



SHENGHAI
ALUMINUM

SOLAR ENERGY PROFILES CATALOG

Let's Build Together

- Good Price
- Good Quality
- Green Energy
- Durable

SHENGHAI

Company Introduce

Foshan Shenghai Aluminum Co., Ltd. was established in 2010 and has grown into a leading aluminum profile manufacturer in China, providing precision engineered extrusion solutions. Shenghai Aluminum has 7 extrusion lines and offers powder coating and anodizing surface treatments. Annual export volume exceeds 8,000 tons.

The company combines innovative engineering with sustainable manufacturing practices to serve the global construction, industrial and design sectors.

2010

Established In



>>> Anodized Line <<<



>>> Extrusion Line <<<

7 sets
Press Lines

8000 tons
Annual Export

23000 m²
Factory Area

PRODUCT CATALOG

Solar Mounting System Application

- 01 Aluminum Solar Panel Frame P04-P05
- 02 Aluminium Solar Adjustable P06-P08
- 03 Adjustable Tilt Solar Roof Mounting Accessories P09-P10
- 04 Tile Roof Solar Mounting Accessories P11
- 05 Metal Roof Solar Mounting Accessories P12-P15





Product Introduction

Aluminum profiles are a key element in mounting systems for photovoltaic panels. They are used on various surfaces, such as sloping roofs, flat roofs or structure on the ground. Photovoltaic profiles are an element separating the panels from the roof, providing adequate space and ventilation.



Strong tensile strength



Convenient transportation and installation



Strong strength and firmness



High elasticity, rigidity and metal fatigue value



The service life is more than 25 years



Corrosion resistance and strong oxidation resistance

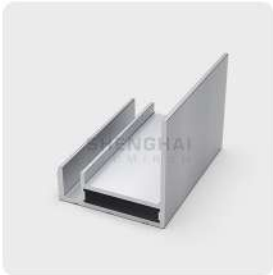


It can adapt to various environments through convenient selection



Even if the surface is scratched, it will not oxidize, and does not affect performance

Product Display



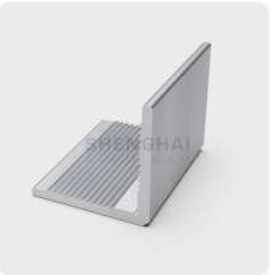
SPF-001



SPF-002



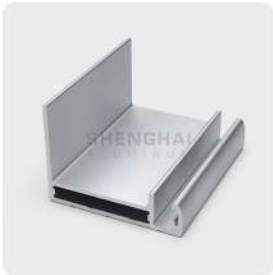
SPF-003



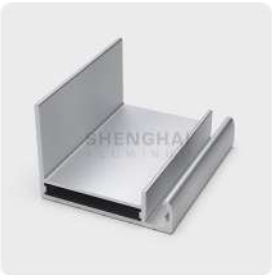
SPF-004



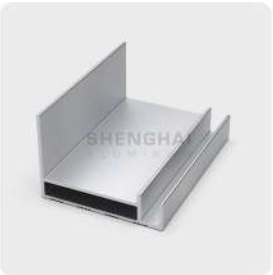
SPF-005



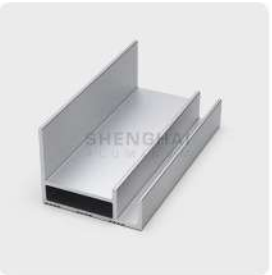
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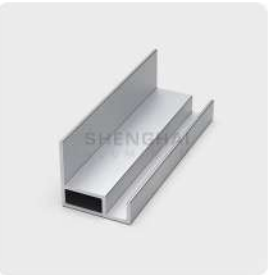
SPF-007



SPF-008



SPF-009



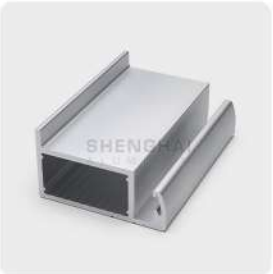
SPF-010



SPF-011



SPF-012



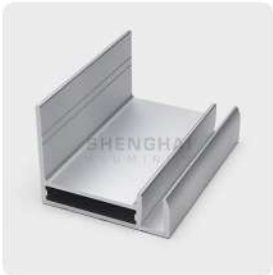
SPF-013



SPF-014



SPF-015



SPF-016



SPF-017



SPF-018

| Chemical composition of aluminum alloy | | | | | | | | | | |
|----------------------------------------|---------|------|-----|-----|----------|-----|-----|-----|--------|---------|
| Alloy | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Others | Al(Min) |
| 6063 | 0.2-0.6 | 0.35 | 0.1 | 0.1 | 0.45-0.9 | 0.1 | 0.1 | 0.1 | 0.15 | rest |
| 6005 | 0.6-0.9 | 0.35 | 0.1 | 0.1 | 0.4-0.6 | 0.1 | 0.1 | 0.1 | 0.15 | rest |

| Mechanical Properties of aluminum alloy | | | | | | |
|-----------------------------------------|--------|-----------|---------------|----------------|----------|-------------|
| Alloy | Temper | Thickness | T.S./ob (MPa) | Y.S/σ0.2 (MPa) | ELOG./δ% | Hardness/HW |
| 6063 | T5 | ≥0.8 | ≥160 | ≥110 | ≥8 | ≥8 |
| 6063 | T6 | ≥0.8 | ≥205 | ≥180 | ≥8 | ≥10 |
| 6005 | T5 | ≥0.8 | ≥260 | ≥240 | ≥6 | ≥12 |
| 6005 | T6 | ≥0.8 | ≥270 | ≥250 | ≥6 | ≥14 |

- 15*15/17*17*/18*18/20*20/23*17/25*25/25*20/30*25/28*25mm, etc., are suitable for solar street lamps and other small solar power generation equipment.
- 30*25/35*30mm are suitable for 30-100W solar modules, the dimension is 1200*540mm.
- 35*35mm is suitable for 80 -180W solar modules, the dimension is 1580*808mm.
- 40*35mm is suitable for 120 -200W solar modules, the dimension are 1580*808mm and 1640*990mm.
- 45*35mm is suitable for 180-250W solar modules, the dimension are 1580*808mm and 1650*992mm.
- 50*35mm is suitable for 200W-300W solar modules, the dimension are 1650*992mm,1960*992mm.



Product Introduction

The aluminum alloy tripod solar mounting system has a simple and elegant appearance, does not require on-site welding, is easy to install, and can be customized and adjusted at different angles.

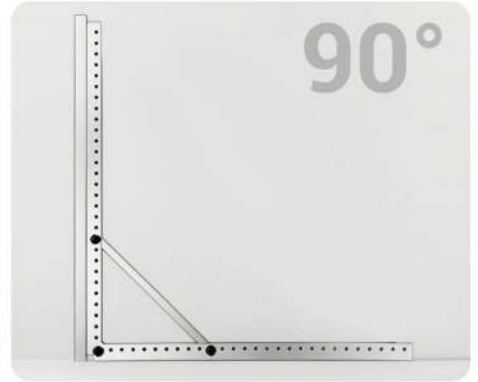
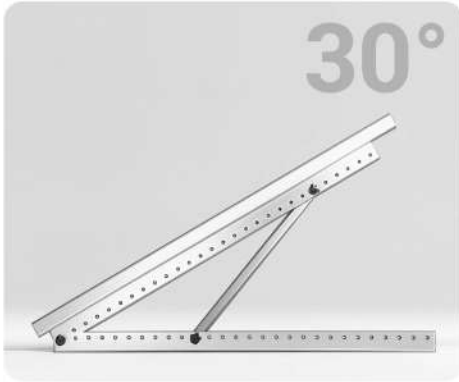


SA-001



SA-002

0°-90° Flexible Adjustment



Wide Application



Product Advantages



Universal

Solar panel mount is specially designed for flat roofs, carports, garages, walls, floors, caravans, boats.



Easy To Install

The solar panel mount is suitable for different sizes of solar panels. Increase the efficiency of solar panels by 25% by tilting them to the sun instead of laying them flat.



High Quality

The adjustable solar panel mount is made of aluminium alloy, the solar panel mount is lightweight, has a large load capacity and strong corrosion resistance and can be used in different environments.



Robust

Aluminium alloy material with low weight, large load capacity and strong corrosion resistance, solar panel mount suitable for all environments and ideal for easy transport and secure installation.



Safe And Reliable

The solar panel mount structure takes into account the load capacity, wind resistance, earthquake resistance and other factors and through strict calculations and tests to ensure safety and reliability.

Chemical composition of aluminum alloy

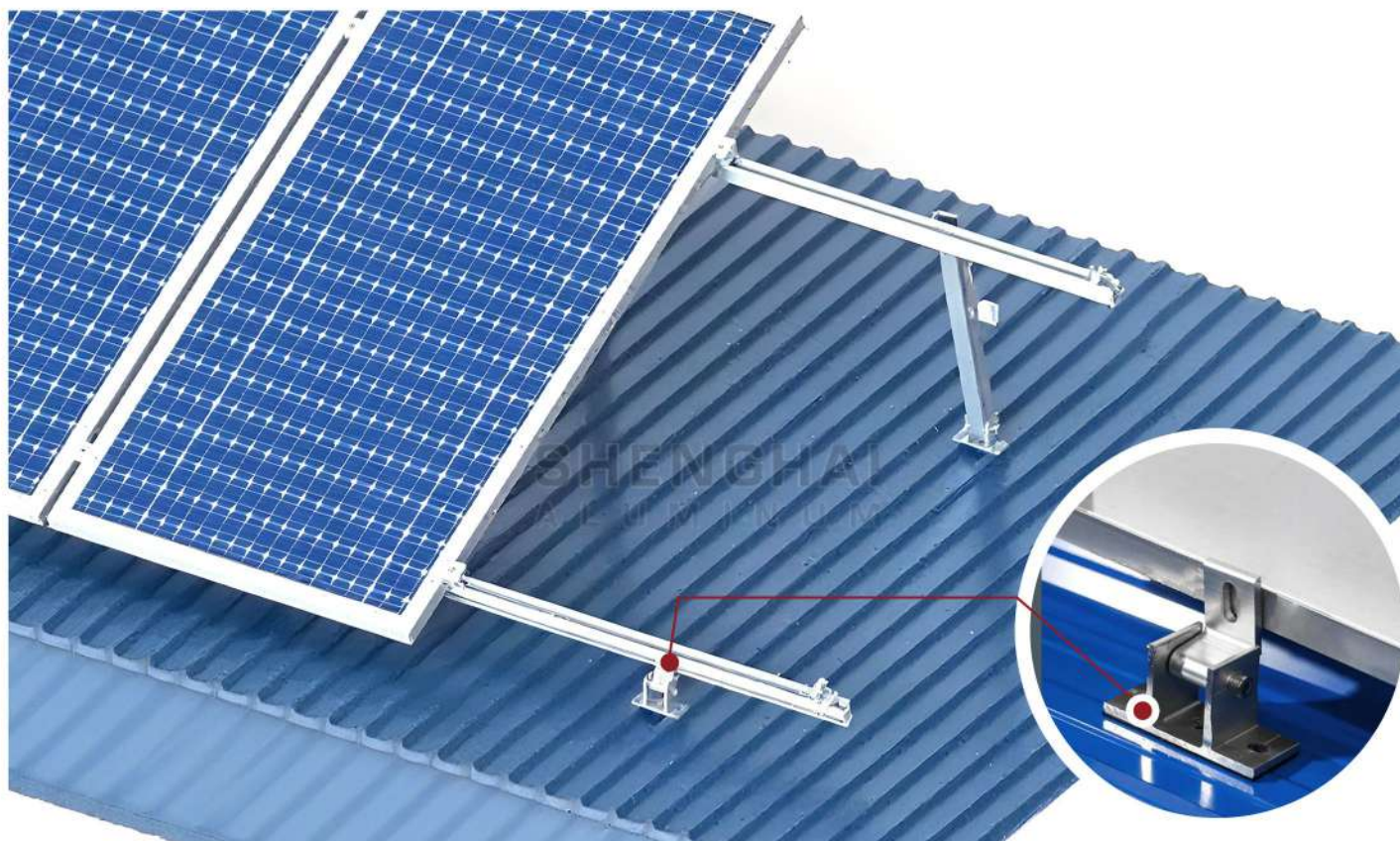
| Alloy | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Others | Al(Min) |
|-------|---------|------|-----|-----|----------|-----|-----|-----|--------|---------|
| 6063 | 0.2-0.6 | 0.35 | 0.1 | 0.1 | 0.45-0.9 | 0.1 | 0.1 | 0.1 | 0.15 | rest |
| 6005 | 0.6-0.9 | 0.35 | 0.1 | 0.1 | 0.4-0.6 | 0.1 | 0.1 | 0.1 | 0.15 | rest |

Mechanical Properties of aluminum alloy

| Alloy | Temper | Thickness | T.S./σb (MPa) | Y.S./σ0.2 (MPa) | ELONG./δ% | Hardness/HW |
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| 6063 | T5 | ≥0.8 | ≥160 | ≥110 | ≥8 | ≥8 |
| 6063 | T6 | ≥0.8 | ≥205 | ≥180 | ≥8 | ≥10 |
| 6005 | T5 | ≥0.8 | ≥260 | ≥240 | ≥6 | ≥12 |
| 6005 | T6 | ≥0.8 | ≥270 | ≥250 | ≥6 | ≥14 |

Adjustable Tilt Solar Roof Mounting Accessories

03





Product Introduction

Angle Adjustable Tilt Solar Roof Mounting allows to tilt to tilt up adjustable on corrugated roof sheet, trapezoidal roof sheet or other metal roof flat roof.

The angle adjustable range are available at 10-30 degree, 15-30 degree, and 30-60 degree, you can set up your idea angle according different places and different seasons.

By using together with metal roof attachments or mini rail, the tilt solar mounting can be installed in almost all kind of metal roof. It is easy and quick to install with competitive price.

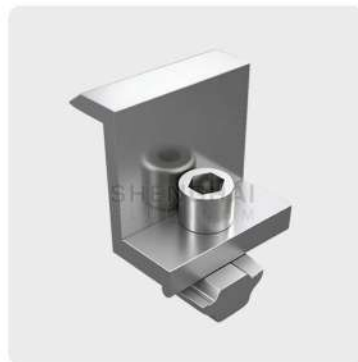
Tilt Bracket Accessories



Rail



Mid Clamp



End Clamp



Rail Splice



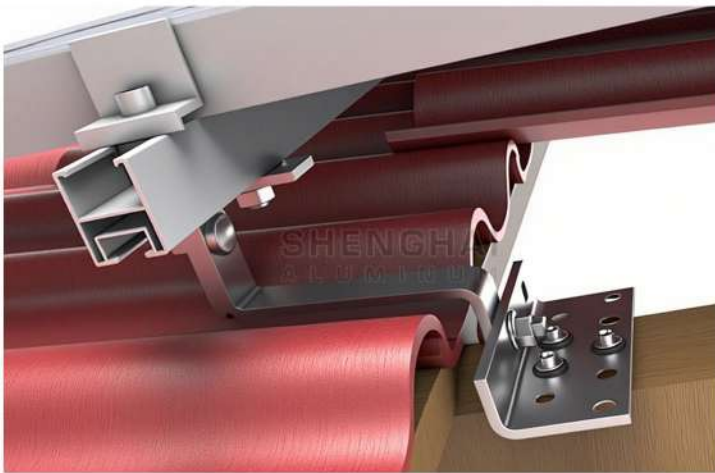
Mini Rail



Adjustable Front Leg



Adjustable Rear Leg



Product Introduction

Tile Roof Solar Mounting are coming with aluminum rail, mid/end clamp, splice, earthing lug, and roof hook, earthing clip, earthing cable etc. We have different type of rails and roof hooks (fixed roof hook, adjustable roof hook) for different occasions and different roof type like flat tile, slate tile, etc.

Tilt Bracket Accessories



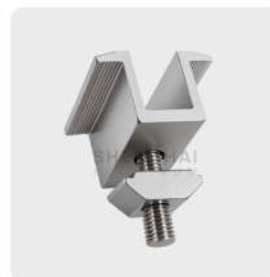
Hook Up



Rail



End Clamp



Mid Clamp



Rail Splice



1

Product Introduction

L-shaped bracket with track solution is strong, lightweight and easy to install. The high-grade aluminum alloy track is anodized for excellent corrosion resistance. It is widely used in most metal roof commercial and industrial solar projects to achieve a stable and strong connection between the roof support structure and the solar panels.

Tilt Bracket Accessories



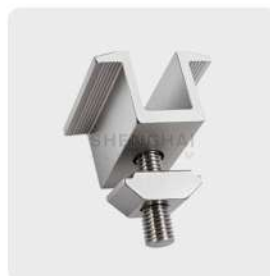
L-Bracket



Rail



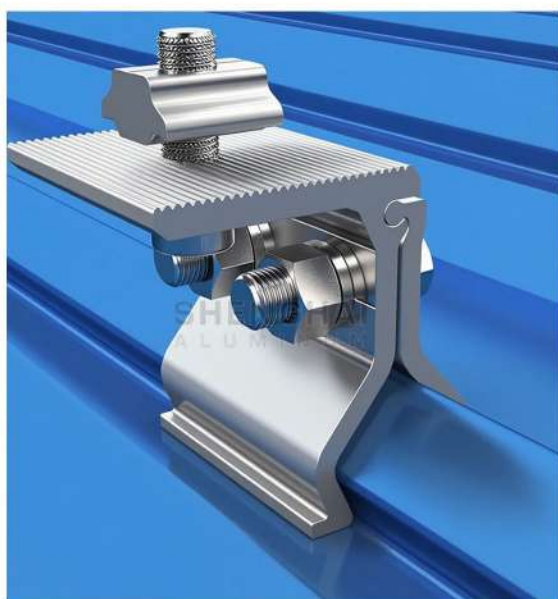
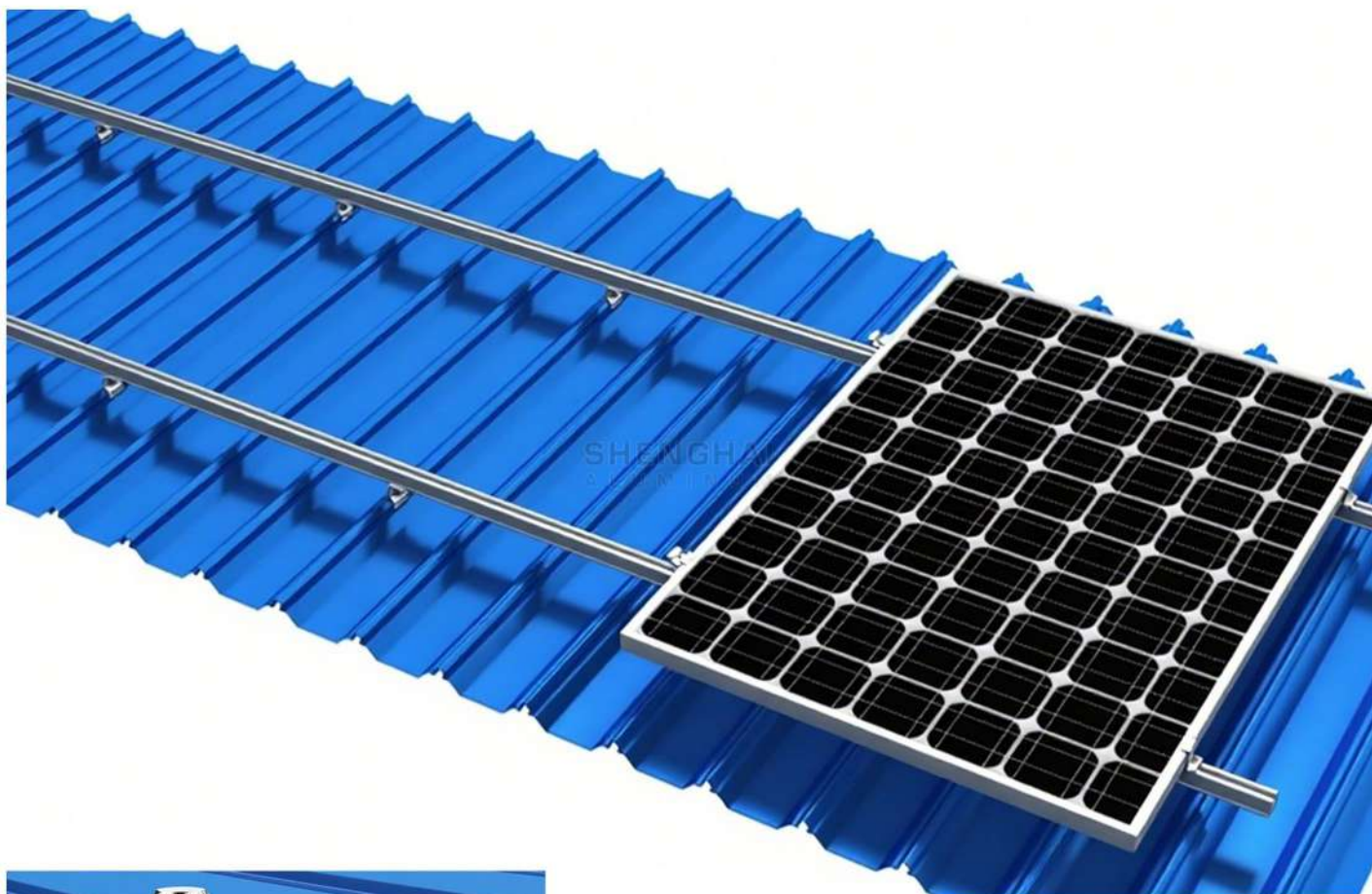
End Clamp



Mid Clamp



Rail Splice



2

Product Introduction

The clamp is suitable for different types of vertical roofs. Special roof shapes can be customized. Made of high-quality aluminum alloy, it is light in weight and strong, which can greatly reduce installation time and cost.

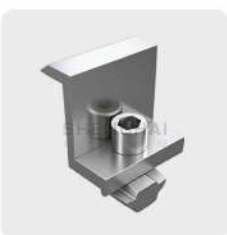
Tilt Bracket Accessories



Roof Clip



Rail



End Clamp



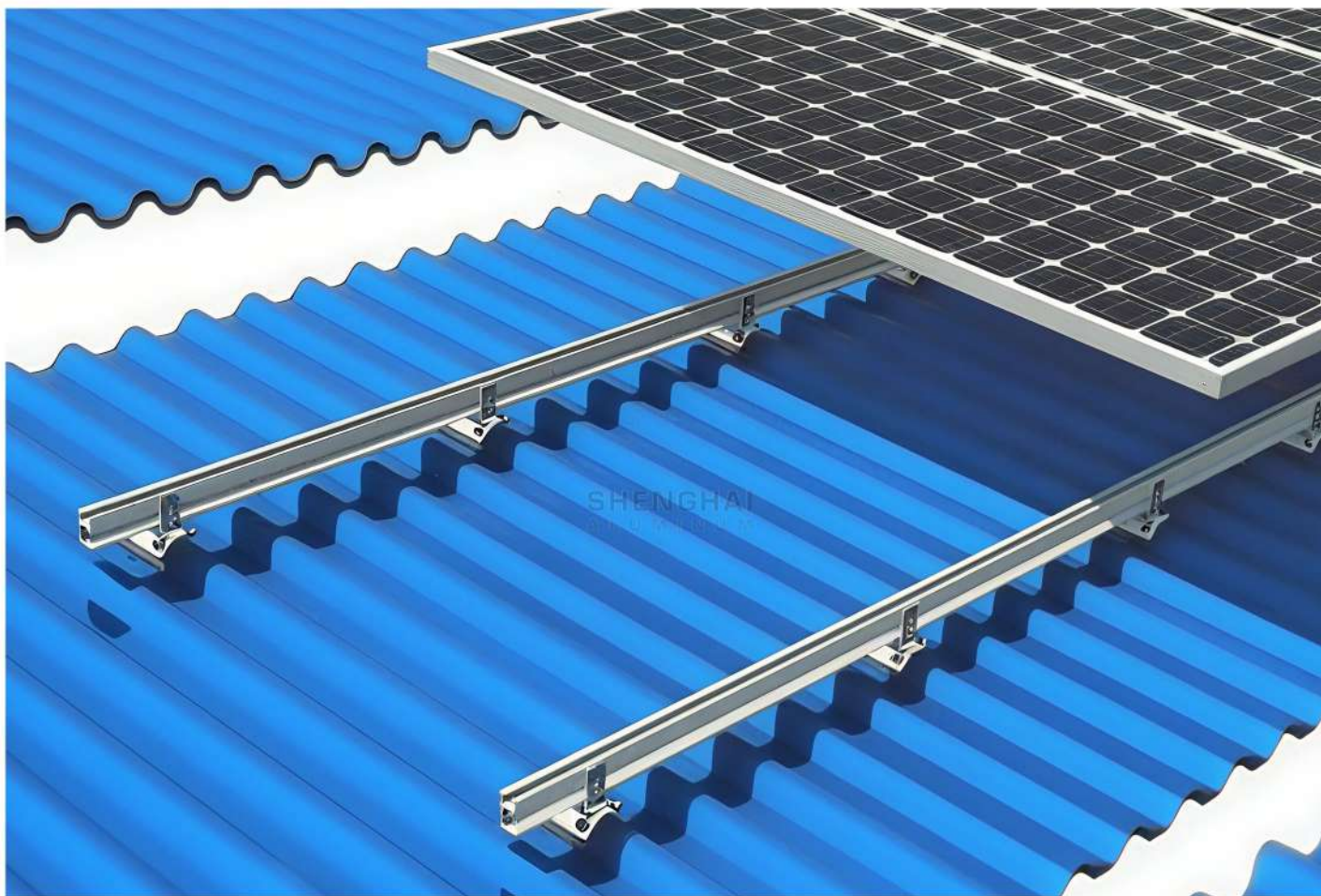
Mid Clamp



Rail Splice



L-Bracket



3

Product Introduction

Clamps play a vital role in ensuring the stability and integrity of your solar panel array. They provide a secure connection point that keeps the solar panel in place even in strong winds or extreme weather conditions. This helps prevent damage to the solar panel and maintain its optimal performance.

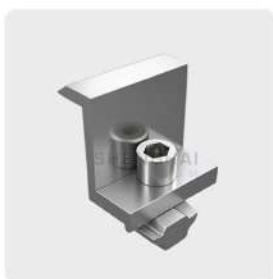
Tilt Bracket Accessories



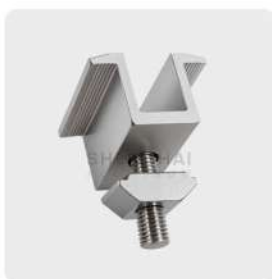
Roof Clip



Rail



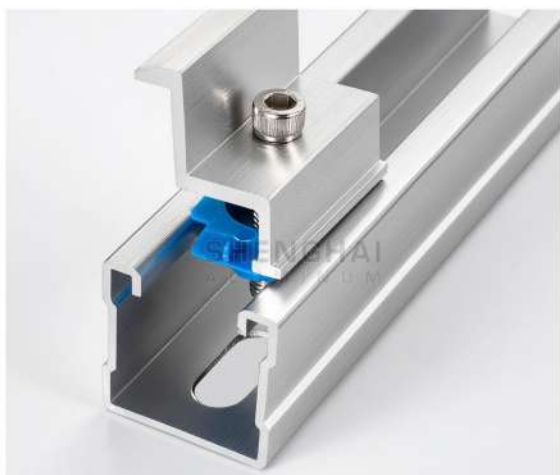
End Clamp



Mid Clamp



Rail Splice



4

Product Introduction

The aluminum alloy C-shaped guide rail can be used in a variety of environments. It is easy to use, has uniform force, is firm and not easy to fall off. The production standards are strictly controlled to keep the error within a small range.

Tilt Bracket Accessories



Rail



End Clamp



Mid Clamp



Rail Splice