Corrugated Bracket
Installation Manual

+27 (0) 73 175 5233

sales@deosolar.co.za

475 Derek's Lane, Lynnwood Pretoria

www.deosolar.co.za

Deo Solar

GENERATE, CONSERVE, CONTRIBUTE

Faster Installation

Rail-less
Pre-assembled

Reduced Cost

Less Parts
Injection moulded

Advanced Material

Glass-reinforced composite
UV-stabilized
Corrosion resistant

Innovative Design

Self-sealing
Auto-alignment with roof profile
Fits all panel dimensions

Greener

Made from 100%
recyclable material

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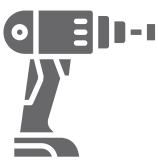
INTRODUCTION

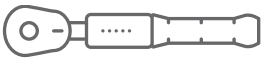
1.1 TOOLS REQUIRED



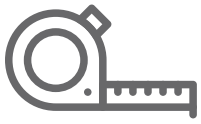
Battery powered drill

6 mm

5/16 Posibit Drive



3 - 30 Nm



> 6 m

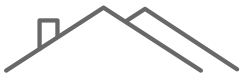
INTRODUCTION

1.2 GENERAL RULES OF SAFETY

- Only qualified and appropriately trained installers are authorized to install and operate the equipment.
- Before installing, verify that the product adheres to on-site static loading requirements. In the case of roof-mounted systems, it is imperative to consistently assess the roof's load-bearing capacity.
- Adherence to health and safety regulations, accident prevention guidelines, and relevant standards is mandatory.
    - Wear protective gear, including a safety helmet, boots, and gloves.
    - Roofing activities should align with roofing regulations, employing fall protection measures when eaves height exceeds 3 m.
    - Ensure the presence of a minimum of two individuals throughout the installation process to promptly respond to emergencies
- All installation and assembly instructions provided by the panel manufacturer must be adhered to
- Performing equipotential bonding, grounding, or earthing among individual parts should align with country-specific standards, as well as adhere to national laws and regulations.
- A copy of the installation instructions should always be available during installation.
- Failure to follow Deo Solar's general safety and assembly instructions and utilize all system components releases the company from liability for any resulting defects or damages. Deo Solar does not assume responsibility for any damage incurred through the use of parts from competitors, and warranty coverage is excluded in such instances.
- Adhering to all safety instructions and ensuring the correct installation of the system qualifies for a 12-year product warranty entitlement. We highly recommend reviewing our guarantee terms, accessible at deosolar.co.za. Upon request, we can also provide this information.
- The system is dismantled in the reverse order of its assembly.

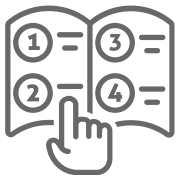
INTRODUCTION

1.3 GENERAL GUIDELINES



Roof Requirements

- Sheet thickness: **Aluminium ≥ 0.5 mm and steel ≥ 0.4 mm**
- Maximum **22** mm crest width
- Roof pitch inclination: 5 - 75°
- Integrity of roof sheets and substrate to be verified by as required by National and Local regulations before placement of panels or brackets

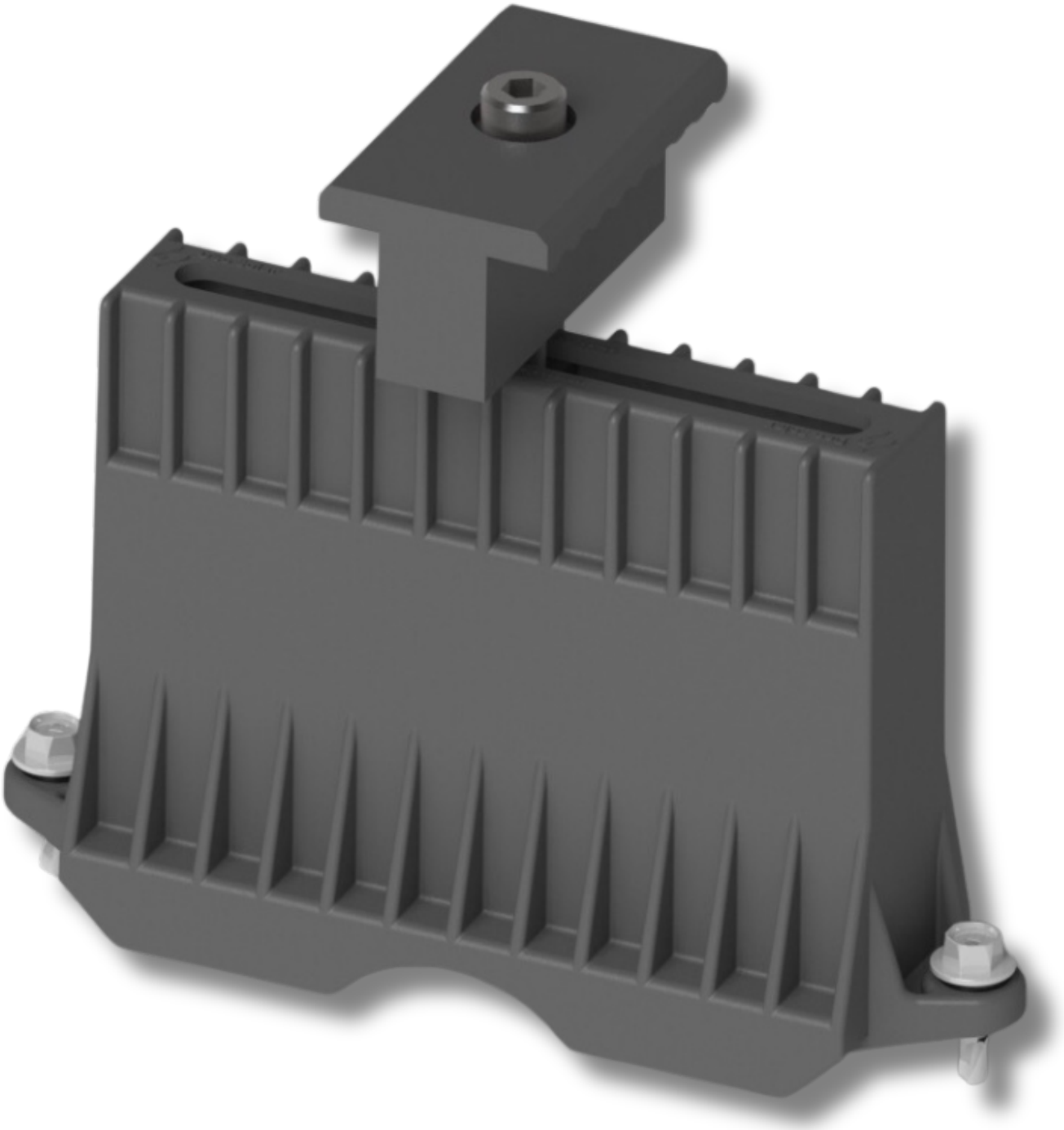


Mounting Instructions

- Earthing in accordance with panel manufacturer instructions as well as National and Local regulations should be adhered to at all times.
- Always perform visual inspection of roof sheeting to ensure that the integrity is not compromised where a bracket are to be secured.
- Deo Solar brackets are not compatible with frameless modules. Ensure that module specifications are compatible with Deo Solar brackets before securing brackets on roof sheeting.
- Ensure that bracket placement is correctly calculated in accordance with solar module dimensions before mounting to roof sheeting.
- Ensure thatn clamps at the ends of panels are flush to the panel frame before tightening.

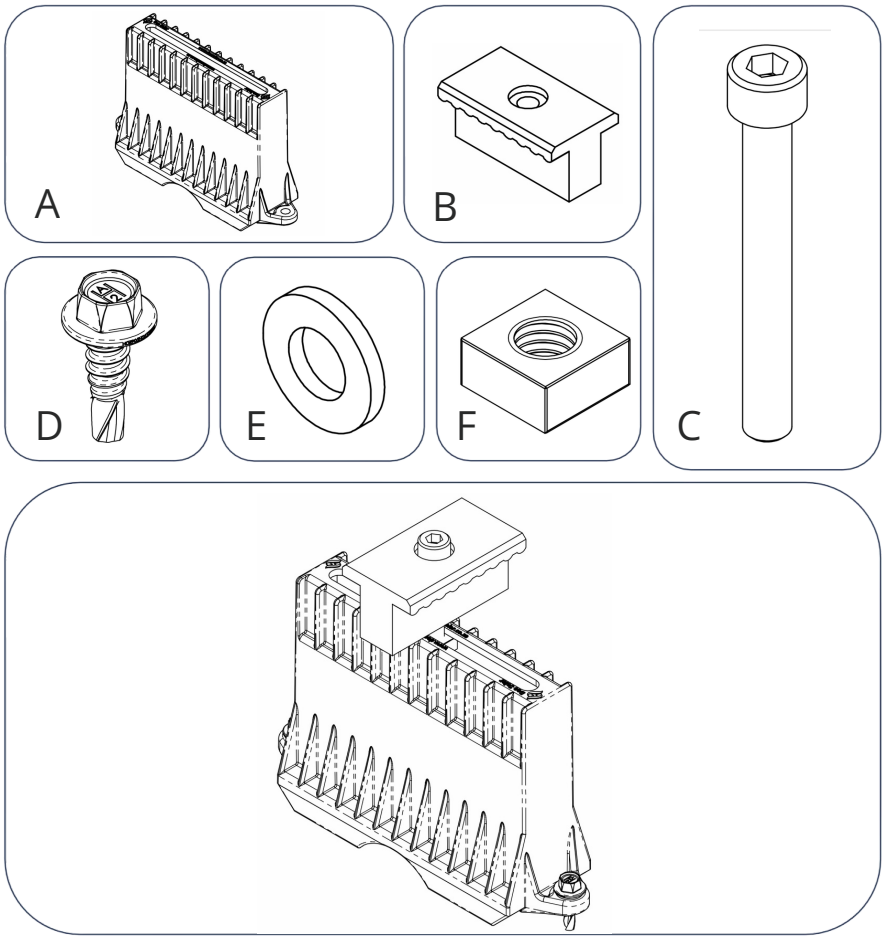
INSTALLATION

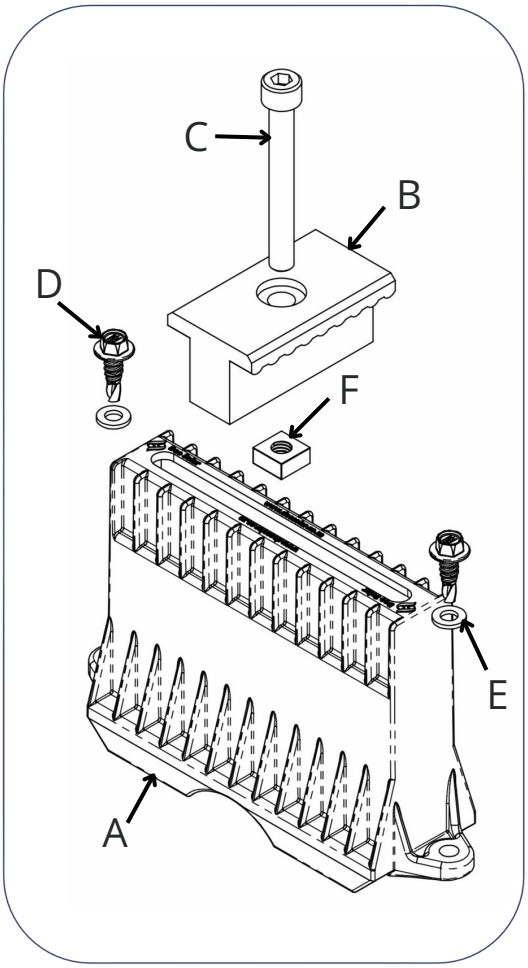
2.1 COMPONENTS



INSTALLATION

2.1 COMPONENTS (CONTINUED)

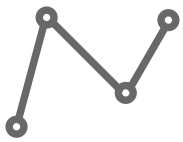




#	Description	Material
A	Base Bracket	PA6-UV Composite
B	Top Bracket	PA6-UV Composite
C	M8 x 65	Stainless Steel
D	M5 x 25 Stitching Screw	Stainless Steel/MS Galvanised
E	Sealing Washer	
F	M8 x 6 Square Nut	Stainless Steel

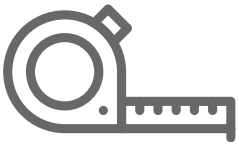
INSTALLATION

2.2 INSTALLATION PREPARATION



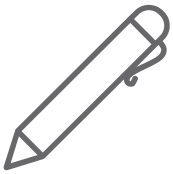
Solar array design

- Complete solar array layout design
- Determine location of brackets based on panel specific requirements
- Tabulate bracket coordinates for site installation



Verify layout

- Verify available roof space against solar array design
- Determine placement location of first bracket (reference location)
- Mark reference location on roof

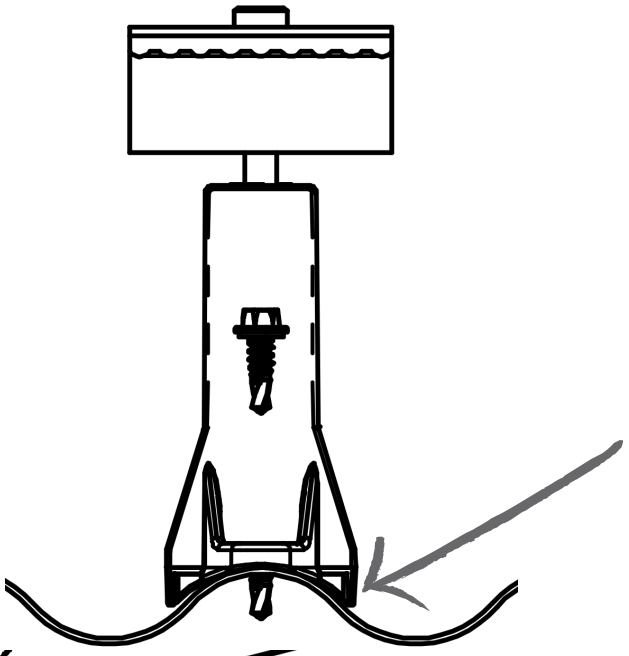


Mark installation locations

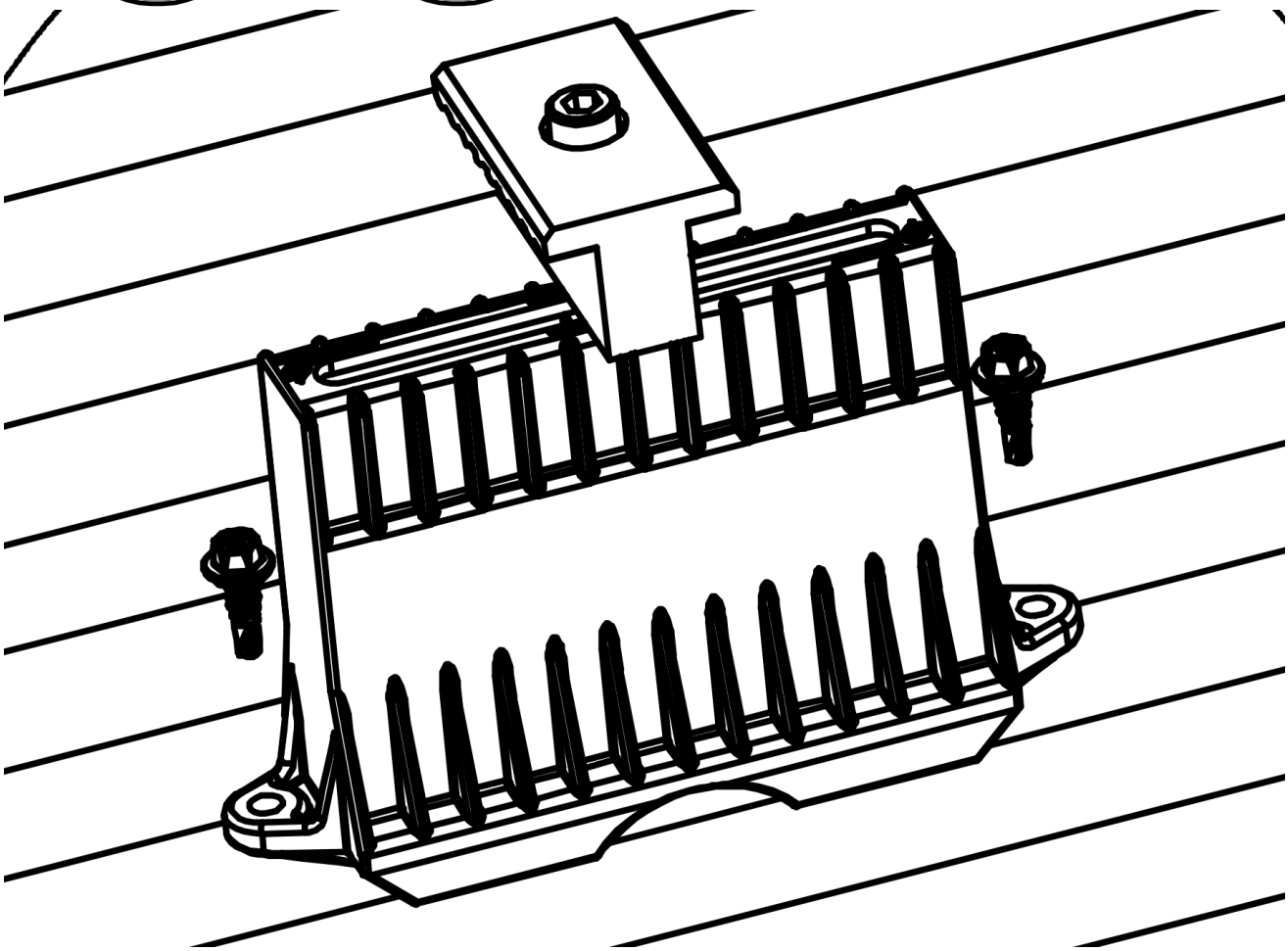
- Using the reference location, mark the installation location of each bracket as per the tabulated coordinates.
- Verify that layout is correct as per design before proceeding with installation of the solar brackets.
- Deo Solar will not be held liable for incorrect placement of brackets on roof plates

INSTALLATION

2.3 INSTALLATION (LANDSCAPE)



Place bracket on the peak of the corrugated sheet. The bracket will automatically align with the roof profile



INSTALLATION

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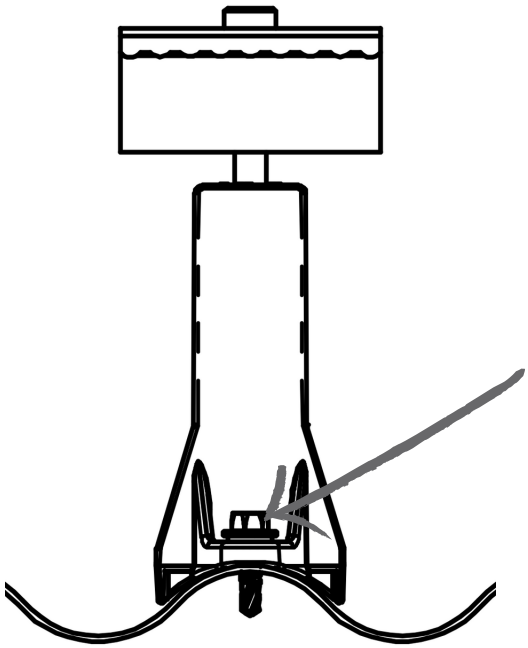
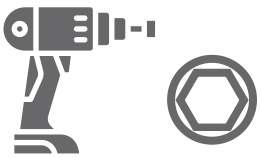
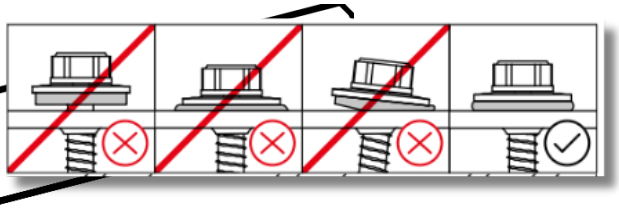
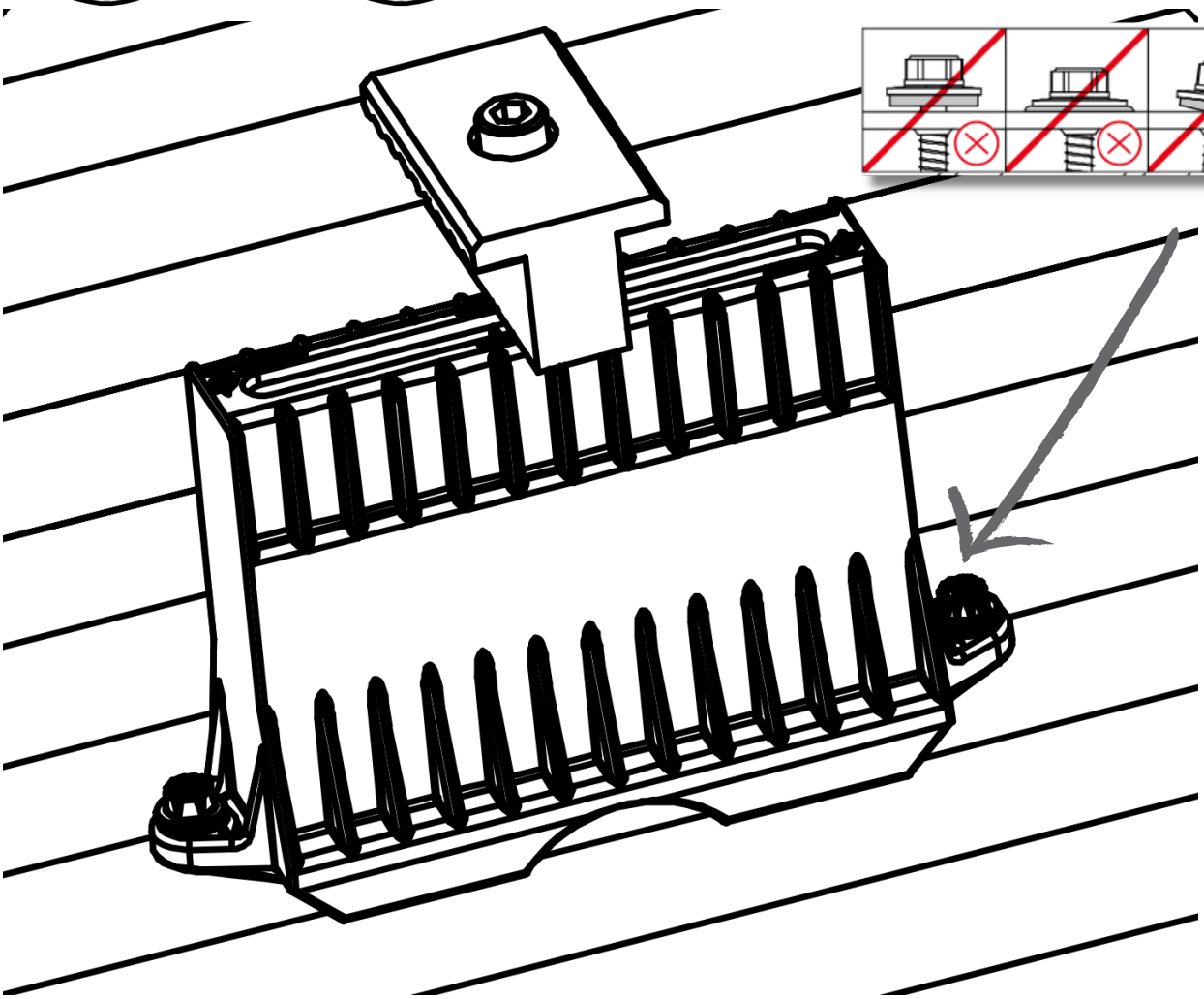




Secure bracket in place with a stitching screw complete with sealing washer on each side of the bracket.





INSTALLATION

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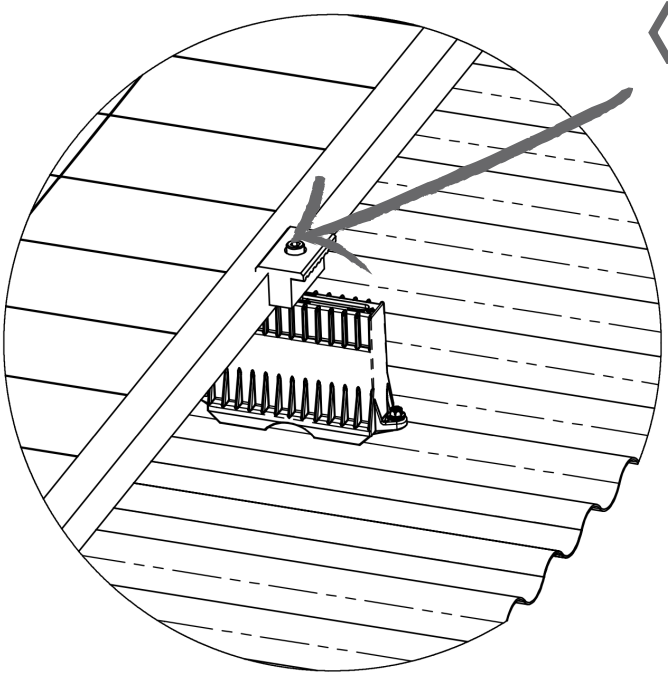
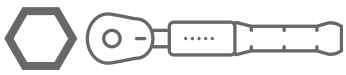
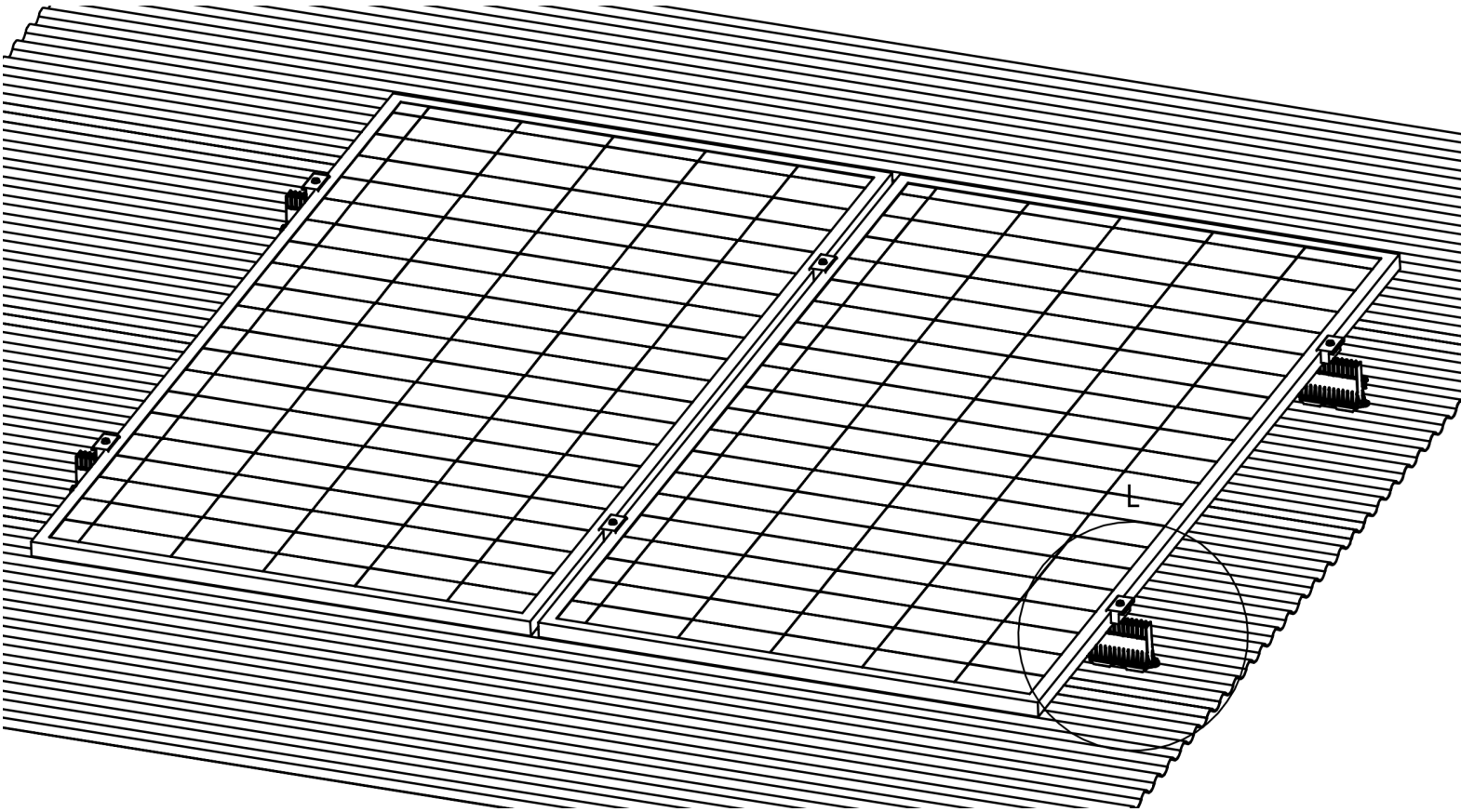


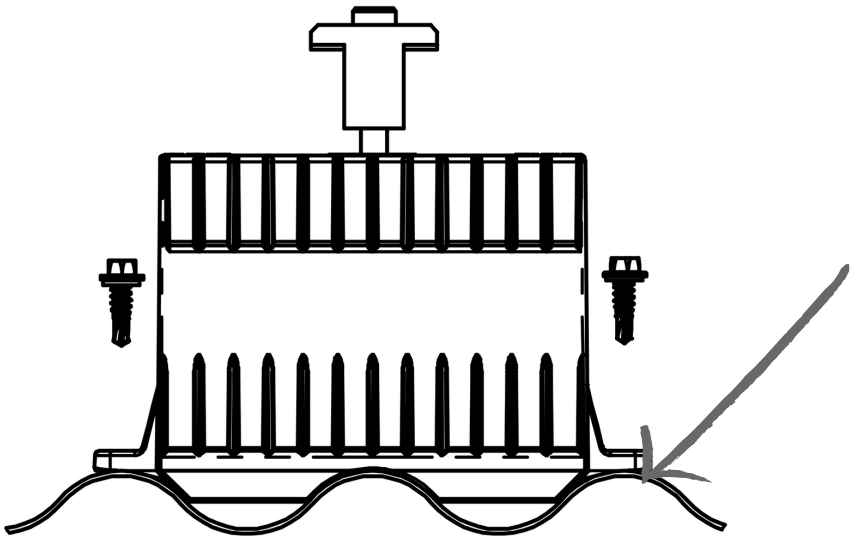


1. Place Panel.
2. Slide top bracket onto solar panel frame.
3. Secure panel in place once correctly placed on supporting ends of the bottom bracket.

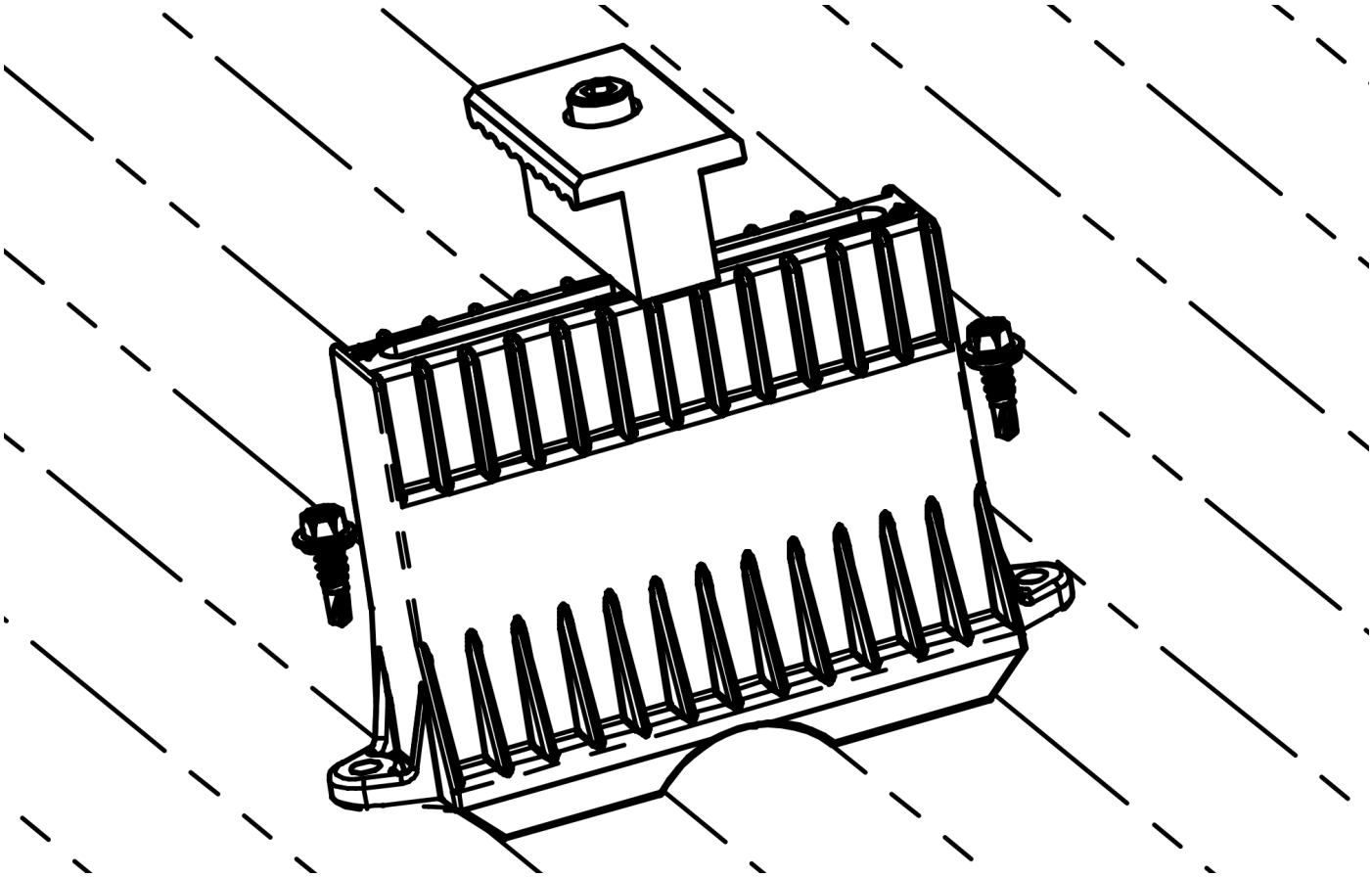


INSTALLATION

2.3 INSTALLATION (PORTRAIT)

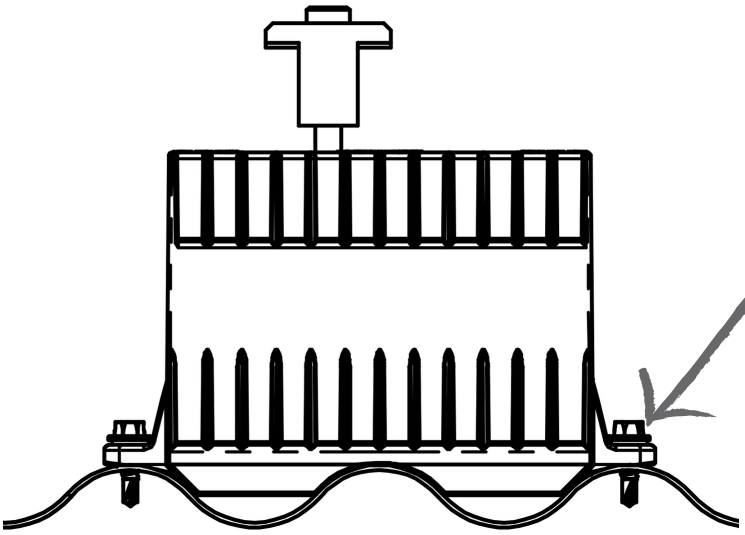


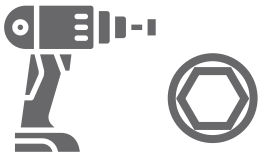
Place bracket on the peak of the corrugated sheet. The bracket will automatically align with the roof profile



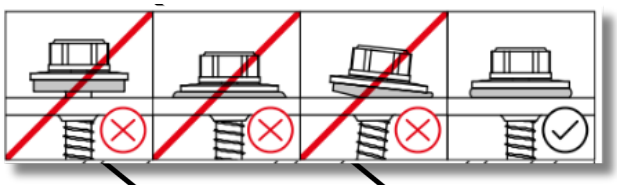
INSTALLATION

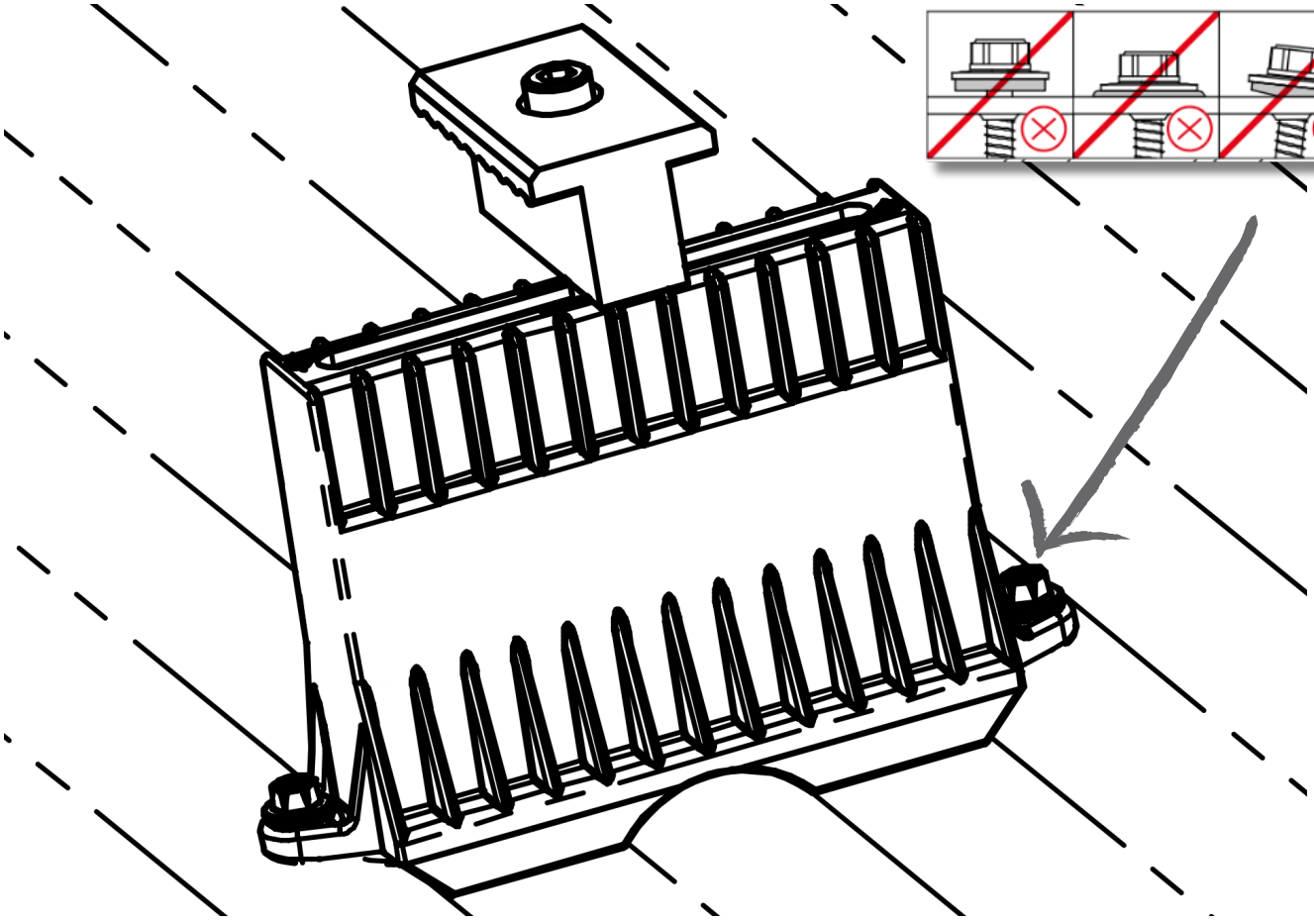
2.4 INSTALLATION (PORTRAIT)





Secure bracket in place with a stitching screw complete with sealing washer on each side of the bracket.





INSTALLATION

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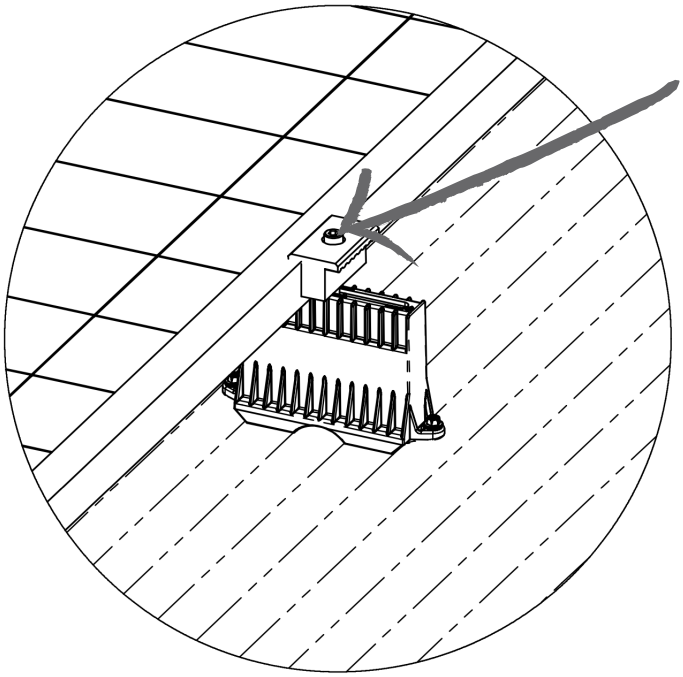

1. Place Panel.
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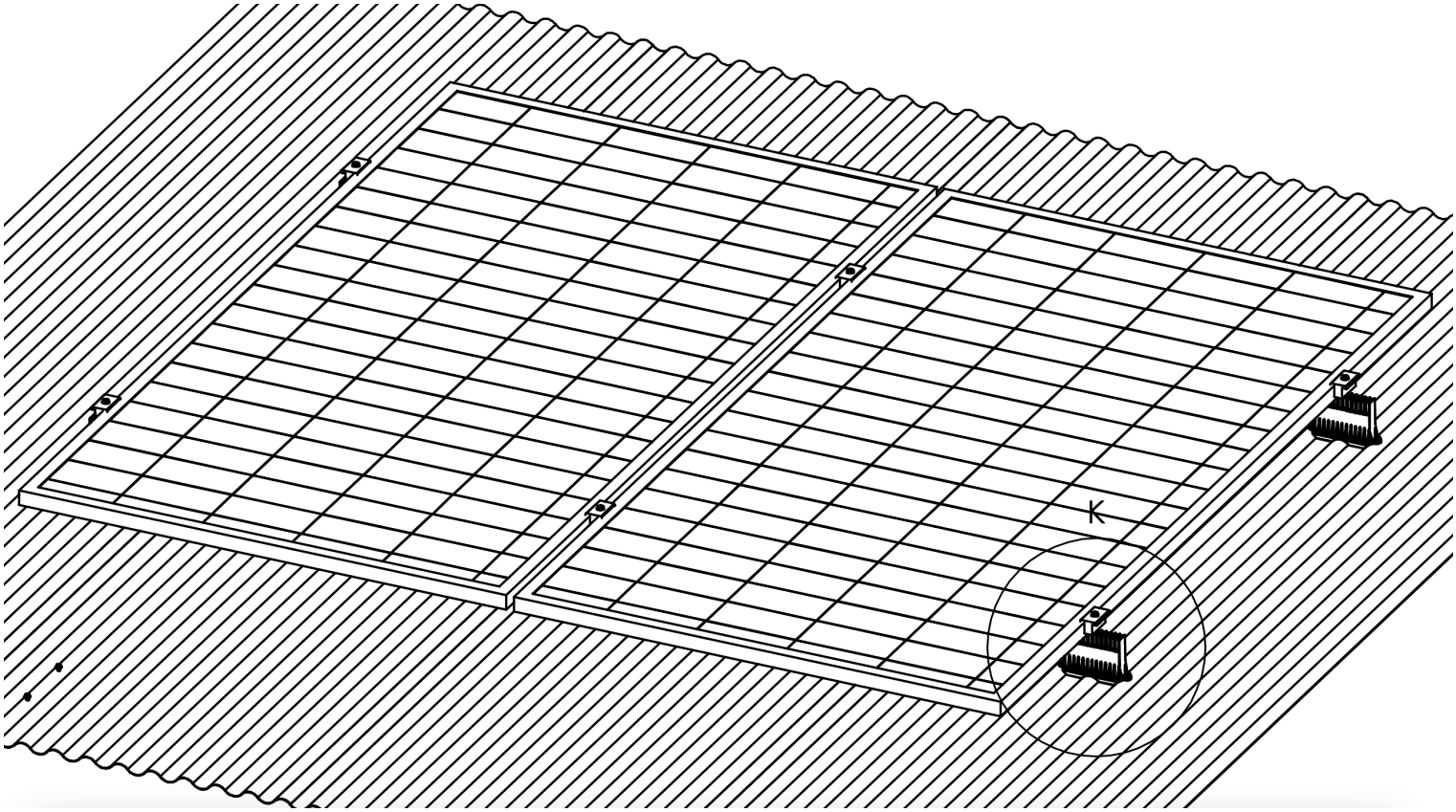
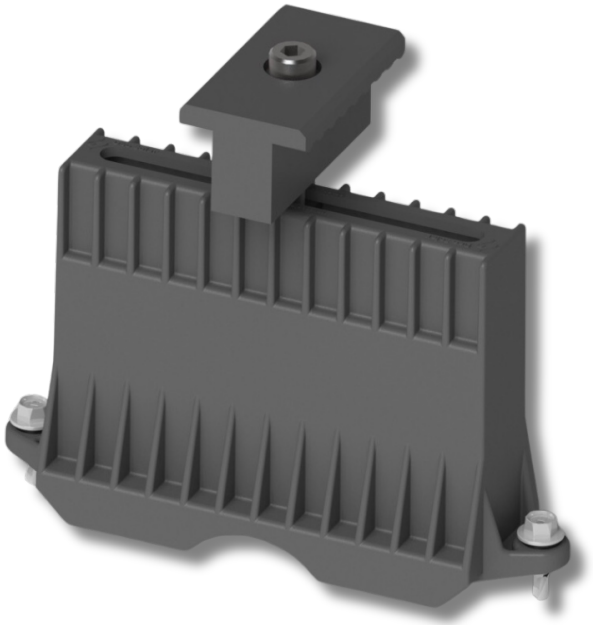


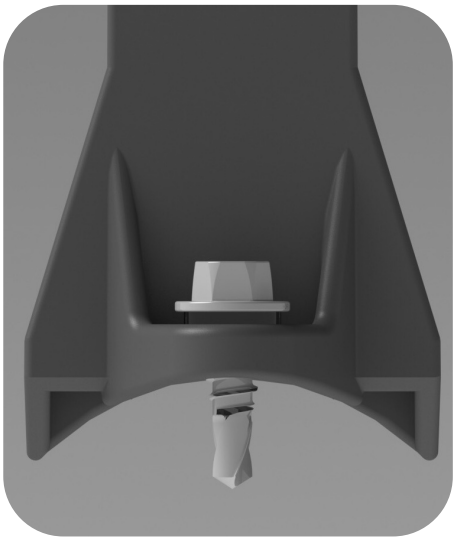
TECHNICAL DATA

3.1 DATASHEET

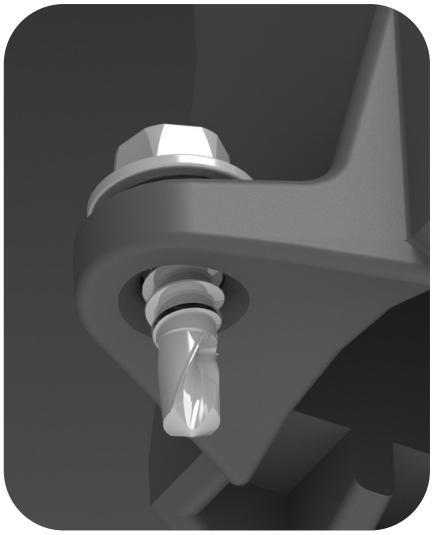


Technical Data

Composite Material Properties	PA 6-UV with glass fiber reinforcement	Ultimate Tensile Stength	145 MPa
		Modulus of Elasticity	9,5 GPa
		Temperature of deflection under load	210 deg Celcius
Components	Top Bracket (Composite Material)		
	Bottom Bracket (Composite Material)		
	M8 Square Nut (stainless steel)		
	M8x65 Bolt (stainless steel)		
Technical	Roof Substrate	IBR profile sheet, minimum thickness of 0,5mm (roof covering should be fixed to the substrate adequately to comply with building regulations)	
	Maximum design wind uplift	3.2kPa, failure mode dictated by hold down force of stitching screws	
	Safety Factor in design	1.2	



Auto-alignment



Self sealing design

TECHNICAL DATA

3.2 GENERAL ARRANGEMENT