APEX SOLAR

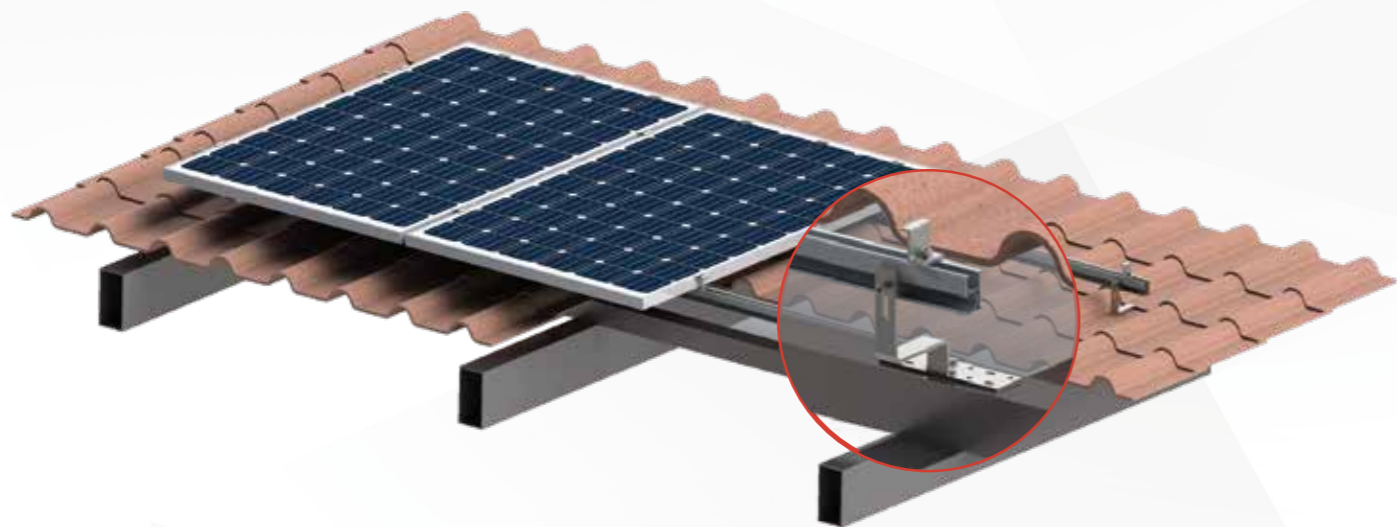# MOUNTING BRACKET SOLUTIONS

PAK TIANMA ENTERPRISES(PVT.)LIMITED

**GM ALNOOR FILING STATION,LANDIKOTAL ROAD,
ALI MASJID KHYBER, JAMRUD PESHAWAR KPK PAKISTAN**

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Headquarter: GM Solar Pvt Ltd In Pakistan   Land line:051-5495148

10-year local warranty

Tile Roof Mount

Design Conditions

Application Area:	Pantile Roof
Module Type:	Framed/Frameless
Module Orientation:	Portrait/Landscape
Main Material:	Anodized AL6005-T5
Fasteners:	SUS304/410
Features:	Adjustable & Easy installation
Warranty:	10 Years Warranty and 25 Years Service Life

Adjutable Roof Hook

Roof Hook

Mid Clamp

End Clamp

Rail

Rail Splice

SS Flat Hook + Square Rail

SS Flat Hook

Square Rail

Introduction

This adjustable hook is made of more corrosion-resistant and environmentally friendly aluminum alloy.
The bottom adopts a channel adjustment design that is more flexible than single-point adjustment. It can be adjusted up and down, left and right to avoid interference with the tile.

Mid Clamp

End clamp

Aluminum Hook

G Rail

Mid Clamp

End clamp

Introduction

This adjustable hook can be adjusted up and down, left and right to avoid interference with the tile.
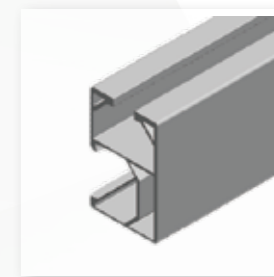
✓ Adjustable in horizontal and vertical directions
✓ Easy to install
✓ Highly pre-assembled
✓ Lightweight

▲ **Aluminum Hook + G Rail**

Railless Roof Mount

< **Railless Roof Mount - Landscape**

Design Conditions

Application Area:	Trapezoidal, Sandwich Roof
Module Type:	Framed/Frameless
Main Material:	Anodized AL6005-T5
Fasteners:	SUS304/410
Features:	Easy & Fast installation
Warranty:	10 Years Warranty and 25 Years Service Life
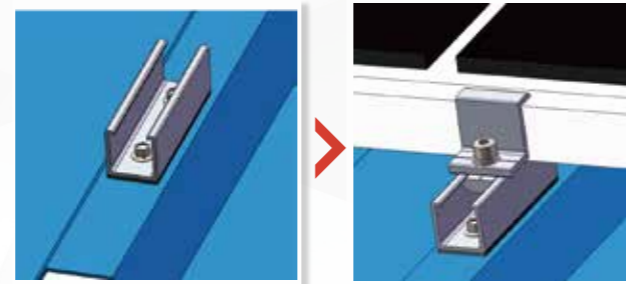
Mini Rail

End Clamp

Mid Clamp

Railless Roof Mount-Portrait

Mini rail

Mid Clamp

End Clamp

Introduction

This one is especially suitable for sandwich roof. We upgrade this mini rail by designing the opening shape adaptable to snap-on clamps, when fastening the panels we only need to press the clamp which ensures the rapid installation and reduces labor cost.
It spans two ridges and positioned vertical to the water flow direction.
The panels are placed in portrait orientation so as to be clamped on the long side.
The mid and end clamp are available in black anodized.

- ✔ Low cost
- ✔ Easy to install
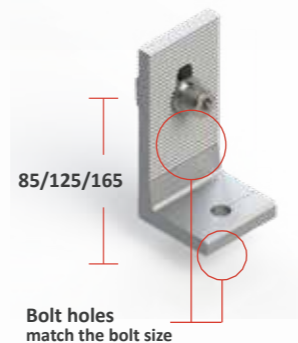- ✔ Highly pre-assembled
- ✔ Lightweight

Hanger Bolt Mount

APEX SOLAR

Design Conditions

Application Area:	Fibre Cement, Corrugated Roof
Module Type:	Framed
Module Orientation:	Portrait/Landscape
Main Material:	Anodized AL6005-T5
Fasteners:	SUS304/410
Features:	Adjustable & Easy installation
Warranty:	10 Years Warranty and 25 Years Service Life

Cutting drill point
for steel purlin

- SUS304 -

- SUS410/Carbon Steel -

Point
for wooden rafter

Screw Option

85/125/165

Bolt holes
match the bolt size

Optional Heights

End Clamp

Mid Clamp

Hook Options

SS Hook 1

SS Hook 2

SS Hook 3

SS Hook 4

SS Hook 5

SS Hook 6

SS Hook 7

Aluminum Hook

Hanger Bolt with SS Plate

Hanger Bolt (L Foot)

Standing Seam Roof Mount

Tilt Mount
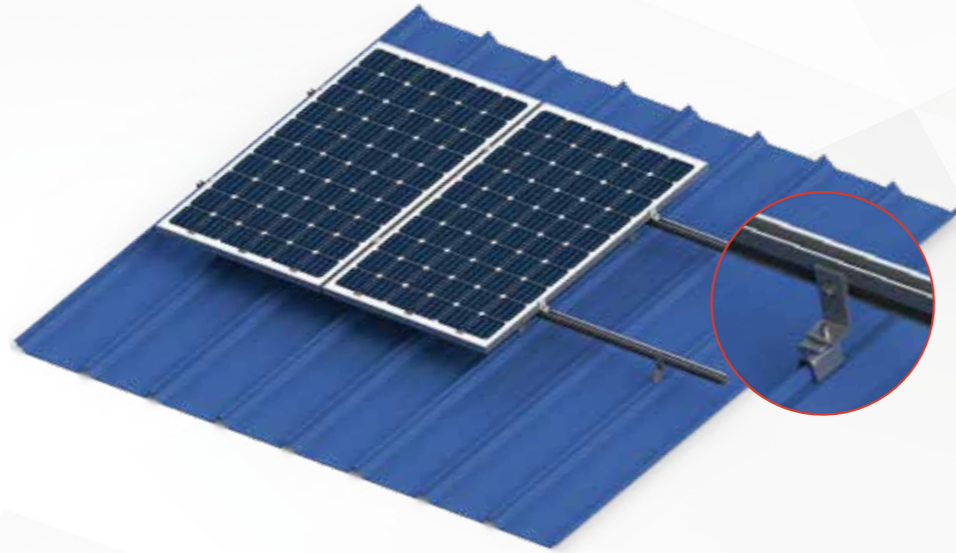
Design Conditions

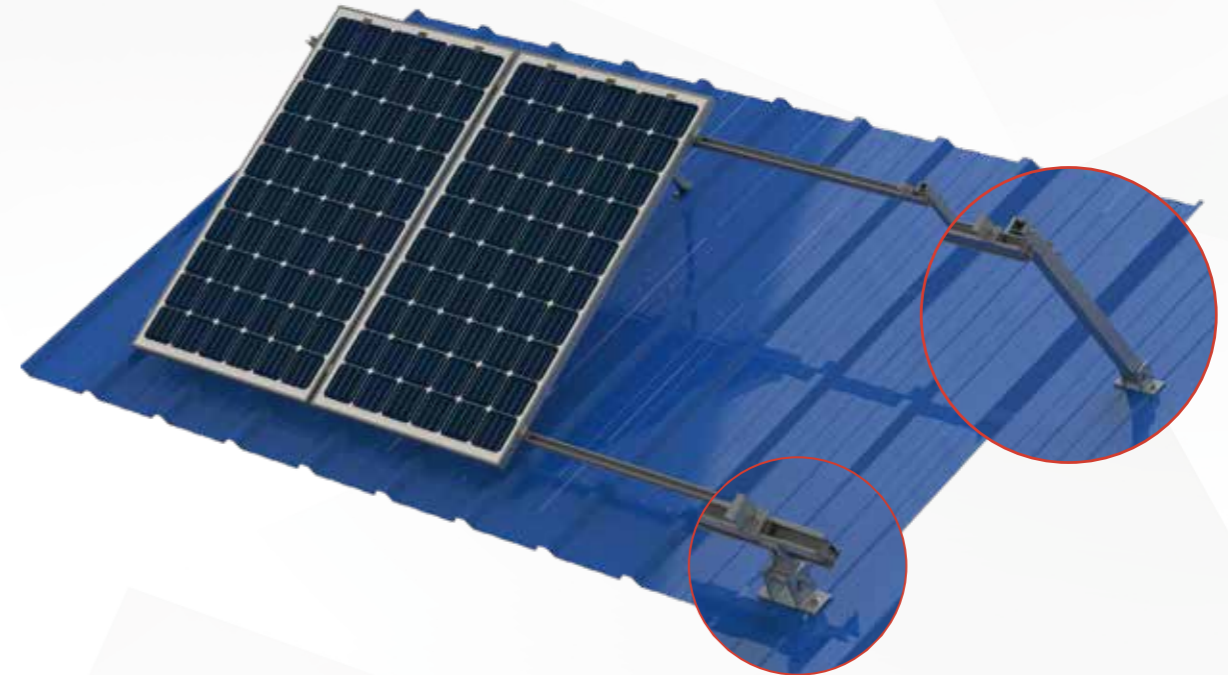|	
Application Area:	Standing Seam Metal
Module Type:	Framed
Module Orientation:	Portrait
Main Material:	Anodized AL6005-T5
Fasteners:	SUS304/410
Features:	Non-penetrating & Easy installation
Warranty:	10 Years Warranty and 25 Years Service Life

L-Feet

Standing Seam Clamp

Rail

Rail Splice

End Clamp

Mid Clamp

Design Conditions

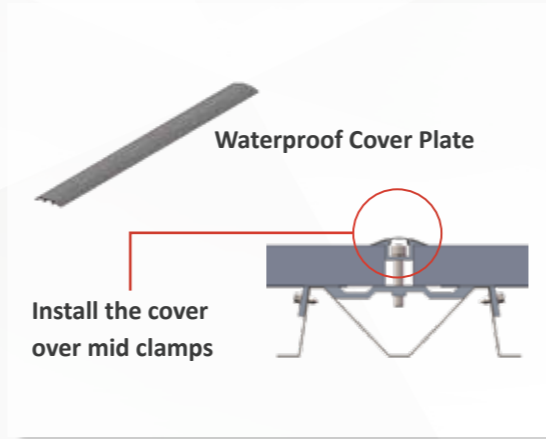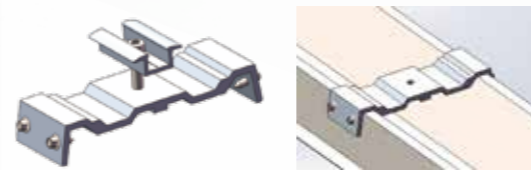|	
Application Area:	Metal Deck, Flat Concrete Roof, On-wall
Module Type:	Framed
Module Orientation:	Portrait/Landscape
Main Material:	Anodized AL6005-T5
Fasteners:	SUS304
Features:	Flexible tilt & direction
Warranty:	10 Years Warranty and 25 Years Service Life

Front Leg

10°-15° 15°-30° 30°-60°

Rear Leg

Steel Carport

Waterproof Cover Plate

Install the cover over mid clamps

Design Conditions

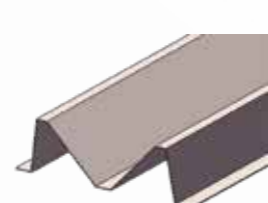|	
Application Area:	Parking lots
Module Type:	Framed
Module Orientation:	Portrait/Landscape
Main Material:	Q235B/S350GD
Fasteners:	SUS304/410
Water-proof:	Optional
Features:	Easy transportation & Cost-effective
Warranty:	10 Years Warranty and 25 Years Service Life

Clamp with fixing plate on water channel
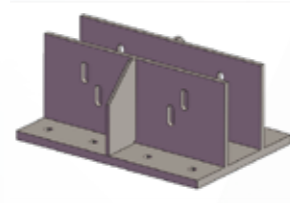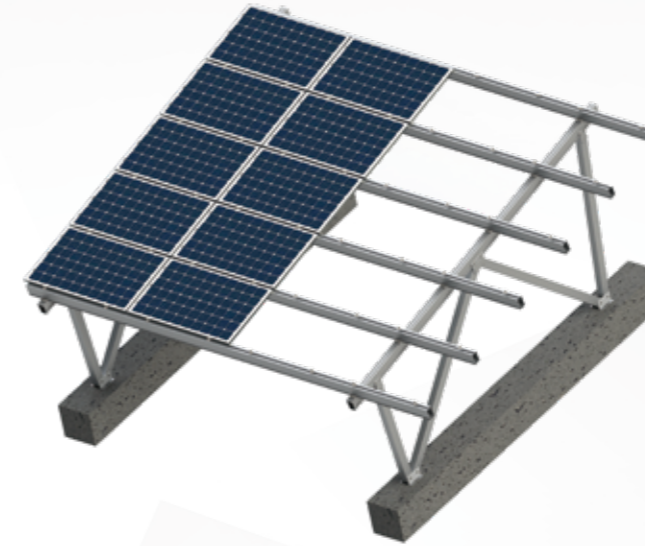

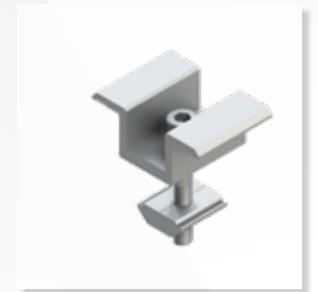| Beam/Column/Purlin	Welded Base Plate	Vertical Water Channel	Tie Bar

Aluminum Carport

End Clamp	Mid Clamp

Design Conditions

|	
Application Area:	Parking lots
Module Type:	Framed
Module Orientation:	Portrait/Landscape
Main Material:	Anodized AL6005-T5
Fasteners:	SUS304/410
Water-proof:	Optional
Features:	Light wight & Easy installation
Warranty:	10 Years Warranty and 25 Years Service Life

Base Connector	Column

Rail-Portrait	Beam	Small H Connector	Big H Connector

![APEX SOLAR logo]

| C Steel Mount
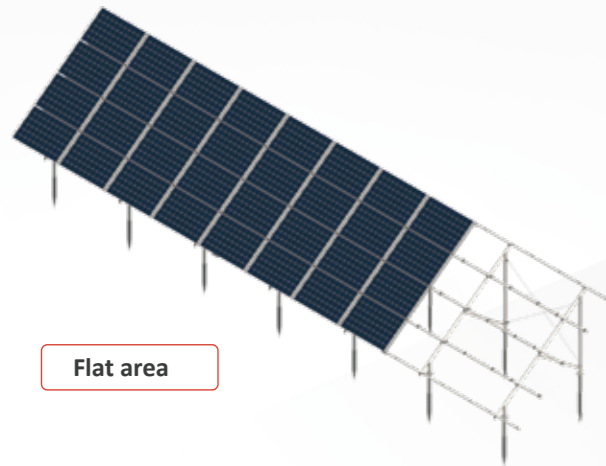
Flat area
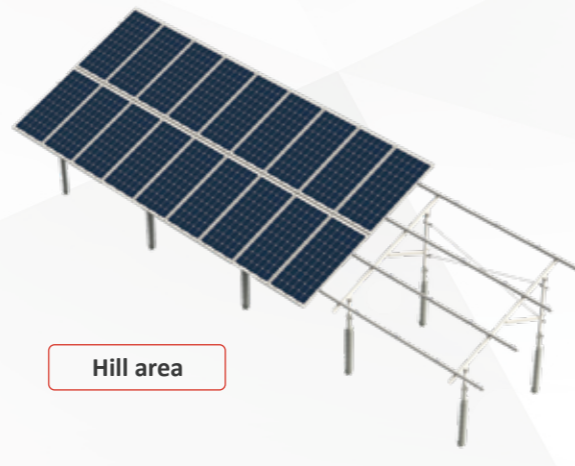
Hill area

Design Conditions

Application Area:	Open Ground
Module Type:	Framed
Module Orientation:	Portrait/Landscape
Main Material:	Q235B/S350GD
Fasteners:	Steel, SUS304
Features:	Cost-effective & Easy installation
Warranty:	10 Years Warranty and 25 Years Service Life

C-section Steel

Purlin Connector

End Clamp Kits

L Foot Connector

Ground Screw

Mid Clamp Kits

| U Steel Mount

Design Conditions

Application Area:	RCC Roof or Open Ground
Application Area:	Concrete or Ground Screw
Module Type:	Framed
Module Orientation:	Portrait/Landscape
Main Material:	Q235B/S350GD
Fasteners:	Steel, SUS304
Features:	Flexible application & Cost-effective
Warranty:	10 Years Warranty and 25 Years Service Life

End Clamp

Mid Clamp

U-section Steel

Triangle Connector

Base Connector

Purlin Connector

Aluminum Mount

Design Conditions

Application Area:	Open Ground
Foundation:	Concrete or Ground Screw
Module Type:	Framed
Module Orientation:	Portrait/Landscape
Main Material:	Anodized AL6005-T5
Fasteners:	SUS304
Features:	Light weight & Recyclable
Warranty:	10 Years Warranty and 25 Years Service Life

End Clamp

Mid Clamp

Rail Clamp

Rail-Landscape

Base Connector

Rail Splice

Beam

Column

Accessories

Ground Screw

Dimension:	76*T3/3.5
Flange Diameter:	200mm
Length:	1200/1400/1600/1800/2000mm
Material:	HDG Q235B

·customization available·

- - - - - - - - - PV Cable Clip -

2*4mmsq

4*6mmsq

4*4mmsq

Grounding Lug

- - - - - - - - - Grounding Clip -
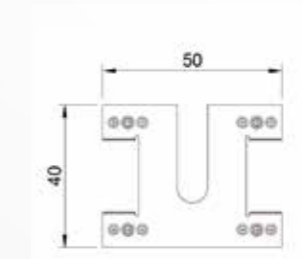
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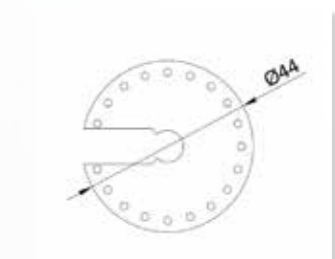**EG-GC-01**

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EG-GC-03

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EG-GC-07

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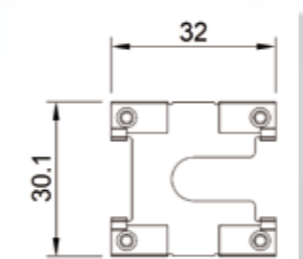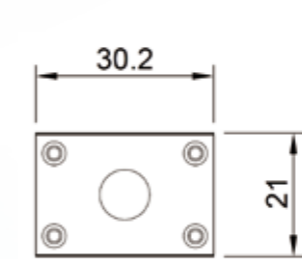
EG-GC-08

Global Projects

30MW Ground

50MW Ground

1.8MW Rooftop

120MW Fishery

2MW Carport

5MW Rooftop

5MW Rooftop

5MW Rooftop

2MW Rooftop