JuCaiHuiXin

ONE OF LARGEST SOLAR BRACKET MANUFACTURER IN CHINA

SOLAR SOLUTION FOR ROOFTOP

TIANJIN JU CAI HUI XIN INDUSTRY AND TRADE CO., LTD

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Company Profile

As one of the largest solar bracket manufacturer in China, Tianjin Jucai Huixin Industry And Trade Co., Ltd. export started in 2020 with a total factory area of more than 3 0,000 square meters and an annual production capacity of 450, 000 tons.

We specialize in delivering reliable and cost-efficient solar PV mounting system solutions for a wide range of projects wo rldwide. Our expertise extends to residential, agriculture, industrial, government, commercial, and utility-scale solar desi gn & OEM manufacturing.

Management Concept

We have consistently emphasized a standardized and internationalized management approach since its inception. From the outset, we have actively embraced and rigorously implemented internationally recognized quality management systems, such as ISO9001, ISO14001, ISO45001,ROHS & CE.

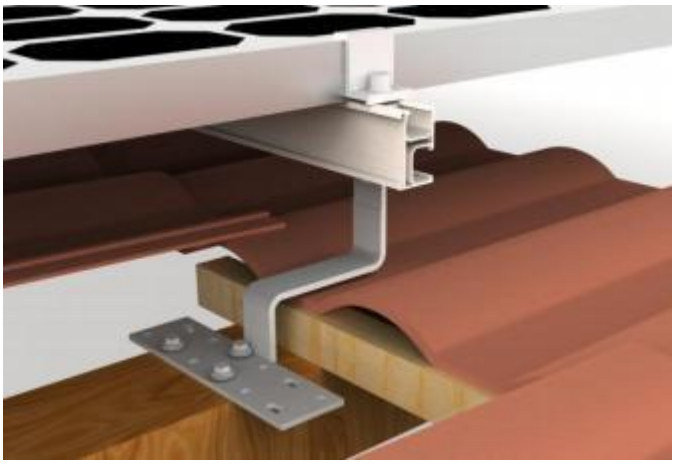
These systems are applied comprehensively across all phases of our operations, including research and development, manufacturing, marketing, and post-sales services.

Research and Development

At our core, we prioritize professionalism and innovation in our product research and development. By upholding professional standards, we offer effective guarantees to our customers, while our dedication to innovation enables us to create additional value.

Our Factory Photos

Tile Roof Mount



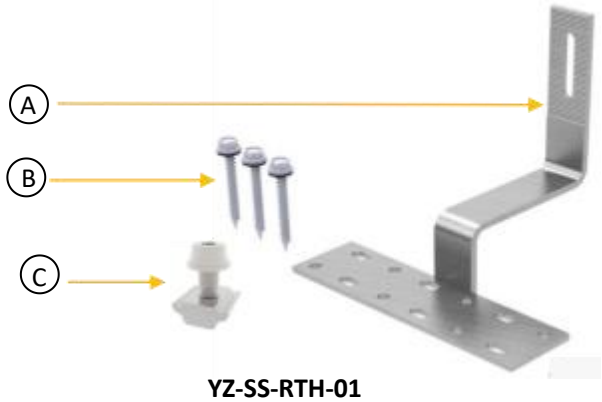
Tile Roof Mount,Tile Hook,
different options offered to install on
top of roof and side of roof rafter

Features

1. Accommodate different types of PV solar panels
2. Custom-made tile hooks based on tile specifications
3. Made of SUS 304
4. Easy and fast installation
5. No need to drill into tile
6. Slotted for easy adjustment

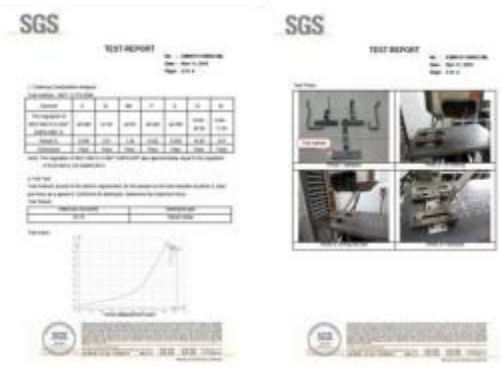
Component List

Component		Quantity
A.	Stainless Steel 304 hook	1
B.	6.3x65mm woodscrew & EPDM washer	3
C.	M8x25mm SUS 304 bolt & rail nut & SUS washer	1



YZ-SS-RTH-01

SGS TEST REPORT



SUS Tile Hook

AA-RTH-01

Tile Hook Series

SS-RTH-02

SS-RTH-03

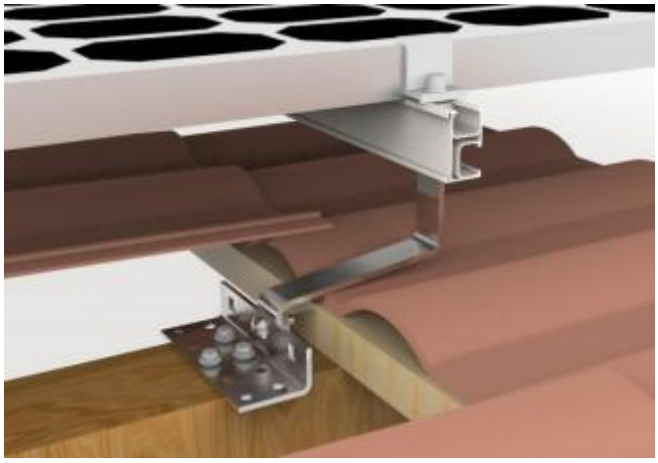
SS-RTH-04

SS-RTH-05

SS-RTH-06

SS-RTH-07

Adjustable Tile Roof Mount



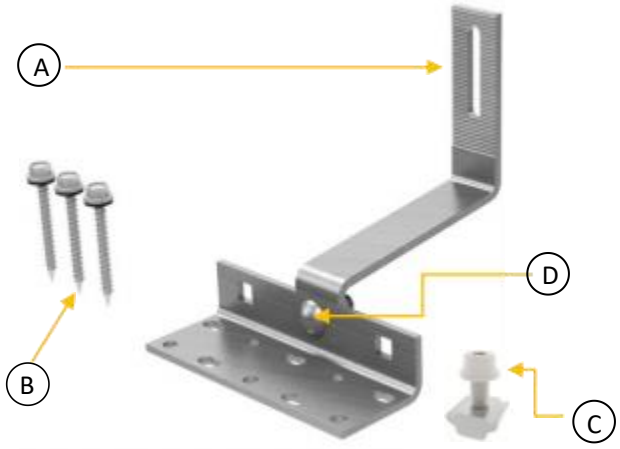
Adjustable Tile Hook can be adjusted horizontally and vertically, which extend the chance where regular tile hook can't be used.

Features

1. Accommodate different types of PV solar panels
2. Custom-made tile hooks based on tile specifications
3. Made of SUS 304
4. Easy and fast installation
5. No need to drill into tile
6. Slotted for easy adjustment

Component List

Components	Quantity
A. Stainless Steel 304 hook	1
B. 6.3x65mm woodscrew & EPDM washer	3
C. M8x25mm SUS 304 bolt & rail nut & SUS washer	1
D. M10x 25mm bolt & hex nut	1



SS-ATH-01

SGS TEST REPORT

SGS

TEST REPORT

No. : XMIN1810006911ML
Date : Oct 16, 2018
Page: 2 of 3

Pull test:
Test method: According to the client's requirement, the base plate of the hook was fixed to the wood with three 8*100 wood screws, while the wood was fixed to the test bench (see photo 2); Increase the tensile force as 5mm/min until the hook has obvious deformation. Record the force.

Test result: When the force increased to 4.91kN, hook presented obvious deformation (see photo 3).
Note: Screws and wood are provided by the customer.

Test Photo(s):

Photo 1: sample photo
Photo 2: tensile test
Photo 3: after tensile test (obvious deformation)
Photo 4: the curve of tension test

Adjustable Tile Roof Hook Series

SS-ATH-02

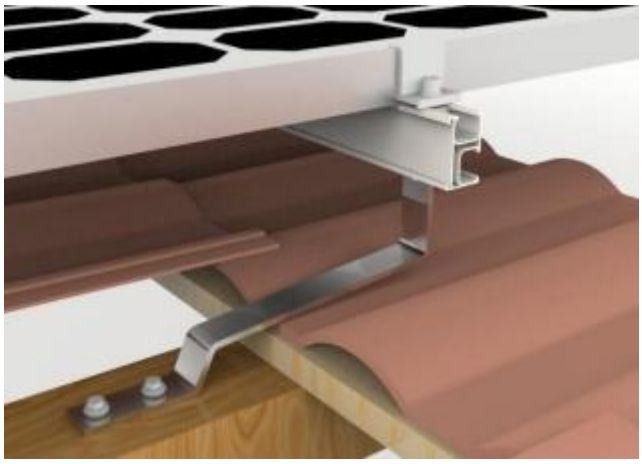
SS-ATH-03

SS-ATH-04

SS-ATH-05

SS-ATH-06

Flat Tile Roof Mount



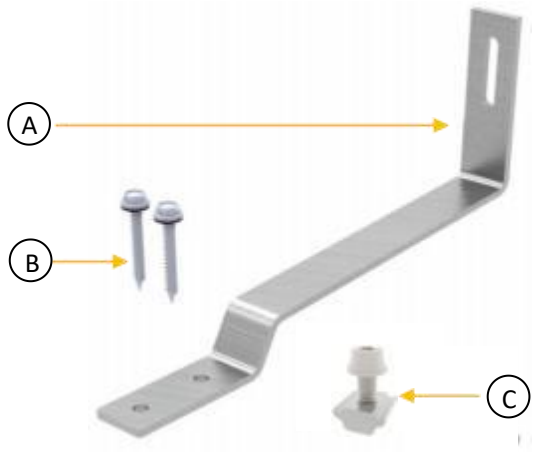
Flat Tile Hook offers the best and easiest solution when install asolar system oncementor flat tile roof.

Features

1. Accommodate different types of flat tile roofs
2. Made of SUS 304
3. Pre-assembled parts for easy and fast installation
4. No need to drill into tile
5. Slotted for easy adjustment

Component List

Components	Quantity
A. Stainless Steel 304 hook	1
B. 6.3x65mm woodscrew & EPDM washer	2
C. M8x25mm SUS 304 bolt & rail nut & SUS washer	1



SS-FTH-01

Shingle Tile Roof Hook Series

SS-STH-01

SS-STH-02

SS-STH-03

SS-STH-04

Flat Tile Roof Hook Series

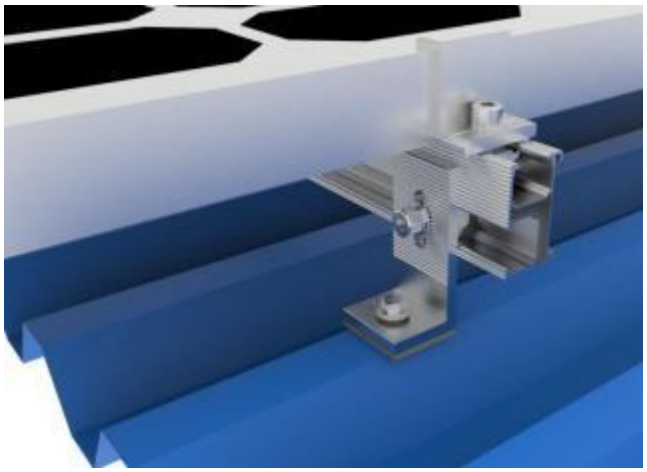
SS-FTH-02

SS-FTH-03

SS-FTH-04

SS-FTH-05

L Foot Mount



L Foot mount have been widely used on universal corrugated metal sheet roof. It also can fix to the roof rafter directly.

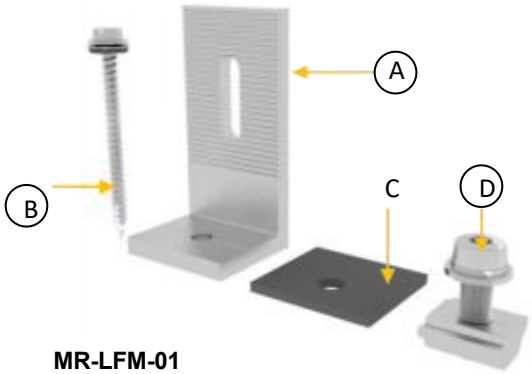
Plus, it can be applied with all kinds of hanger bolt and roof clamps.

Features

1. Simple and cost-effective installation
2. Material: Aluminum 6005-T5 & SUS 304
3. Waterproof rubber gasket integrated
4. Apply for many kinds of metal roof

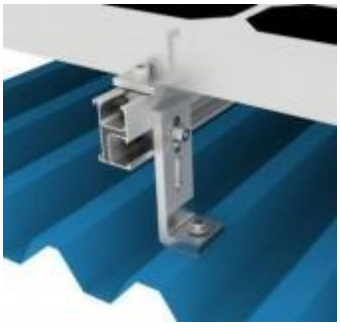
Components List

Components		Quantity
A.	L Foot Mount	1
B.	M6.3x80mm woodscrew	1
C.	Rubber Gasket	1
D.	M8X25 SUS 304 bolt& rail nut & SUS washer	1



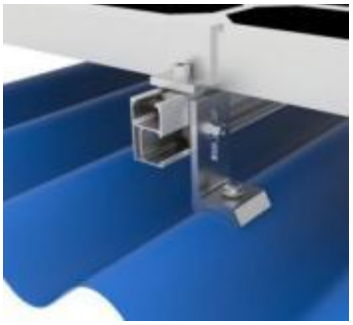
MR-LFM-01

Specification

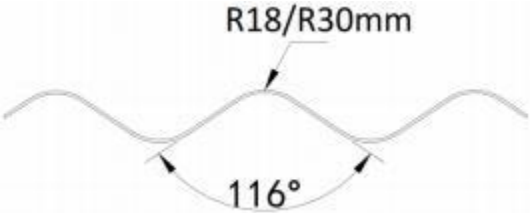


MR-LFM-02

MR-LFM-03



MR-LFM-04



Hanger Bolt Mount

MR-HB

MR-HB-S

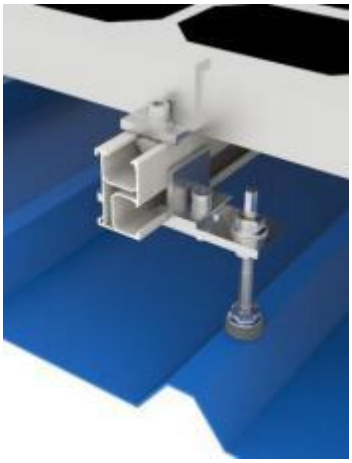
Hanger Bolt apply to install on both wooden rafter and steel purlin. Both types can be applied with L Foot and plate. There are three sizes most common use, M10x200mm, M12x200mm and M12x300mm Hanger bolt.

Features

1. Fast and simple installation
2. Made of SUS 304
3. Highly corrosion resistant surface treatment
4. Waterproof EPDM rubber integrated
5. Wooden rafter and steel purlin options

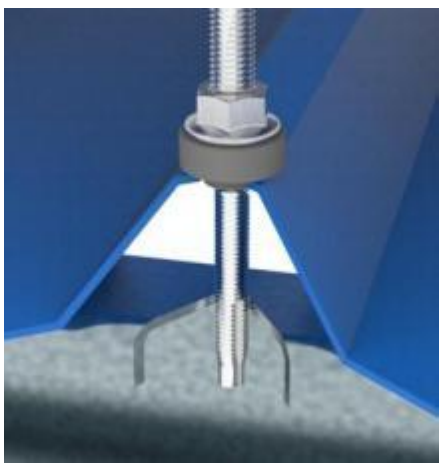
Hanger Bolt Mount Series

MR-HB-01



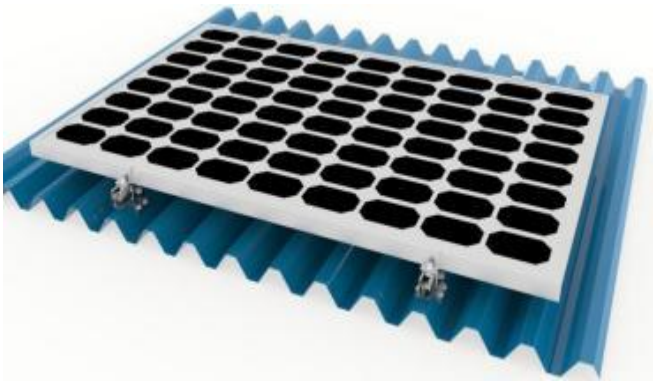
MR-HB-02

Application



MR-HB-S-01

Trapezoidal Metal Roof Clamps



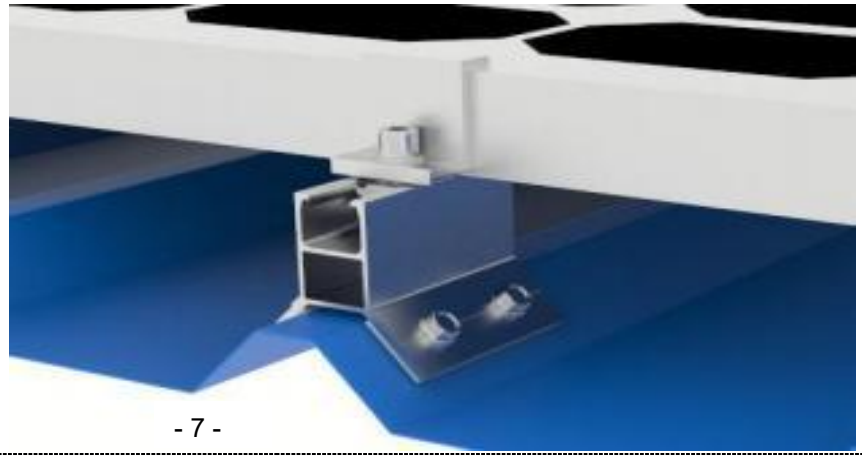
Technical Information

- Material: AL6005-T5 & EPDM
- Application：Trapezoidal Metal Roof
- Fixed Way：Using self-tapping screw to fix the clamps on the roof
- Custom made available for different metal roof

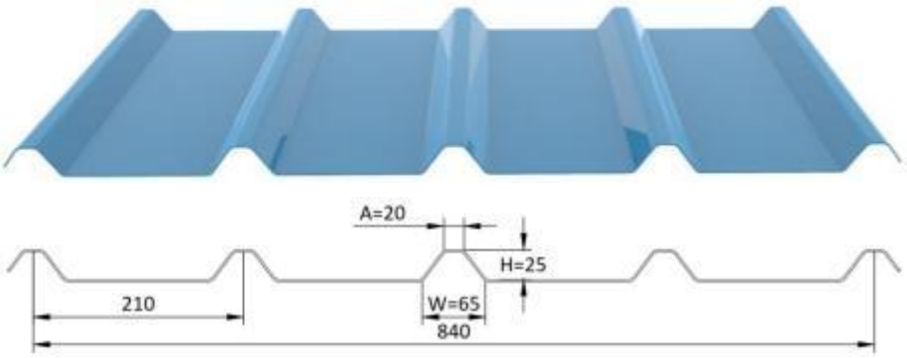
AL-MRC-02

Horizontal & Rail-less Solution

AL-MRC-03

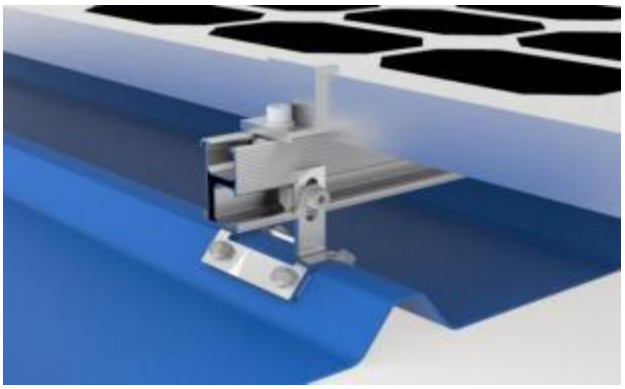


Trapezoidal Metal Roof Clamps



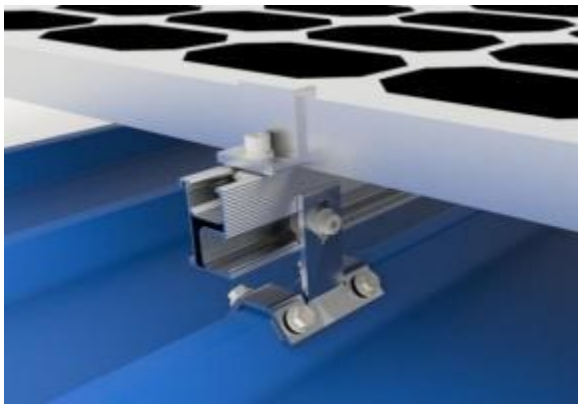
Technical Information

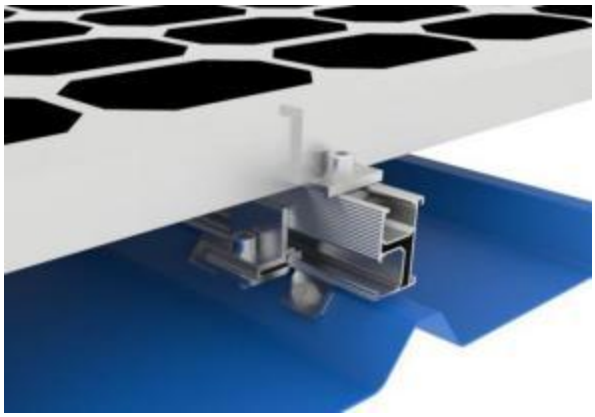
- Material: SUS304 & EPDM
- Application：Trapezoidal Metal Roof
- Fixed Way：Using self-tapping screw to fix the clamps on the roof

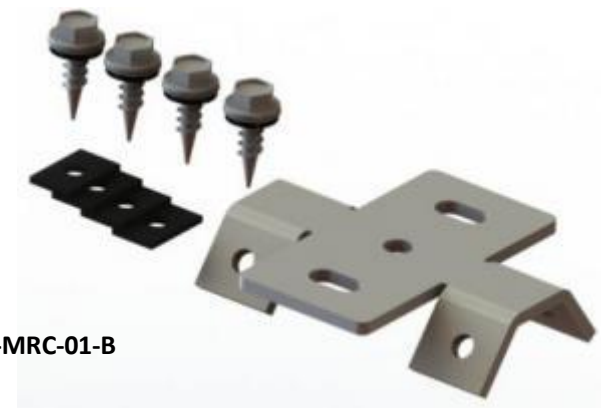


SS-MRC-01

SS-MRC-01-A







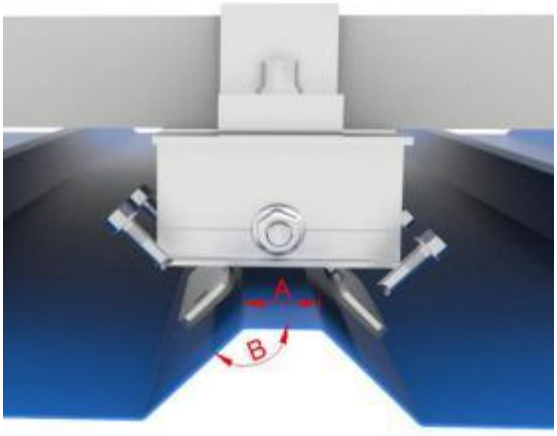
SS-MRC-01-B

Universal Metal Roof Clamp

Universal Roof Clamp can work with all kinds of trapezoidal metal roof. It is a rail-less solution, it will help you save some cost and labor cost. Use anti-aging EPDM rubber to improve the waterproof performance. The material of this product is made by aluminum alloy (AL 6005-T5) and stainless steel 304 (SUS 304), which has strong corrosion resistance.

UM-RC

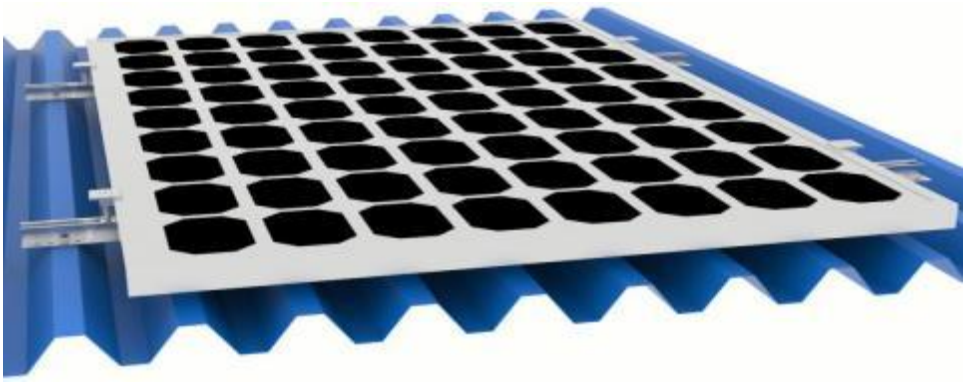
Universal Roof Clamp



Metal Roof Sheet Specification

	Min.	Max.
A	20 mm	60 mm
B	90 degree	140 degree

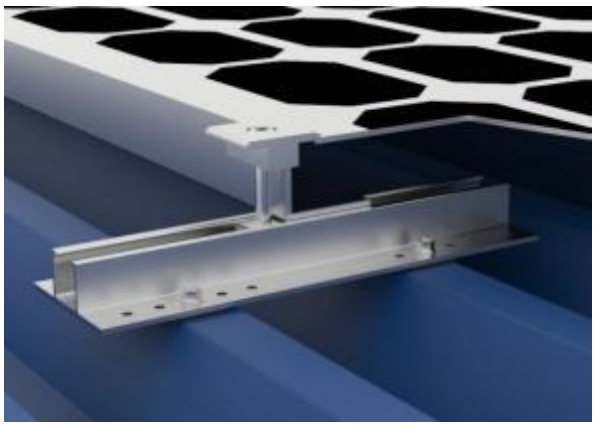
Universal Metal Roof Clamp

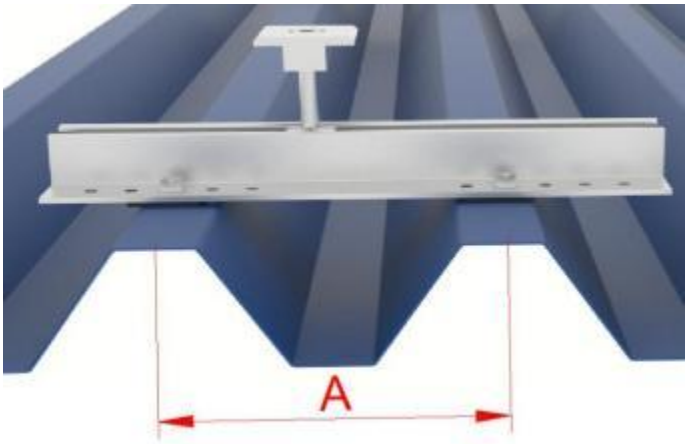


This type mini rail can work with all kinds of trapezoidal metal roof. It was made by aluminum alloy, which has strong anti-corrosion. For this solution, it can save at least 80% cost and 50% installation time.

AL-MRC-04

Vertical & Rail-less Solution





Metal Roof Sheet Specification

	Min.	Max.
A	80 mm	220 mm

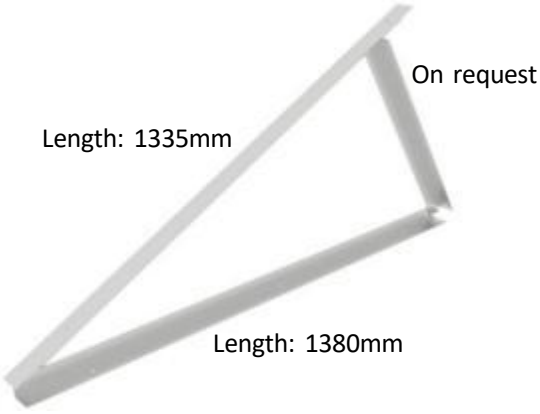
Features:

1. Adjustable tilt angle per different request;
2. Highly pre-assembled parts on factory can save installation time onsite and labor cost;
3. Simple and fast installation;
4. Hardware included;
5. Customized request can accept.

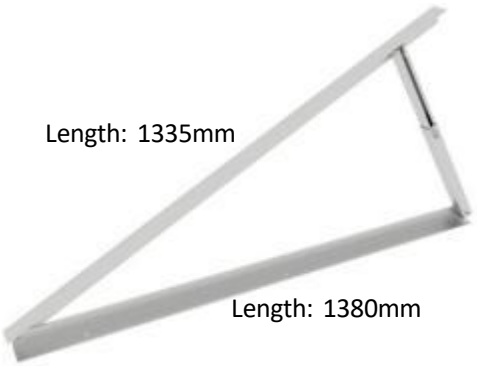
Technical information

Application: Commercial & residential area
Max Wind Speed: 60m/s
Material: Aluminum 6005-T5

Fixed Triangle Mount		
Item No.	Description	Length of Back Tilt
FT-RM-15	Fixed Triangle Mount, Tilt angle 15°	405mm
FT-RM-20	Fixed Triangle Mount, Tilt angle 20°	505mm
FT-RM-30	Fixed Triangle Mount, Tilt angle 30°	705mm



Fixed Triangle Mount



Adjustable Triangle Mount

Adjustable Triangle Mount		
Item No.	**Description**	**Adjustable Angle Range**
AT-RM-10/15	Adjustable Triangle Mount, 10/15。	10~15。
AT-RM-15/30	Adjustable Triangle Mount, 15/30。	15~30。

Flat Roof Mount System II

Introduction

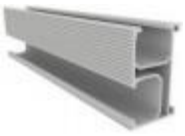
Flat Roof Mount System II is suitable for flat roof and tilt roof. Fixed angle and adjustable angle are both acceptable, you can choose one way to install, it will improve the applicability. This system will not damage the roof waterproof structure. Products are fully used aluminum alloy AL6005-T5 and stainless steel 304, it makes products has strongly corrosion resistance. The components are pre-assembled in factory, it makes installation easy and quick to save your cost and time.

Technical Information:

- Installation Site: Flat Roof or Pitched Roof
- Max Wind Speed: <60m / s
- Max Snow Load: <1.4 KN / M2
- Fixed Angle: 5° ~ 60°
- Adjustable Angle : 5° ~ 15, 15° ~30° , 30° ~60°
- Anti-corrosion: Anodized Aluminum 6005-T5 & Stainless Steel 304
- Warranties: 12 years warranties & 20 years service life

Components List

Pre-assembled Flat Roof Mount II



Roof Rail

Ballast Plate

Rail Clamp

Mid Clamp

End Clamp

Rail Connector

Pre-assembled Part Installation

Foundation Type

Rail-less & Ballast Foundation

Ballast Foundation

Concrete Block Foundation

Flat Roof Mount System III (East West)

Technical Information:

- Installation Site: Flat Roof
- Module Orientation: Landscape
- Material: Aluminum 6005-T5
- Max Wind Speed: <60m/s
- Max Snow Load: <1.4 KN/M^2
- Tilt Angle: 5° ~ 30°
- Warranties: 12 Years

Features & Benefits

a) Non-Penetrating toroof
b) Pre-assembled parts for simple and fast installation
c) Minimize roof space limitation
d) Fixed angle or adjustable angle both acceptable
e) Rail-less
f) Suitable for all orientations installation
g) Optimize high power production

Components List

East-West Flat Roof Mount

Mid Clamp

End Clamp

Ballast Plate

Components List

Specification

Flat Roof Mount System IV (Two Row)

Features & Benefits

a) Non-Penetrating toroof
b) Pre-assembled parts for simple and fast installation
c) Rail-less
d) Hardware included
e) Customized request can be accepted

Technical Information:

- Installation Site: Flat Roof
- Module Orientation: Landscape
- Material: Aluminum 6005-T5
- Max Wind Speed: <60 m/s
- Max Snow Load: <1.4 KN/M2
- Tilt Angle: 5° ~ 30°
- Warranties: 12 Years

Components List

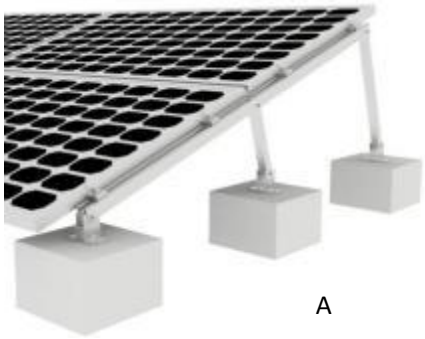
Ballasted Plate

Mid Clamp

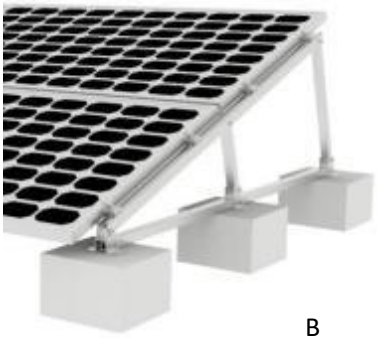
End Clamp

Pre-assembled Flat Roof Mount

Application Type



A



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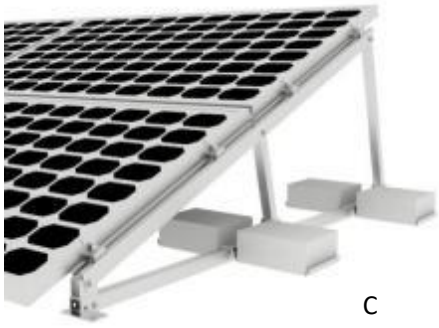
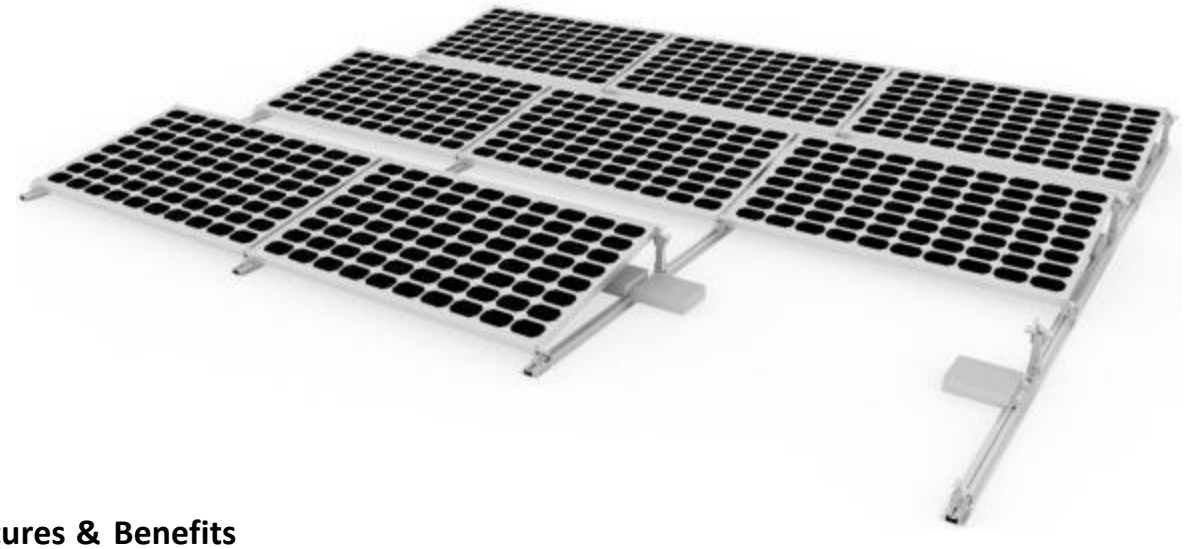


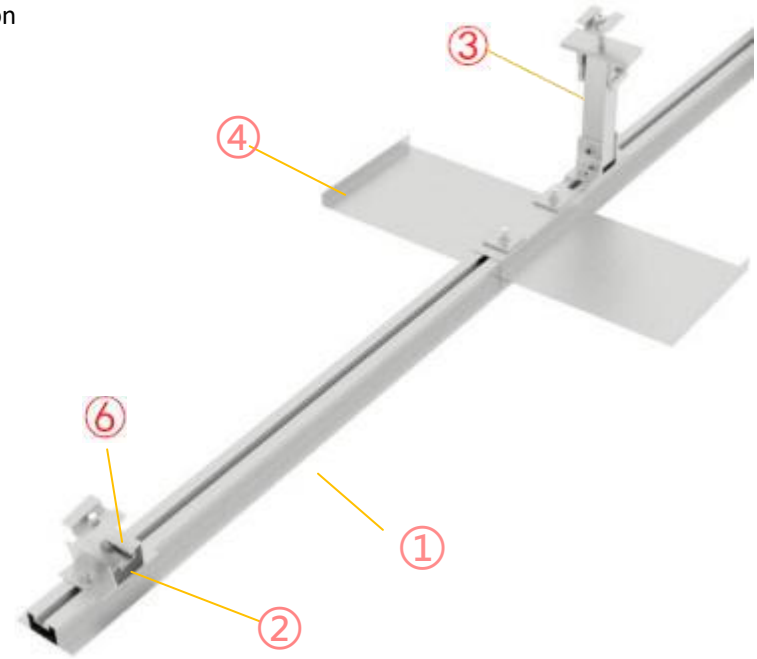
C

Aluminum Ballasted Flat Roof Mount



Features & Benefits

1. Pre-assembled parts for simple and fast installation
2. Non-Penetrating to rafters
3. Easily works around obstacles and uneven terrain
4. Light, sturdy material for a cost-efficient system



Specification	
Tilt Angle	5。、10。、15。
Max Wind Speed	42m/s
Max Snow load	1.4KN/m2
Material	AL6005-T5 &SUS 304

Components List

① Ballast Rail

② Front Leg

④Mid Ballast Plate

③ Back Leg

⑤End Ballast Plate

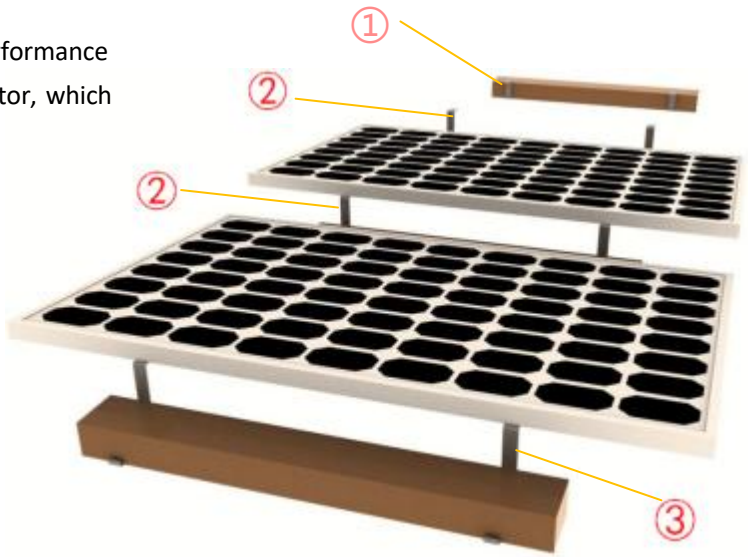
⑥Mid Clamp

⑦End Clamp

Stainless Steel Ballasted Flat Roof Mount

Features & Benefits

1. Few component and easy install
2. Stainless Steel 304 Material, high anti-corrosion performance
3. Using long-span cement block replace wind deflector, which has strong windproof performance and low cost.



Specification	
Tilt Angle	5。、 10。
Max Wind Speed	42m/s
Max Snow load	1.4KN/m2
Material	SUS304

Components List

① Front Ballast Leg

② Mid Ballast Leg

③ Back Ballast Leg

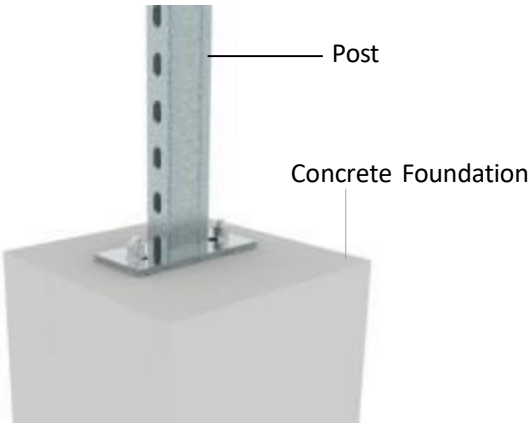
Flat Roof Mount System VII Galvanized Steel

Technical Information	
Tilt Angle	5。~ 60。
Max Wind Speed	55 m/s
Max Snow Load	1.4KN/m2
Material	Galvanized Steel / ZAM (ZM)
Warranty	12 years quality warranty

Features

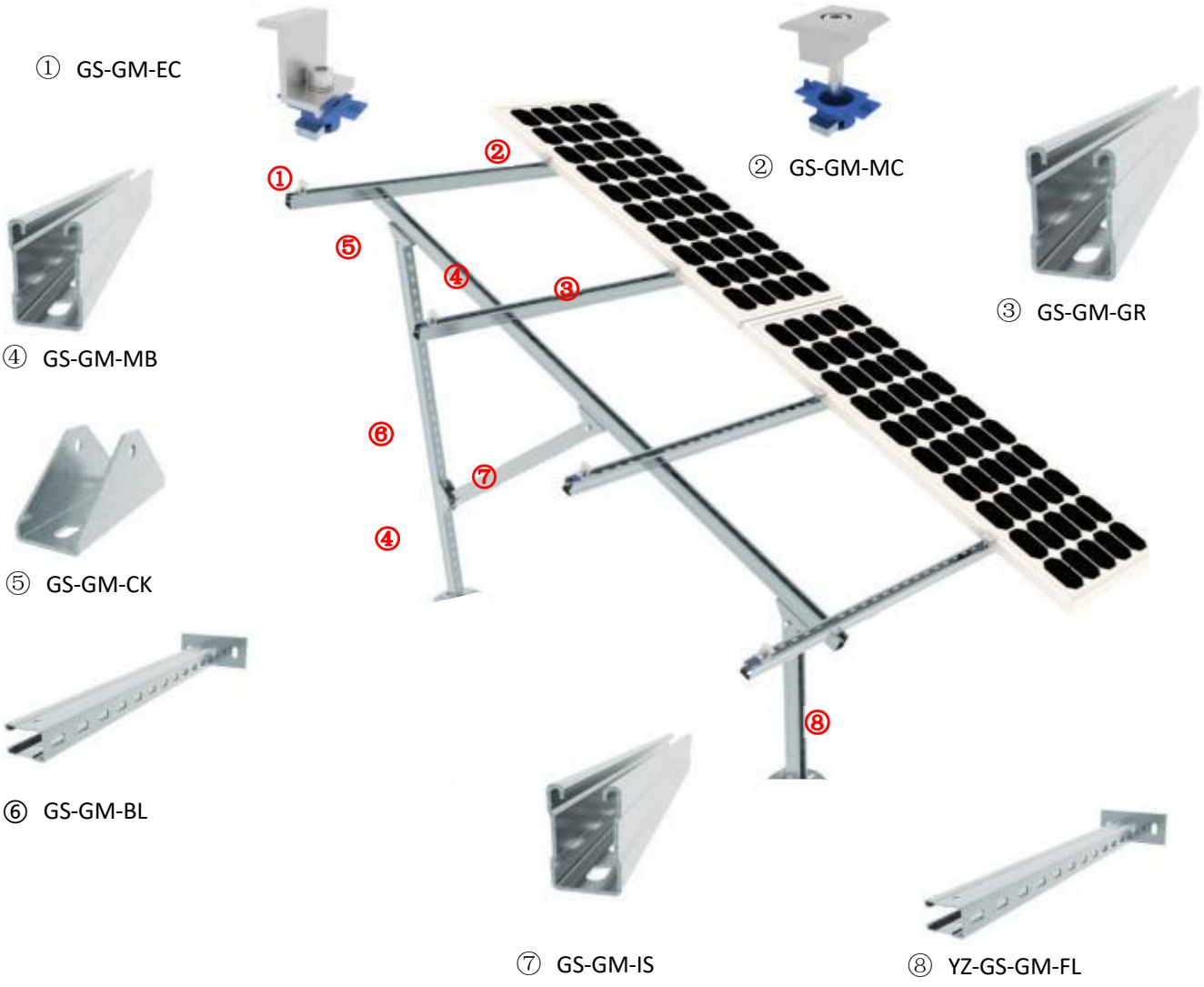
1. Suitable for different regions, such as low-cost concretes and high wind and heavy snow regions.
2. Ground screw foundation and concrete foundation can be acceptable
3. Parts have been high pre-assembly on factory to save your installation time
4. Simple and fast installation
5. High quality galvanized steel material

Foundation Types



Concrete Foundation

System Overview



Side View of Galvanized Steel Mount System

Adjustable Tile Roof Mount System

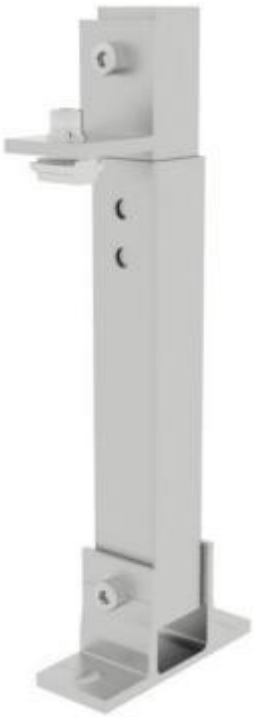
Features

1. Adjustable tilt angle per different request
2. Highly pre-assembled parts on factory can save installation time onsite and labor cost
3. Simple and fast installation
4. Waterproof EPDM rubber integrated
5. Hardware included
6. Customized request can accept

Component List

1. Front Leg

Connect to rail



2. Rear Leg

Connect to rail

Technical Information

Item No.	Description	Length of Rear Leg
AD-FL	Front Leg	~
AD-RL10/15	Rear Leg, adjustable angle 10~15°	240~360mm
AD-RL15/30	Rear Leg, adjustable angle 15~30°	340~680mm
AD-RL30/60	Rear Leg, adjustable angle 30~60°	700~1200mm

Rail & Splice for roof

These rails are designed for all kinds of roof type. It comes with high quality, high strength and low cost.

Features

1. Material: Aluminum 6005-T5
2. Flexibility and compatible
3. Universal

Roof Rail Series

RR-CH

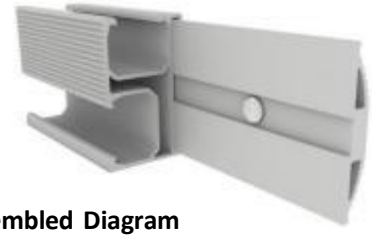
RR-CL1

RR-CL2

Assembled Diagram

Rail Connector Series

RRC-CA-01

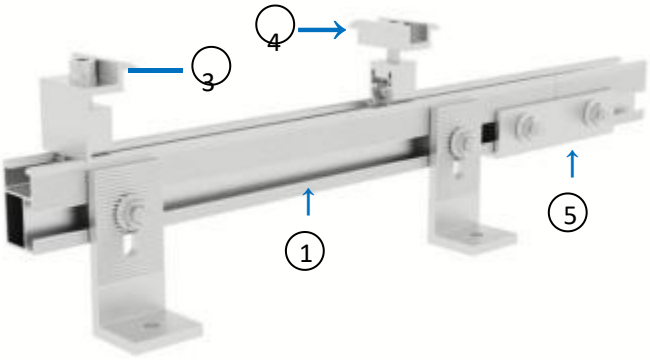


Assembled Diagram

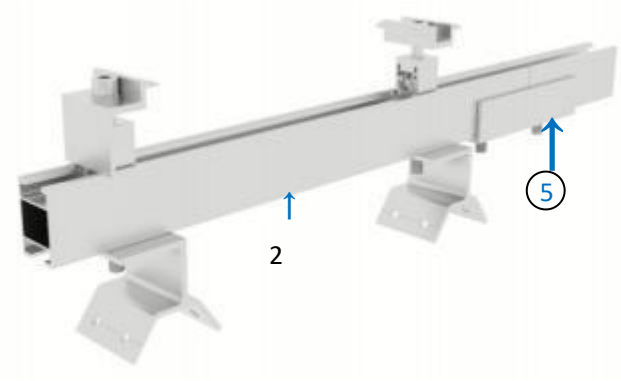
RRC-CA-02

Assembled Diagram

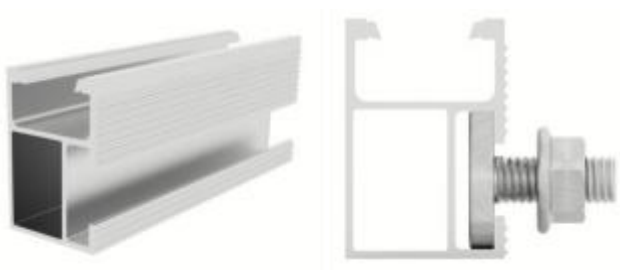
Clamps fixed on the side of the rail



Clamps fixed on the bottom of the rail



Using T bolt to connect the rail with clamps, it is very easy to install and fix firmly.

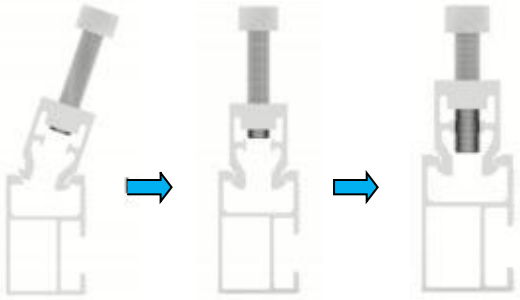


① **RR-CL3**

② **RR-CL4**

③ **NEC-F**

④ **NMC-F**



⑤ **RRC-CA-03**

Using Rail Connector Kit to joint Roof Rail 03#

Using Rail Connector Kit to joint roof Rail 04#

Mid Clamp & End Clamp

MC-C Mid Clamp30/32 /35/40/45/50 mm

EC-C End Clamp
30/32/35/40/45/50 mm

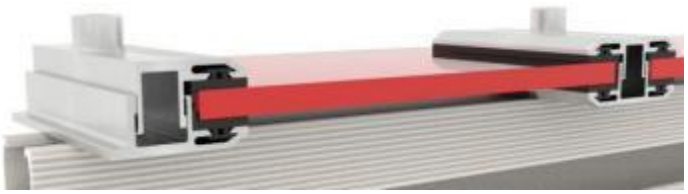
AGM-MC Mid Clamp
25/30/35/40/45/46/50 mm

AGM-EC End Clamp25/30/ 35/40/45/46/50 mm

AMC-C Adjustable Mid Clamp
35mm~55 mm

AEC-B Adjustable End Clamp35mm~55 mm

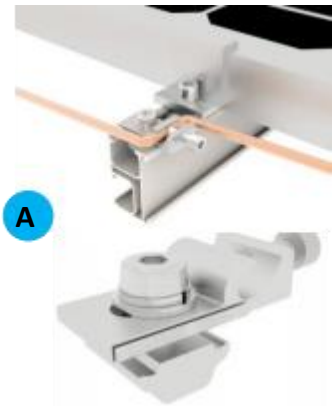
TF-MC-L80 Thin Film Mid Clamp, 80 mm
TF-MC-L120 Thin Film Mid Clamp,120 mm

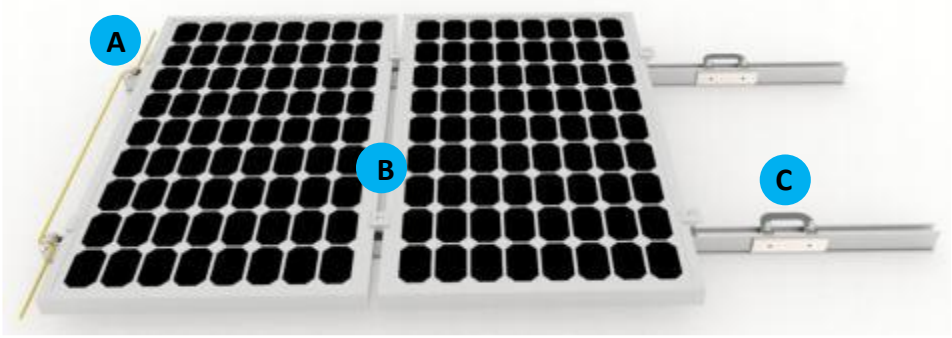


TF-EC-L80 Thin Film End Clamp, 80 mm
TF-EC-L120 Thin Film End Clamp,120 mm

Grounding Accessories

Grounding products can be used to bond solar modules to the aluminum rails and the aluminum rails to ground, so that the entire solar system is grounded and safe; Grounding products include the stainless steel grounding clip, grounding lug and braid copper wire, which are all designed to comply with the requirement of AS5033, UL467 for bonding or grounding systems.





GS-RGL Rail Ground Lug

B

Grounding Clip

Grounding Clip will penetrate module and rail and create an electrical path through rail.

C

Braided Copper Wire

Cable Clip

Electrically connect spliced Rails

GS-CC-01

GS-CC-02

GS-CC-03

GS-CC-04