



**POWER  
STONE**



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SOLAR MOUNTING TECHNOLOGY CO.,LTD



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Suzhou Powerstone Solar Mounting Technology Co.,Ltd  
No.221 Luoyang East Road Taicang City Jiangsu province China 215400  
Tel: 0512-53658868  
Fax: 0512-53658868  
E-mail: [info@powerstone.com](mailto:info@powerstone.com)  
[www.ps-mounting.com](http://www.ps-mounting.com)

**P**owerstone solar mounting established in 2013, is started by Dr Christopher James the CEO of Australian listed company Green Power Group and Mr Zhu the founder of the famous metal product manufacture Tlergy Technology CO.,LTD. With Australian metal structural design experts team and well experienced Chinese factory manufactures, Powerstone solar mounting operates 16 extrusion lines ranging from 600 tons to 4000 tons presses, 2 anodizing lines, numerous CNC machines, drilling machines punches and fabrication equipments. Two manufacturing plants totally 10000 square meters have more than 100 employees.

**We** offer one-stop solutions to the photovoltaic market. With complete metal working supplier chain, we provide service to PV developers including evaluation, project management, project design, product manufacturing, installation, maintenance, even on-site training.

## CERTIFICATIONS & TEST REPORTS



Tension Test	ASTM E8/E8M-08 ASTM A370-09a ISO 6892-1:1995 GB/T 228-2002 EN10002-1:2001 JIS Z2241-1998/CP.1:2007		
Bending Test	ASTM E290-1997a(2004) GB/T 232-1999 ISO 7438:2005 JIS Z 2248-2006		
Hardness Test	BS 755-2		
Coating Thickness	GB/T 6462-2005 ASTM B487-85(2007) ISO 1463:2003 EN ISO 1563:2004 JIS H 8501-1999 AS 1291-2000 BS 3987-1991		
Scratching Test	BS 3987-1991		
200Hr Salt Spray Test	ISO 10289 / ISO 9227		
Chemical composition analysis	BS 755-2		



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## Domestic roof mounting system



### PS-RT

PS-RT solution with its major material aluminum and stainless steel, is suitable for pitched tile roof. PS-RT product series with the modular design allows trouble free installation and expandability. The hooks can be adjusted to cater to tiles with different thickness. This solution can be 100% water-proof without any penetration to the roof.

- 1. Advantage  
Modular design allows trouble free installation and expandability.
- 2. Efficiency  
Significantly higher strength to weight ratio allows for more efficient use and greater spans.
- 3. Expandability  
Rail joiner can be used to extend the solar frame to any length required.
- 4. Quality and Safety  
Complies with Australian/New Zealand Standard on wind actions, AS/NZS 1172.2:2002. Wind load testing performed under AS4040.2-1992.
- 5. Longevity  
Corrosion resistant, providing low maintenance and extended product life cycle.

### Parameters

Angle $\alpha$	0	10	20	30	40	50	60
Bending Resistance(KN)	0.8	0.69	0.62	0.58	0.54	0.53	0.54
Stretching Resistance(KN)	0.75	0.65	0.58	0.55	0.53	0.52	0.53



## Domestic roof mounting system

### PS-RM

All-aluminum alloy (6063-T6) design provides the PS-RM1 system light weight, easy transportation and easy installation. PS-RM mounting system including different types and sizes, can be widely used for your factories, warehouses and houses.

We offer several flexibility and solidity tin roof mounting solutions to meet various photovoltaic system requirements. Our designers can customize the best PV mounting system solution for your individual needs.

### PS-RMS

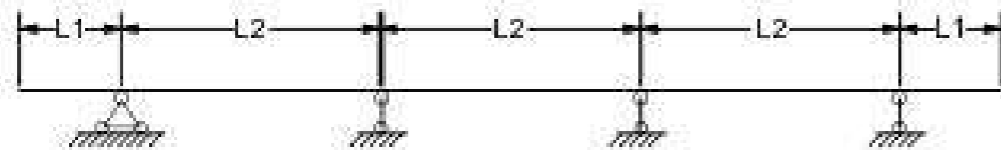
PS-RMS system is designed for easy and fast installation of PV panels on flat roofs and surfaces. The triangular design provides a simple strong and sturdy base for this system. Panels either set to a fixed angle or alternatively a 15-30 degree adjustable support is available.



## Components for domestic solutions



### Rails



### Ultimate Wind Load Capacity

Structural design analysis confirms the following ultimate wind loads supported by Powerstone framing.

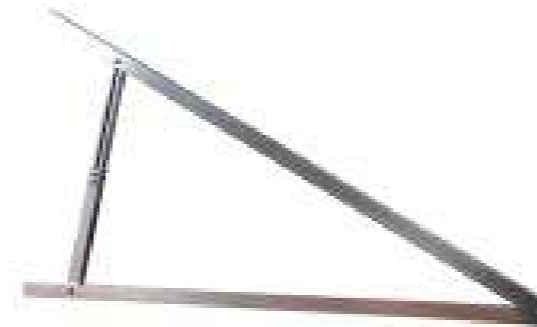
Fixing centres	Ult Wind Load - KPa   kg/m <sup>2</sup>	
	800mm Rail Spacing	750mm Rail Spacing
mm		
650	22.9   2335	18.37   1873
850	13.4   1366	10.7   1091
1000	9.7   989	7.7   785
1200	6.8   693	5.4   550

### Maximum Serviceable Wind Loading

The table below describes the maximum serviceable wind loading that rails can support in reference to a maximum deflection of span/200 (Span/200 is considered the maximum acceptable deflection limit for PS-RAA1 rails supporting solar panels).

Fixing centres	Max Deflection - mm	Max Service Wind Load - Kpa   kg/m <sup>2</sup>	
		800mm Rail Spacing	750mm Rail Spacing
mm	L / 200		
650	3.5	15.3   1560	12.2   1244
850	4.25	8.9   907	7.1   723
1000	5	6.4   652	5.1   520
1200	6	4.4   448	3.5   356

## Components for domestic solutions



### Splice



aluminum 6063-T6 +100pcs/Box +4 Box/CTN

### End Clamp



aluminum 6063-T6 +100pcs/Box +4 Box/CTN

### Mid Clamp



aluminum 6063-T6 +100pcs/Box +4 Box/CTN

### L Foot



PS-MSA1  
aluminum 6063-T6 & stainless steel  
+100pcs/Box  
+4 Box/CTN

PS-MSA2

### PS-RMS Front Leg & Rear Leg



PS-POA1  
aluminum 6063-T6  
+20pcs/Box  
+4 Box/CTN

PS-POA2  
aluminum 6063-T6  
+25pcs/Box  
+4 Box/CTN

Tile Roof Hook



PS-HOU1



PS-HOU2



PS-HOU3



PS-HOU4



PS-HOU5



PS-HOU6



PS-HOU7



PS-HOU8

\*stainless steel\* 10pcs/Box \*4 Box/CTN

Tin Roof Hook



PS-MSA3



PS-MSA4



PS-MSA5



PS-MSA6



PS-MSA7



PS-MSA8

\*aluminum 6063-T8 & stainless steel\* 100pcs/Box\*4 Box/CTN

Grounding Accessories



PS-AC1

\*1000pcs/Box  
\*4 Box/CTN



PS-AC2

\*1000pcs/Box  
\*4 Box/CTN



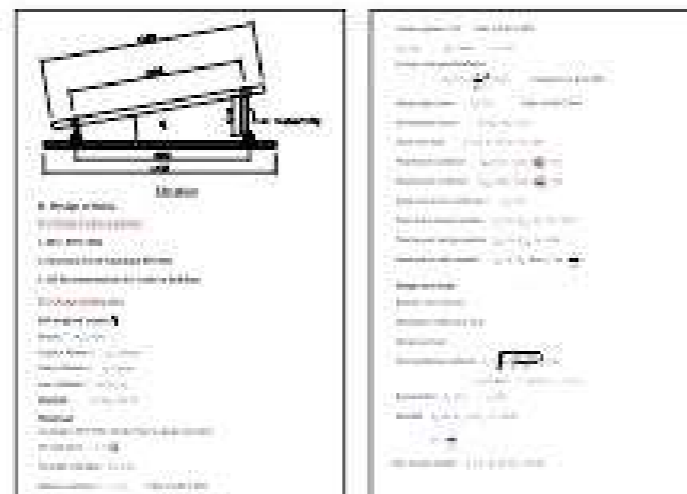
PS-AC3

\*200pcs/Box  
\*4 Box/CTN



PS-AC4

\*500pcs/Box  
\*4 Box/CTN



Components for commercial solutions

PS-RC Concrete Ballast Mounting System

PS-RC1 & PS-RC2 mounting widely used for large-scale PV station. It takes advantage of concrete base to fix the mounting system, which is convenient and cost-effective. The main part of the system adopts Q235B steel materials with hot dip galvanized which guarantees its working life 25 years at least. Instead of destroying the original waterproof surface, PS-RC use concrete base to provide easier and safer solution to your PV plant.



PS-GR Ram post Mounting System

This solution takes advantage of screws to fix the mounting system, which provides easy installation and saves the labor cost greatly. It is suitable for installations also on uneven ground.



PS-CP1 Car Park Mounting System

PS-CP1 is a pre-assembled car park suitable for commercial and domestic installations. By using a smart, patented design and high quality components, PS-CP1 saves developers, operators and installers time and money when delivering. The product is mainly manufactured out from anodized aluminium and galvanized steel.



## Components for commercial solutions



Material: hot dip galvanized steel Q235B, which comply with ISO 1461:1991 standard

### Load Parameters

The intensity, stiffness and stability have direct relation with the cross section and modules' stress has direct connection with deformation and span. The table below is the result of loading capacity according to GB50009-2001 (building code) parameters.

#### Spanning from 2000mm to 2400mm load parameters(2000mm-2400mm)

Section	Wind Load(kn/m <sup>2</sup> )	Wind Speed(m/s)	Snow Load(kn/m <sup>2</sup> )	Angle
C type steel 41x41x2	0.8	30	0.8	fixed
C type steel 41x62x2	1.2	35	1	fixed

#### Spanning from 2400mm to 3000mm load parameters(2400mm-3000mm)

Section	Wind Load(kn/m <sup>2</sup> )	Wind Speed(m/s)	Snow Load(kn/m <sup>2</sup> )	Angle
C type steel 41x62x2	0.8	30	0.8	fixed
C type steel 41x82x2	1.2	35	1	fixed

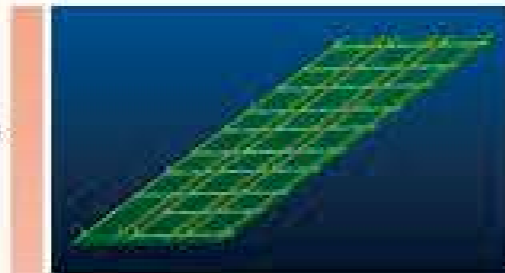
## Service



- Local warehouse
- Customer design
- Installation advice & support
- After service
- 25 years warranty

Our mission is to provide top-quality solar mounting system. We pride ourselves on being knowledgeable, courteous, and thorough while offering complete customer care. Our engineers are highly experienced, and we stay current on changes in the industry. Rely on us because we provide

- Customer design and software simulation
- 2000-square-meter local warehouse
- A complete set of after service, responding within 48 hours
- Fully licensed, bonded, insured and 25 years warranty



The professionals are ready to fulfill your demands. From start to finish, we'll handle your project with an attention to detail, and our goal will be to give you the best solar mounting solution.



## References

