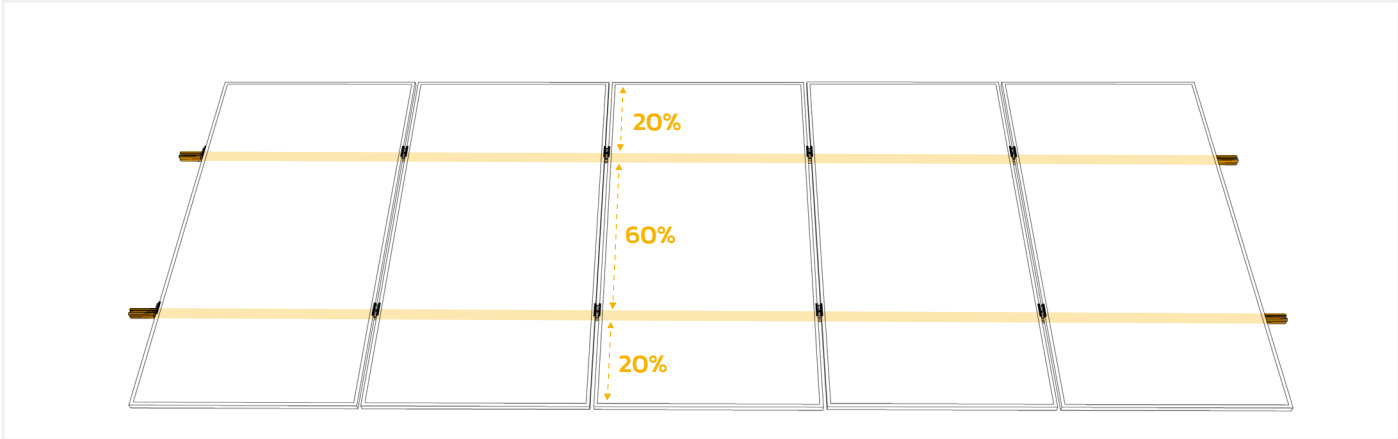
Always ensure the spacing of the rails follows this pattern: 20% - 60% - 20% relative to the dimensions of the panel.

Refer to the diagrams below based on the orientation.

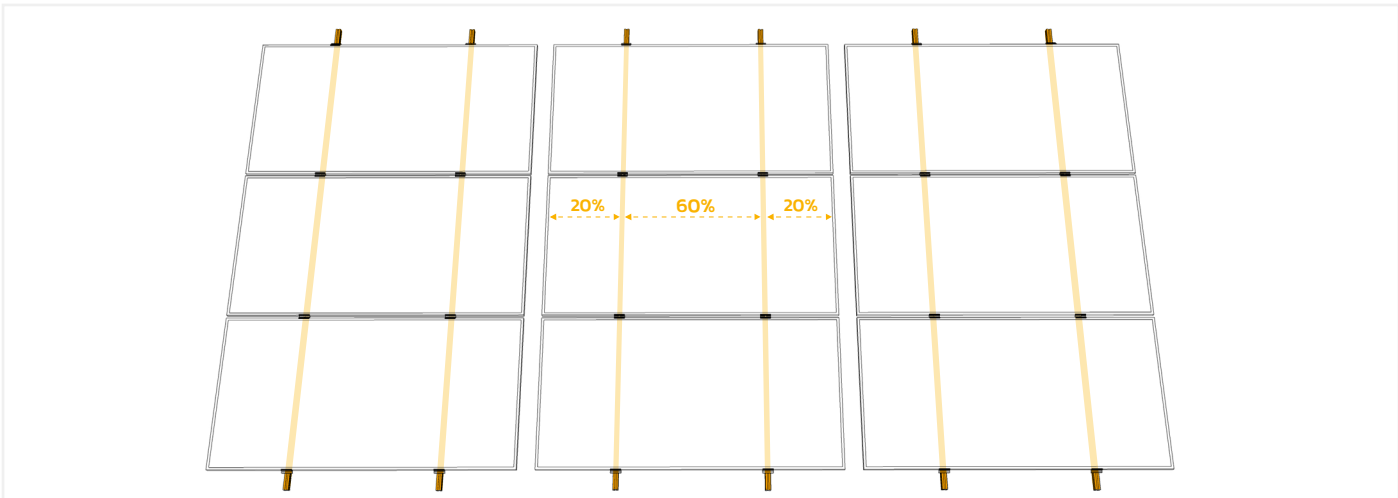
10.3 End of Rails



10.4 Horizontal Placement of Rails



10.5 Vertical Rail Placement / Horizontal Panels



11 Accessories

11.1 Different Products



Rail Junction

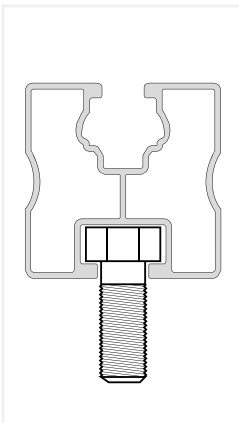


Rail End Cap

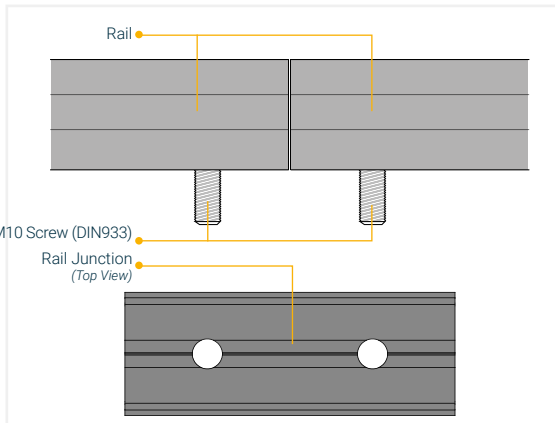


Z-Shaped Piece
Rail Cross Connector

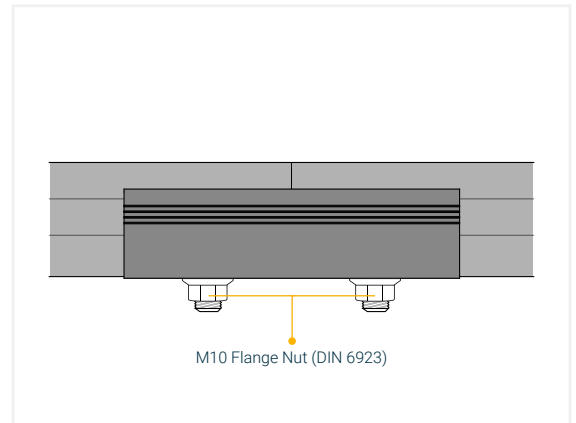
11.2 Rail Junction Installation Diagram



Cross-Section View:
Rail + M10 Screw

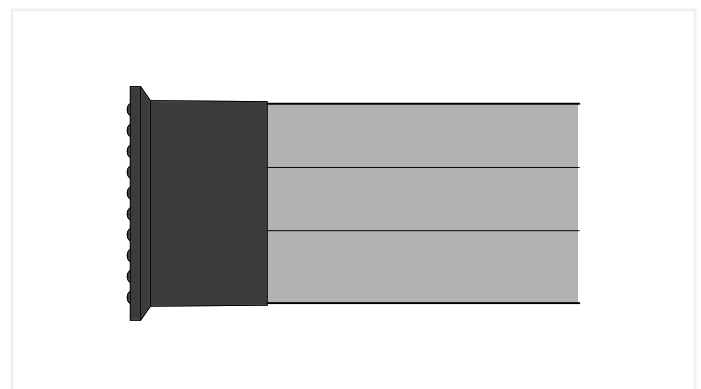
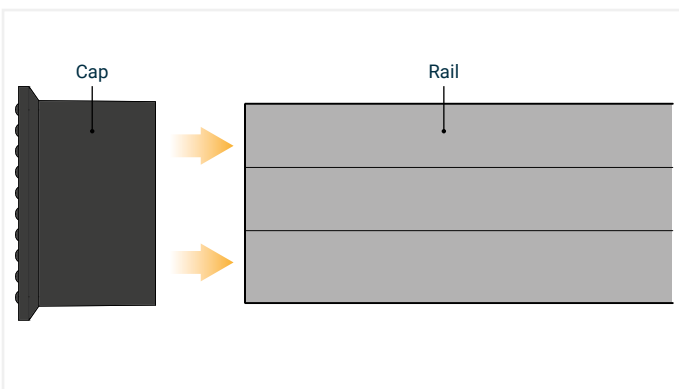


Prepare an M10 screw at each end of the rails to be assembled.
Align them with the holes in the rail junction.



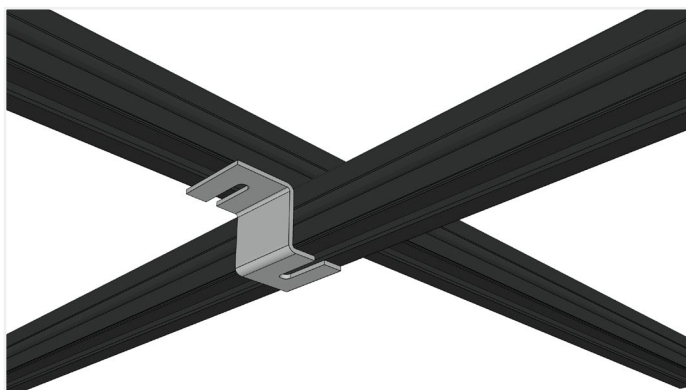
Assemble the junction with the two rails and ensure they are properly aligned. Tighten with an M10 nut. Ensure that the bolts are securely tightened.

11.3 Rail End Cap

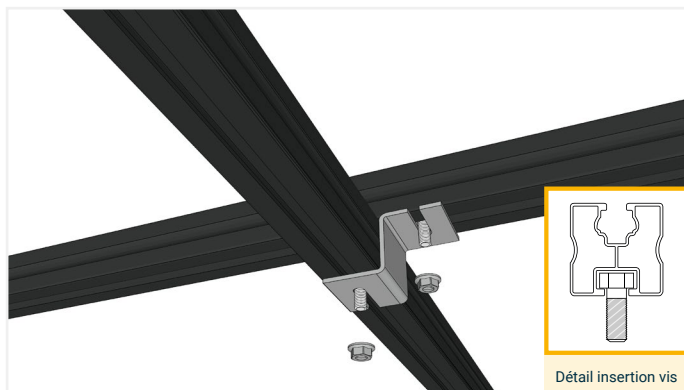


Cross-section diagram.
Snap the plastic cap onto the end of the rail after cutting it (see 9.3).

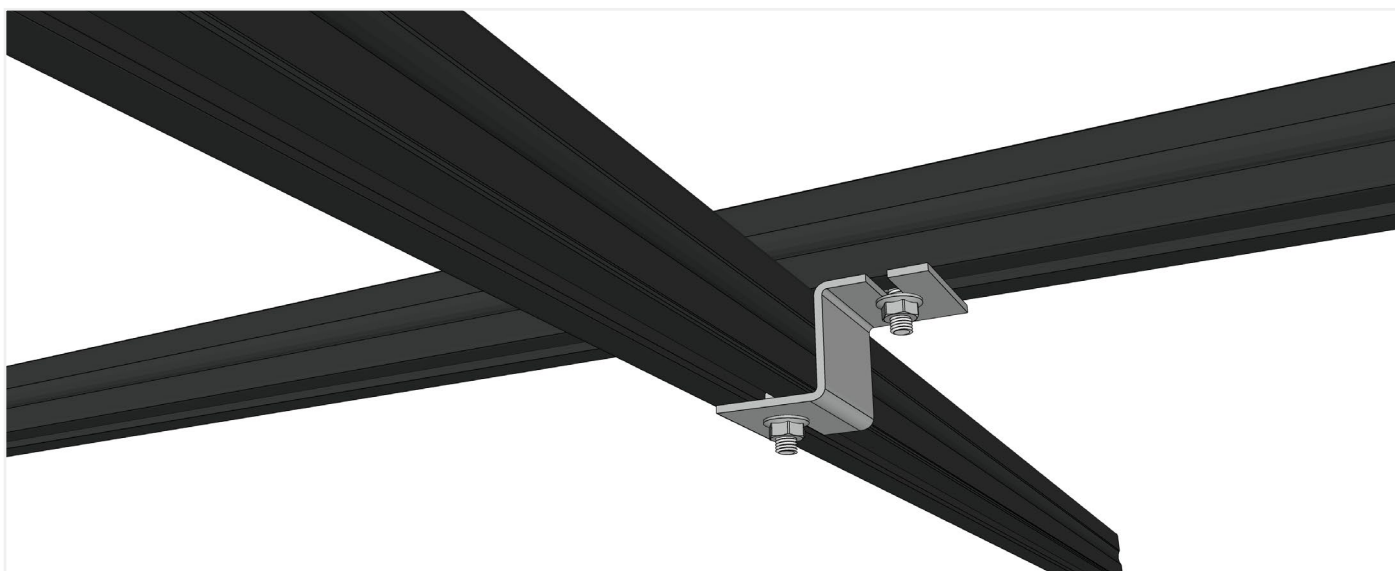
11.4 Z-Piece - Rail Crossing



Cross the rails and place the Z-piece as shown in the diagram above.



Insert M10 hexagon head screws (DIN 933) into the rail slot. Then place the Z-piece so that the screws fit into the slots.

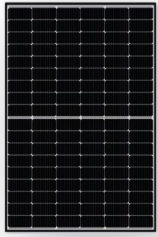


Tighten everything with an M10 flange nut (DIN 6923).

Catalog

Products/Details

12 Catalog: Products and Details



Tile Roof



Slate Roof and Flat Tile Roof



Corrugated Sheet Roof



Trapezoidal Sheet Roof

Roof Mounting



301045
Tile Hook
Double Adjustment



301051
Tile Hook
Single Adjustment



301145
Tile Hook
Double Adjustment - Long



301046
Hook - Simple



301047
Hook - Single Adjustment



301146
Hook - Single Adjustment - Long



301050
Hook - Single Adjustment



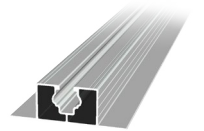
301048
Hook - Simple



301052
Lag Screw with Mounting Plate
for Corrugated Sheet

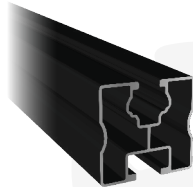


301078
Mini-Rail - Trapezoidal Sheet



301072
Trapezoidal Sheet Profile - 6m

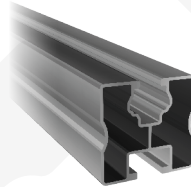
Profile - Rails



301058
Profile - Black - 600 cm

301149
Profile - Black - 365 cm

301150
Profile - Black - 250 cm



301059
Profile - Aluminum - 600 cm

301151
Profile - Aluminum - 365 cm

301152
Profile - Aluminum - 250 cm

Clamps



301020
Mid Clamp



301024
End Clamp - 30 mm



301025
End Clamp - 32 mm



301028
End Clamp - 35 mm



301031
Mid Clamp - Quick
With Spring



301030
End Clamp - Quick - 30 mm
With Spring



301035
Mid Clamp - Quick
Without Spring

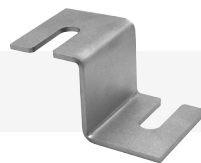


301037
End Clamp - Quick - 30 mm
Without Spring

Accessoires



301086
Rail Junction



301085
Z-Shaped Piece - Rail Crossing



301088
Rail End Cap - Black

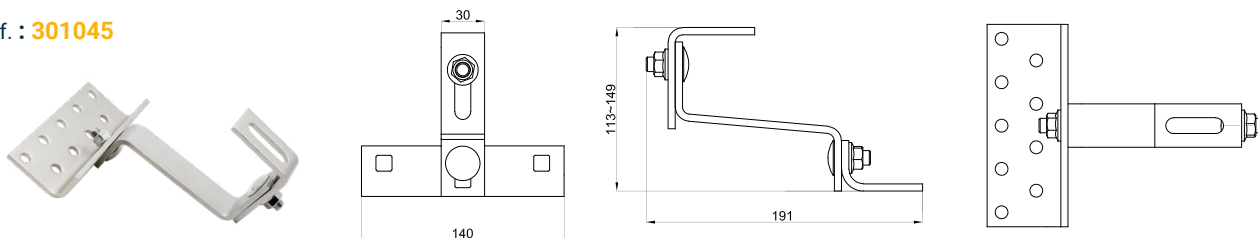
12. Catalogue : Produits/détails

12.1 Tile Roof Hooks



Hook - double Adjustable Tile

Ref. : 301045

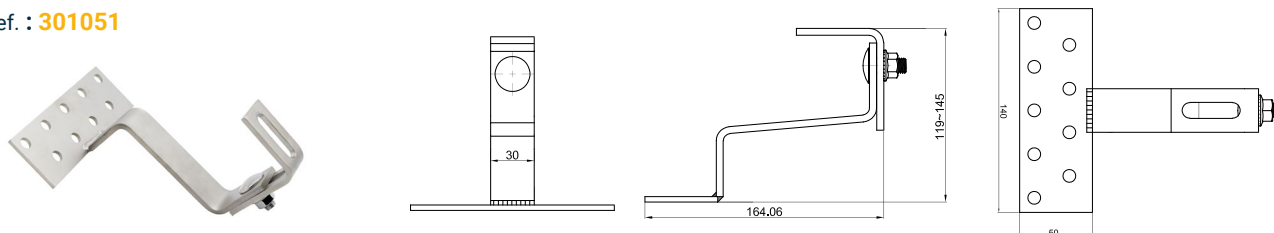


Description	Height	Width	Depth	Material
Hook - double Adjustable Tile	191 mm	140 mm	113 ~149 mm	SUS304

Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x181x220mm	0,762	15,24	20	960	48	1150x790x1070mm

Hook - Single Adjustment Tile

Ref. : 301051

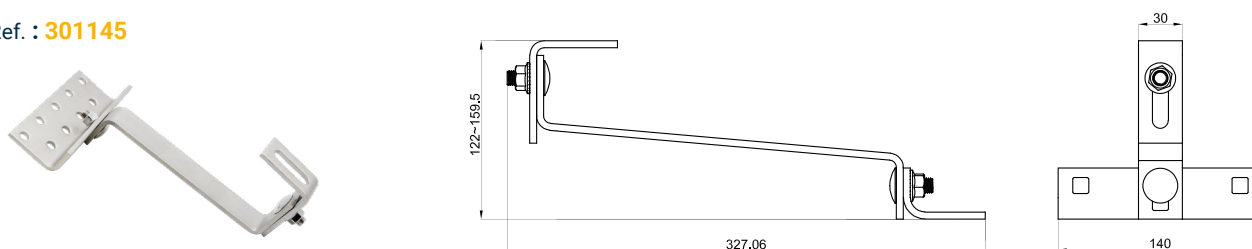


Description	Height	Width	Depth	Material
Hook - Single Adjustment Tile	179,25 mm	140 mm	119 ~145 mm	SUS304

Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x200x155mm	0,535	8,025	15	1110	74	1150x1050x1065mm

Hook - Double Adjustment Tile - Long

Ref. : 301145



Description	Height	Width	Depth	Material
Hook - Double Adjustment Tile - Long	327 mm	140 mm	113 ~149 mm	SUS304

Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
377x246x173mm	0,893	16,074	18	50	900	1070x1070x1035mm

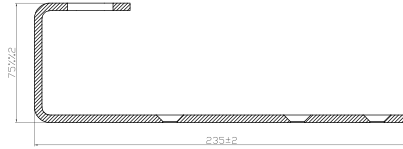
* The quantities per pallet may vary depending on production.

12.2 Hooks for Slate Roof



Hook - Slate Roof - Flat

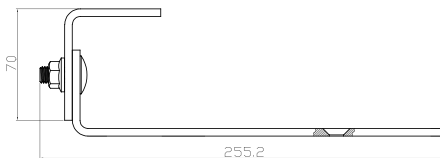
Ref. : **301046**



Description	Height	Width	Depth	Material		
Hook for Slate Roof - Simple - Flat	235 mm ±2	30 mm ±0,5	75 mm	SUS304		
Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x183x162mm	0,333	16,65	50	3000	60	1050x1050x950mm

Hook - Slate Roof - Single Adjustment - Flat

Ref. : **301047**



Description	Height	Width	Depth	Material		
Crochet pour toiture en ardoises - simple réglage - plat	260 mm	30 mm	70 ~105 mm	SUS304		
Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x183x92mm	0,421	10,525	25	2700	108	1150x1050x965mm

Hook - Slate Roof - Single Adjustment - Flat - Long

Ref. : **301146**



Description	Height	Width	Depth	Material		
Hook for Slate Roof - Adjustable - Long	280,25 mm	30 mm	70 ~105 mm	SUS304		
Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x183x95mm	0,457	14,624	32	3456	108	1140x1140x1025mm

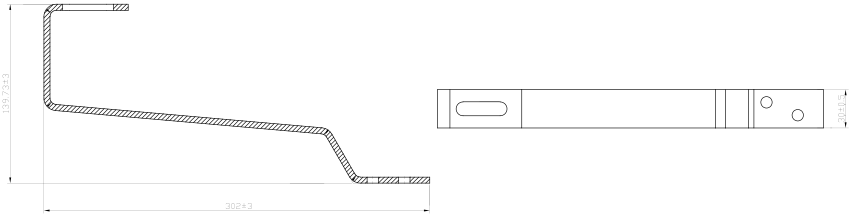
* The quantities per pallet may vary depending on production.

12.2 Slate Roof Hooks



Slate Roof Hook

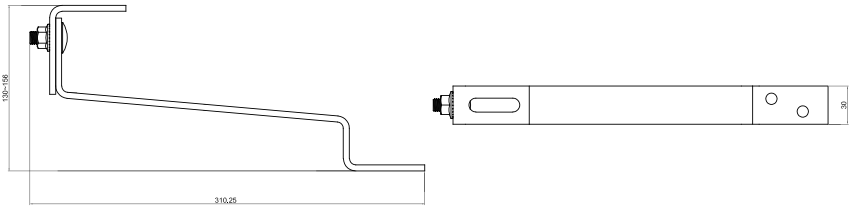
Ref. : **301048**



Description	Height	Width	Depth	Material		
Slate Roof Hook	302 mm ±3	30 mm ±0,5	139,73 mm ±3	SUS304		
Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x200x177mm	0,481	12,025	25	1550	62	1050x1050x1020mm

Single Adjustable Slate Roof Hook

Ref. : **301050**



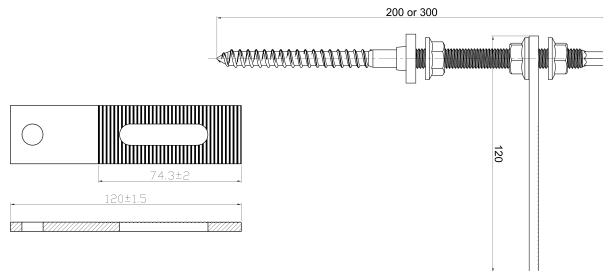
Description	Height	Width	Depth	Material		
Single Adjustable Slate Roof Hook	310,25 mm	30 mm ±0,5	130 ~156 mm	SUS304		
Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x183x115mm	0,545	10,9	20	1920	96	1050x1050x1055mm

12.3 Fixings for Corrugated Sheet Roof



Fixings for Corrugated Sheet Roof

Ref. : **301052**



Description	Height	Width	Depth	Material		
Double-Threaded Lag Screw with Mounting Plate	200 / 300 mm	30 mm ±1	120 mm	SUS304		
Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x181x92mm	0,232	5,8	25	2700	108	1050x1050x965mm

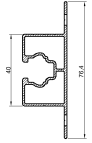
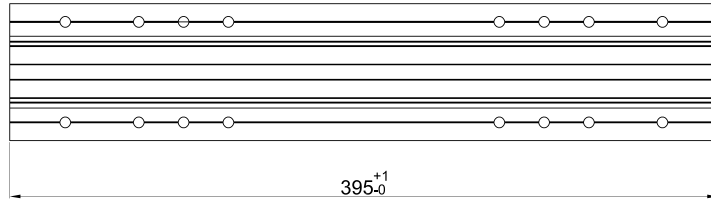
* The quantities per pallet may vary depending on production.

12.4 Mini Rail and Rail for Trapezoidal Sheet Roof



Mini Rail for Trapezoidal Sheet Roof

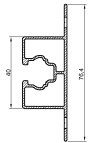
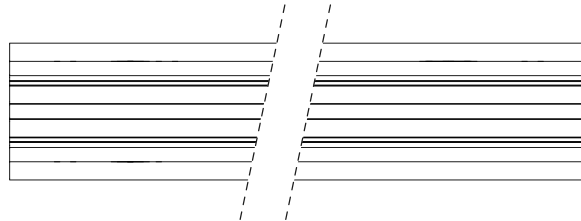
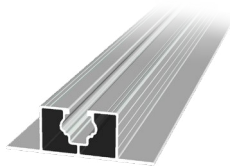
Ref. : **301078**



Description		Height	Width	Depth	Material	
Mini Rail - Trapezoidal Sheet		24,8 mm	76,4 mm	395 mm ±1	AL6005-T5	
Box Size	Weight (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
416x250x295mm	0,32	16	50	1500	30	1100x1010x1050mm

Profile for Trapezoidal Sheet Roof - Aluminum

Ref. : **301072**



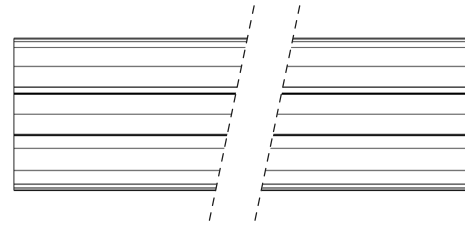
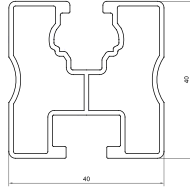
Description		Height	Width	Depth	Material	
Rail - Aluminium		24,8 mm	76,4 mm	6000 mm	Alu. 6060 T66	
Box Size	Weight (g) /m	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
440x500x600cm	820	/	/	104/150	/	/

* The quantities per pallet may vary depending on production.

12.5 Rails

Aluminum Rail

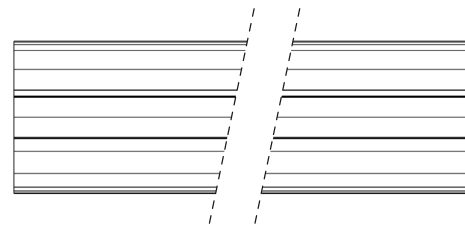
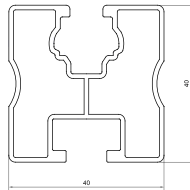
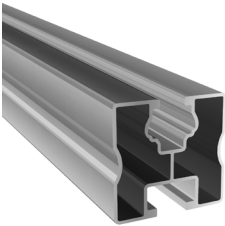
Ref. : **301059**



Description	Height	Width	Depth	Material		
Rail - Aluminium	40 mm	40 mm	600 mm	Alu. 6060 T66		
Box Size	Weight (g) / m	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
/	811	/	/	/	/	/

Aluminum Rail

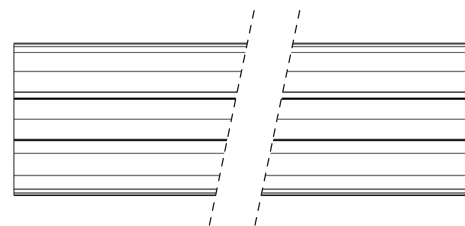
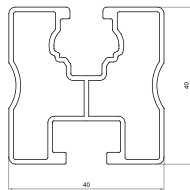
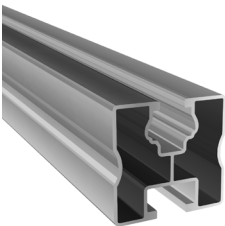
Ref. : **301151**



Description	Height	Width	Depth	Material		
Rail - Aluminium	40 mm	40 mm	365 mm	Alu. 6060 T66		
Box Size	Weight (g) / m	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
/	811	/	/	/	/	/

Aluminum Rail

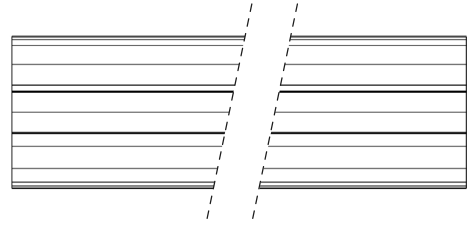
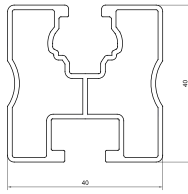
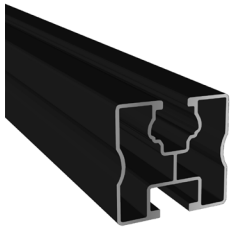
Ref. : **301152**



Description	Height	Width	Depth	Material		
Rail - Aluminium	40 mm	40 mm	250 mm	Alu. 6060 T66		
Box Size	Weight (g) / m	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
/	811	/	/	/	/	/

Rail - Black

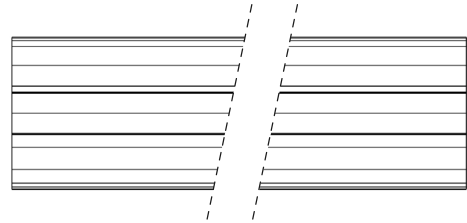
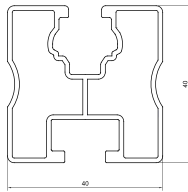
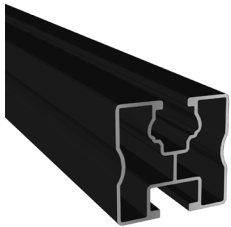
Ref. : **301058**



Description	Height	Width	Depth	Material		
Rail Aluminium - Noir	40 mm	40 mm	600 cm	Alu. 6060 T66		
Box Size	Weight (g) / m	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Boites/Palette	Pallet Size
/	811	/	/	/	/	/

Rail - Black

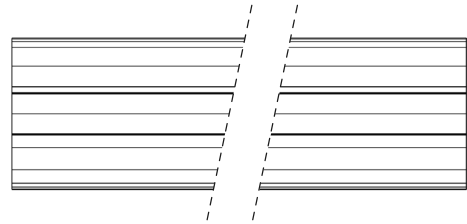
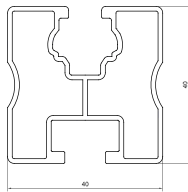
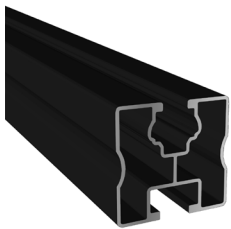
Ref. : **301149**



Description	Height	Width	Depth	Material		
Rail Aluminium - Noir	40 mm	40 mm	365 cm	Alu. 6060 T66		
Box Size	Weight (g) / m	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Boites/Palette	Pallet Size
/	811	/	/	/	/	/

Rail - Black

Ref. : **301150**



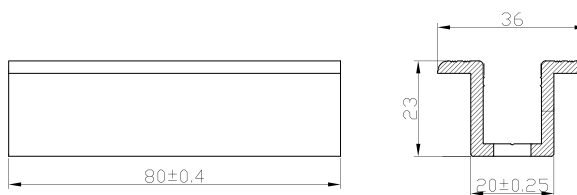
Description	Height	Width	Depth	Material		
Rail Aluminium - Noir	40 mm	40 mm	250 cm	Alu. 6060 T66		
Box Size	Weight (g) / m	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Boites/Palette	Pallet Size
/	811	/	/	/	/	/

* The quantities per pallet may vary depending on production.

11.6 Clames

Mid Clamp

Ref. : 301020

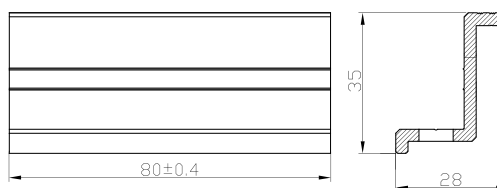


Description	Height	Width	Depth	Material
Mid Clamp	23 mm	36 mm	80 mm ± 0,4	AL 6005-T5

Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
212x137x86mm	0,048	2,4	50	16150	323	1150x790x1070mm

End Clamp - 30 mm

Ref. : 301024

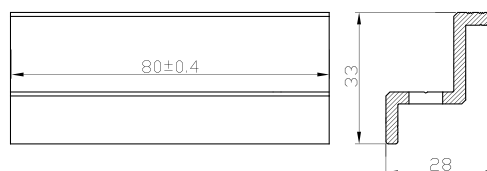


Description	Height	Width	Depth	Material
End Clamp - 30 mm	33 mm	28 mm	80 mm ± 0,4	AL 6005-T5

Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
130x90x86mm	0,037	1,85	50	40000	800	1150x1050x995mm

End Clamp - 32 mm

Ref. : 301025



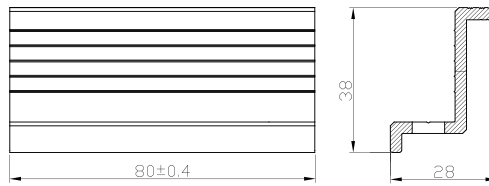
Description	Height	Width	Depth	Material
End Clamp - 32 mm	35 mm	28 mm	80 mm ± 0,4	AL 6005-T5

Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
140x97x86mm	0,039	1,95	50	33000	660	1050x1050x995mm

* The quantities per pallet may vary depending on production.

End Clamp - 35 mm

Ref. : **301028**

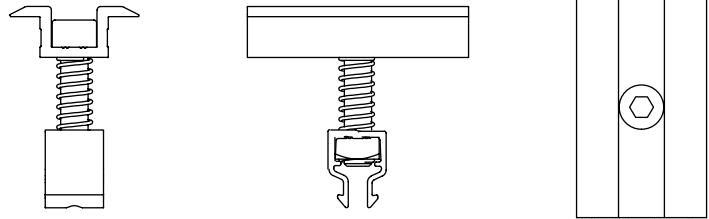


Description		Height	Width	Depth	Material	
End Clamp 35 mm		38 mm	28 mm	80 mm ± 0,4	AL 6005-T5	
Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
140x97x86mm	0,04	2	50	33000	660	1050x1050x995mm

11.6 Clames Rapides

Mid Clamp - Spring Clamp

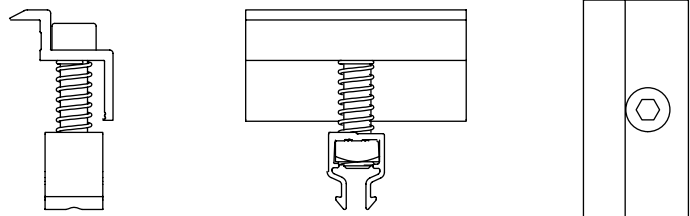
Ref. : **301031**



Description		Height	Width	Depth	Material	
Mid Clamp		23 mm	36 mm	80 mm ± 0,4	Alu. 6063 T66	
Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
210x180x160mm	0,07	3,5	50	4075	100	1200x800mm

End Clamp - rapide - 30 mm - Avec Ressort

Ref. : **301030**

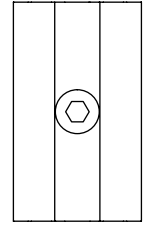
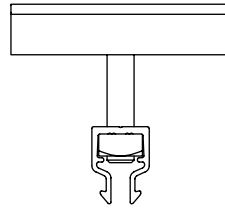
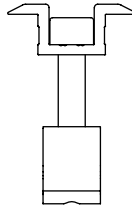


Description		Height	Width	Depth	Material	
End Clamp 30 mm		30 mm	31 mm	65 mm	Alu. 6063 T66	
Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
184x134x137mm	0,07	1,75	25	4075	163	1200x800mm

* The quantities per pallet may vary depending on production.

Mid Clamp - Without Spring

Ref. : **301035**

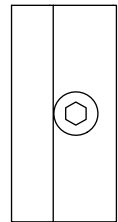
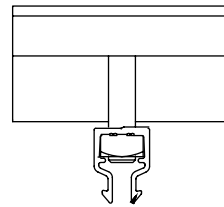
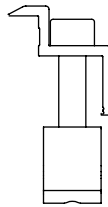


Description	Height	Width	Depth	Material
Mid Clamp	23 mm	36 mm	80 mm ± 0,4	Alu. 6063 T66

Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
210x180x160mm	0,07	3,5	50	4075	100	1200x800mm

End Clamp - Quick - 30 mm - Without Spring

Ref. : **301037**



Description	Height	Width	Depth	Material
End Clamp 30 mm	33 mm	31 mm	65 mm	Alu. 6063 T66

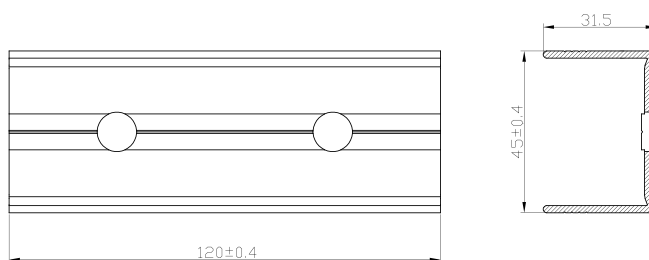
Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
184x134x137mm	0,07	1,75	25	4075	163	1200x800mm

* The quantities per pallet may vary depending on production.

11.7 Accessoires

Rail Junction

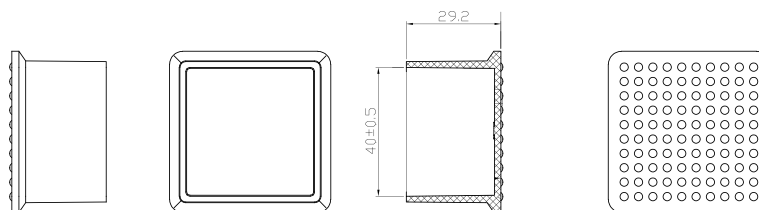
Ref. : **301086**



Description		Height	Width	Depth	Material	
Rail Junction		31,5 mm	45 mm ±0,4	120 mm ±0,4	AL 6005-T5	
Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
391x181x220mm	0,7067	3,35	50	7000	140	1050x1050x885mm

Rail End Cap

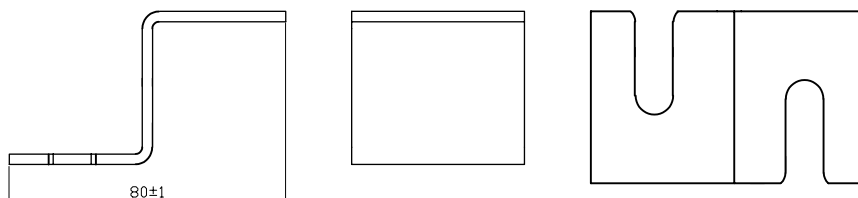
Ref. : **301088**



Description		Height	Width	Depth	Material	
Rail End Cap - Black		29,8 mm	49,8 mm	49,8 mm	PVC	
Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
258x206x155mm	0,023	2,3	100	10000	100	1150x1050x910mm

Z-Shaped Piece - Rail Crossing

Ref. : **301085**



Description		Height	Width	Depth	Material	
Z-Shaped Piece - Rail Crossing		44,5 mm	80 mm	50 mm	SUS304	
Box Size	Poids (kg) / pc	Weight (kg) / Box	Qty/Box (pcs)	Qty/Pallet (pcs)	Box/Pallet	Pallet Size
176x135x50mm	0,1215	6,075	50	26400	528	1070x1070x1130mm

* The quantities per pallet may vary depending on production.

► Note:

1. If you encounter any issues, contact a professional.
2. If you undertake maintenance and repair measures not included in this manual, consult your local dealer for professional assistance.

EDITION

Version 1.3 was released in July 2024.

Internal File Number

Installation Manual V1.3

