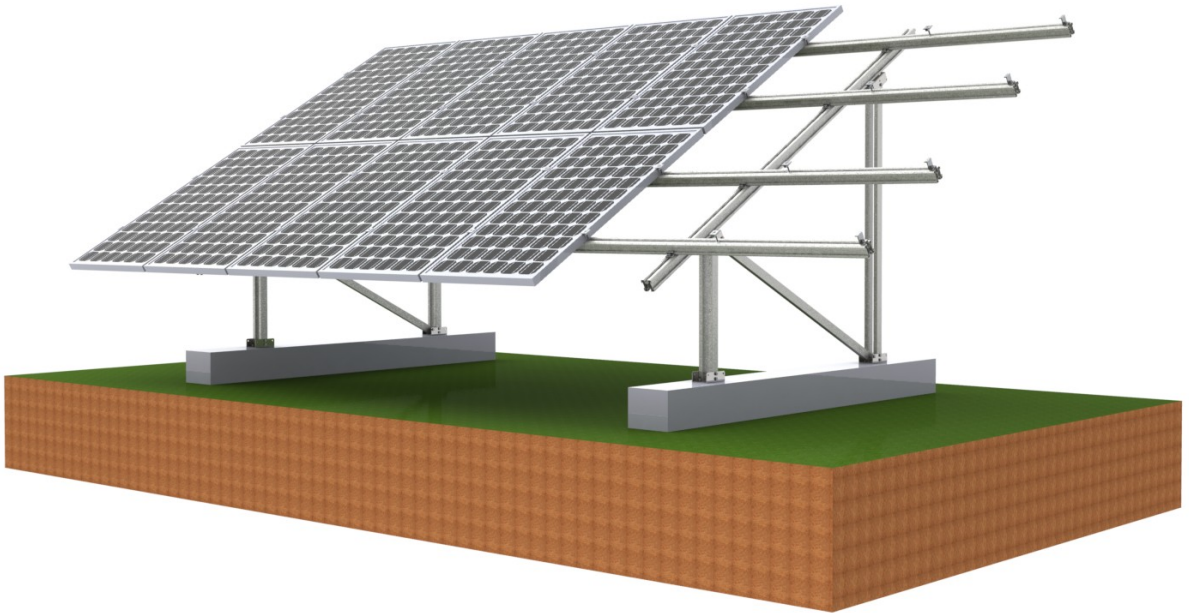


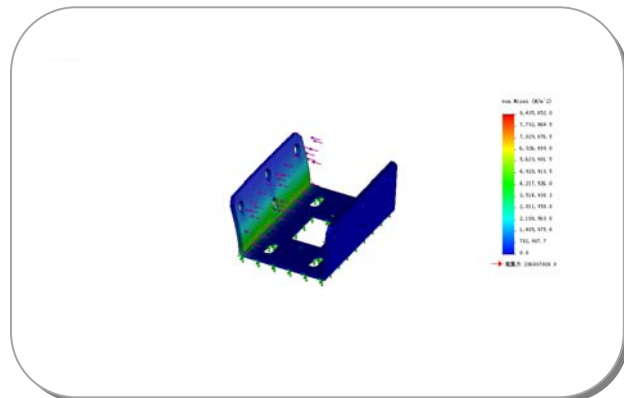
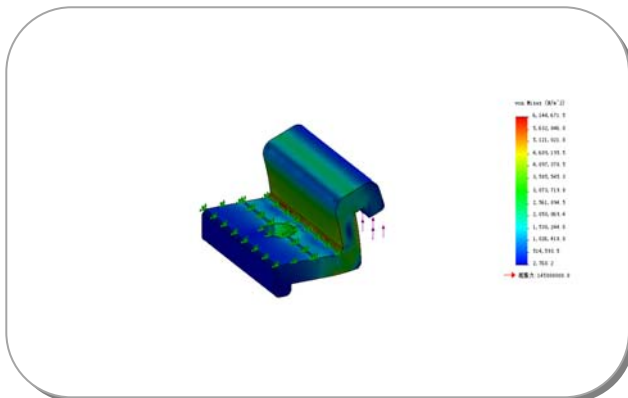
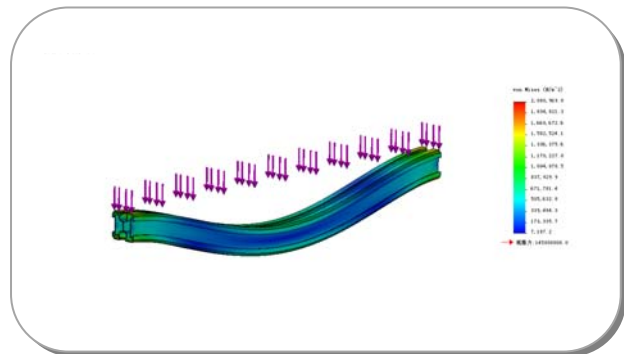
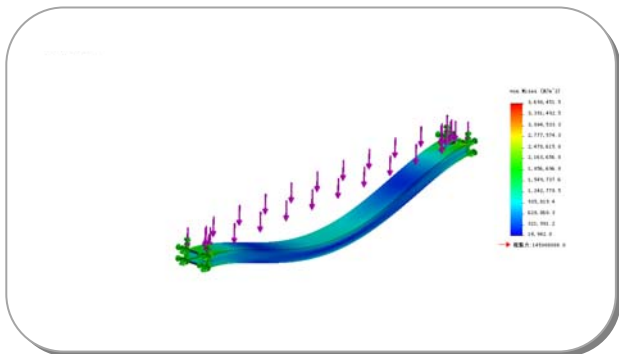
**Ground Mounting System I Installation Manual**



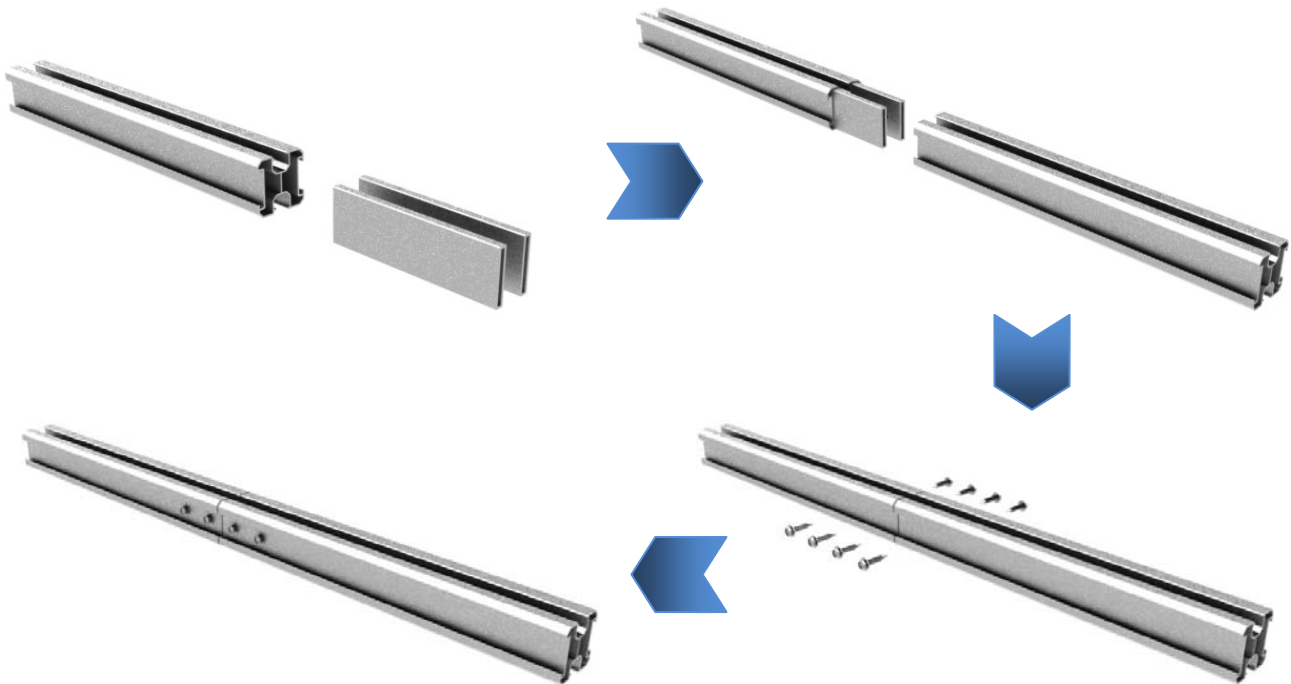


**Thank You For Choosing AIMS Power!**

**1. AIMS Power is a leading supplier of solar products, specializing in PV mounting systems. We have experienced engineers and strong production and processing capacity. We ensure our products are manufactured to stringent standards, guaranteed you receive the highest quality products at the most competitive price.**



2. AIMS Power's innovative assembly method is fast, convenient and secure. Attach clamps and brackets to rails in one motion with ease.
3. Using the special splice kits to connect the aluminum HD rails allow for easy installation. Rails can be extended indefinitely improving efficiency and reducing the overall cost of labor. Splice kits may be fixed to the top or side of the rails.



4. AIMS Power Ground Mounting System is preambled for large scale commercial and utility scale installations. The Ground Mounting System has been designed to fit all PV modules. Using high quality engineered components the Ground Mounting System saves installers time and money when deploying large scale projects.



**5. AIMS Power has selected to use 6005-T5 Aluminum for all of our aluminum products and SUS304 stainless steel for all of our tile hooks, bolts, nuts etc.**

**6. Our designs are compliant with the following standards:**

**GB50009-2001**

**GB50011-2001**

**GB/T 13912-92**

**GBT 14846-2008**

**GB-T 6892-2006**

**GB50429-2007**

**GB50017-2003**

**AS NZS 1170**

**ASCE/SEI 7-05**

**ASCE/SEI 7-010**

**2007 California Administrative Code**

**IBC 2006**

**Euro Code 8**

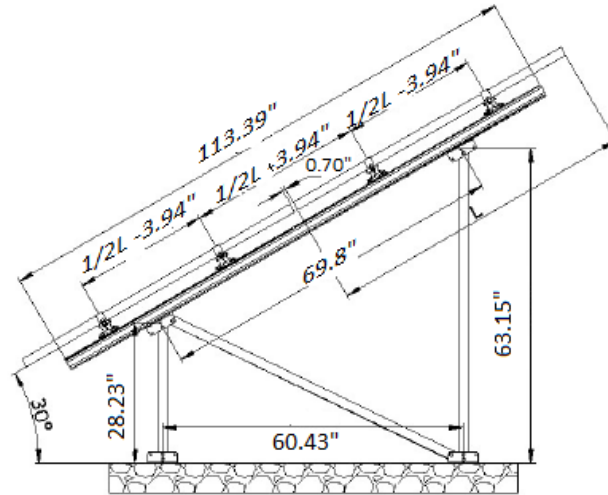
**DIN1055**

**EN 1991-1-3 - Snow Load**

**EN 1991-1-4 - Wind Actions**

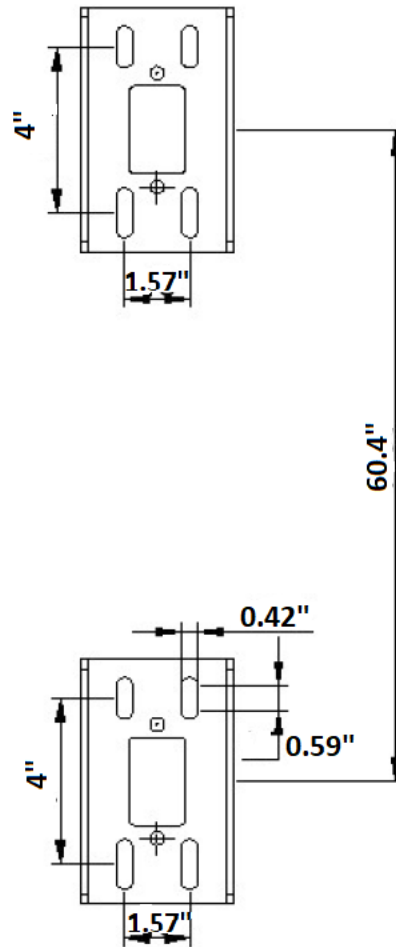
**7. Our strong production processing capabilities make it possible for us to offer competitive pricing and fast delivery. We can supply most of our products within short time frames. We also have the ability to customize products according to clients' requirements, as well as being able to provide OEM services.**

## Planning the array layout



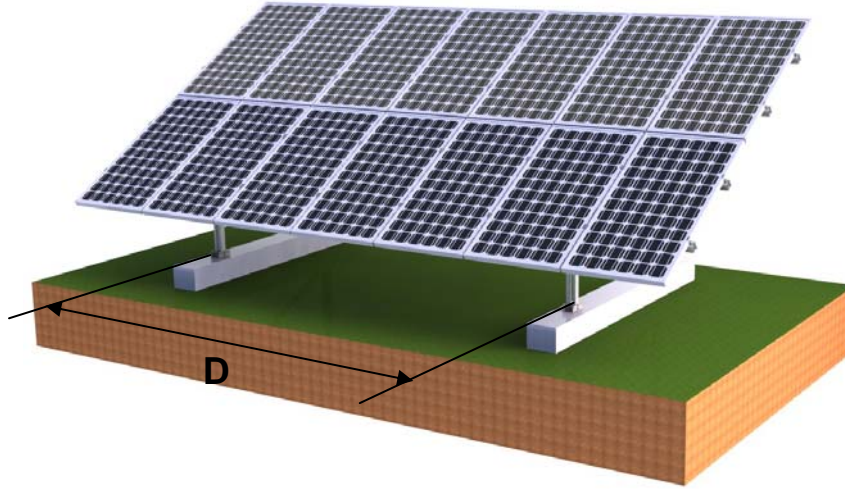
**L=Solar Panel length. Aims Ground Mounting System I is compatible for panels up to 70.87" long.**

## Base Dimension:



Using M10 Grade 5.8 Carbon Steel anchor studs with Ramset Chemset REO502 chemical injection anchoring system. Minimum anchor embedment depth of 3.54 inches with concrete strength of 32MPa.

**Maximum spacing between legs:**









Wind Zone	A	B	C	D
Wind Speed(m/s)	43.4	53.0	65.2	81.7
D maximum spacing(mm)	2850	1880	1255	795

Following design criteria has been used for the structural verification.

Design Life	25 years.
Importance Level	Type 2: Ordinary.
Annual Probability of exceedance	1/250.
Terrain Category to AS1170.2	2.
Service Deflection	Not limited.
Maximum Pitch	30 degrees.
Aluminum Rails	6005 - T5.
Maximum size of Solar panels	70.87"x39.37"

## Components List

NO.	Product Name	Picture	Material	Remark
1	HD Rail		AL 6005-T5	
2	End Clamp		AL 6005-T5	Includes: a. one piece of A2-70 M8 Hexagon screw b. one piece of aluminum fixing nut
3	Mid Clamp		AL 6005-T5	Includes: a. one piece of A2-70 M8 Hexagon screw b. one piece of aluminum fixing nut
4	HD Rail Clamp		AL 6005-T5	Includes: a. one piece of A2-70 M8 Hexagon screw b. one piece of aluminum fixing nut
5	pre-assembled Leg		AL 6005-T5 & SUS 304	
6	HD Rail Splice Kit		AL 6005-T5	Includes: a. four pieces of $\Phi 6.3\text{mm}$ Stainless steel self-tapping screws

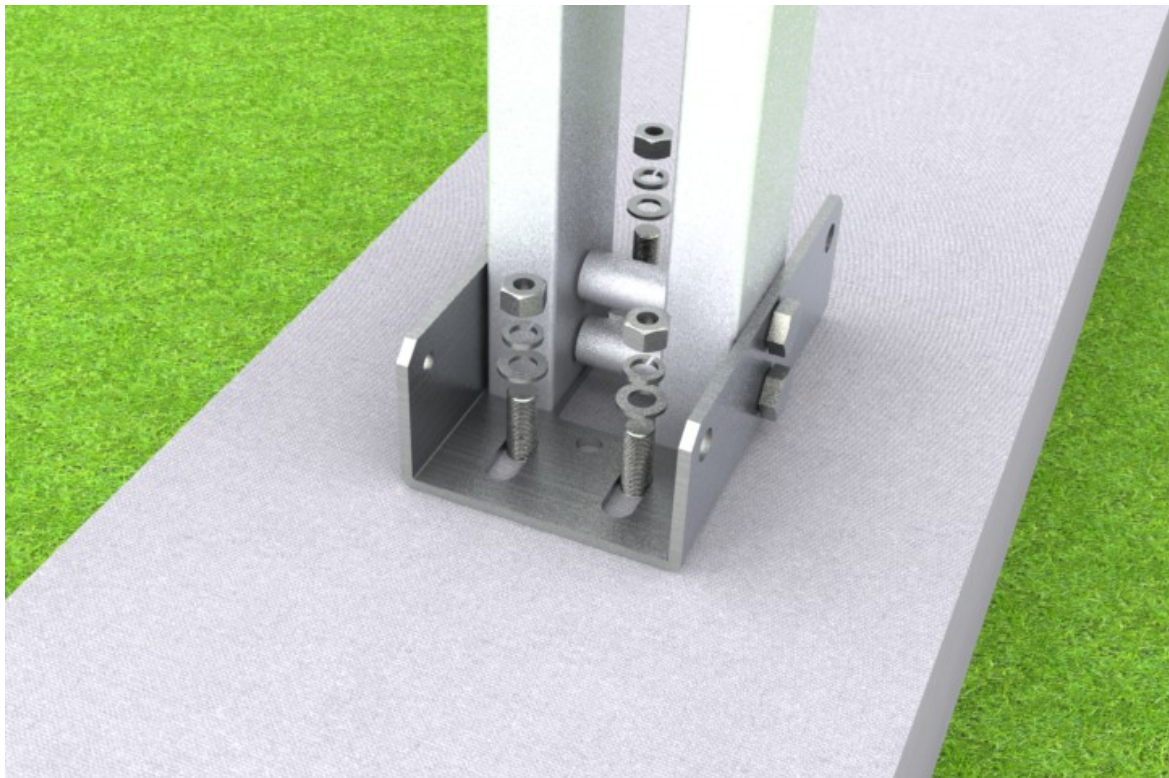


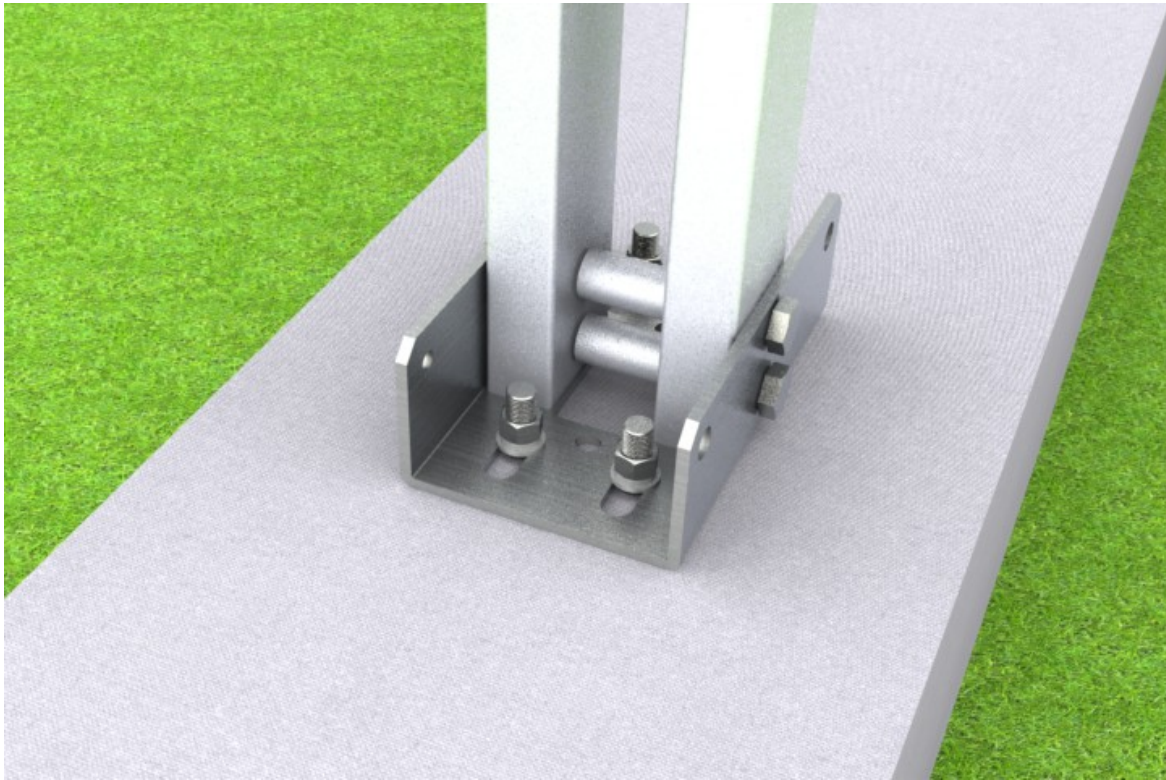
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## Installation Steps

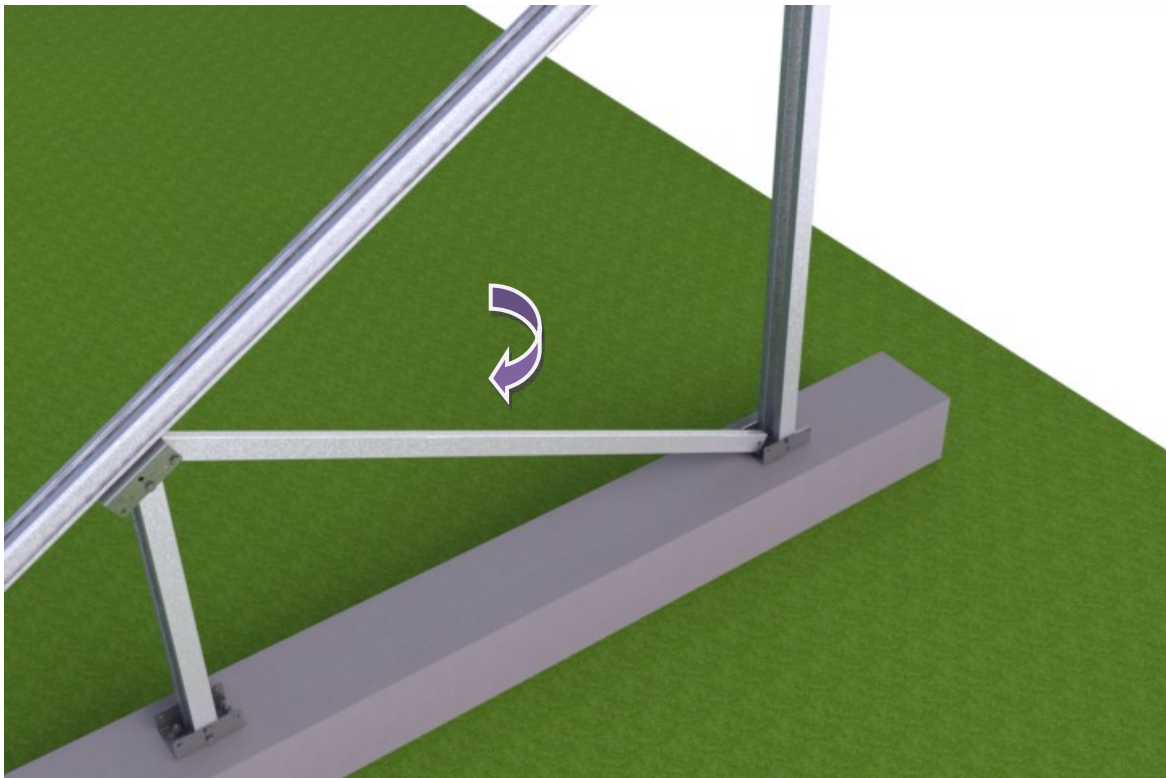
1. Unfasten the pre-assembled front leg, rear leg and connecting tube from the support structure. Fasten the base of the legs to the pre-prepared anchor bolts. Tighten anchor bolts to secure.

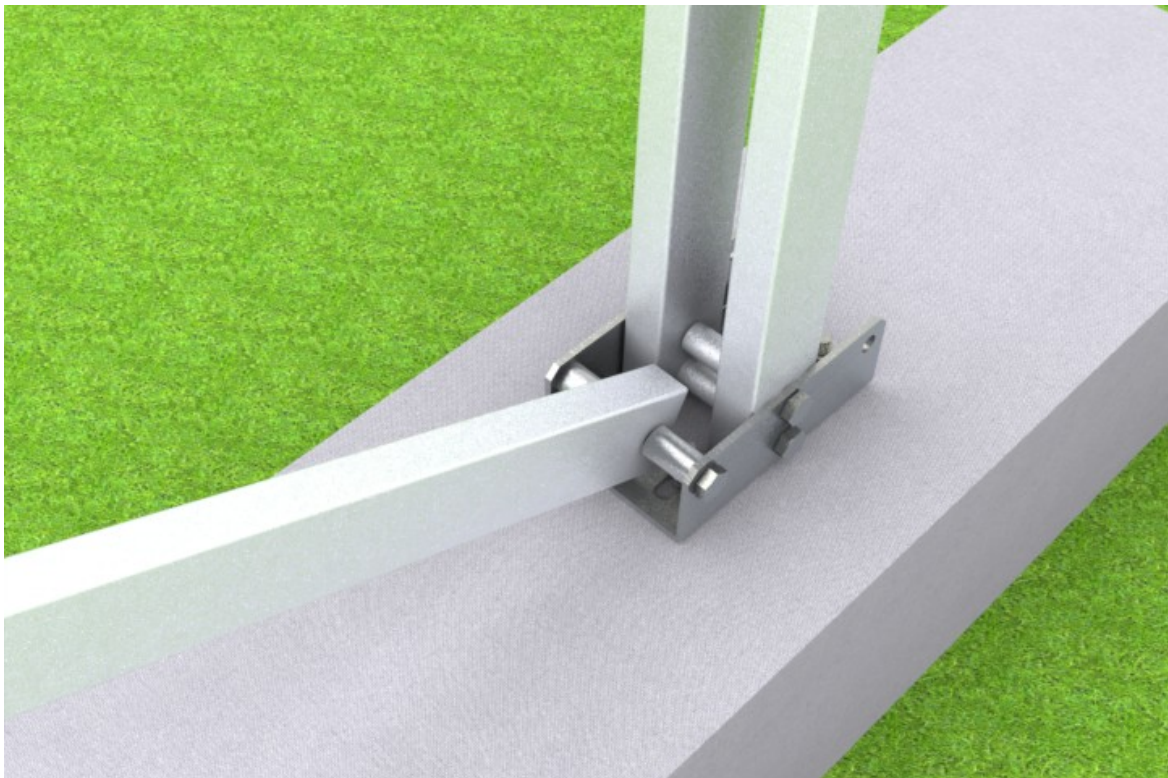
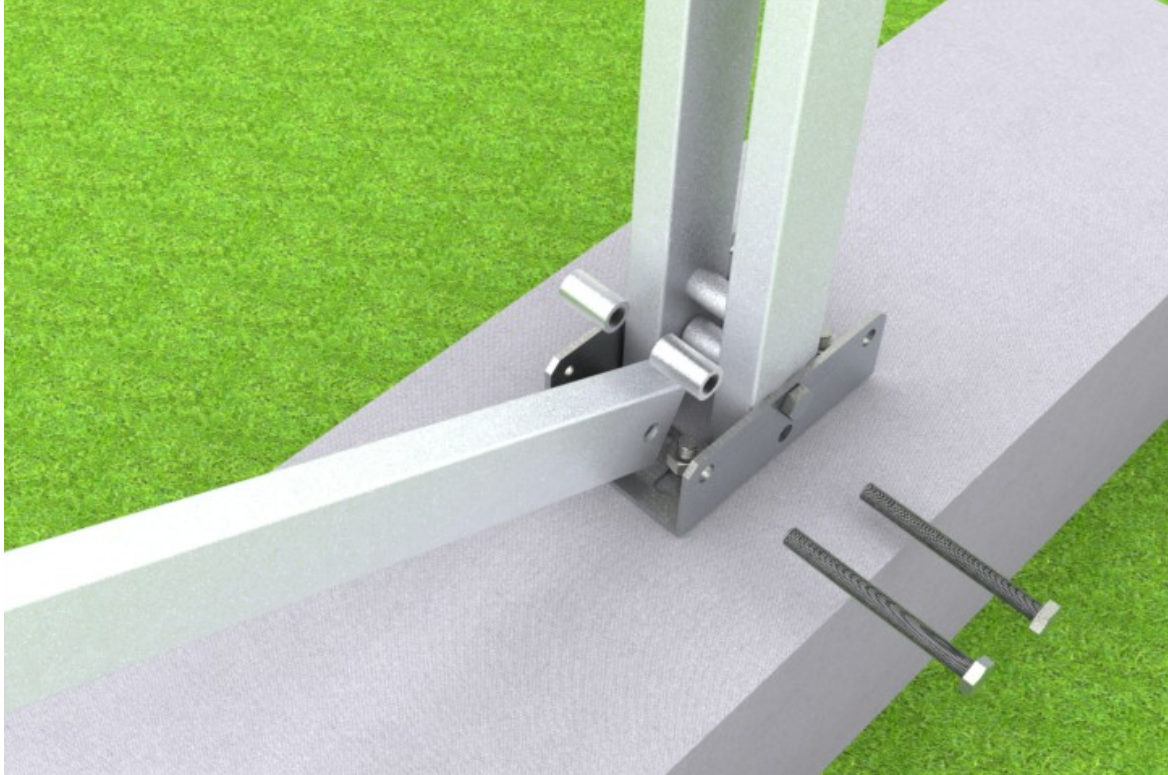


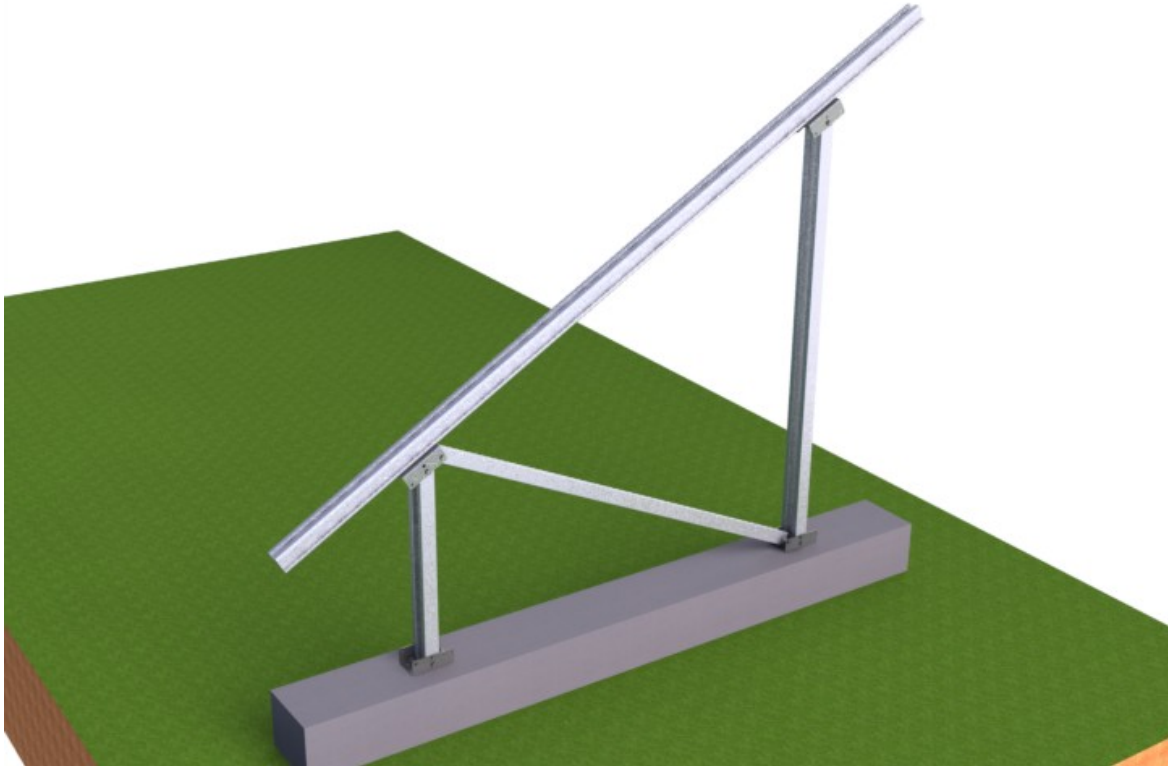




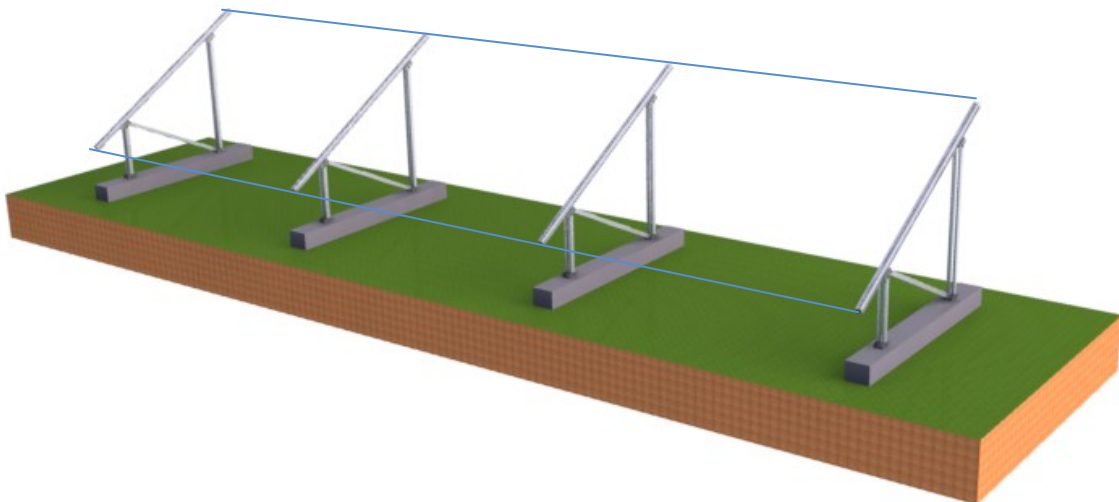
2. Place the connecting tube within the rear leg's stainless steel base. Place the aluminium spacers on each side of the connecting tube and fasten with the supplied bolt and nut.



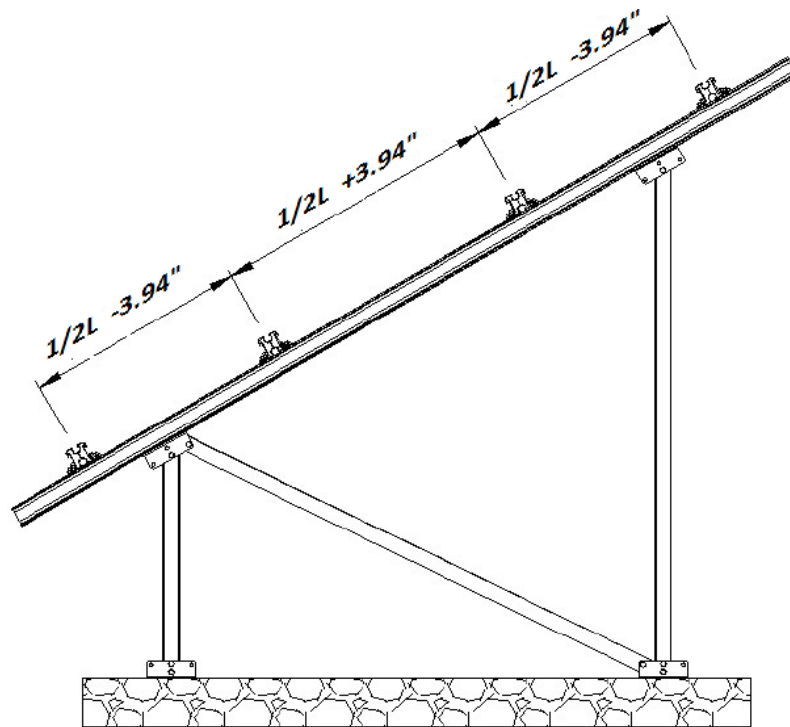




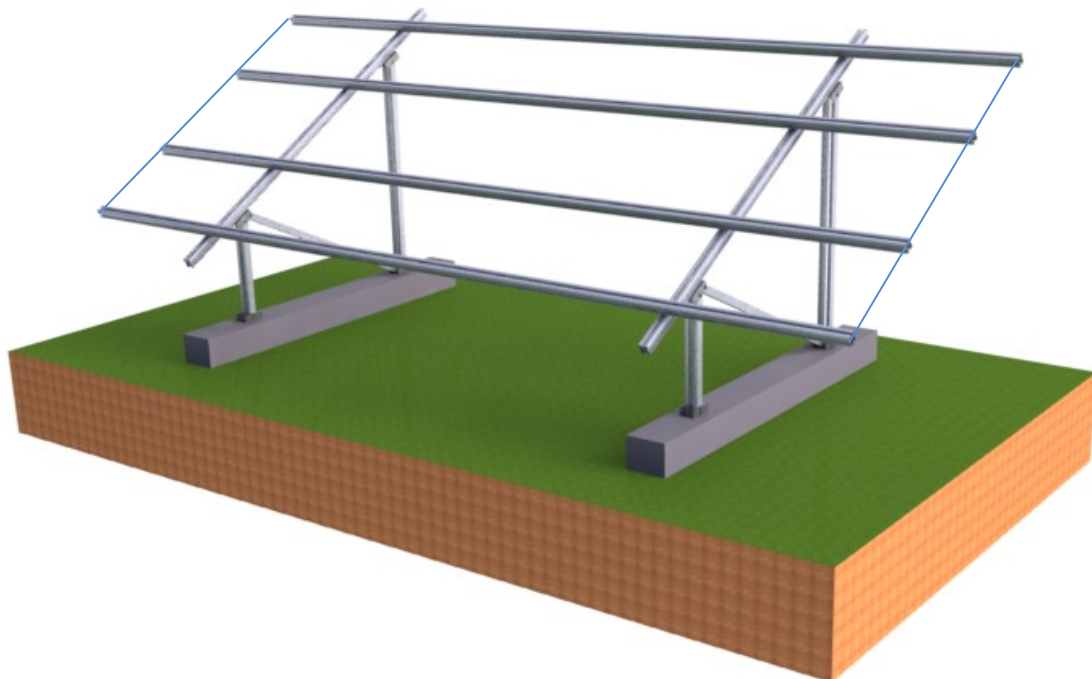
3. Repeat the above operation in accordance with the planned array layout. It is important to ensure that the beams are kept in line with each other.

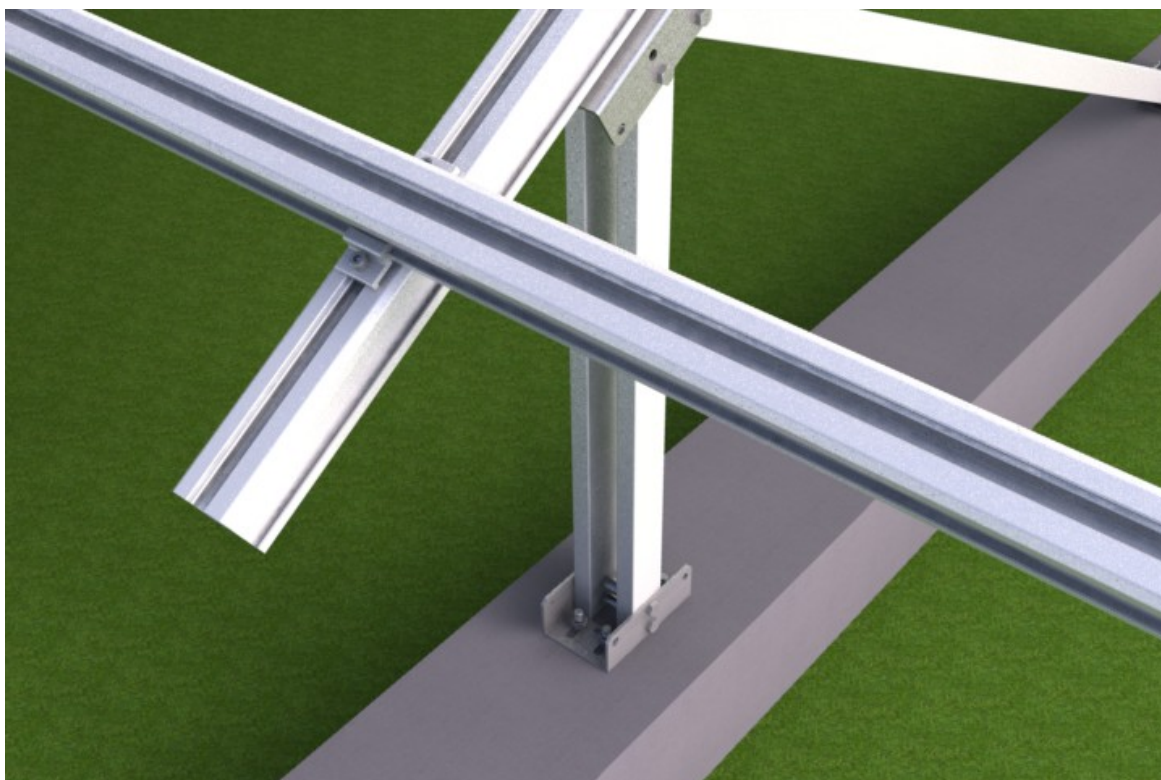
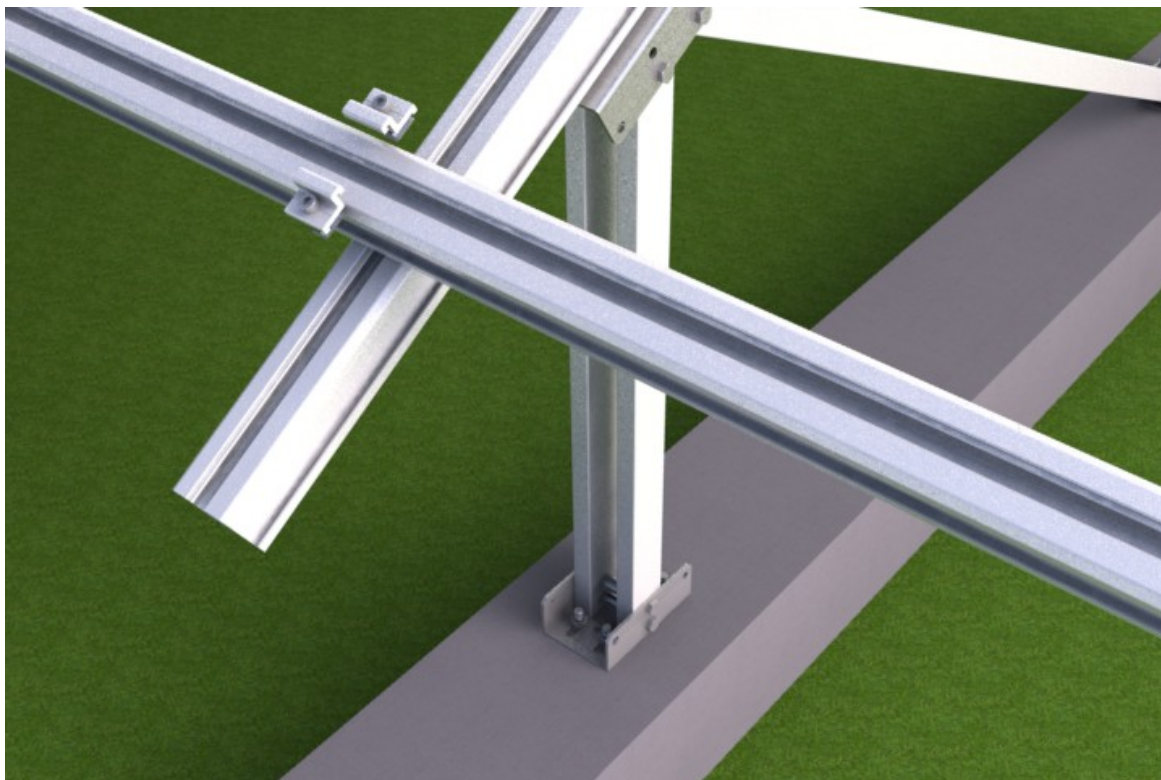


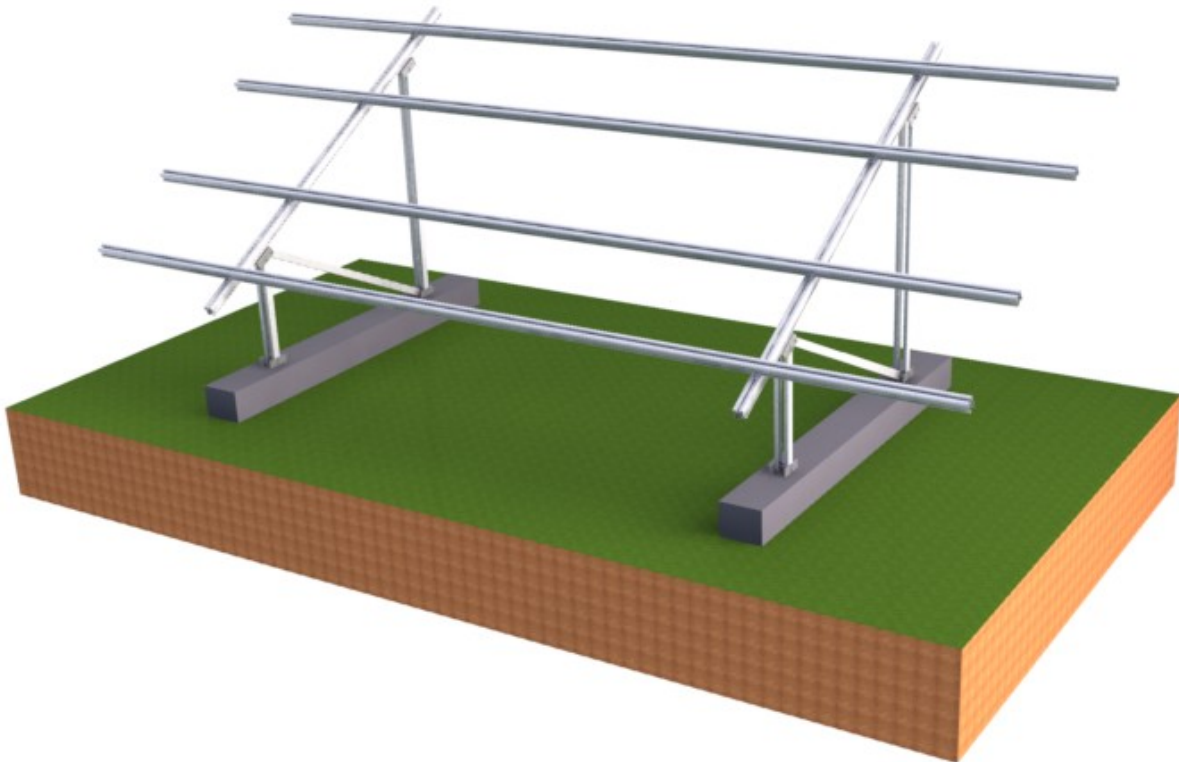
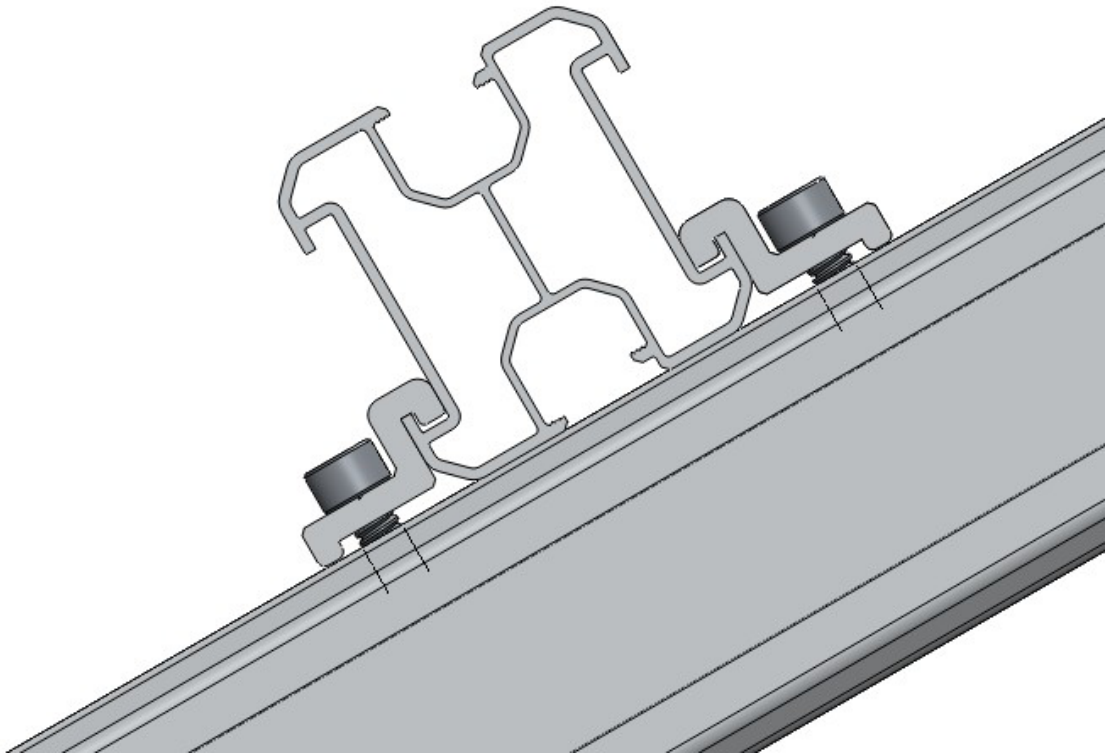
4. Before installing the HD Rails, mark the position of the rails on the beam. To assist installers, the bottom rail clamps are pre-assembled in the recommended position. Adjust as required.  
L=Solar Panel length.



5. Place the HD Rails on the Pre-assembled Support, adjust the HD Rails to ensure that they are in line. Tighten both HD Rail Clamps to secure.

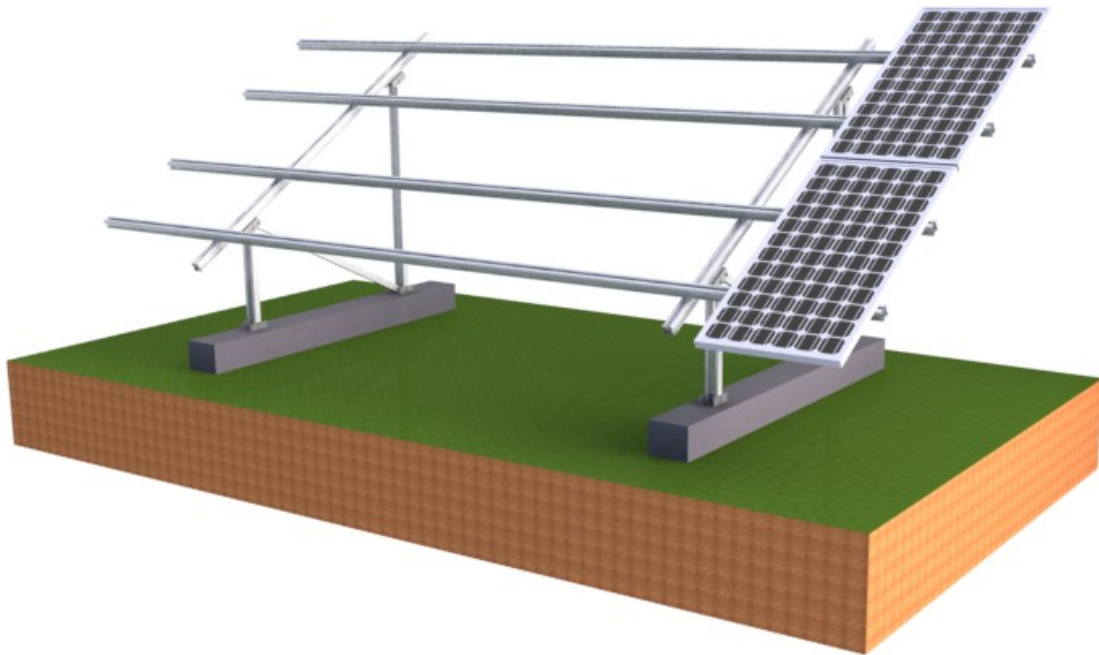




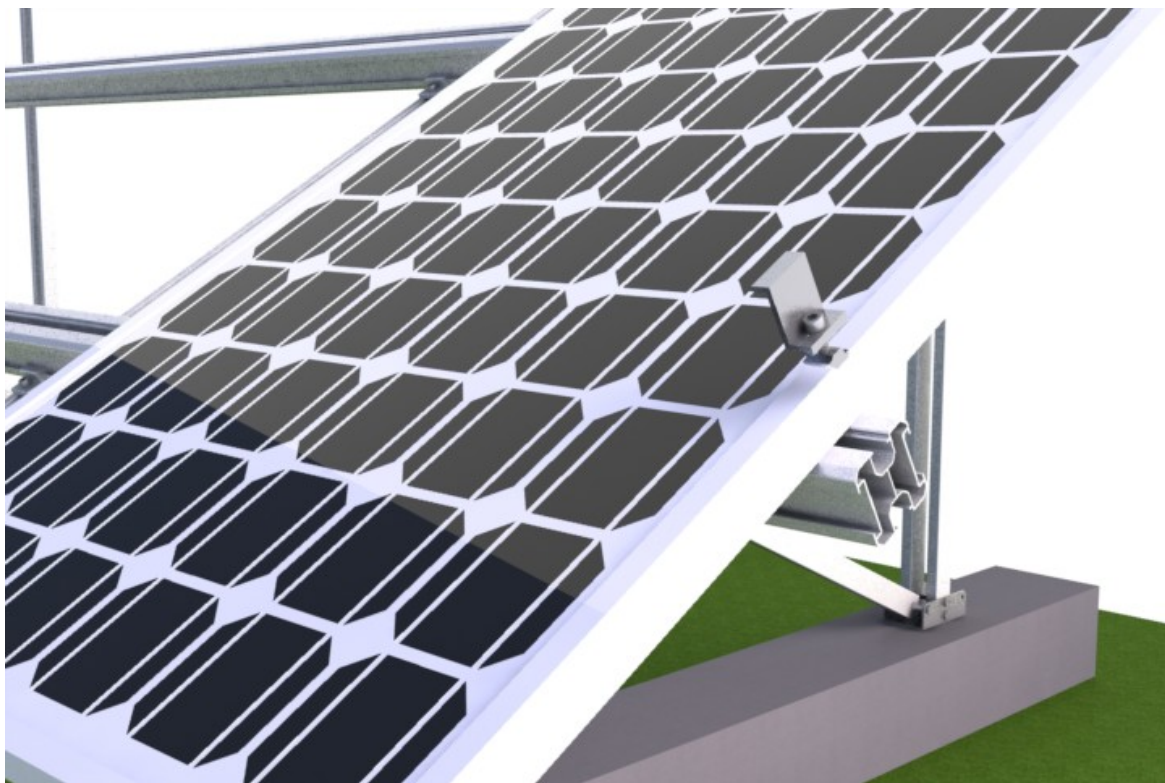


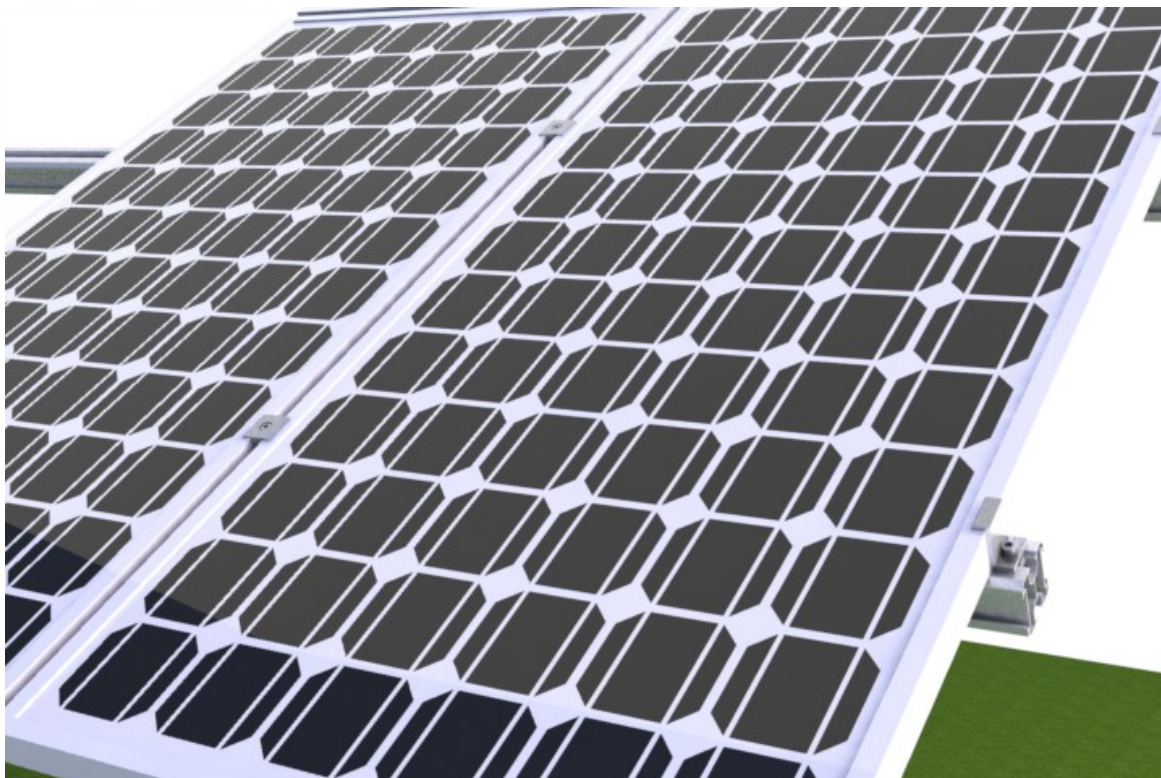
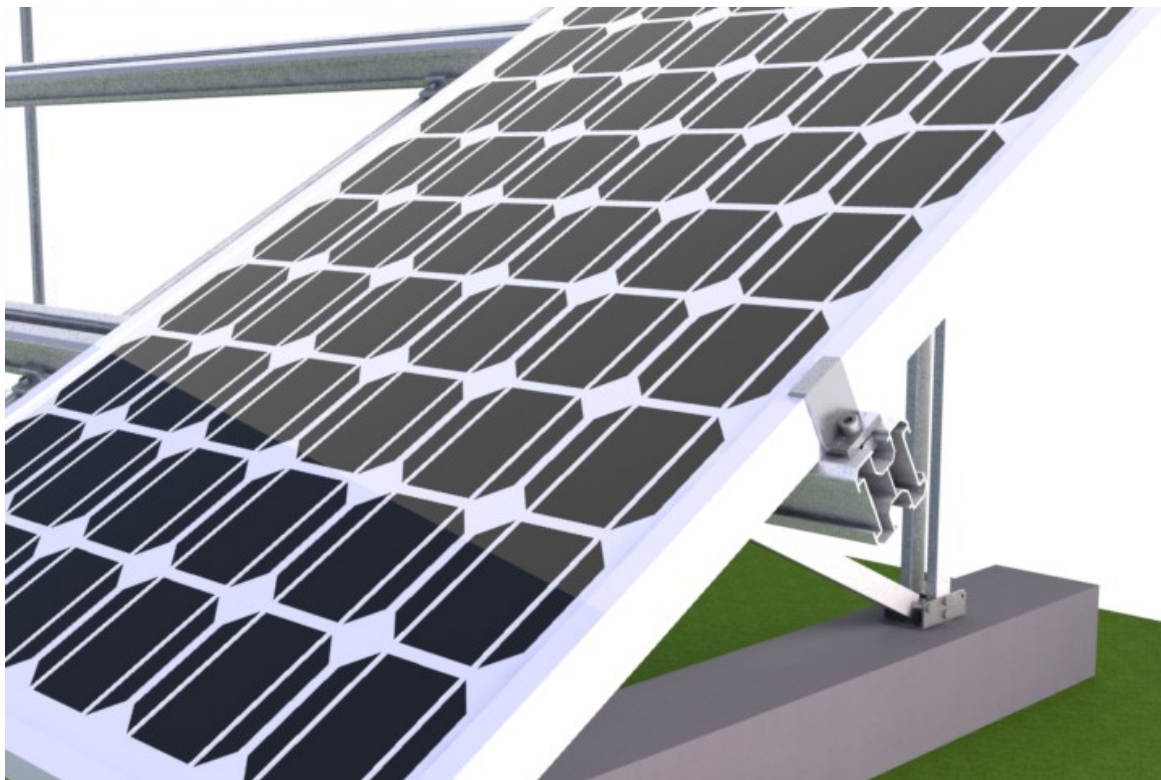


**6. Place solar panels on the HD Rails.**

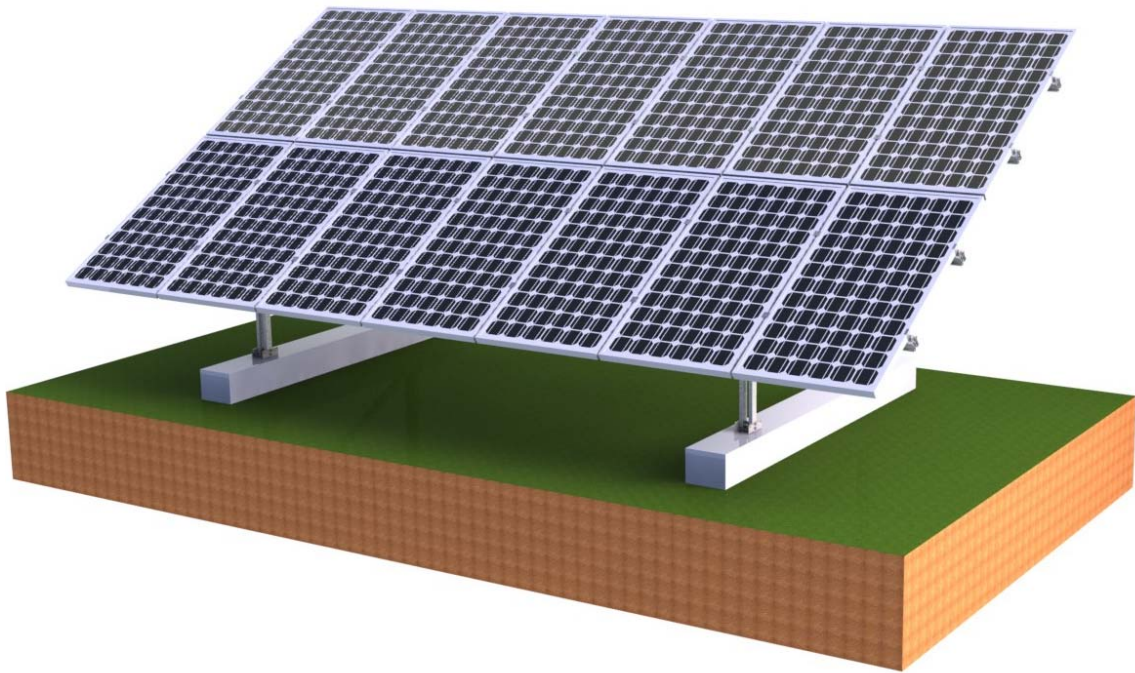


**7. Use end clamps with, M8\*25 Hexagon screws and fixing nuts to attach solar panels to the rails. Adjacent solar panels are attached by using mid clamps with M8 Hexagon screws. (The hexagon screw length is determined by the solar panel's thickness)**





8. Repeat steps until installation is completed.



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