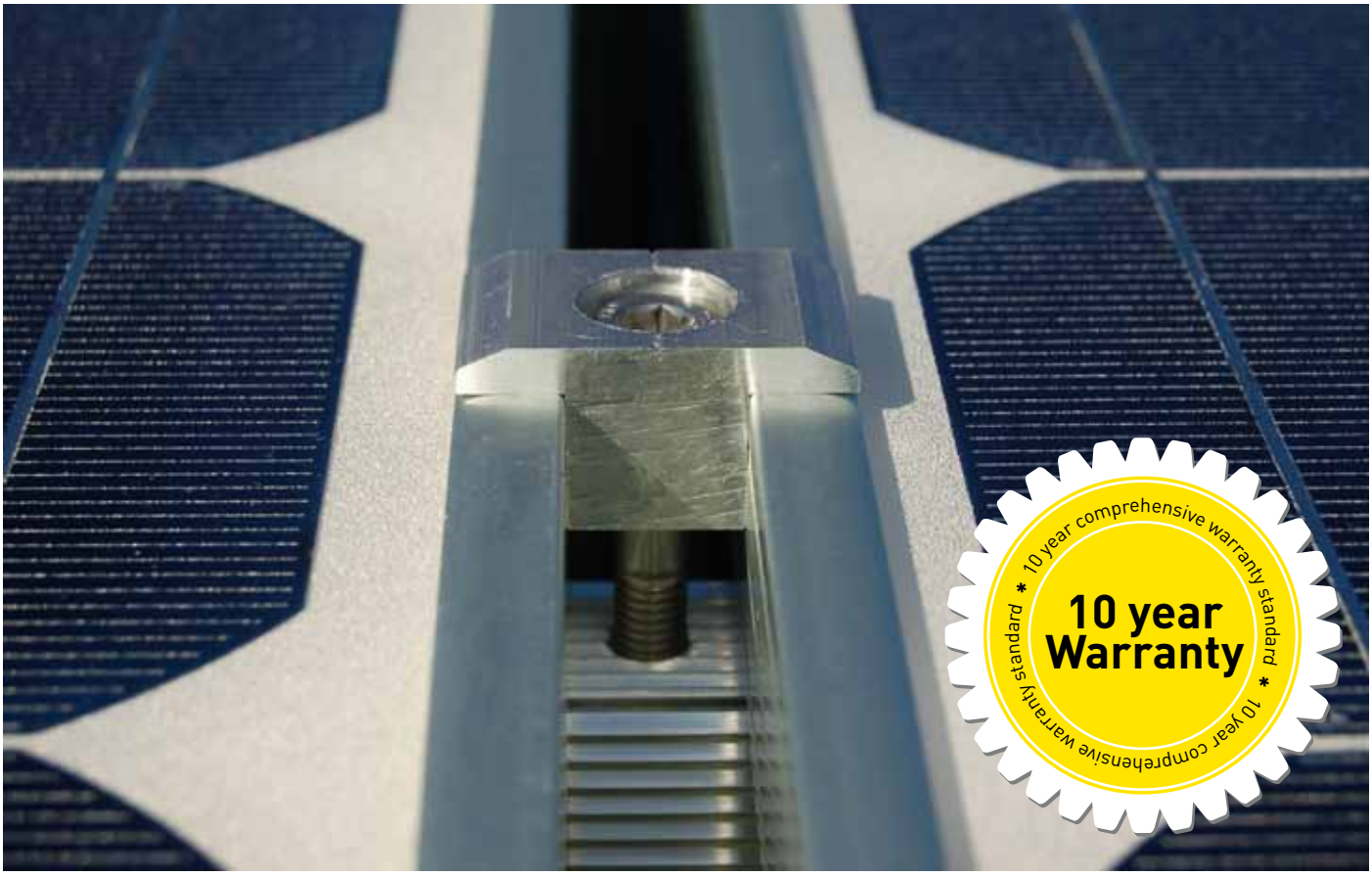
SUNLOCK

Solar Panel Mounting System

Solar panel installation made simple



SUNLOCK

Sunlock is an Australian designed and manufactured solar panel mounting system. Utilising custom built aluminium extrusions and components, the Sunlock system's design streamlines construction and improves frame strength to greatly simplify solar panel installation.

Sunlock's significantly higher strength-to-weight ratio allows more efficient use and greater spans. Its highly versatile design offers adjustability and expandability to suit any size job.

Sunlock is backed by a 10 year warranty and is fully compliant with the Australian/New Zealand standard on wind actions AS/NZS1170.2, making it suitable for a wide variety of building types and climatic zones.

Design Features

» Aluminium 6106T6 extrusion made from 100% recycled material.

» Building height up to 200m

» Roof slope range 10º to 65 º

» Static load capacity up to 1800N

» Optional tilt legs for greater solar efficiency

» Corrosion resistant, providing low maintenance and extended product life cycle.

» Can be used to secure a vast array of solar panel thicknesses.

» Easy to install with adjustable locking devices.

» Installation site: residential, commercial, remote area and marine applications.

» Complies with Australian/New Zealand Standard on wind actions, AS/NZS 1172.2:2002

Technical Specifications

Material	Extruded Aluminium 6106T6	
Tensile strength	Ultimate	235 MPa
	Yield	210 MPa
Installation site	Australia / NZ	
Roof types	steel, tile and slate	
Modules thickness	35 to 50mm	
Module arrangement	portrait or landscape	
Roof slope	3° to 65°	
Building height	Up to 200m	
Mounting structure	timber or steel substructure	

Ultimate Wind Load Capacity

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

Fixing centres	**Ult Wind Load - KPa | kg/m²**	
mm	**600mm Sunlock Rail Spacing**	**750mm Sunlock Rail Spacing**
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 descibes the maxium serviceable wind loading that Sunlock rails can support in reference to a maxium deflection of span/200 (Span/200 is considered the maximum acceptable deflection limit for Sunlock rails supporting solar panels).

Fixing centres	**Max Deflection - mm**	**Max Service Wind Load - Kpa | kg/m²**	
mm	**L/200**	**600mm Sunlock Rail Spacing**	**750mm Sunlock Rail Spacing**
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

Longevity

Corrosion resistant, providing low maintenance and extended product life cycle.

Efficiency

Sunlock's significantly higher strength to weight ratio allows for more efficient use and greater spans.

Flexibility

Using adjustable clamps the Sunlock system can be used to secure a vast array of solar panel thicknesses.

Advantage

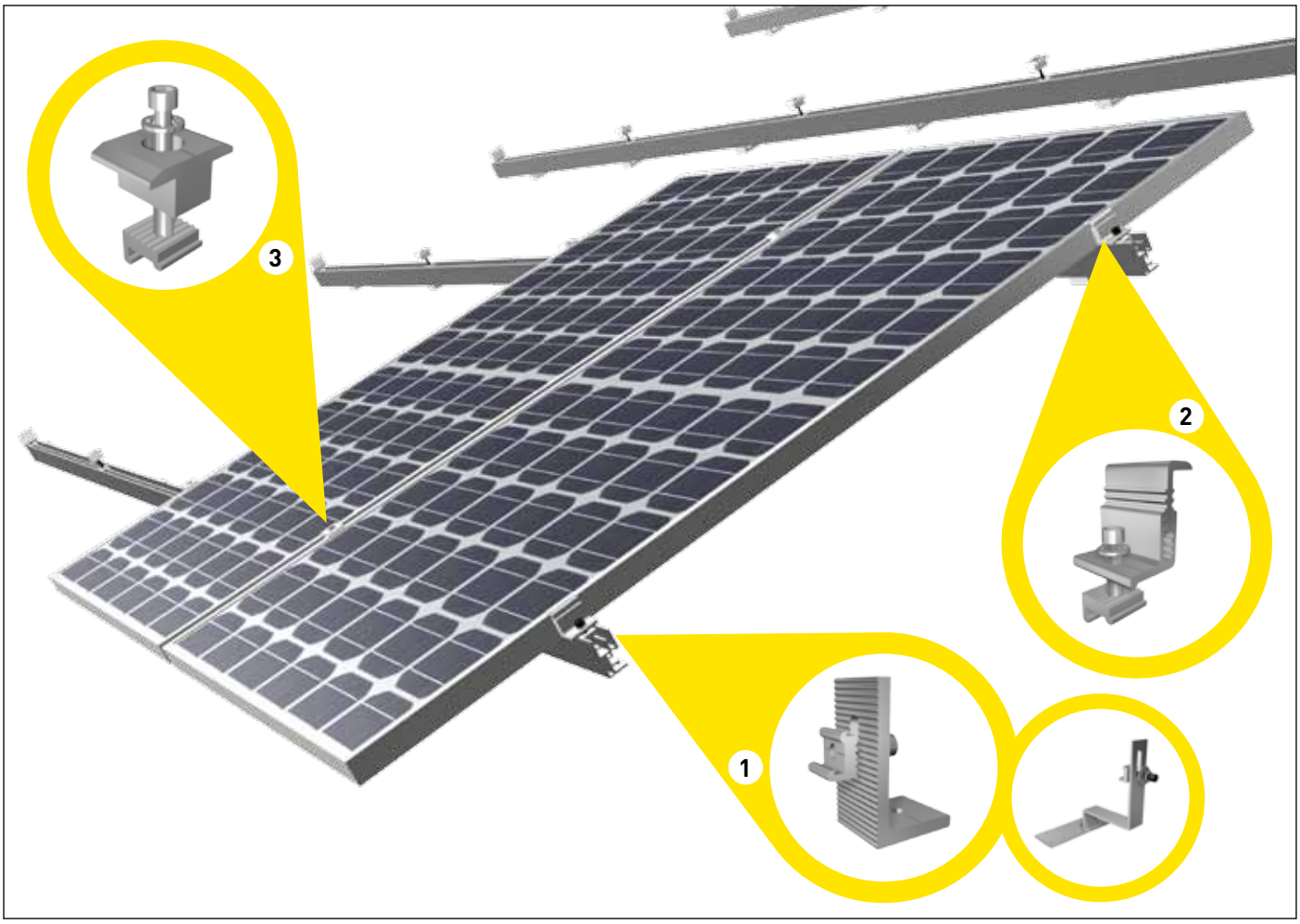
Modular design allows trouble free installation and expandability.

Expandability

Sunlock rail joiner can be used to extend the solar frame to any length required.

Quality and Safety

Complies with Australian/New Zealand Standard on wind actions, AS/NZS 1172.2:2002



1 Roof mounts
Roof mounts are used to secure the solar framing to the roof and are suitable for steel or tile roofed buildings

2 End clamp
Adjustable end clamps are used to secure solar modules of varying thicknesses.

3 Middle clamp
Adjustable middle clamps are used to easily secure modules together in the array.