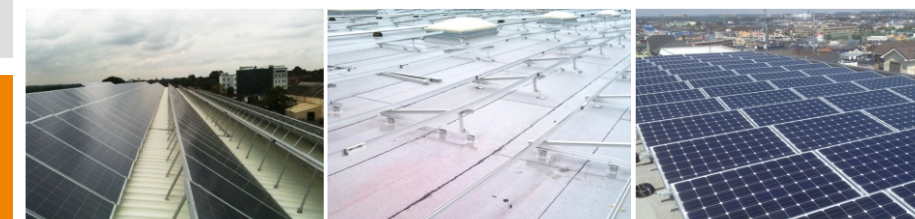




The Leader of PV Mounting System



## GS SOLAR ROOF MOUNT SOLUTIONS



**XIAMEN GRACE SOLAR TECHNOLOGY CO., LTD.**

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XIAMEN GRACE SOLAR TECHNOLOGY CO.,LTD.

# About Grace Solar

## The Leader of PV Mounting System

Xiamen Grace Solar Technology Co.,Ltd. is a high-tech enterprise in the field of solar PV with leading technology and excellent services. Specializing in solar PV products, Grace Solar members devote to research and develop, manufacture and market the steadiest, most trustable and cost-efficient solar mounting system solutions. As one of the largest PV solar products exporter in China, the pioneer Grace Solar products have been installed in more than 100 countries and regions since the foundation.

### RESEARCH AND DEVELOPMENT

Grace Solar insist Profession and Innovation on products research and development, offering good guarantee to customers with Profession, and cultivating better value with Innovation.

Grace Solar set up the international and professional Research and Development team with the oversea educated leader, emphasizing elite personnel and advanced equipment application, which keep our design and performance taking road of PV solar. Grace Solar acquire Intellectual Property and software Copyrights protect for high-tech products including Ground Mounting System, Roof Mounting System

### MANAGEMENT CONCEPTS

Grace Solar bring forward the standardized and internationalized manage-ment concept at the beginning of establishment, positively implementing ISO quality system in all phases of management and apply APQP, FMEA, CP Control Plan, MSA, SPC five tools in the stages of R&D, manufacturing, marketing and service. Furthermore, Grace Solar take importance to international authority certification for the products, actively studying with international and domestic certification institutions such as UL, TUV, CE, CQC, SAA, AS/NZS 1170 and Golden Sun.

### SERVICE NETWORKS

Due to long term fast feedbacks for reliable qualified products and services, Grace Solar win trust from worldwide System Integration Company, installers and distributors. Cooperating with several strong facilitators in different areas, Grace Solar create global service networks to offer quick and efficient services.



## Content



PITCHED ROOF RACKING SYSTEM

01



FLAT ROOF RACKING SYSTEM

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BALLASTED MOUNTING SYSTEM

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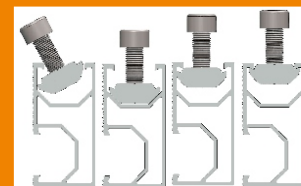




Tile Roof System



Tin Roof System



# PITCHED ROOF RACKING SYSTEM

## Introduction

GS Pitched Roof Racking System designs with great flexibility both for commercial and residential roof solar system. it is suitable for installing framed and frameless modules flushed to the pitched roof. GS series product have the innovated design of GD Rail and D module make the installation more easily and quickly. High pre-assembly parts and customized solution to save your install time and money. Grace Solar have the excellent engineer team and quality management system to provide the perfect service. Grace Solar, your best choice.

## Benefits

### Easy Installation

D-module can be put into GD Rail from any position. so the parts can be pre-assembled on factory to save your install time on site.

### Flexibility and Compatible

GD Rail and its accessories can be installed with the most solar panels on the difference condition.

### Safety and Reliability

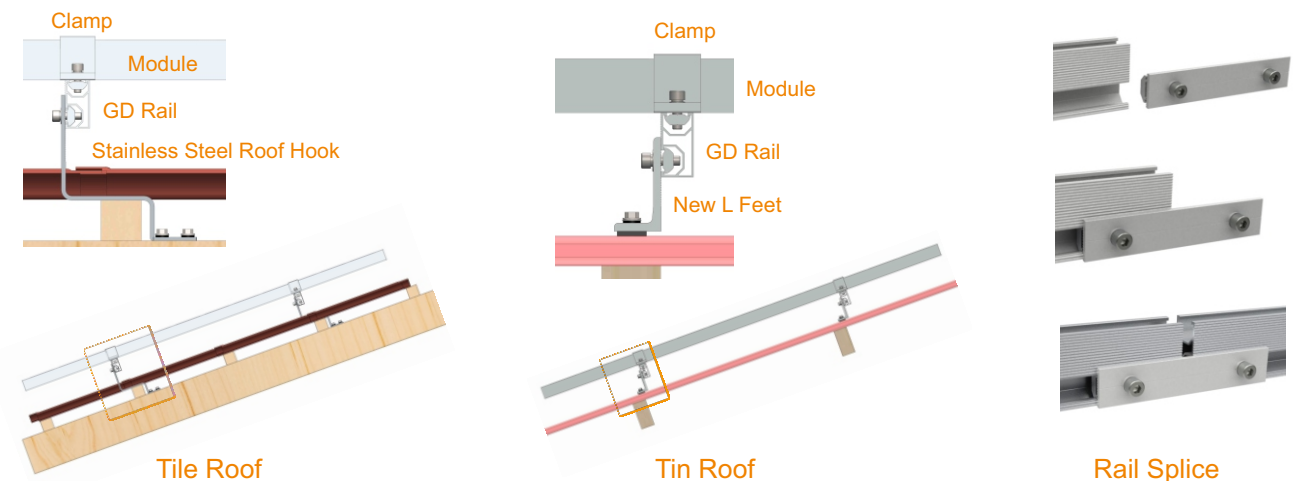
The racking systems can stand up to the extreme weather complied with the AS/NZS 1170 and other international structure load standards by skilled engineers. The main support components have also been tested to guarantee its structure and load-carrying capacity.

## Technical Information

Install Site	Pitched Roof
Tilt Angle	Flushed with the roof, up to 60deg
Building Height	up to 20m
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m <sup>2</sup>
Standards	AS/NZS 1170 & DIN 1055 & Other
Material	Aluminum alloy & Stainless steel
Color	Natural
Anti-corrosive	Anodized
Warranty	Ten years warranty
Duration	More than 20 years

# COMPONENTS

## System Overview



## Rail and Splice

Item No.	Description	Standard Package
GS-DR-Length	GD Standard Rail -Have top and side channel	8pcs in a bundle, 384pcs in a Pallet
GS-HR-Length	GH Rail with a customized length -Have top and bottom channel	8pcs/bundle, 384pcs/Pallet
GS-DR4-Length	GD 4# Rail -Back connect	8pcs/bundle, 340pcs/Pallet
GS-DR5-Length	GD 5# Rail -Manage with the PV cable	8pcs/bundle, 288pcs/Pallet
GS-CRC-Length	Cable Rail Cap -cap of the cable channel of 5# Rail	8pcs/bundle, 3600pcs/Pallet
GS-DR-SP	GD Rail splice kit	50pcs/Box, 4 Box/CTN
GS-DR4-SP	GD 4# Rail splice kit	15pcs/Box, 4 Box/CTN

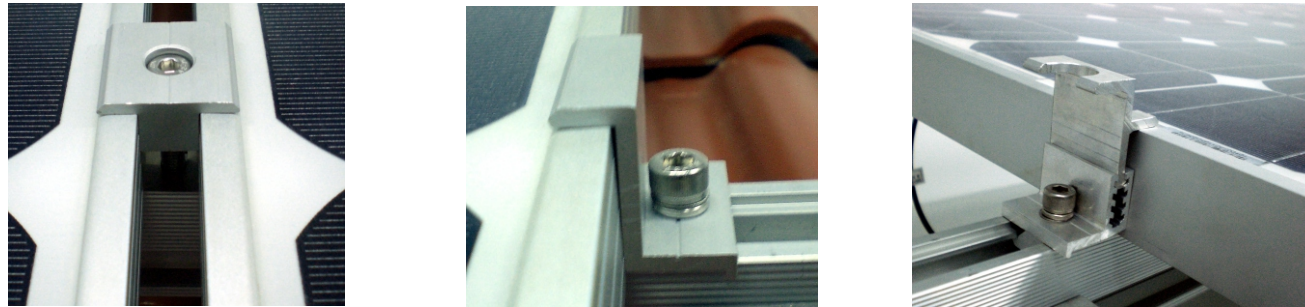
Note: the standard length is 2560mm, 3405mm, 4200mm. the other must be customized

Feature: Material is Anodized Al6005-T5, Fasten is A2-70



# COMPONENTS

## Framed Module Clamp



Item No.	Description	Package
Inter Clamp Kit		
GS-IC-F30/35	GS Inter Clamp Kit 30~35mm	100pcs/Box, 4 Box/CTN
GS-IC-F35/40	GS Inter Clamp Kit 35~40mm	
GS-IC-F45/50	GS Inter Clamp Kit 45~50mm	
GS-IC-F57/60	GS Inter Clamp Kit 57~60mm	
End Clamp Kit		
GS-EC-F30	GS End Clamp Kit 30mm	100pcs/Box, 4 Box/CTN
GS-EC-F35	GS End Clamp Kit 35mm	
GS-EC-F40	GS End Clamp Kit 40mm	
GS-EC-F46	GS End Clamp Kit 46mm	
GS-EC-F50	GS End Clamp Kit 50mm	
GS-EC-F57	GS End Clamp Kit 57mm	
Adjustable End Clamp Kit		
GS-EC-A01	GS Adjustable End Clamp Kit 1#	50pcs/Box, 4 Box/CTN
GS-EC-A02	GS Adjustable End Clamp Kit 2#	

Feature: Material is Anodized Al6005-T5, Fasten is A2-70

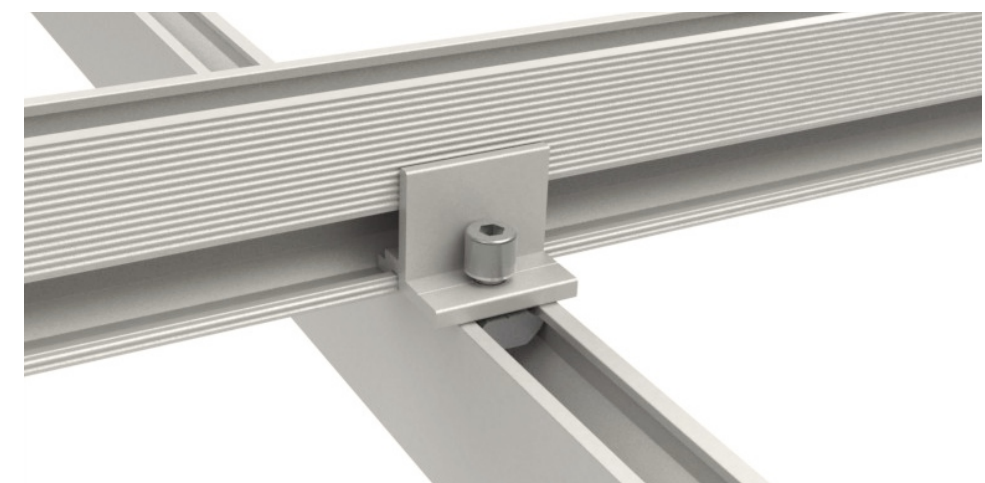


# COMPONENTS

## Frameless Module Clamp



Item No.	Description	Package
GS-IC-L80	Thin Film Module Inter Clamp	40pcs/Box, 4 Box/CTN
GS-EC-L80	Thin Film Module End Clamp	50pcs/Box, 4 Box/CTN
GS-RC-D	GD Rail Clamp Kit	100pcs/Box, 4 Box/CTN



Rail Cross Connect

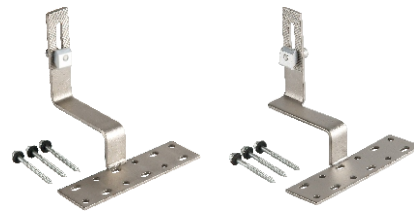
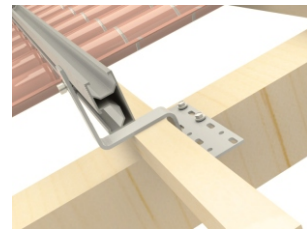


# COMPONENTS

## Roman Tile Roof Hook

### Feature

·Main Material: Stainless Steel 304



GS-IK-01

GS-IK-06



GS-IK-14



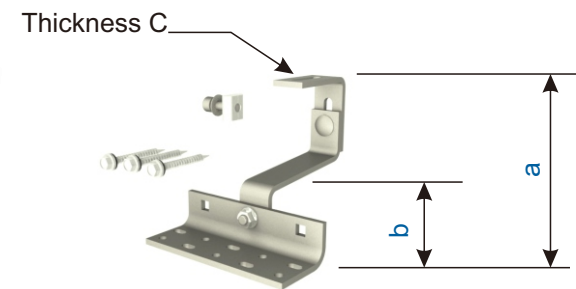
Item No.	Description	Dimension (mm)			Package
		a	b	c	
GS-IK-01	Stainless Steel Hook 1# Kit	101	46	5	10pcs/Box, 4 Box/CTN
GS-IK-06	Stainless Steel Hook 6# Kit	101	46	5	
GS-IK-14	Stainless Steel Hook 14# Kit	101	----	5	



Adjust the Height GS-IK-HP



GS-IK-12

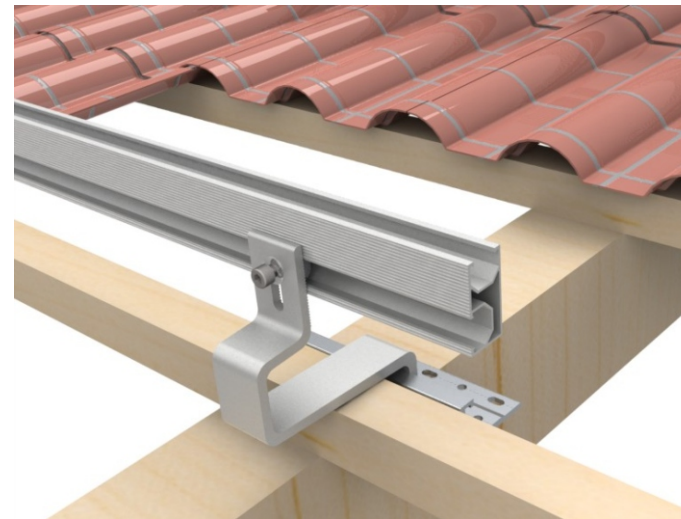


GS-IK-15

Item No.	Description	Dimension (mm)			Package
		a	b	c	
GS-IK-12	Adjustable Stainless Steel Hook 12# Kit	156~176	38~50	5	10pcs/Box, 4 Box/CTN
GS-IK-15	Adjustable Stainless Steel Hook 15# Kit	116~146	38~50	5	10pcs/Box, 4 Box/CTN
GS-IK-HP	Height Adjust Plate for Roof Hook	150	----	5	100pcs/Box, 4 Box/CTN

# COMPONENTS

## Roman Tile Roof Hook



GS-AIK-01

### Feature

·Material: Al6005-T5  
·Variable Bar Height in roof batten area: 40~50mm  
·Laterally adjustable in roof batten area  
·Height adjustment in Rail area: up to 20mm  
·Pressure parallel to roof surface: 0.7KN  
·Pressure perpendicular to roof surface: 1.3KN  
·Tensile Force Perpendicular to roof surface: -1.3KN

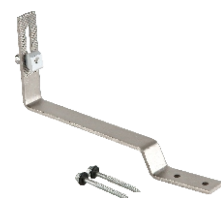
Item No.	Description	Dimension (mm)			Package
		a	b	c	
GS-AIK-01	Aluminum Roof Hook 1# kit	172~182	40~50	6~8	12pcs/Box, 4 Box/CTN

# COMPONENTS

## Flat Tile Roof Hook

### Feature

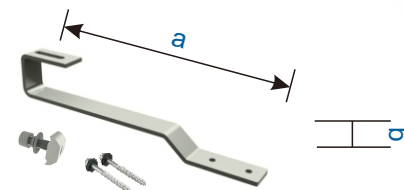
·Main Material: Stainless Steel 304



GS-IK-02



GS-IK-02-A



GS-IK-02-B

Item No.	Description	Dimension (mm)			Package
		a	b	Thickness	
GS-IK-02	Stainless Steel Hook 2#	190	30	5	30pcs/Box, 4 Box/CTN
GS-IK-02-A	Stainless Steel Hook 2# A type	190	30	5	10pcs/Box, 4 Box/CTN
GS-IK-02-B	Stainless Steel Hook 2# B type	190	30	5	10pcs/Box, 4 Box/CTN

## Shingle Tile Roof Hook



GS-IK-04



GS-IK-04-A

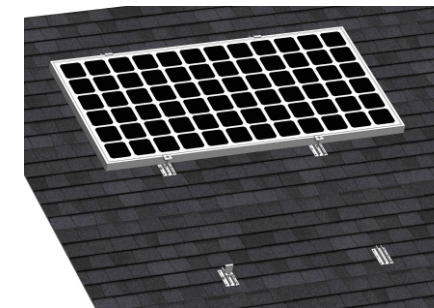


GS-IK-04-B

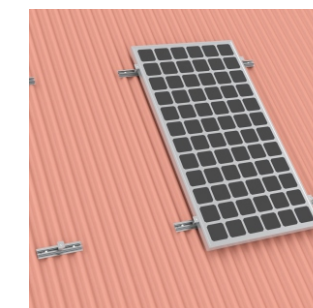
Item No.	Description	Dimension (mm)			Package
		Length	Width	Thickness	
GS-IK-04	Stainless Steel Hook 4#	200	30	5	20pcs/Box, 4 Box/CTN
GS-IK-04-A	Stainless Steel Hook 4# A type	200	30	5	10pcs/Box, 4 Box/CTN
GS-IK-04-B	Stainless Steel Hook 4# B type	200	30	5	10pcs/Box, 4 Box/CTN

# COMPONENTS

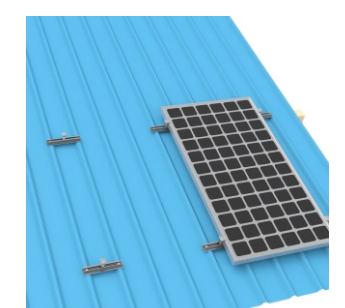
## Flat Rail Hook



Shingle Roof  
GS-IK-FR



Corrugated roof  
GS-IK-FR-02

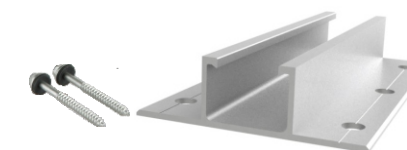


Trapezoid roof  
GS-IK-FR-02

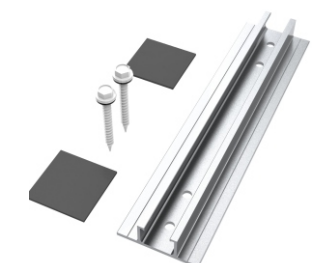
### Feature

·Material: Al6005-T5  
·Fasten by 2 x Wood Screw St6.3x80

Item No.	Description	Length(mm)	Package
GS-IK-FR	FB Rail Hook 1#	120	40pcs/Box, 4 Box/CTN
GS-IK-FR-02	FB Rail Hook 2#	250	25pcs/Box, 4 Box/CTN



GS-IK-FR



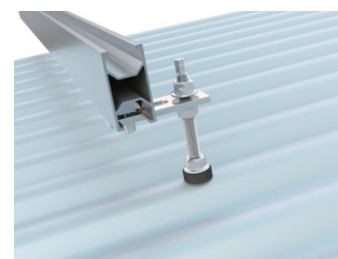
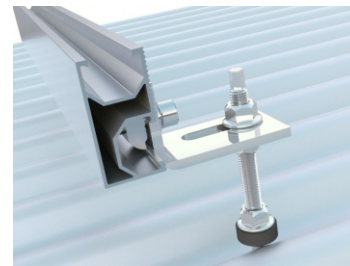
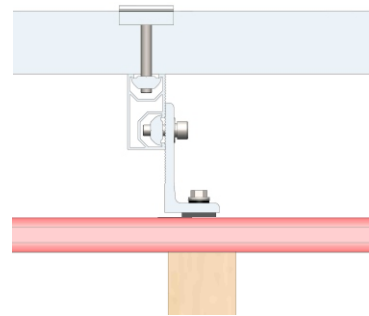
GS-IK-FR-02

# COMPONENTS

## Tin Roof Hook

### Feature

- Material of Hanger Bolt: Stainless Steel 304
- Material of L Feet: Al6005-T5



GS-IK-05



GS-IK-H01



GS-IK-H04



GS-IK-H05

Item No.	Description	Accessories	Package
GS-IK-05	Aluminum Tin Interface Kit 5#	Wood Screw M6.3x80	50pcs/Box, 4 Box/CTN
GS-IK-H01	Hanger Bolt Hook 1#	Hanger bolt M10x200	20pcs/Box, 4 Box/CTN
GS-IK-H04	Hanger Bolt Hook 4#	Hanger bolt M10x200 & L Feet	20pcs/Box, 4 Box/CTN
GS-IK-H05	Hanger Bolt Hook 5#	Hanger bolt M10x200	20pcs/Box, 4 Box/CTN

# COMPONENTS

## Trapezoid Metal Roof Hook

### Feature

- Material: Stainless Steel 304



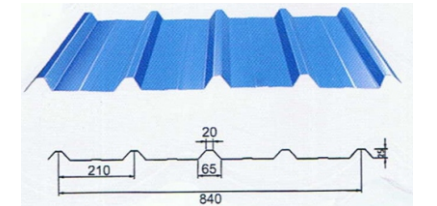
GS-IK-07



GS-IK-07-A



GS-IK-07-B



Standard Trapezoid Roof

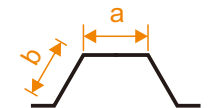
Item No.	Description	Package
GS-IK-07	Stainless Steel Hook 7#	40pcs/Box, 2 Box/CTN II
GS-IK-07-A	Stainless Steel Hook 7# A type	
GS-IK-07-B	Stainless Steel Hook 7# B type	

Note: Standard product is just fitted with the trapezoid roof as right figure shown  
other size must consider the mould cost

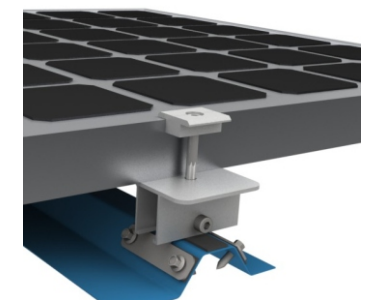
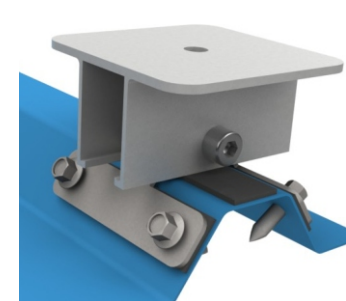
## Universal Trapezoid Metal Roof Hook

### Feature

- Material: Al6005-T5 & Sus304 & EPDM
- Suitable for trapezoid metal roof:  $a < 80\text{mm}$ ,  $b > 25\text{mm}$



Item No.	Description	Description
GS-UTK-01	Universal Trapezoid Metal Roof Hook 1#	25pcs/Box, 4 Box/CTN



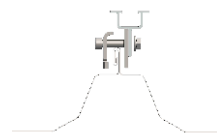


# COMPONENTS

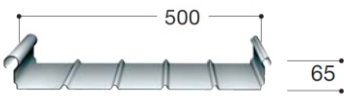
## Standing Seam Roof Hook



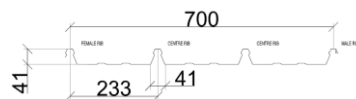
Butler-roof



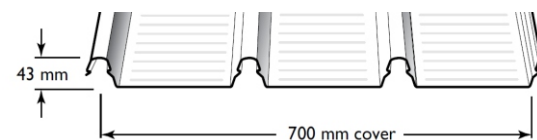
KalZip-roof



Zambelli Rib Roof Speed 500



Klip-lok 700



Klip-lok 700 Hi-Strength



GS-IK-S01



GS-IK-S04



GS-IK-S02



GS-IK-S02-A



GS-IK-S03



GS-IK-S03-A



GS-IK-SK7



GS-IK-SK7-A

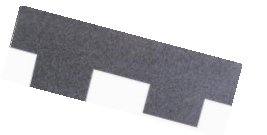


GS-IK-S07

Item No.	Description	Roof Type	Material	Package
GS-IK-S01	Standing Seam Roof Hook 1#	Butler Roof	SUS304	15pcs/Box, 4 Box/CTN
GS-IK-S04	Standing Seam Roof Hook 4#	Butler Roof	SUS&AL	15pcs/Box, 4 Box/CTN
GS-IK-S02	Standing Seam Roof Hook 2#	KalZip- Bemo-roofs	Al6005-T5	20pcs/Box, 4 Box/CTN
GS-IK-S02-A	Standing Seam Roof Hook 2# A Type	KalZip- Bemo-roofs	Al6005-T5	15pcs/Box, 4 Box/CTN
GS-IK-S03	Standing Seam Roof Hook 3#	Zambelli RibRoof Speed 500	Al6005-T5	20pcs/Box, 4 Box/CTN
GS-IK-S03-A	Standing Seam Roof Hook 3# A Type	Zambelli RibRoof Speed 500	Al6005-T5	15pcs/Box, 4 Box/CTN
GS-IK-SK7	Standing Seam Roof Hook K7	Klip-Lok 700	Al6005-T5	20pcs/Box, 4 Box/CTN
GS-IK-SK7-A	Standing Seam Roof Hook K7 A Type	Klip-Lok 700	Al6005-T5	20pcs/Box, 4 Box/CTN
GS-IK-S07	Standing Seam Roof Hook 7#	Klip-Lok 700 Hi-Strength	Al6005-T5	14pcs/Box, 4 Box/CTN

# COMPONENTS

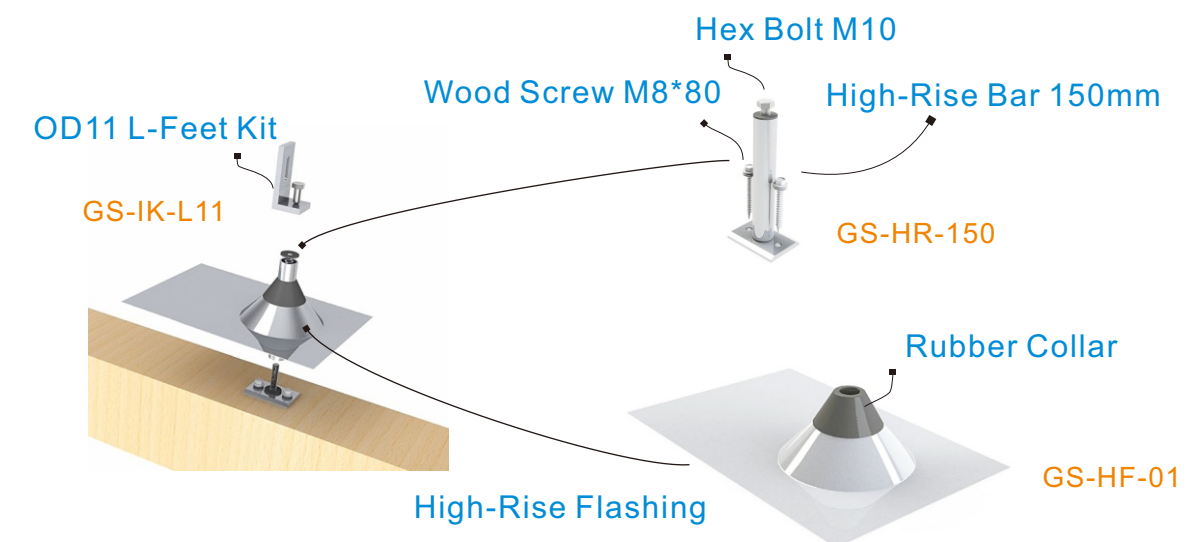
## Flashing Hook



### Features

- All-in-one waterproof flashing and mount to anchor photovoltaic racking systems
- Fit with in most composition and wood shingle roof systems
- Non-fading sealing collar
- Not for hot-mopped or built-up roofs
- Do not use paint or petroleum based products on rubber collars

Item No.	Description	Package
GS-HR-150	High-Rise Bar, Height is150mm -Height can be customized	20pcs/Box, 4 Box/CTN
GS-HF-01	High-Rise Flashing1#, 305x205x1mm	100pcs/CTN II
GS-IK-L11	OD11 L Feet Kit	50pcs/Box, 4 Box/CTN





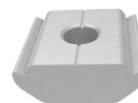
# COMPONENTS

## Accessories

Item No.	Description	Material	Package
GS-A-IC	Framed Module Inter Clamp	Anodized Al6005-T5	200pcs/Box 4 Box/CTN
GS-A-EC30	Framed Module End Clamp 30		
GS-A-EC35	Framed Module End Clamp 35		
GS-A-EC40	Framed Module End Clamp 40		
GS-A-EC46	Framed Module End Clamp 46		
GS-A-EC50	Framed Module End Clamp 50		
GS-A-EC57	Framed Module End Clamp 57		
GS-A-DM	D-Module, -Width 20mm, M8 threaded hole		1000pcs/Box 4 Box/CTN

GS-A-PC01	Plastic Cable Clip 1#	Nylon	1000pcs/Box 4 Box/CTN
GS-A-DRC-SG	GD Rail Cap, Silver gray		300pcs/Box 4 Box/CTN

GS-SSCC-01	SS Cable Clip 1#	Spring Steel	2000pcs/Box 4 Box/CTN
GS-SSCC-02	SS Cable Clip 2#		1000pcs/Box 4 Box/CTN



# COMPONENTS

## Fastener

### Socket Head Screw-----Stainless Steel A2-70

GS-F-S820	Socket Head Screw M8x20	Package on request
GS-F-S825	Socket Head Screw M8x25	
GS-F-S828	Socket Head Screw M8x28	
GS-F-S830	Socket Head Screw M8x30	
GS-F-S835	Socket Head Screw M8x35	
GS-F-S840	Socket Head Screw M8x40	
GS-F-S845	Socket Head Screw M8x45	
GS-F-S850	Socket Head Screw M8x50	
GS-F-S855	Socket Head Screw M8x55	
GS-F-S860	Socket Head Screw M8x60	
GS-F-S865	Socket Head Screw M8x65	



### Anti-Thief Screw-----Stainless Steel A2-70

GS-F-AS820	Anti-Thief Screw M8x20	Package on request
GS-F-AS825	Anti-Thief Screw M8x25	
GS-F-AS828	Anti-Thief Screw M8x28	
GS-F-AS830	Anti-Thief Screw M8x30	
GS-F-AS835	Anti-Thief Screw M8x35	
GS-F-AS840	Anti-Thief Screw M8x40	
GS-F-AS845	Anti-Thief Screw M8x45	
GS-F-AS850	Anti-Thief Screw M8x50	
GS-F-AS855	Anti-Thief Screw M8x55	
GS-F-AS860	Anti-Thief Screw M8x60	
GS-F-AS865	Anti-Thief Screw M8x65	
GS-F-AB08	Anti-Thief Screw Bit M8	



### Nut-----Stainless Steel A2-70

GS-F-N108	Hexagon Nut, M8	Package on request
GS-F-N208	Flange Nut With Locking Teeth, M8	
GS-F-N210	Flange Nut With Locking Teeth, M10	
GS-F-N212	Flange Nut With Locking Teeth, M12	



# COMPONENTS

## Screws and Accessories

### Washer-----Stainless Steel A2-70

GS-F-W108	Spring Washer, M8	Package on request
GS-F-W208	Lock Washer, M8, OD13	
GS-F-W308	Lock Washer, M8, OD18	

### Self-tapping Screw-----Stainless Steel 410

GS-F-T625	Self-tapping Screw, St6.3x25	Package on request
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### Wood Screw-----Stainless Steel 410

GS-FS-W660	Wood Screw, St6.3x60 With Pad	Package on request
GS-FS-W680	Wood Screw, St6.3x80 With Pad	

### Hanger Bolt-----Stainless Steel A2-70

GS-F-H020	Hanger Bolt M10x200 -Stainless Steel A2-70	Package on request
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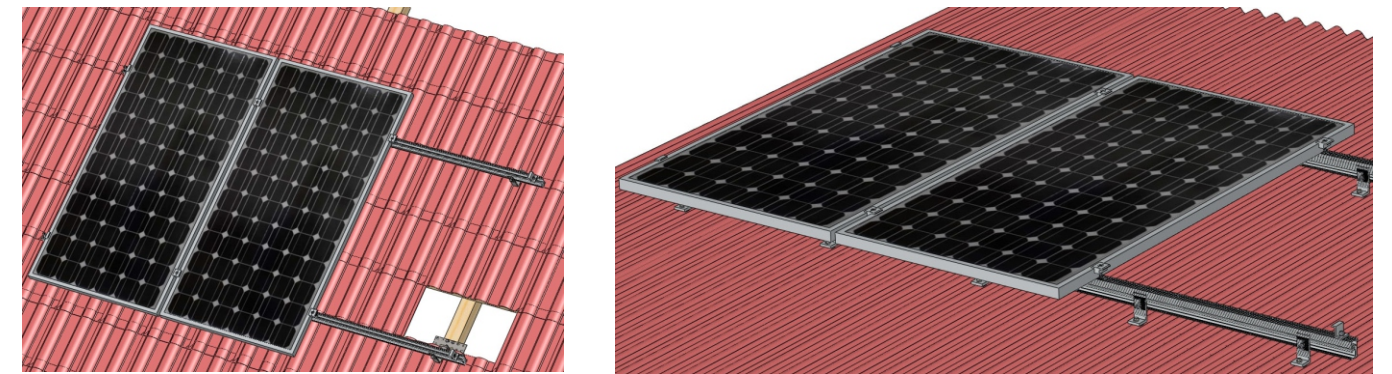
### Hanger Bolt Assembly

GS-FA-H020	Hanger Bolt Assembly M10x200	50pcs/Box 4 Box/CTN
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# PROJECT EXAMPLE

## Framed Module Project

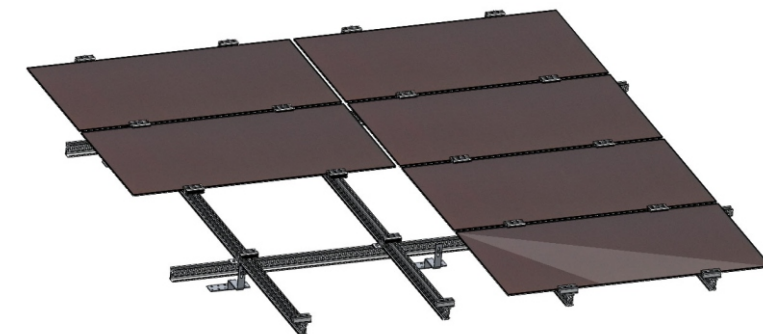


Solar Panels Size:  
1580\*808\*46mm or  
1585\*826\*46mm

	Rail GS-DR-	Roof Hook GS-IK-01 (Tile) GS-IK-05 (Tin)	Inter Clamp GS-IC-F46	End Clamp GS-EC-F46	Rail Splice GS-DR-SP
Tile Roof 3 Panels	2560mm 2 pcs	6	4	4	2
Tile Roof 4 Panels	3405mm 2pcs	6	6	4	2
Tin Roof 3 Panels	2560mm 2 pcs	10	4	4	2
Tin Roof 4 Panels	3405mm 2 pcs	10	6	4	2

Note: The above planning is applicable to the low snow loads and normal wind loads.

## Frameless Module Project

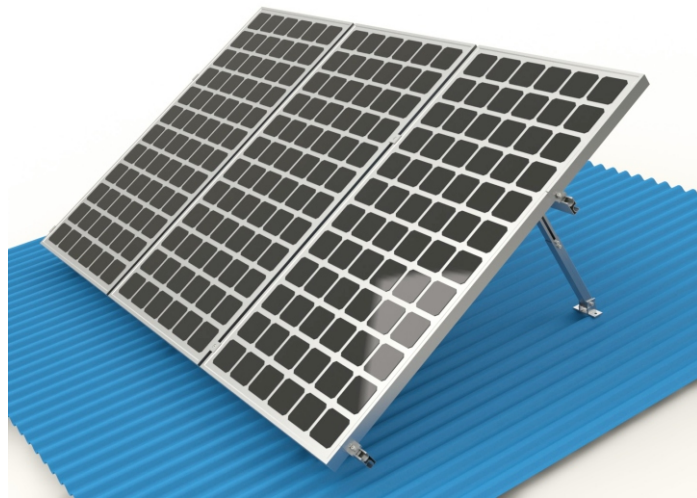


Solar Panels Size:  
1200\*600\*6.8mm

	GS Rail Top Floor GS-DR-2560	GS Rail Bottom Floor GS-DR-2560	Thin Film Inter Clamp GS-IC-L80	Thin Film End Clamp GS-EC-L80	GD Rail Clamp GS-RC-D	Roof Hook 1# GS-IK-01
Tile Roof 8 Panels Array 4x2	2560mm 4 pcs	2560mm 2 pcs	80mm 12 pcs	80mm 8 pcs	40mm 8 pcs	Thickness 5mm 6 pcs

Note: The above planning is applicable to the low snow loads and normal wind loads.





Adjustable System



Fixed System

# FLAT ROOF RACKING SYSTEM



## Introduction

GS Flat Roof Racking system is developed to mount the module tilt a certain angle on a flat roof or ground. You can have the fixed or adjustable angle solution as 10-15deg, 15-30deg and 30-60deg according to your exact requirement. GS series product have the innovated aluminum rail, D-module, clamps and legs which can be pre-assembled to make the installation easy and quick for saving your labor cost and time. Besides, the customized length of rail will not require onsite weld and cut, keeping the appearance entirely, structural strength and anti-corrosive performance.

## Benefits

### Easy Installation

D-module can be put into GD Rail from any position. so the parts can be pre-assembled on factory to save your install time on site.

### Flexibility and Compatible

GD Rail and its accessories can be installed with the most solar panels on the difference condition.

### Safety and Reliability

The racking systems can stand up to the extreme weather complied with the AS/NZS 1170 and other international structure load standards by skilled engineers. The main support components have also been tested to guarantee its structure and load-carrying capacity.

## Technical Information

Install Site	Low profile roof or open field
Tilt Angle	10deg ~ 60deg
Building Height	up to 20m
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m <sup>2</sup>
Standards	AS/NZS 1170 & DIN 1055 & Other
Material	Aluminum alloy & Stainless Steel
Color	Natural
Anti-corrosive	Anodized
Warranty	Ten years warranty
Duration	More than 20 years

# COMPONENTS

## Adjustable Tilt System



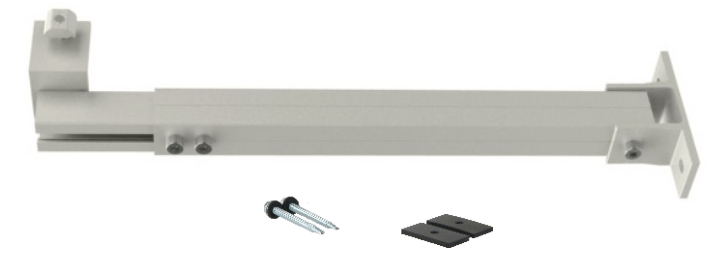
## Legs

### Feature

- Main Material: Anodized Al6005-T5
- Fasten Material: SUS A2-40
- Wood Screw: 2pcs M6x80
- Patent Telescope solution can adjust the angle
- Anti-Slip and Anti-out design



GS-AD-FL



GS-AD-RL

Item No.	Description	Leg Length	Package
GS-AD-FL	AD Front Leg	—————	20pcs/BOX, 4BOX/CTN
GS-AD-RL10/15	AD Rear Leg 10/15 deg	240~360mm	30pcs/CTN
GS-AD-RL15/30	AD Rear Leg 15/30 deg	340~680mm	25pcs/CTN
GS-AD-RL30/60	AD Rear Leg 30/60 deg	700~1200mm	25pcs/CTN III

# COMPONENTS

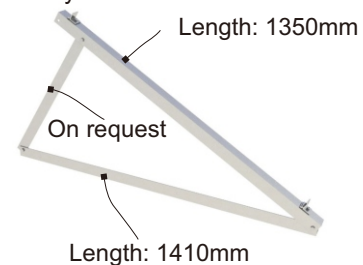
## Fold Tri-Bracket System



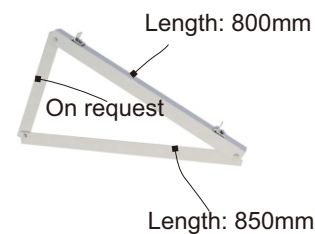
## Fold Tri-Bracket

### Feature

- Main Material: Anodized Al6005-T5
- Fasten Material: SUS A2-40
- High Pre-Assembly



Tri-Bracket 1#



Tri-Bracket 2#



Adjustable Tri-Bracket 1#

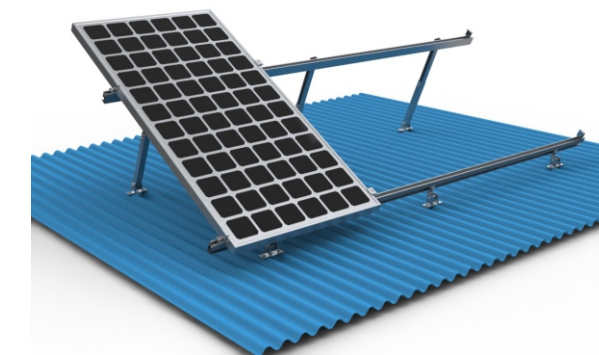


Accessories: DR Rail Clamp

Item No.	Description	Module Length	Package
GS-FT30-01	Triangle Bracket 1# 30deg	Less than 1.7meter	8pcs/CTN II
GS-FT30-02	Triangle Bracket 2# 30deg	Less than 1.1meter	8pcs/CTN III
GS-AT2-10/15	Adjustable 2# Tri-Bracket 10/15	Less than 1.7meter	6pcs/CTN II
GS-AT2-15/25	Adjustable 2# Tri-Bracket 15/25	Less than 1.7meter	
GS-AT2-25/45	Adjustable 2# Tri-Bracket 25/45	Less than 1.7meter	
GS-RC-01	DR Rail Clamp Kit		100pcs/BOX, 4BOX/CTN

# PROJECT EXAMPLE

## ADJUSTABLE TILT SYSTEM



Solar Panels Size: 1580*808*46mm or 1585*826*46mm	Rail GS-DR-	Front Leg GS-AD-FL	Front Leg GS-AD-RL	Inter Clamp GS-IC-F46	End Clamp GS-EC-F46	Rail Splice GS-DR-SP
Adjustable 10/15 4 Panels install	3405mm 2 pcs	4	4	6	4	2
Adjustable 15/30 4 Panels install	3405mm 2 pcs	4	4	6	4	2
Adjustable 30/60 4 Panels install	3405mm 2 pcs	4	4	6	4	2

## Fold Tri-Bracket System



Solar Panels Size: 1580*808*46mm or 1585*826*46mm	Rail GS-DR-	Tri-Bracket 1# GS-FT30-01	Rail Clamp GS-RC-01	Inter Clamp GS-IC-F46	End Clamp GS-EC-F46	Rail Splice GS-DR-SP
Fixed 30deg 3 Panels install	2560mm 2 pcs	2	4 pcs	4	4	2
Fixed 30deg 4 Panels install	3405mm 2 pcs	3	6 pcs	6	4	2





# BALLASTED MOUNTING SYSTEM

No Penetration

## Introduction

GS Ballasted Mounting System is a highly engineered solution that secures the array without damaging the flat roof. It is compatible with the usual framed modules and typically does not require roof penetrations. Made of lightweight and strong aluminum construction, the GS ballasted solution components are pre-assembled and pre-cut to prevent corrosion and save your installation time and labor cost.

## Benefits

### Easy Installation

D-module can be put into GD Rail from any position. so the parts can be pre-assembled on factory to save your install time on site.

### Flexibility and Compatible

GD Rail and its accessories can be installed with the most solar panels on the difference condition.

### Safety and Reliability

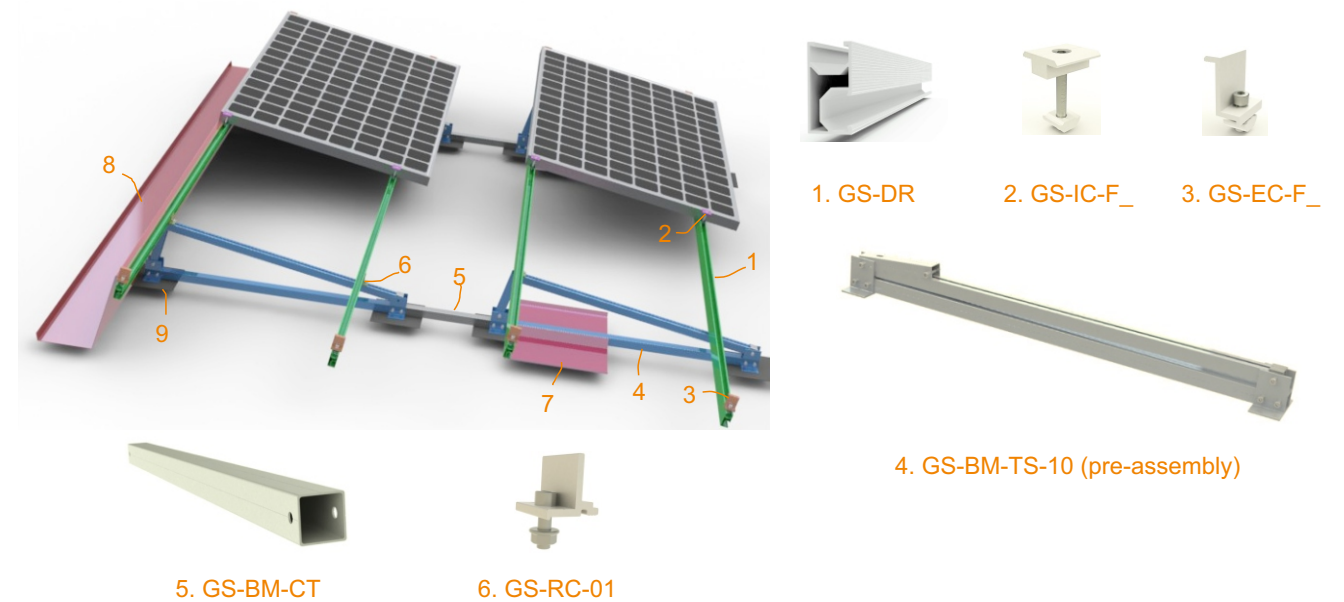
The racking systems can stand up to the extreme weather complied with the AS/NZS 1170 and other international structure load standards by skilled engineers. The main support components have also been tested to guarantee its structure and load-carrying capacity.

## Technical Information

Install Site	Low profile roof or open field
Tilt Angle	10deg, 15deg, 20deg
Building Height	up to 20m
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m <sup>2</sup>
Standards	AS/NZS 1170 & DIN 1055 & Other
Material	Aluminum alloy & Stainless Steel
Color	Natural
Anti-corrosive	Anodized
Warranty	Ten years warranty
Duration	More than 20 years

# COMPONENTS

## System Overview

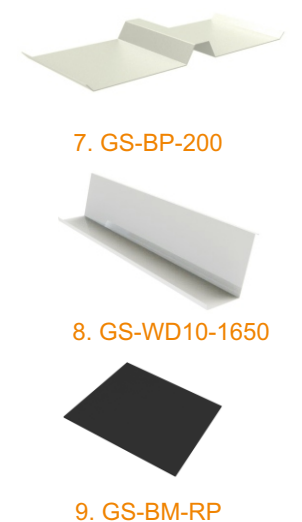


## Project Example

Solar Panels Size:	1650*992*46mm	Installation Site:	Flat Roof
Tilt Angle:	10 Deg	Wind Speed:	Normal
Unit Array:	2*2 (4 pcs panels)		

## Components list

Item No.	Description	Qty	Material
GS-DR-3370	GD Rail 3370mm	4pcs	Al6005-T5
GS-IC-F46	Inter Clamp Kit 46	4pcs	Al6005-T5
GS-EC-F46	End Clamp Kit 46	8pcs	Al6005-T5
GS-BM-TS-10	BM Tri-Bracket Kit 10deg	4pcs	Al6005-T5
GS-BM-CT-450	BM Connect Tube 450mm	2pcs	Al6005-T5
GS-RC-01	GD Rail Clamp with Nut	8pcs	Al6005-T5
GS-BP-200	Ballasted Pan 200mm	4pcs	Al5052-H24
GS-WD10-1650	Wind Deflection Plate 1650mm	2pcs	Al5052-H24
GS-BM-RP	Rubber Pad 200/200	20pcs	NBR



Feature: Fasten all is SUS A2-70, Package is on the request.