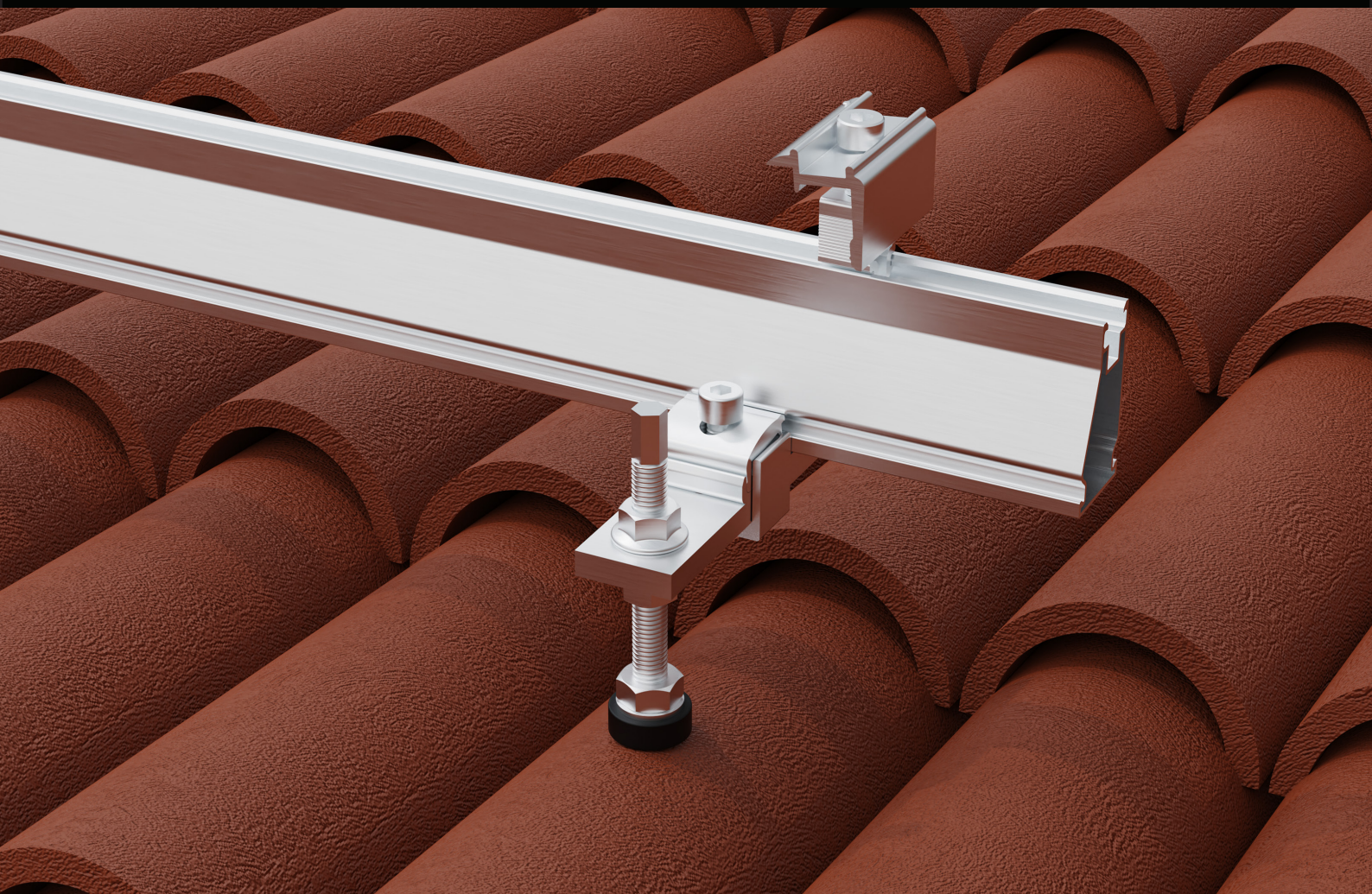


# NOVA



## INSTALLATION MANUAL



### Roof Mounting System

#### NOVA HANGER BOLT

ARTICLE #920-992110



25 YEAR WARRANTY



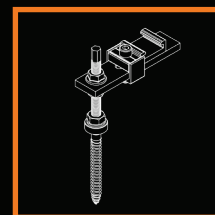
UP-TO 30% FASTER INSTALLATION



PORTRAIT



LANDSCAPE



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## INTRODUCTION

Welcome to the NOVA Solar Mounting Solution Installation Manual. This guide is your comprehensive resource for installing NOVA's solar mounting systems. Designed with precision and engineered for durability, our systems ensure a seamless and efficient installation experience.

Whether you're working with penetrative tin roofs, tile roofs, or other specialised surfaces, this manual provides step-by-step instructions and all the necessary details to ensure a successful and long-lasting solar installation.

## GENERAL RESPONSIBILITY & SAFETY GUIDELINE

**Qualified Installers:** Only qualified and trained personnel should install and operate the equipment. At least two people must be present during installation to ensure safety and provide assistance in case of an emergency.

**Handling and Modification:** Do not throw or roughly handle any components. Avoid bringing the system into contact with sharp or heavy objects. Do not modify components in any way, including exchanging bolts, drilling holes, or bending parts. Any such modifications not described in the standard installation procedure will void the warranty.

**Compliance:** Ensure compliance with national and local building regulations, health and safety standards, and environmental requirements.

**Roof Inspection:** Before installation, verify the roof's load-bearing capacity. Check that the roof is in good condition and can support the weight of the solar panels, including additional materials and loads.

**Weather Conditions:** Avoid installation in adverse weather conditions, such as strong winds or wet, slippery surfaces.

**Safety Measures:** Follow all fire regulations related to photovoltaic installations. Ensure the roof surface is clean, dry, and free of debris before beginning installation. Use safety nets and edge protection as necessary.

**Earthing and Bonding:** Perform equipotential bonding, grounding, and earthing according to country-specific standards and regulations.

**Protective Gear:** Wear appropriate protective equipment such as helmets, gloves, and non-slip safety boots.



## TESTING & CERTIFICATION

All components have been tested and developed to be compliant with relevant guides and regulations.

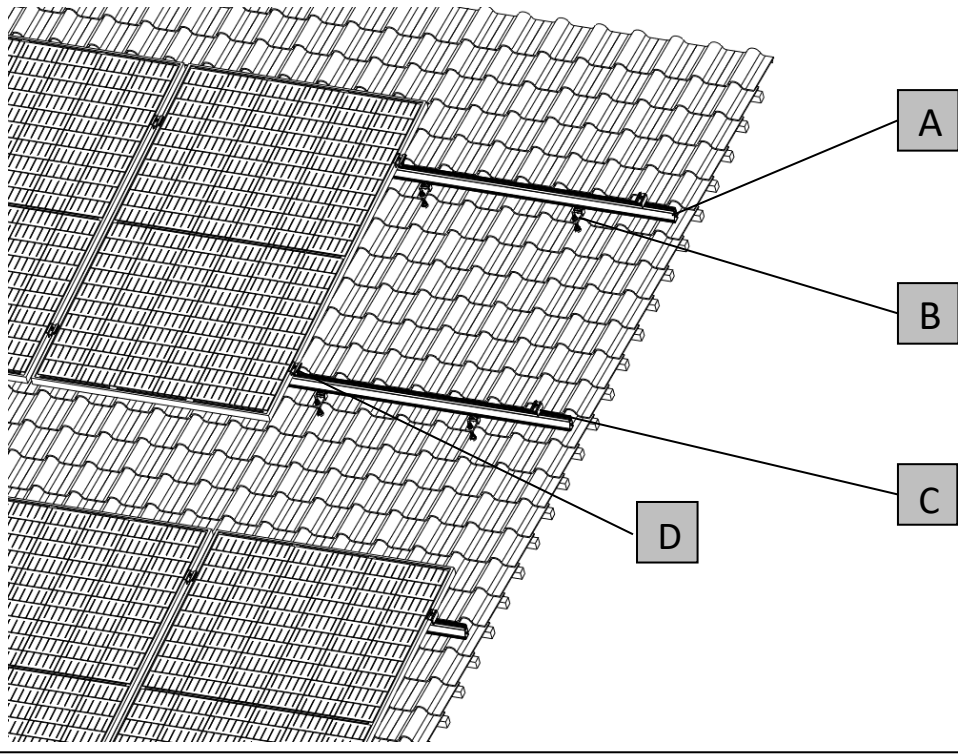
## INSTALLATION GUIDELINES

Ensure that the roof construction is suitable for the introduction of forces at the fixing points and their subsequent transmission. In order to compensate thermal expansion, include a break every 25 meters when planning the PV-system. For module positioning/fastening points please refer to manufacturers recommendations. Please follow your local timber construction standard. Please do not use installed roof connections as ladder. If installation is located within 10km from the coast, we advise not to use zinc coated material. For further information please contact your sales representative or the technical department at NOVA Mounting.

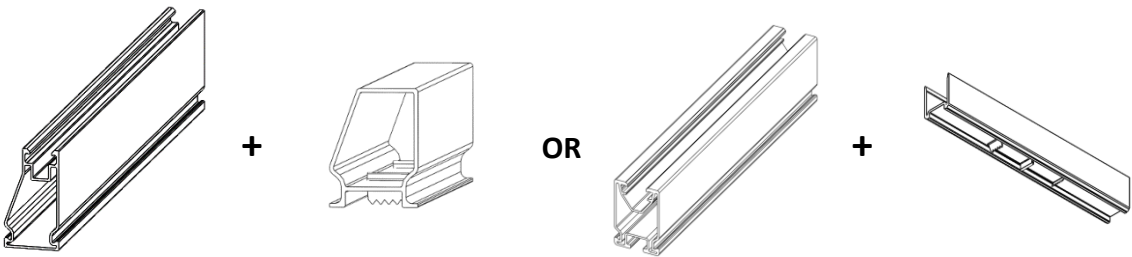
## WARRANTY

Warranty according to the terms and conditions found on the website [www.novamounting.com](http://www.novamounting.com)  
NOVA is not accountable for the roof's capability to maintain the introduced forces. Please check the roof's compatibility with a static engineer.

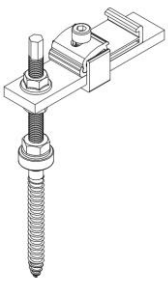
# NOVA Hanger screws mounting system



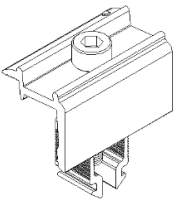
A



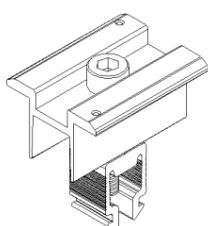
B



C



D



+

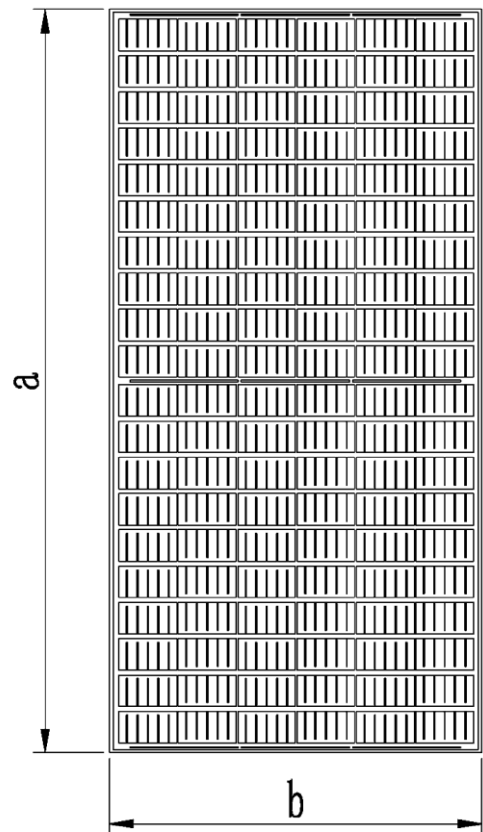
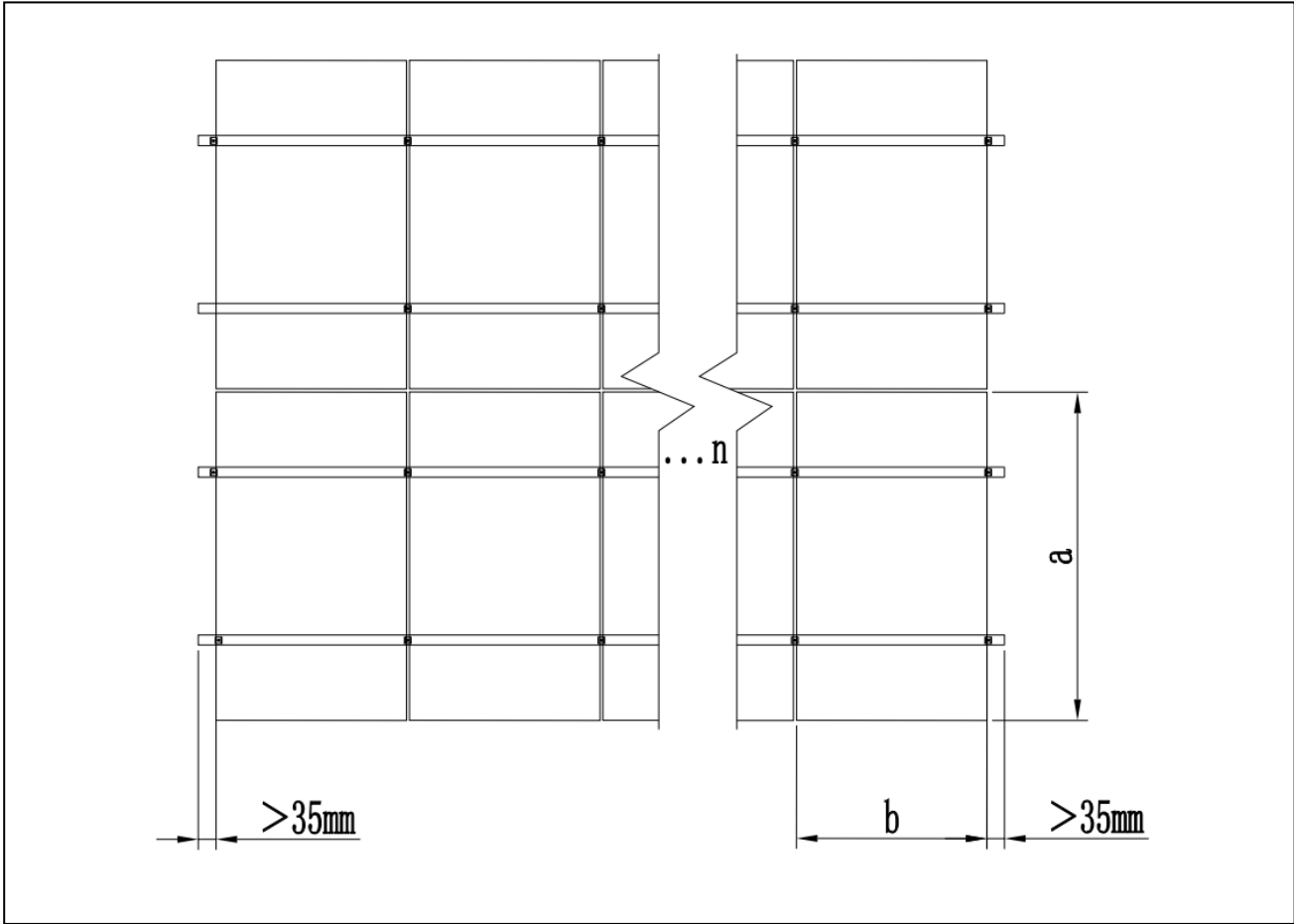


M8



13mm

# Solar panels layout

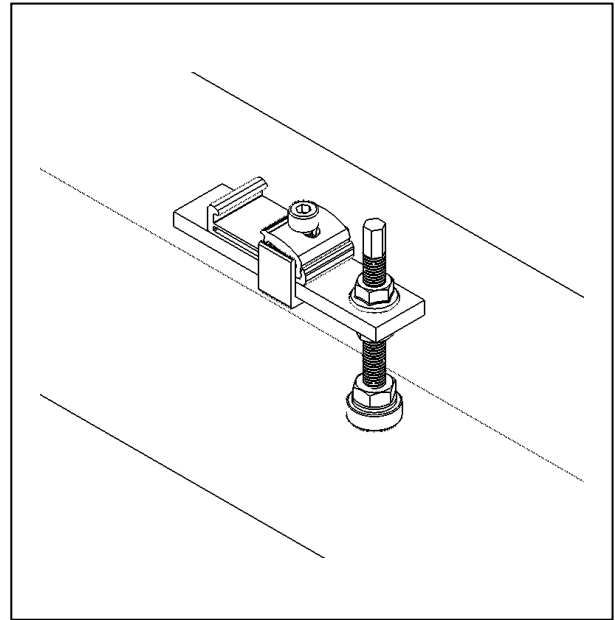
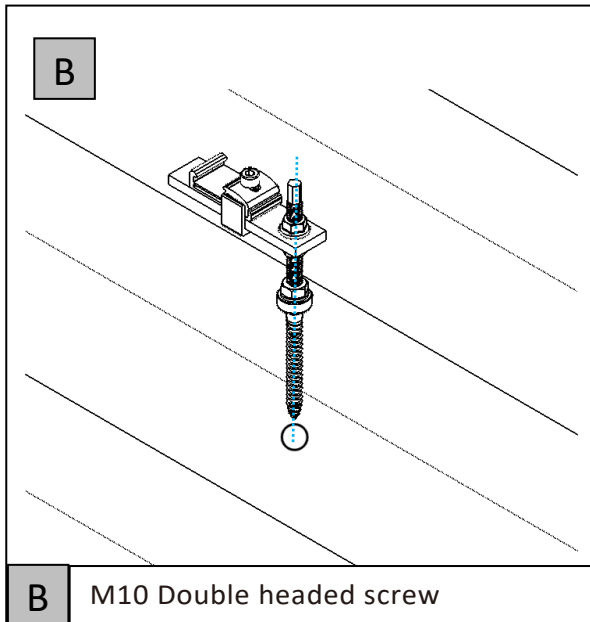


## Installation Procedure

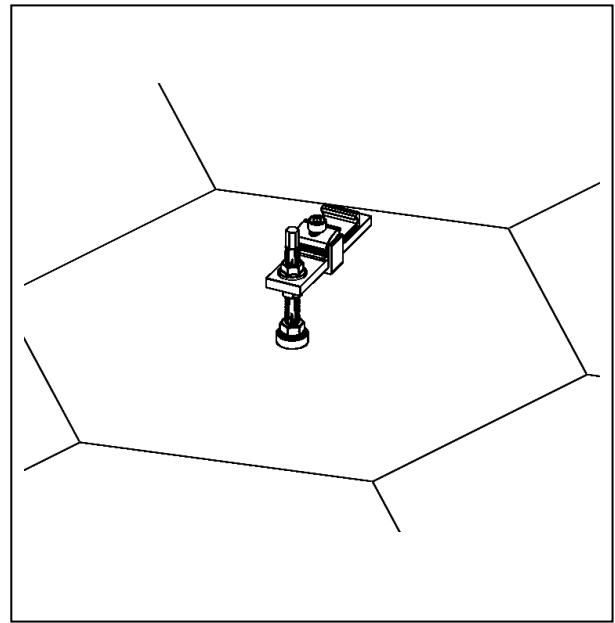
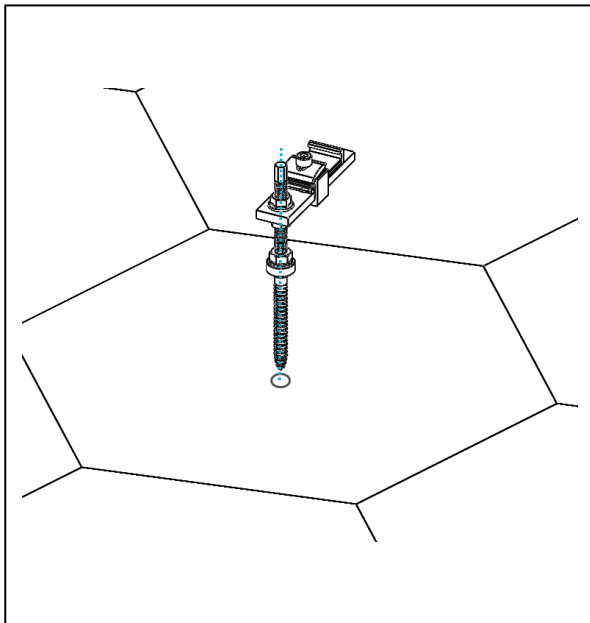
### STEP.1 Install the Hanger screw

Drill a  $\varnothing 6.5$  hole in the installation position. It is recommended to use polyurethane waterproof glue to apply a circle of glue to the perforated area to achieve complete waterproof.

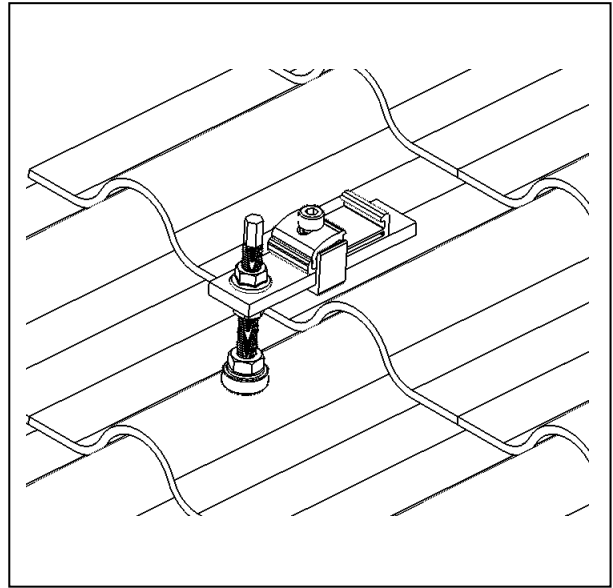
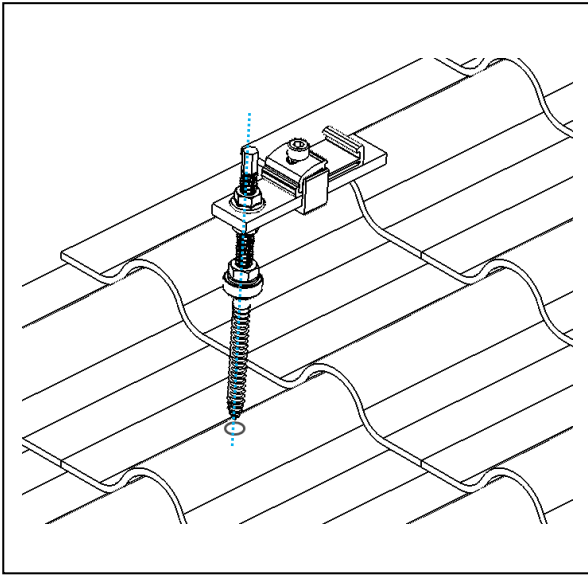
#### 1. Corrugated Roof



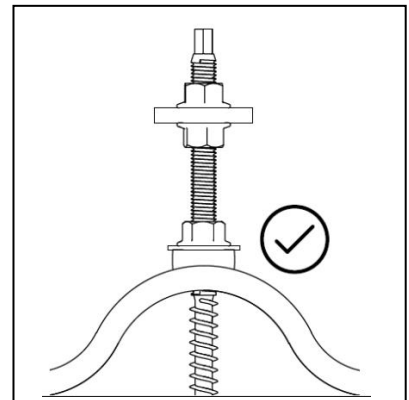
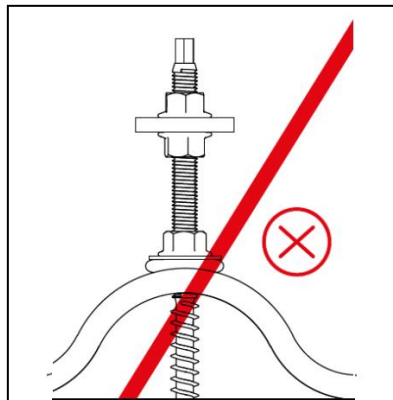
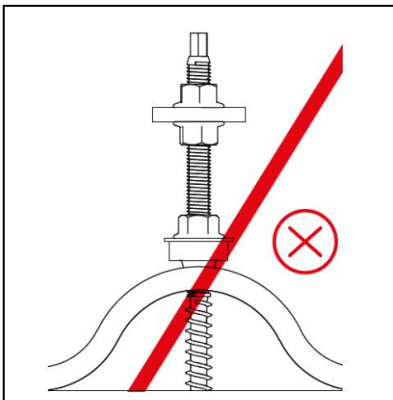
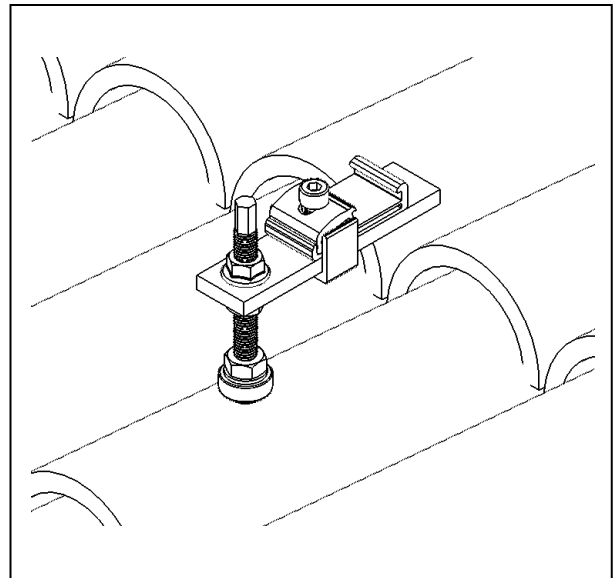
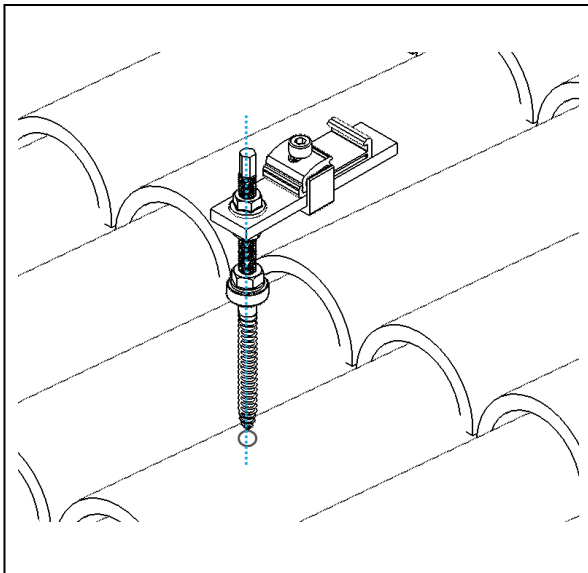
#### 2. Bitumen Roof

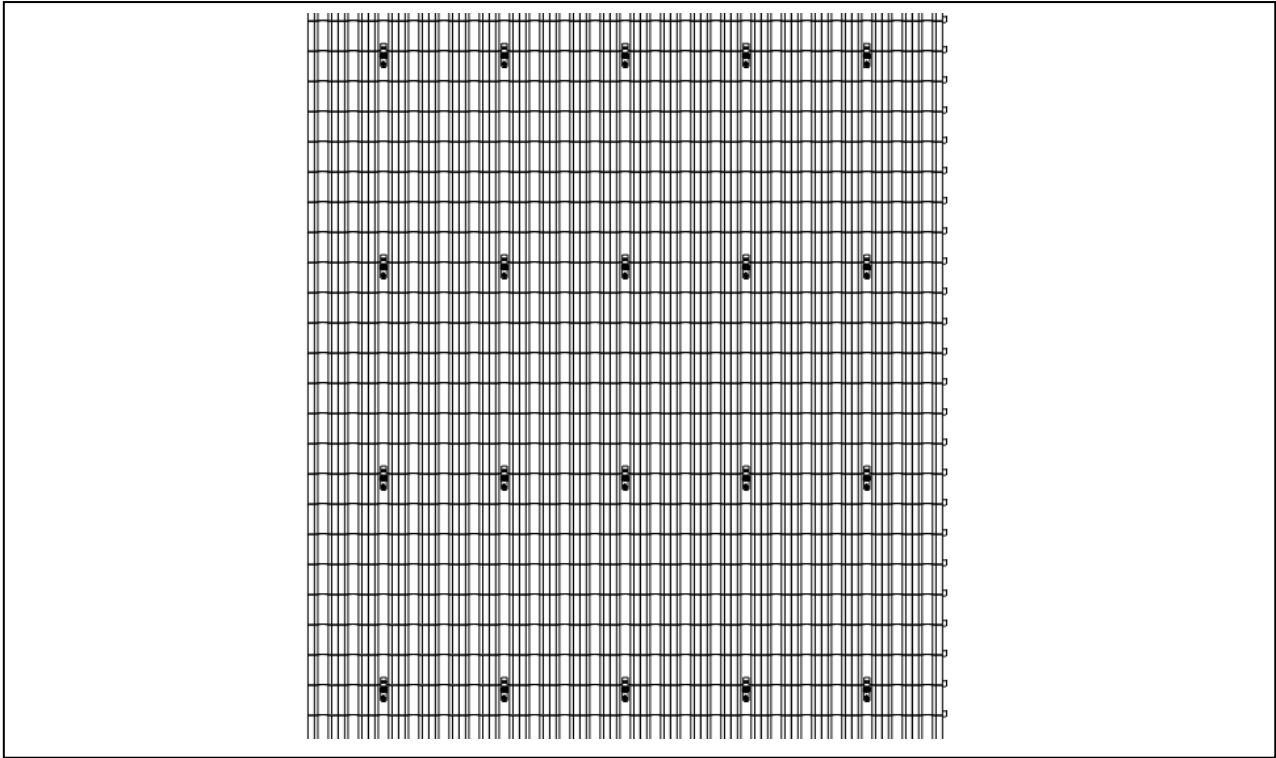


### 3. Tile roof



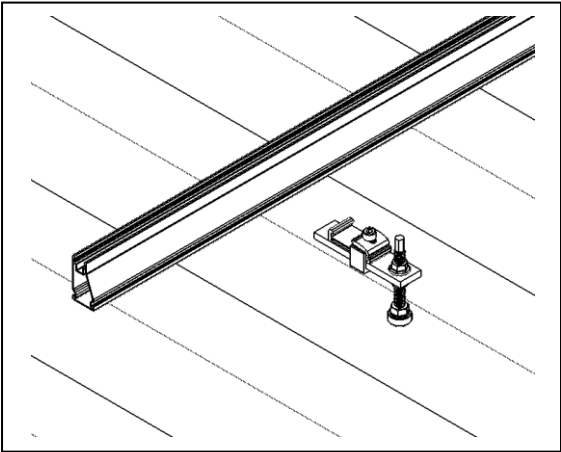
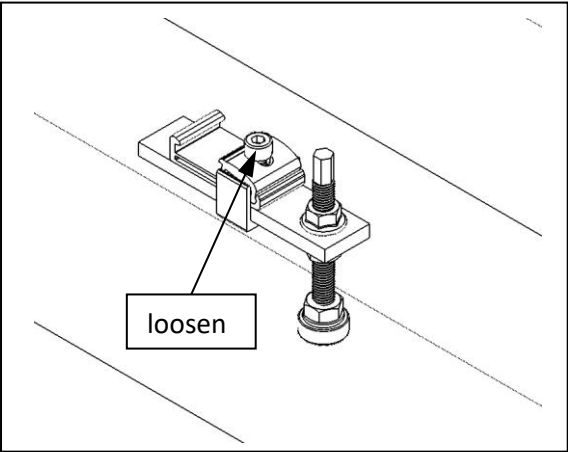
### 4. Spanish/Arabic Tiles



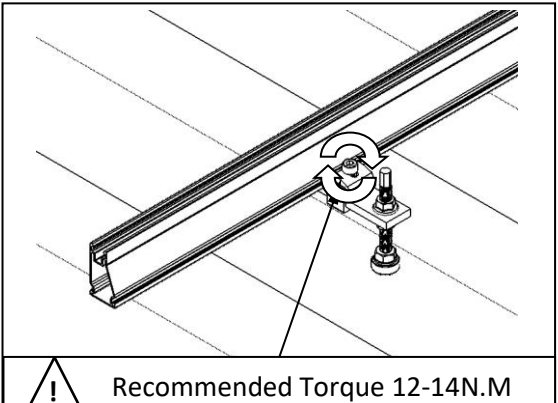
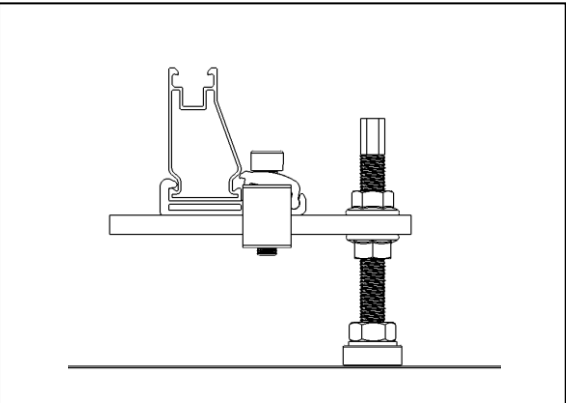


**STEP.2 Loosen the bolt of NOVA rail clamp or fixture, then Push the rail into the rail clamp or fixture.**

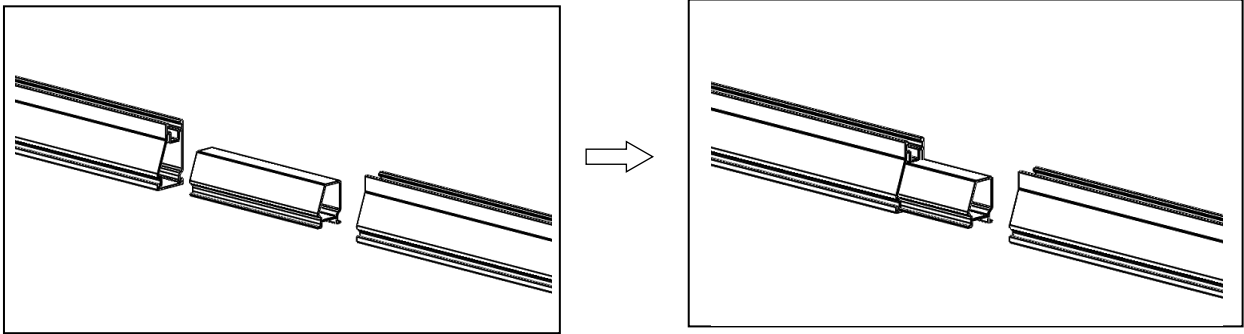
**1. Loosen the bolt of rail clamp or fixture**



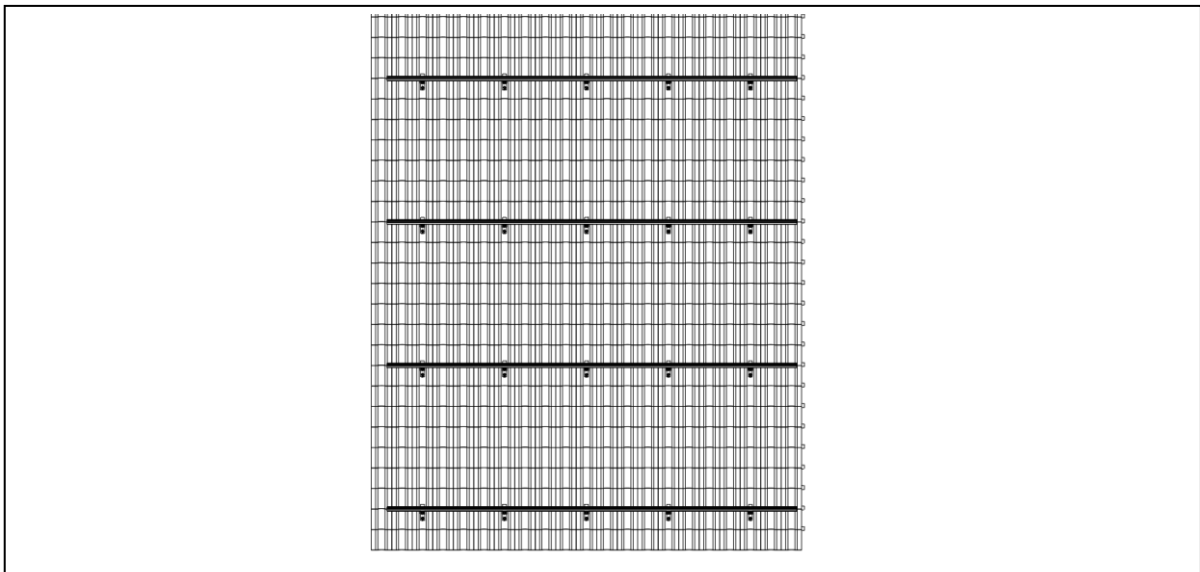
**2. Tighten the bolt**



**STEP. 3** Insert the NOVA inner rail connector into one end of the rail, then insert the other rail into it.

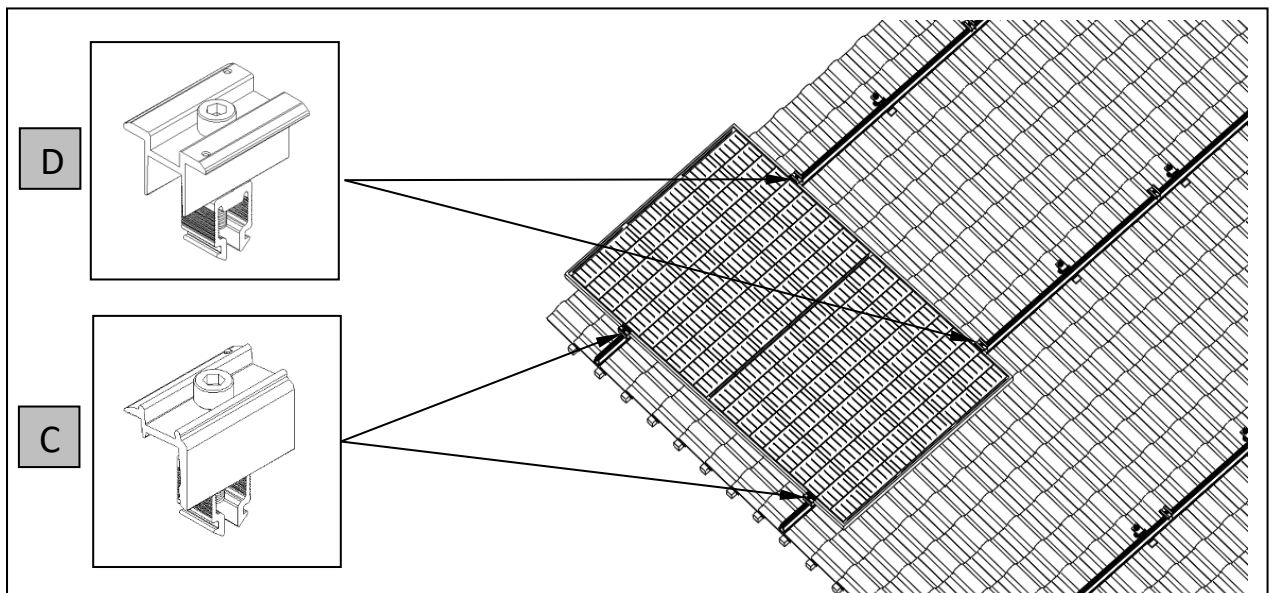


**STEP.4** Array layout

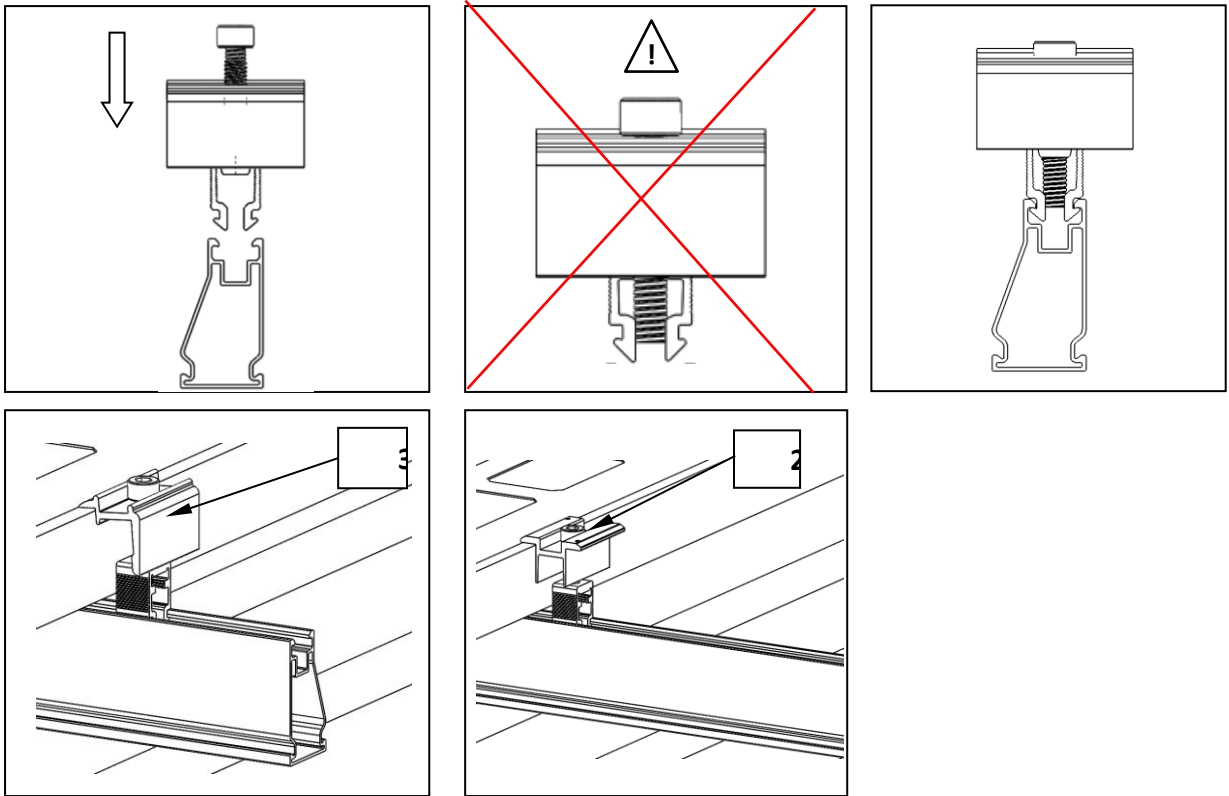


**STEP.5** Install NOVA panel clamps

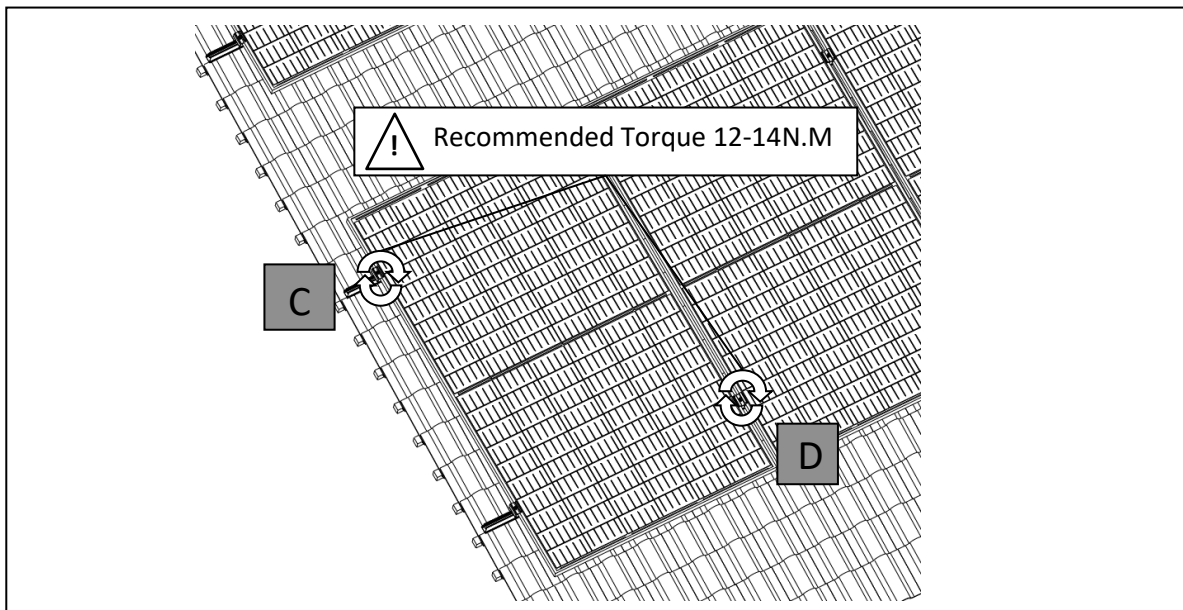
When installing the first panel, adjust the position of the solar panel according to the technical drawings, secure the panel on the rails with the panel clamps.

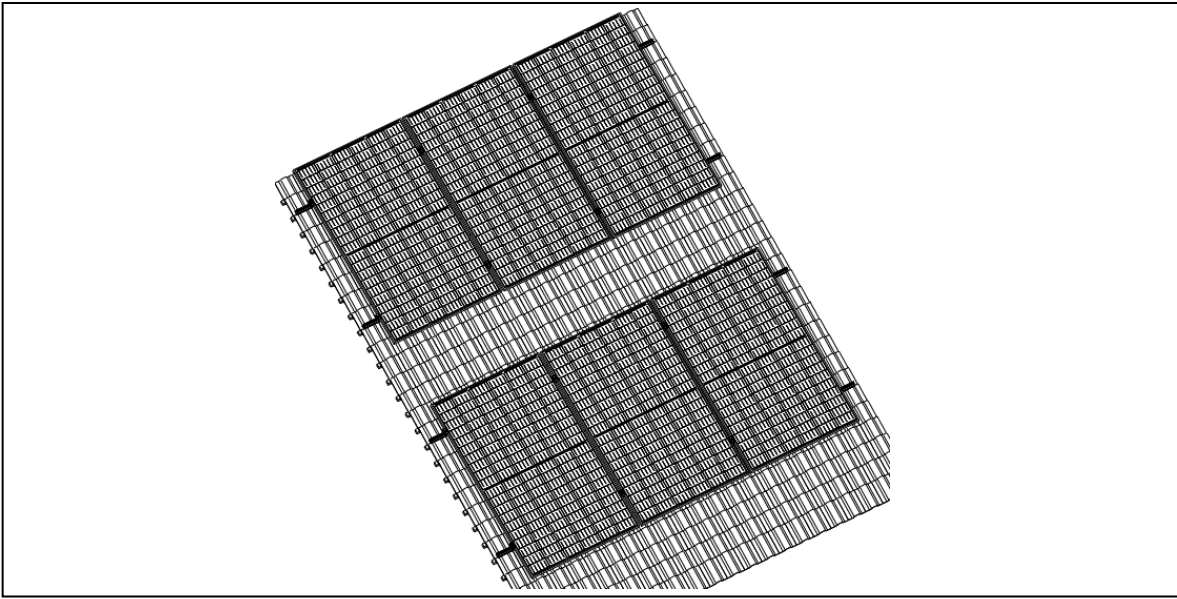






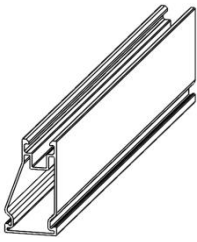
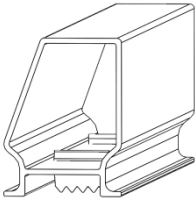
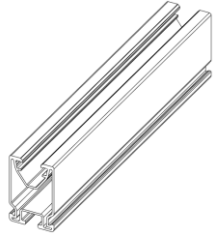
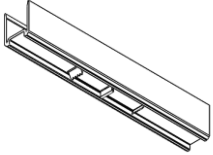
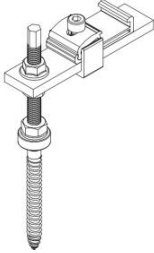
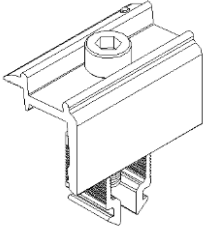
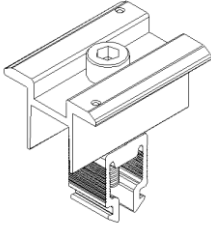
- Attention:**
- 1.Ensure the panel clamps are pushed up against the solar panel.
  - 2.Tighten the bolt slowly, until the panel clamp is in holding position.
  - 3.Using 12-14N.M torque to tighten the bolt.





**Attention: Double check all bolts are tightened when solar panel installation completed.**

**Components**

|                  |   |   |   |
|------------------|---|---|---|
| <b>Part Name</b> | <b>NOVA Tril Rail</b>   | <b>NOVA Tri Rail Joiner</b>   | <b>NOVA HD Rail</b>   |
| <b>Article #</b> | <b>920-12221_</b>   | <b>920-122810</b>   | <b>920-12222_</b>   |
| <b>Figure</b>    |    |    |  |
|                  |   | <b>OR</b>   |   |
| <b>Part Name</b> | <b>NOVA HD Rail Joiner</b>  | <b>NOVA Hanger Bolt</b>   |   |
| <b>Article #</b> | <b>920-122820</b>   | <b>920-992110</b>   |   |
| <b>Figure</b>    |    |    |   |
| <b>Part Name</b> | <b>NOVA Click End Clamp 30-40mm</b>   | <b>NOVA Click Mid Clamp 30-35mm</b>   |   |
| <b>Article #</b> | <b>930-991420</b>   | <b>930-991410</b>   |   |
| <b>Figure</b>    |  |  |   |



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