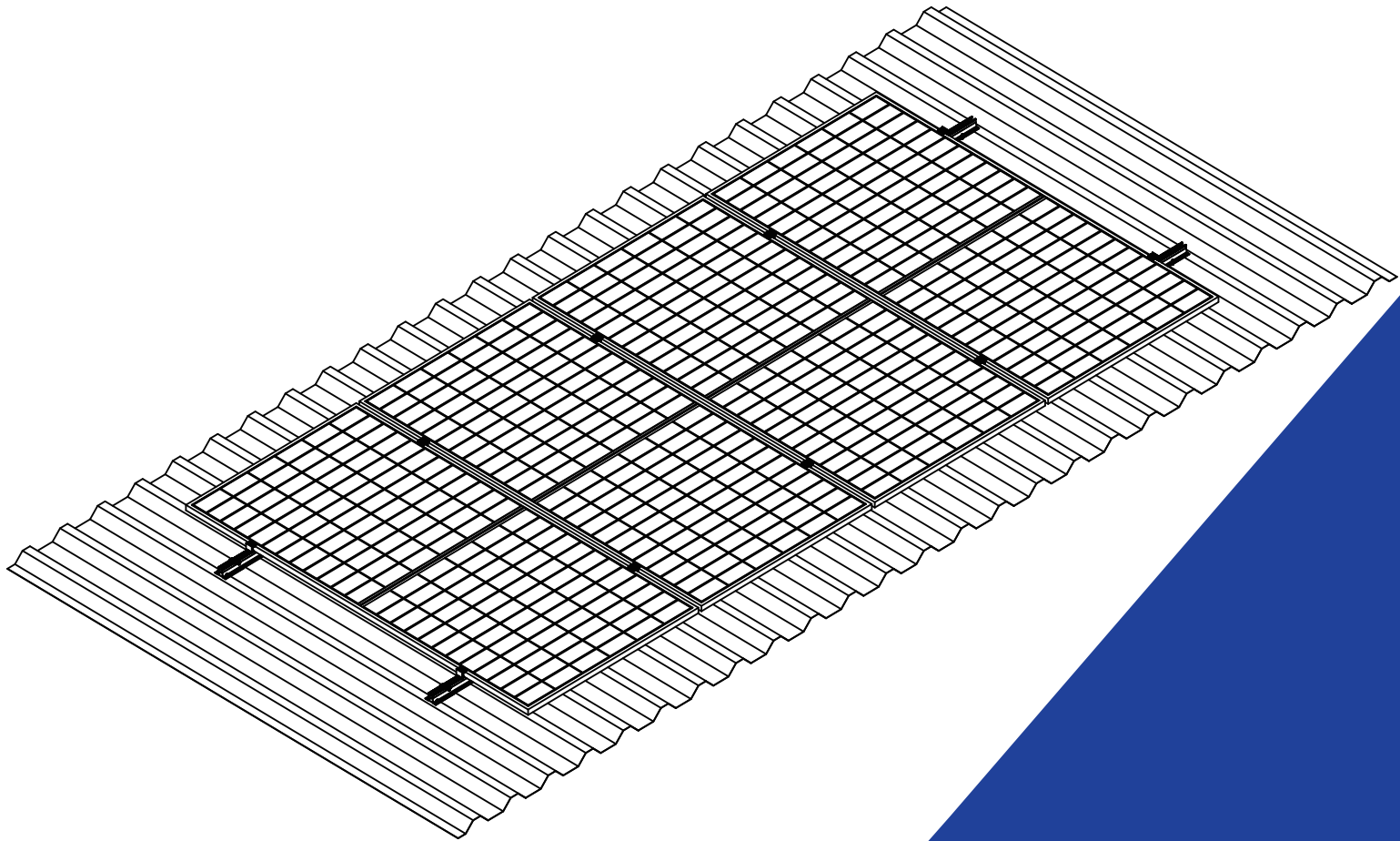




INSTALLATION MANUAL

RAIL-LESS SOLAR MOUNTING SYSTEM

General	01
Tools overview	02
Attachments overview	03
Steps for installing mounting system	04
• Confirm the positions on metal sheet roof	04
• Arrange the array	05
• Fix the attachments on trapezoidal metal sheet and 700/406 lysaght metal sheet	05
• Install End Clamps to Fix Solar Panels	07
• Install Mid Clamps to Fix Solar Panels	07
• Install Grounding lug and cable installation	08
• Grounding Components & Electrical Diagram	09

Quality tested-several certifications

WOCHN Systems stands for secure connections, highest quality and precision. Our customers and business partners have known that for a long time. Independent institutes have tested, confirmed and certified our capabilities and components

Please find our quality and product certificates under:

<https://www.wochnmounting.com/>

Disclaimer

This manual describes the proper installation procedures and provides minimum standard required for product reliability and warranty. This installation instruction is based on the state of the art and many years of experience in how our systems can be installed on site. Due to the many variables and requirements associated with a specific installation. Because of this, these instructions only serve as a guideline for the installation of the product described in this manual.

- The equipment may only be installed and operated by qualified and adequately trained installers.
- Prior to installation, ensure that the product complies with on-site static loading requirements
- National and local building regulations and environmental requirements must be adhered to.
- All work must comply with national, state and local installation procedures, product and safety standards.
- Compliance with health and safety regulations, accident prevention guidelines and applicable standards is required.
- Protective equipment such as safety helmet, boots and gloves must be worn.
- Validate foundation parameters prior to installation, We recommend consulting with a local engineer familiar with local regulations and build site requirements, including soil conditions, terrain and load criteria. All parameters may impact foundation requirements.
- At least two people must be present for the duration of the installation work in order to provide rapid assistance in the event of an emergency.
- At least one copy of the assembly instructions should be available on site throughout the duration of the installation.
- Failure to adhere to our general safety and assembly instructions and not using all system components,
- WOCHN is not liable for any resulting defects or damages. We do not accept liability for any damage resulting in the use of competitor's parts. Warranty is excluded in such cases.
- Dismantling of the system is performed in reverse order to the assembly
- The manual provides guidelines for installation, but it does not guarantee the quality of installation work. Please complete the installation in a responsible and professional manner.



6.3、 10、 12、 18



8、 6.3



NM



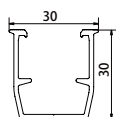
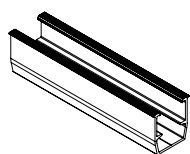
Torque Values

M6.3 screw: 8 N • m

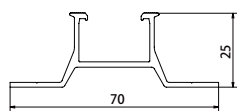
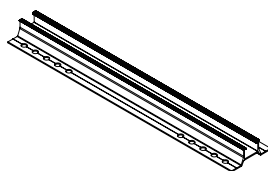
M8 screw: 10 N • m

M10 screw: 40 N • m

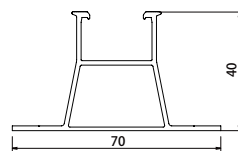
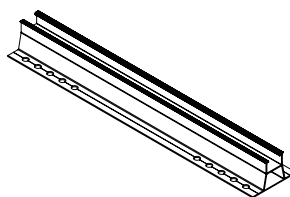
1. Trapezoidal and corrugated sheet metal roof



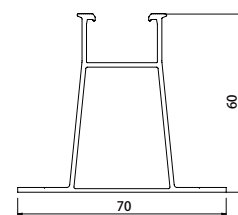
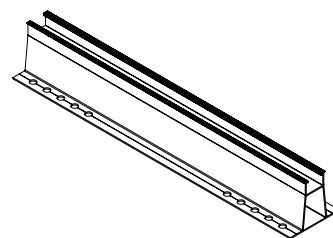
• WQ-TRU-30-120
H30 TR U MiniRail



• WQ-TR 25-400
H25 TR π MiniRail

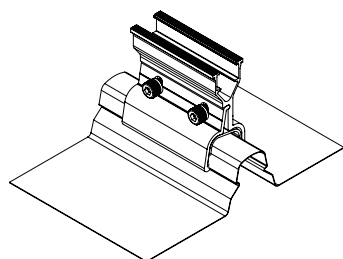


• WQ-TR 40-400
H40 TR π MiniRail

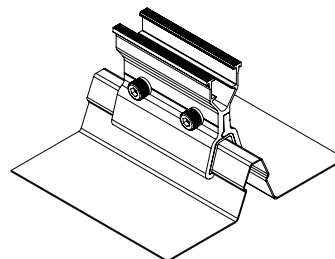


• WQ-TR 60-400
H60 TR π MiniRail

2. Lysaght Klip-lok 700/406 metal roof

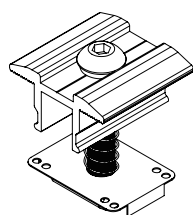


• WQ-AC-02A
Rail-less Standing Seam Clamp 2#A, for Lysaght 700 metal sheet

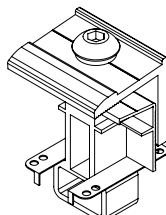


• WQ-AC-03A
Rail-less Standing Seam Clamp 3#A, for Lysaght 406 metal sheet

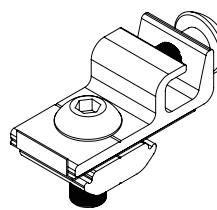
3. Universal components:



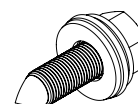
• WQ-TRM-3035
TR Mid Clamp, grounding clip integrated



• WQ-TRE-3035
TR End Clamp, grounding clip included



• WQ-TR-GL
TR Grounding Lug, J55 nut



• WQ-ZGDJ-0530
M5.5*30 ponted tail screw

1. Confirm the installation location

Confirm installation points on the roof according to the following rules.

! Notice:

The specific span of L1 and L2 depends on the size of the solar panel.

Portrait

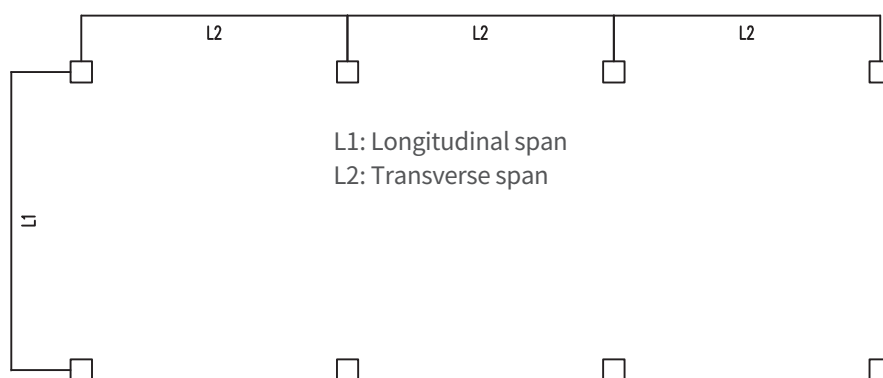
L1 depends on the width of the solar PV panel

L2 depends on the length of the solar PV panel

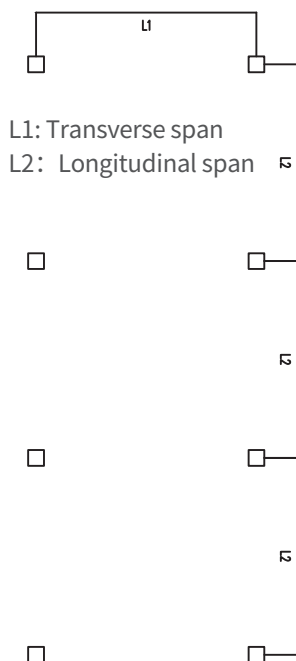
Landscape

L1 depends on the length of the solar PV panel

L2 depends on the width of the solar PV panel



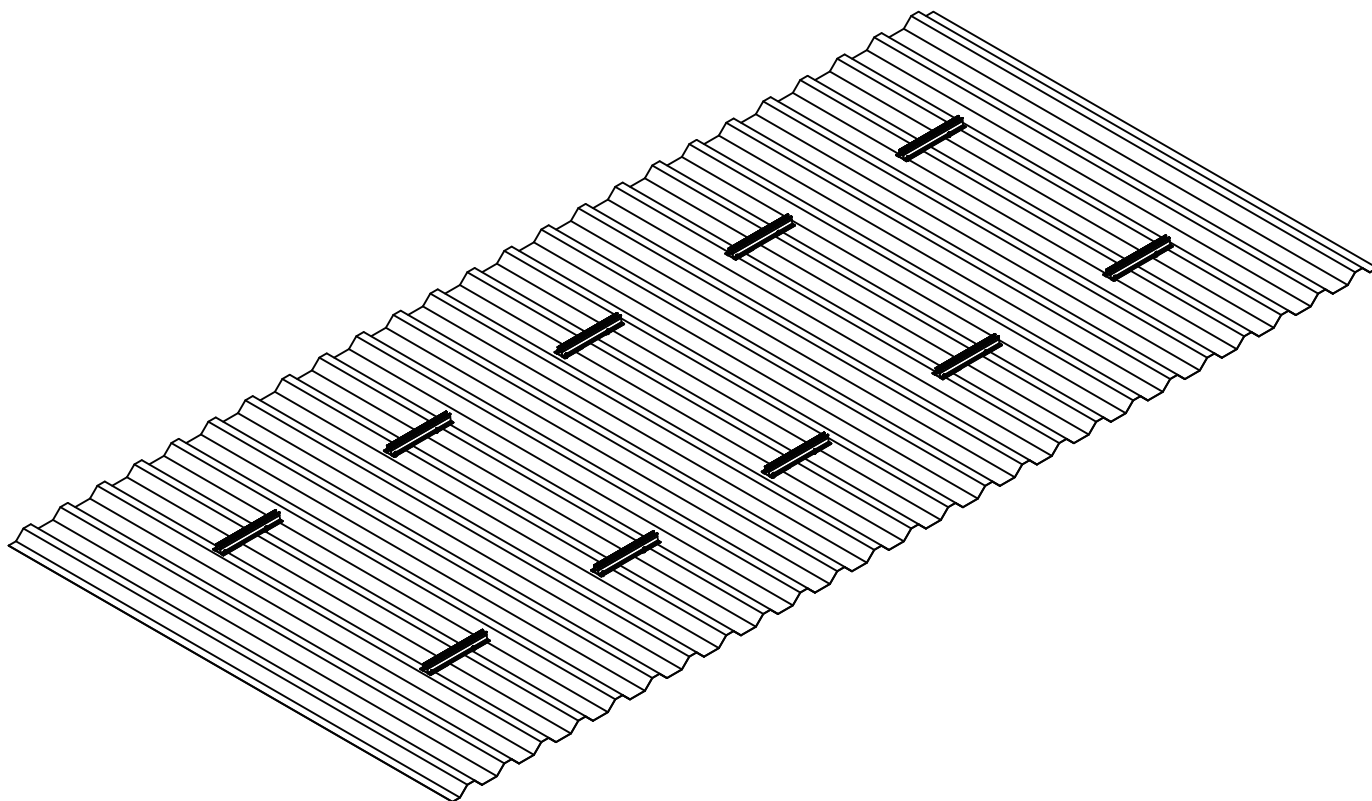
Portrait for π mini rail



Landscape for U mini rail and rail-less standing seam clamp

2. Fixing rail-less products on the metal sheet roof

Fix all the attachments in position correctly: Suitable for all attachments, example as: π mini rail

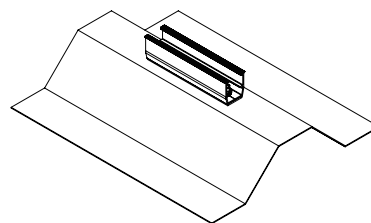
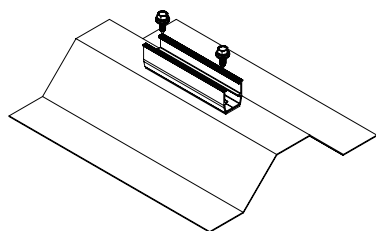


3. How to fix the attachments

1. Trapezoidal metal sheet:

(1) U Mini Rail for landscape :

Repeat this step to install all U mini rails on the metal sheet roof.



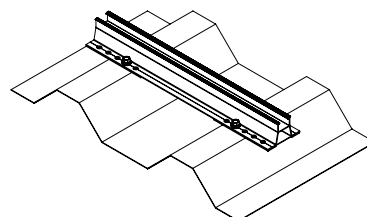
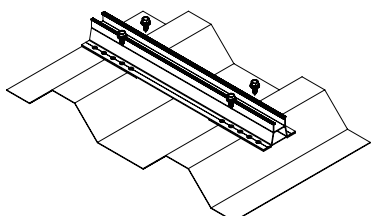
· Put the U mini rail on the position Fix it with 2 self drilling screws

· Fixation finished

3. How to fix the attachments

(2) Mini Rail for portrait :

Repeat this step to install all π mini rails on the metal sheet roof.



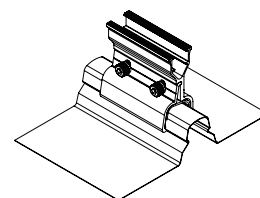
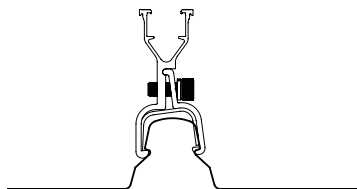
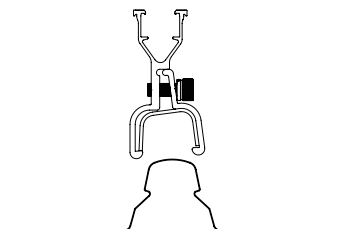
· Put the π mini rail on the position Fix it with 3 self drilling screws

· Fixation finished

2. Lysaght Klip-lok 700/406 metal sheet roof

(1) WQ-AC-02A for landscape:

Repeat the above steps to install all 02A clamps on the 700 lysaght metal sheet roof.



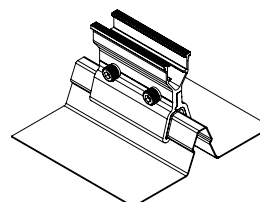
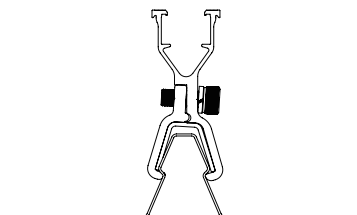
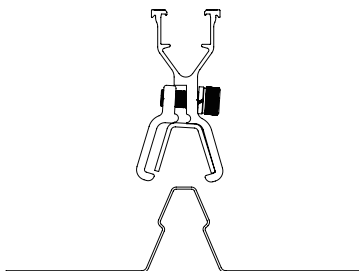
· Fix the clamp to the top of the 700 lysaght metal sheet

· Tighten the side screws

· Fixation finished

(2) WQ-AC-03A for landscape:

Repeat the above steps to install all 03A clamps on the 406 lysaght metal sheet roof.



· Fix the clamp to the top of the 406 lysaght metal sheet

· Tighten the side screws

· Fixation finished

4. Install End Clamps to Fix Solar Panels

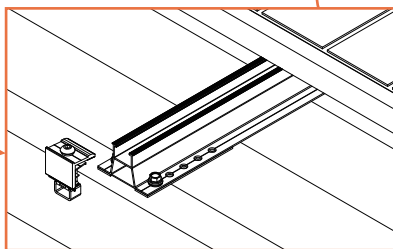
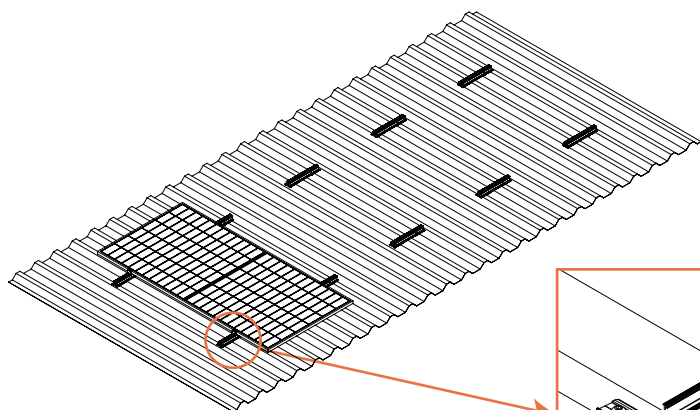
After fixing all attachments, use end clamp when fixing the first panel



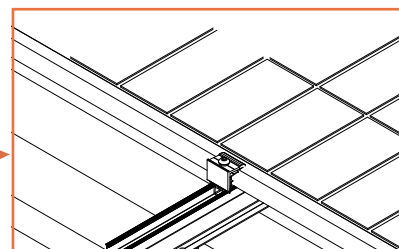
Notice:

Set the torque value to $10\text{N} \cdot \text{m}$

Suitable for all attachments, example as π mini rail



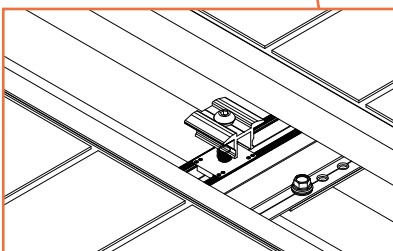
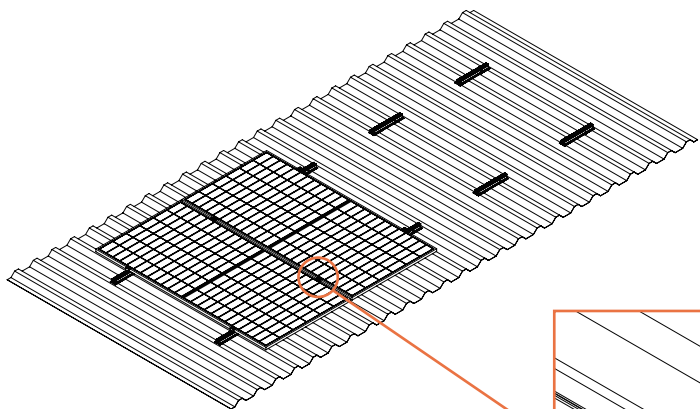
Slide the end clamp along the Rail notch



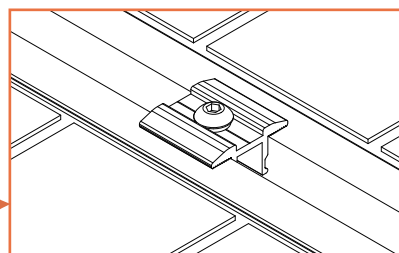
Fix it with using an M8 hexagonal wrench or drill bit.

5. Install Mid Clamps to Fix Solar Panels

Continue to install the following panel with mid-clamps, repeat the above steps until the last panel is installed.

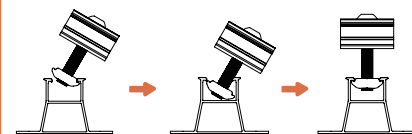


Put the mid-clamp into the slot



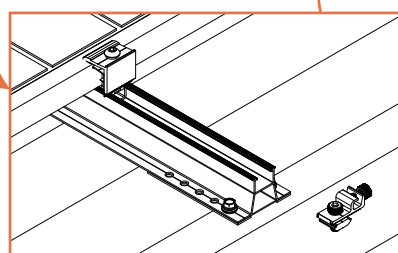
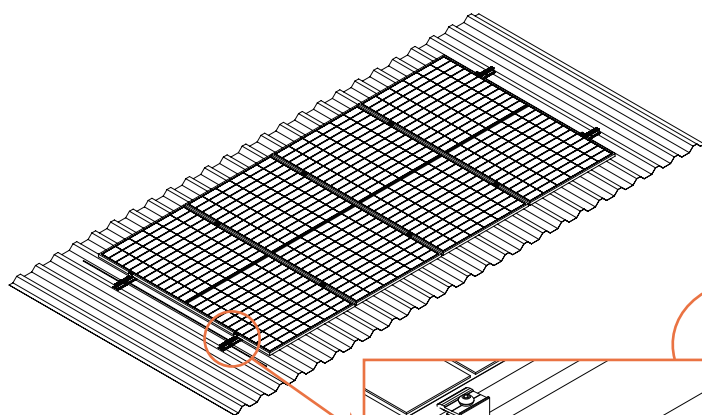
Fix it with using an M8 hexagonal wrench or drill bit.

Notice: how to fix mid clamp

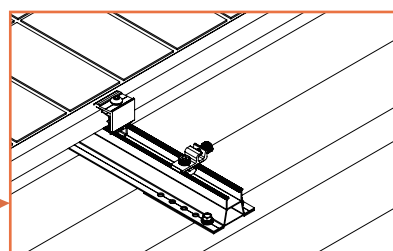


6. Install grounding lug and cooper wire

After all panels are installed, start installing the grounding lugs and finally snap the copper wire into them



Slide the ground lug along the Rail notch

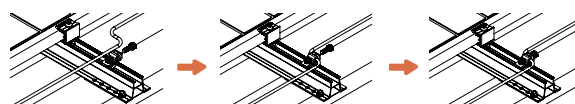


Tighten the screw to fix



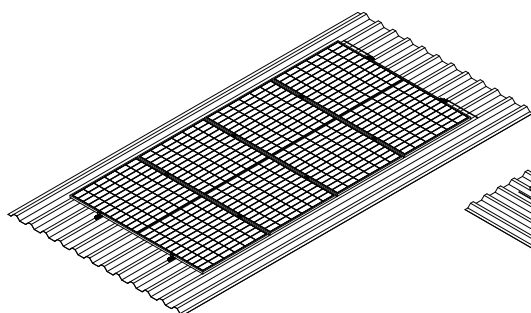
Notice: how to place the cooper wire

First loose the screw on the top of the Grounding Lug, then place the cooper wire into the slot, and then tighten the screw to secure the cooper wire

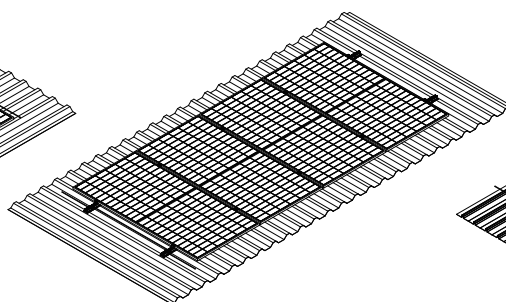


7. Installation check

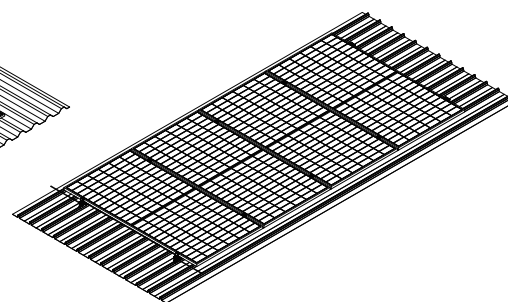
Make sure all components are securely fastened. Verify that the Rail-less solar mount system is installed correctly, reaches the required height, angle and position.



U mini rail system for landscape



Π mini rail system for portrait



Rail less standing seam clamp for landscape

8. Grounding Components & Electrical Diagram

