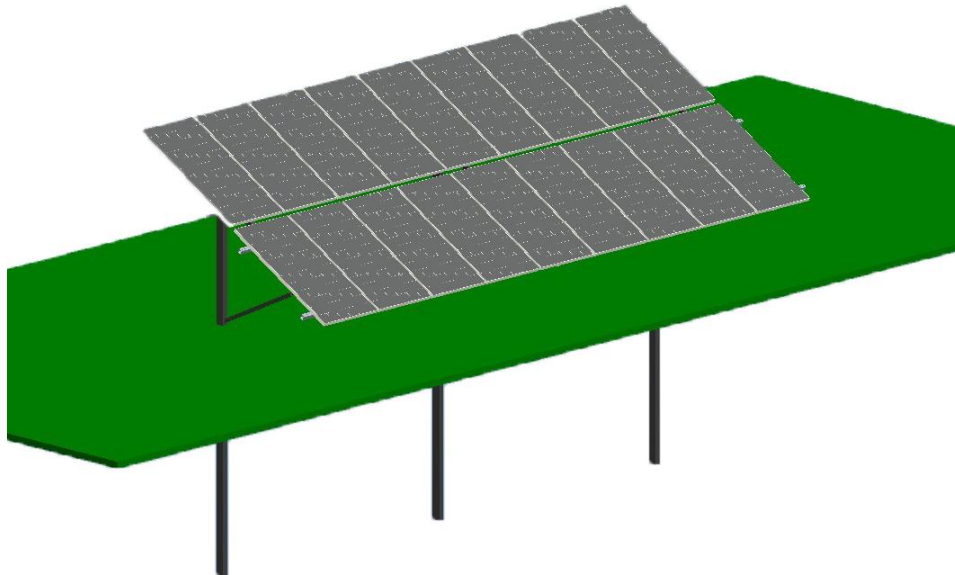




SPAS Mount Installation Manual



SPAS Mount is used for an open terrain environment and can be installed on a large scale. Taking environmental factors into consideration such as wind, snow, etc., the SPAS Mount is built with high quality, durable materials, which guarantee an extended product life-cycle. Pre-assembled parts allow for quick and easy installation.

The major components utilize are made from hot-dip galvanized steel. The connection components are made from stainless steel, which helps ensure an extended product life-cycle.

SPAS Mount features:

- * Well-designed according in accordance with SAP2000.
- * Cost effective and highly durable.
- * Maximizes flexibility utilization of U-bolts eliminates the limitation of installing solar modules with rectangular rails.
- * Abrasion and corrosion resistant, made from hot-dip galvanized steel.
- * Pre-assembled support units save installation time.
- * Suitable for any type of solar module.

Installation tolerance:

Lateral post placement is ± 2.0 "

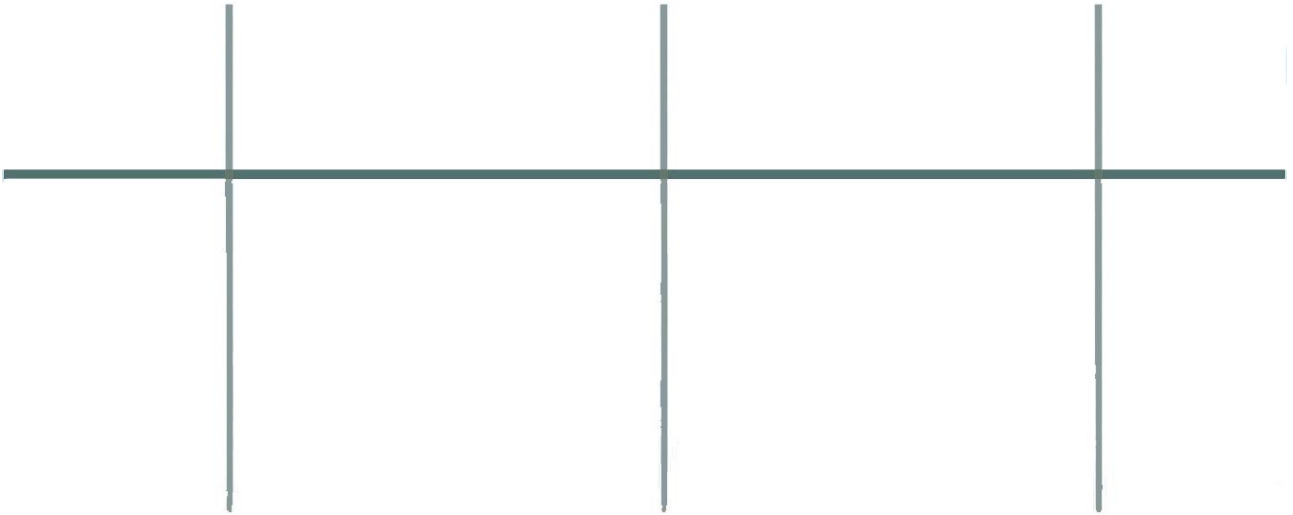
Total lateral deviation of posts within an array is ± 2.0 "

Post height variation tolerance is ± 0.2 "

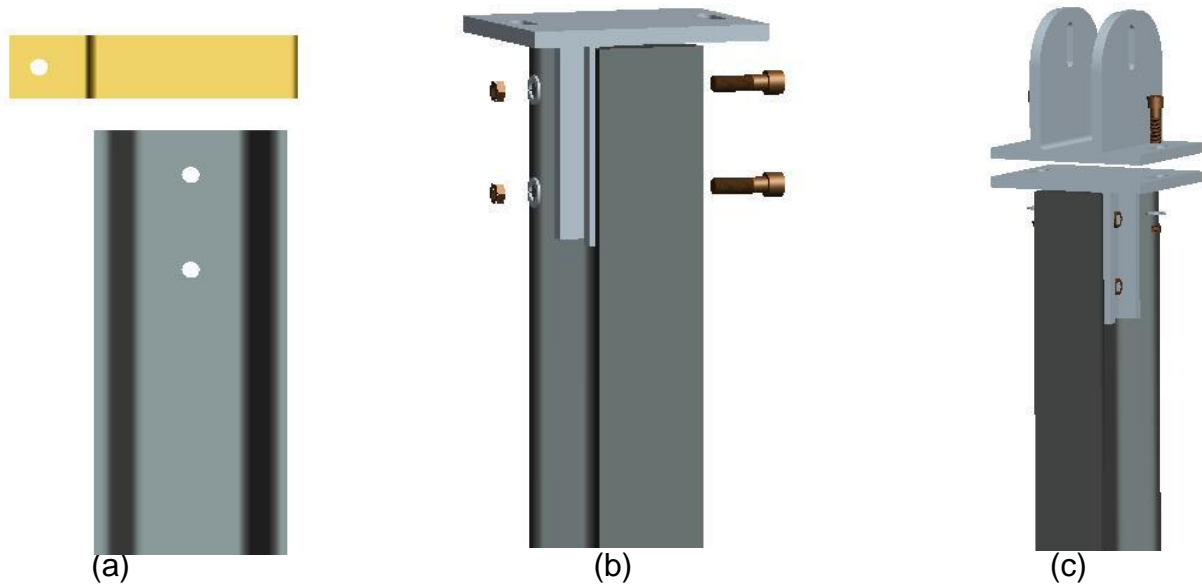
Post verticality tolerance is $<2.0''$ in all directions
Post rotation tolerance is $<\pm 2.0^\circ$
Array tilt angular tolerance is $\pm 0.5^\circ$

NOTICE: do not secure bolts to the final torque until the system is fully assembled.

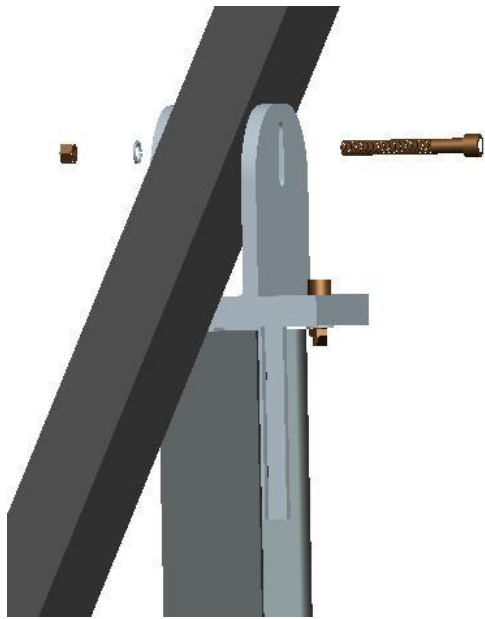
Installation procedures



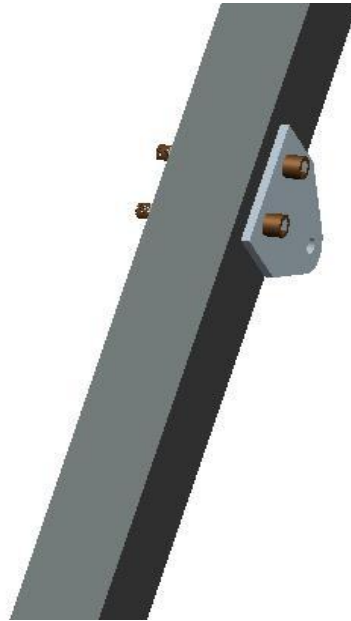
1. Install foundation posts. Due to varying terrain and environmental conditions, the installation procedures may differ.



2. Insert the strut shoe into the foundation post (a). Place the base console onto the top of the foundation post and fasten it (b). Put the head piece on the base console and fasten it with bolts (c).

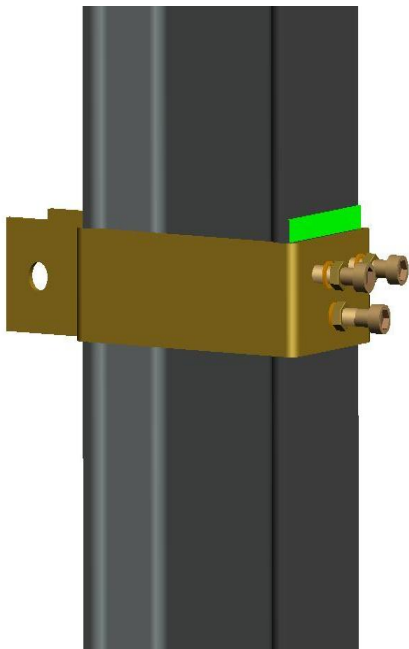


(a)

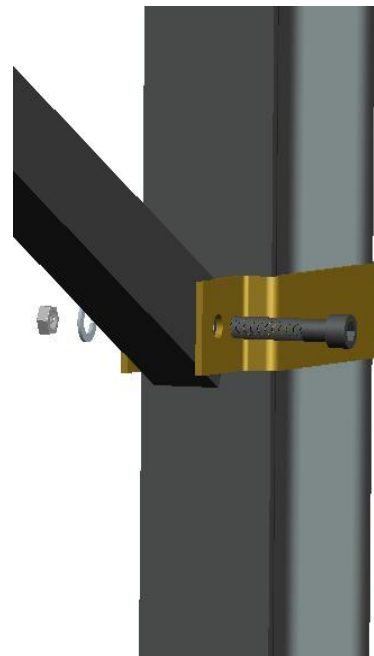


(b)

3. Fasten the girder onto the clamp of the head piece (a). Fasten the strut console on the girder (b).

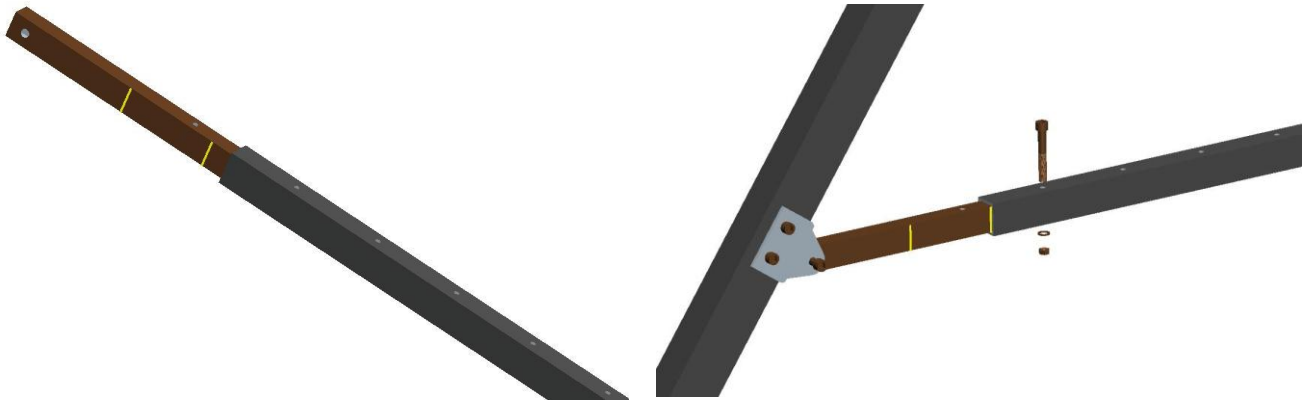


(a)

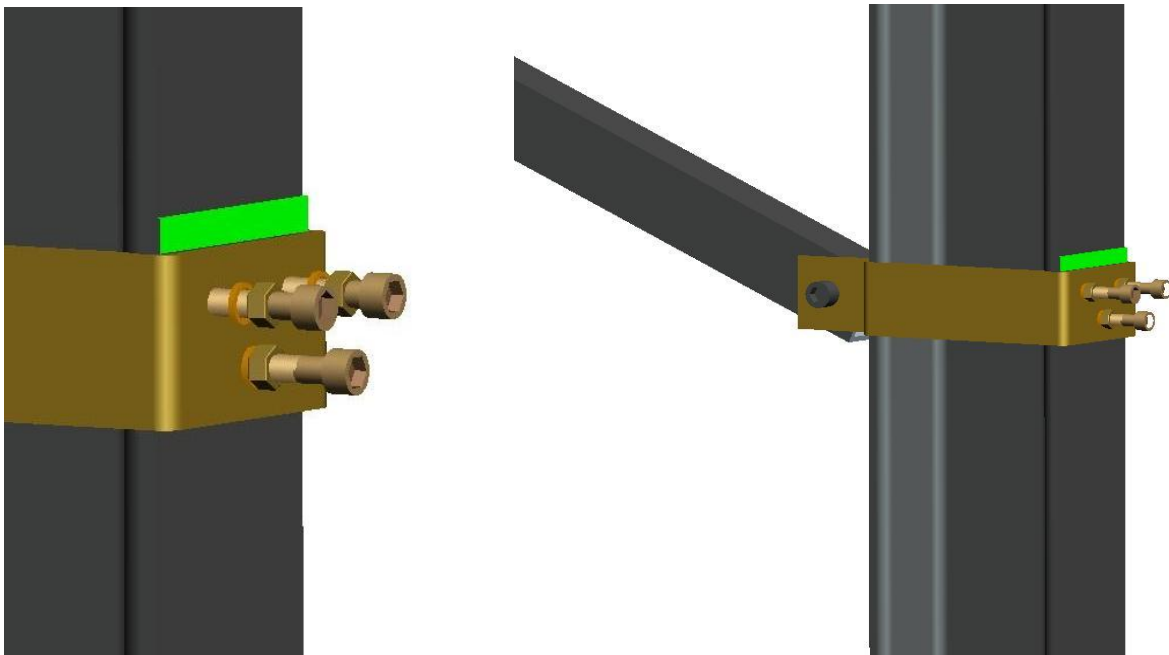


(b)

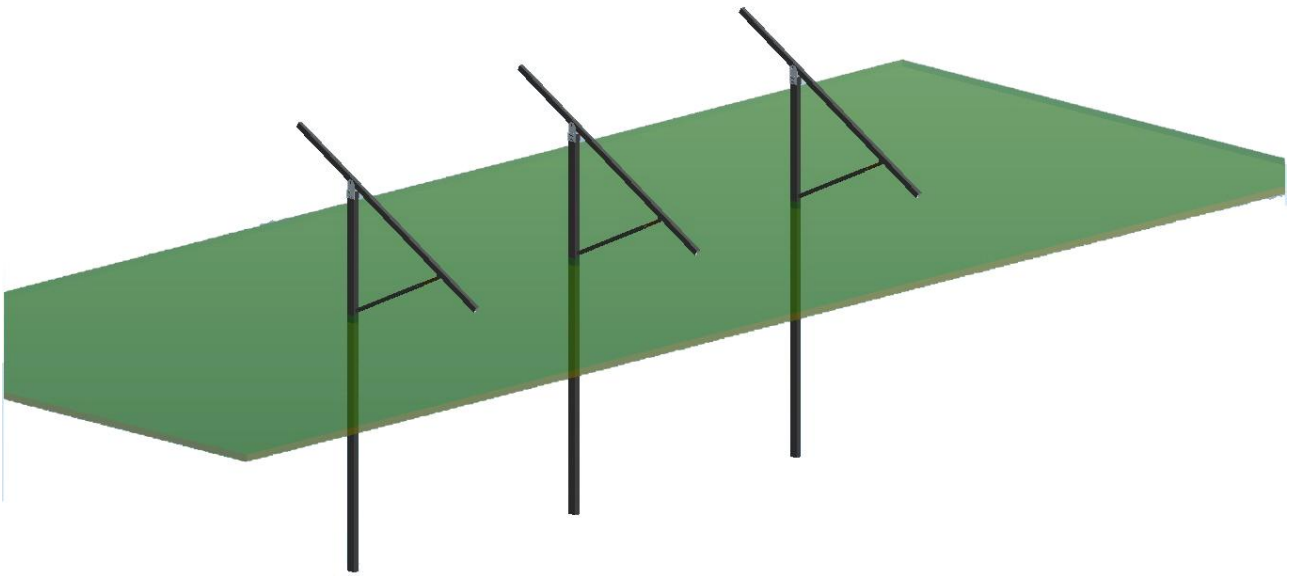
4., Fix the strut shoe onto the foundation post to at the marked position, do not fasten it (a). Place the big strut onto the strut shoe and fasten it with a bolt (b).



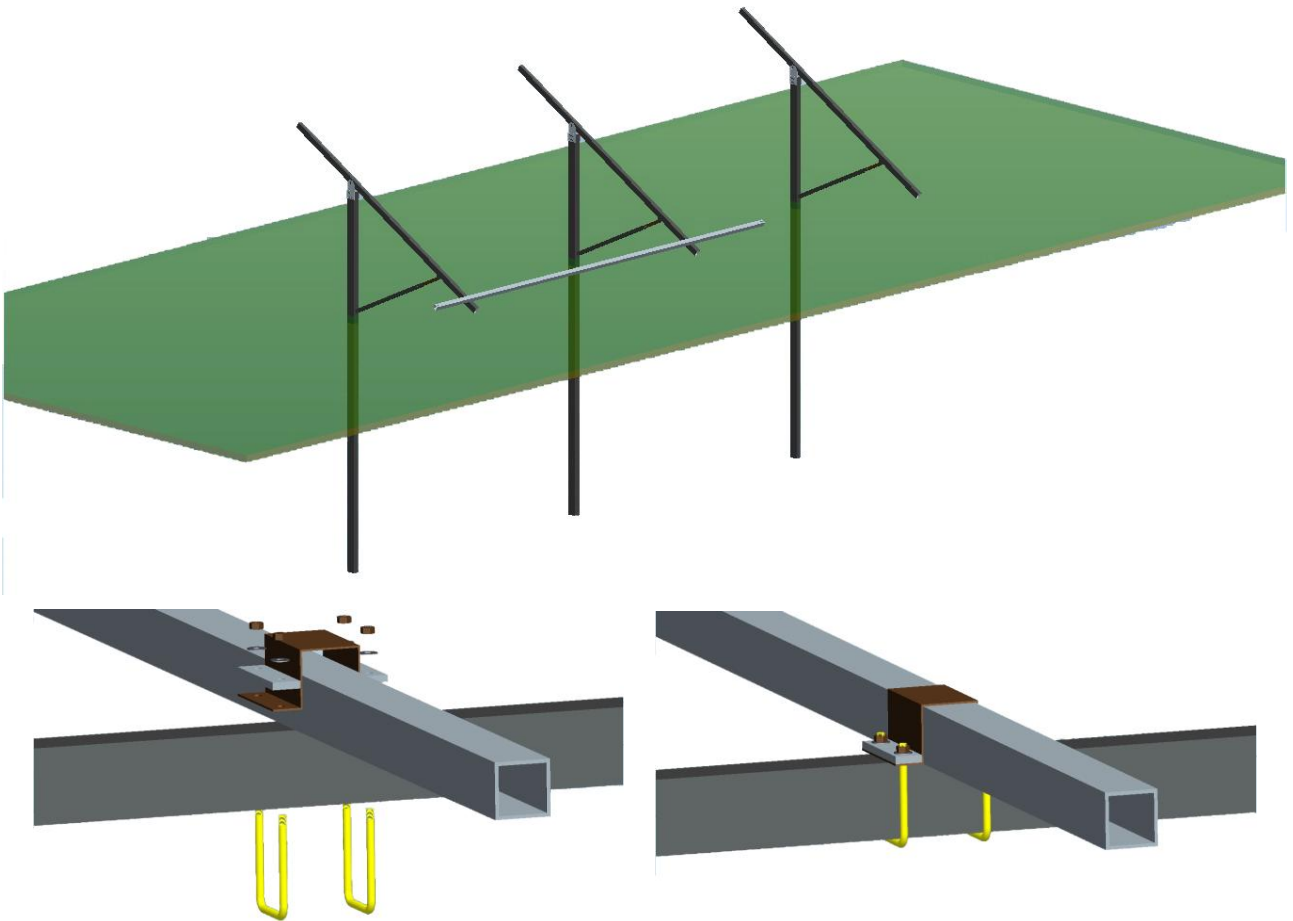
5. Insert the small strut into the large strut and fasten the other side of the small strut onto the strut console. Choose the mark showing the desired angle and insert a bolt into the hole on the big strut then fasten it. There are five marks on the small strut indicating different angles: 15°, 20°, 25°, 30° and, 35°. Choose the right angle that optimizes your system.



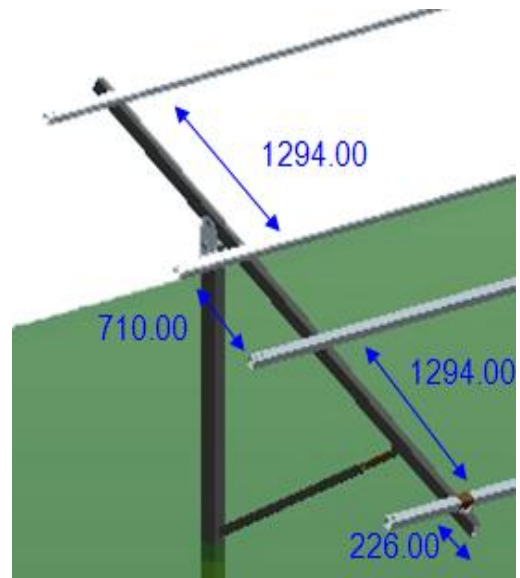
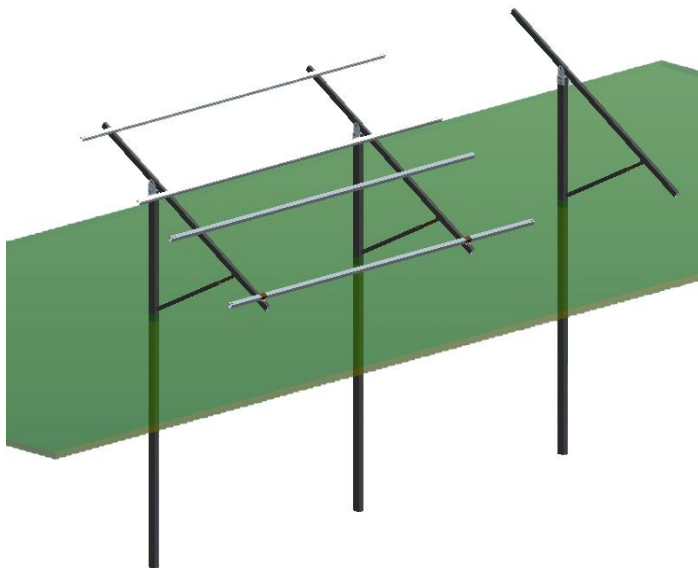
6., After installing the girder, strut and adjusting the angle, return to the strut shoe. Screw the bolt until it cannot be turned any further, and then screw the nut to press the spring washer onto the strut shoe firmly.



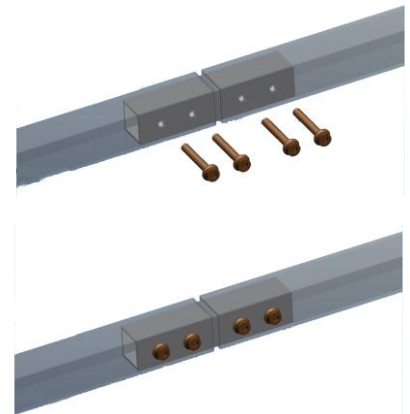
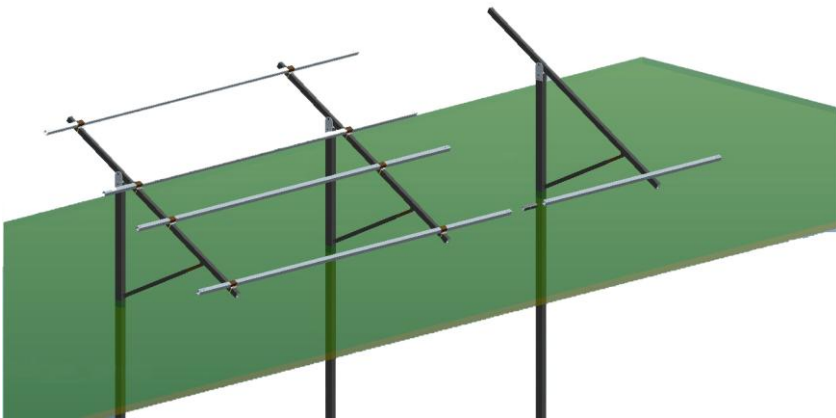
7. Repeat the above steps to install the other foundation posts.



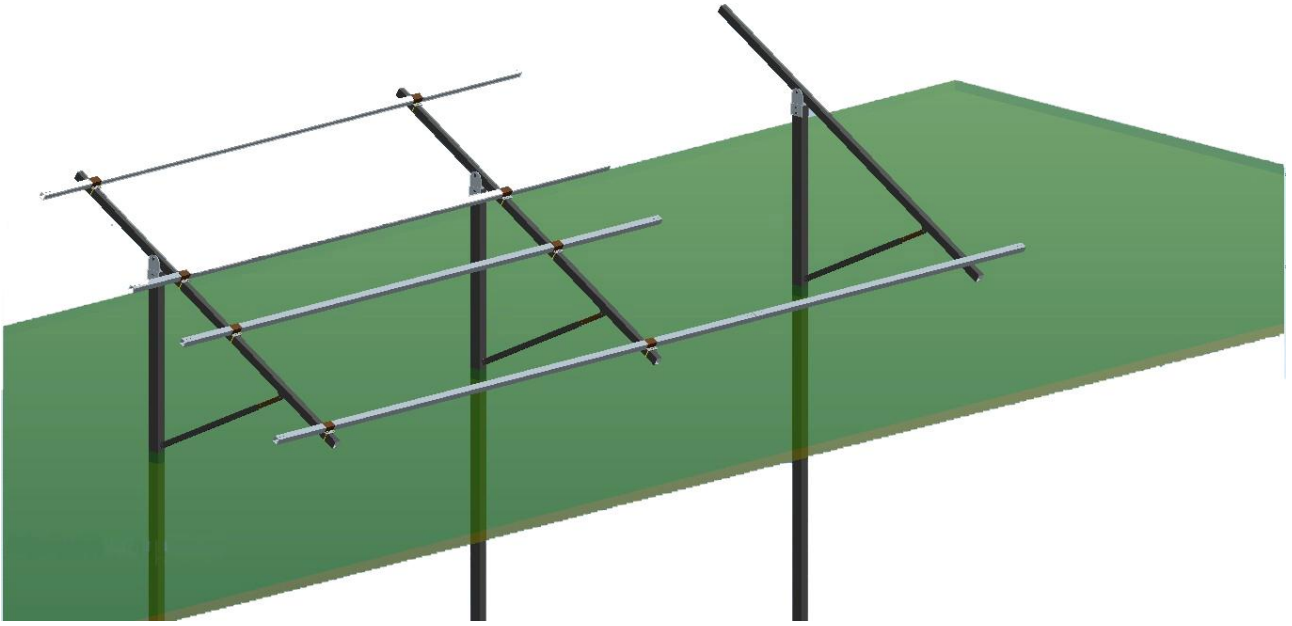
8. Secure a purlin onto the girders by tightening U-hoops and U-bolts (913501-110).



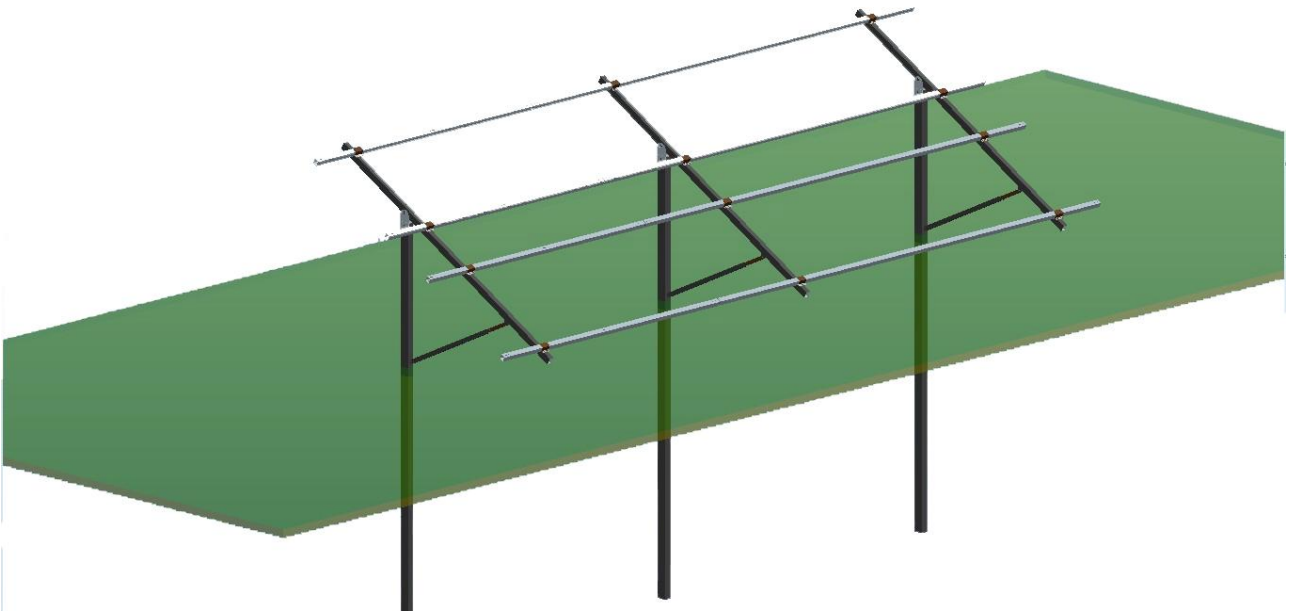
9. Fasten the other three purlins using following the same steps listed above. Distances between the purlins are shown in the picture to the right. (Distances are measured from the center of the purlins.)



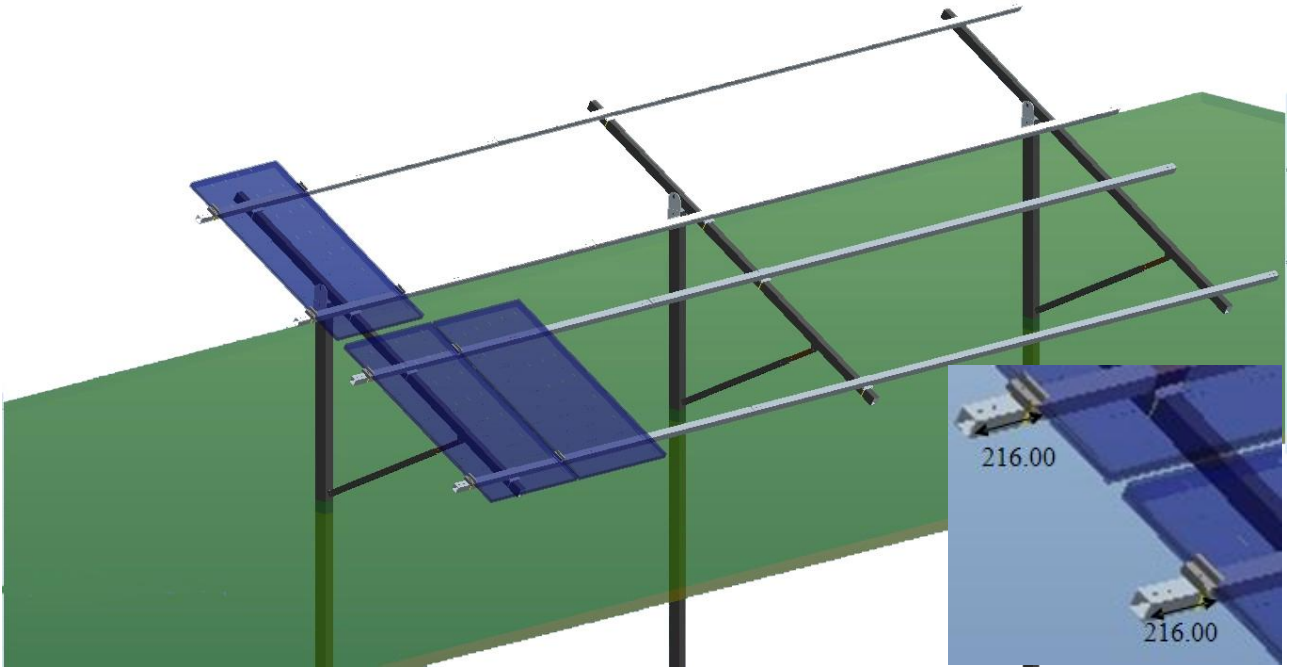
10. A splice can be used to expand this mounting system. First, insert the splice into one side of a purlin and secure in place with bolts. Then loosely attach a second purlin onto the girder. Connect the two purlins together and secure with bolts. A 10mm gap should remain between the two purlins.



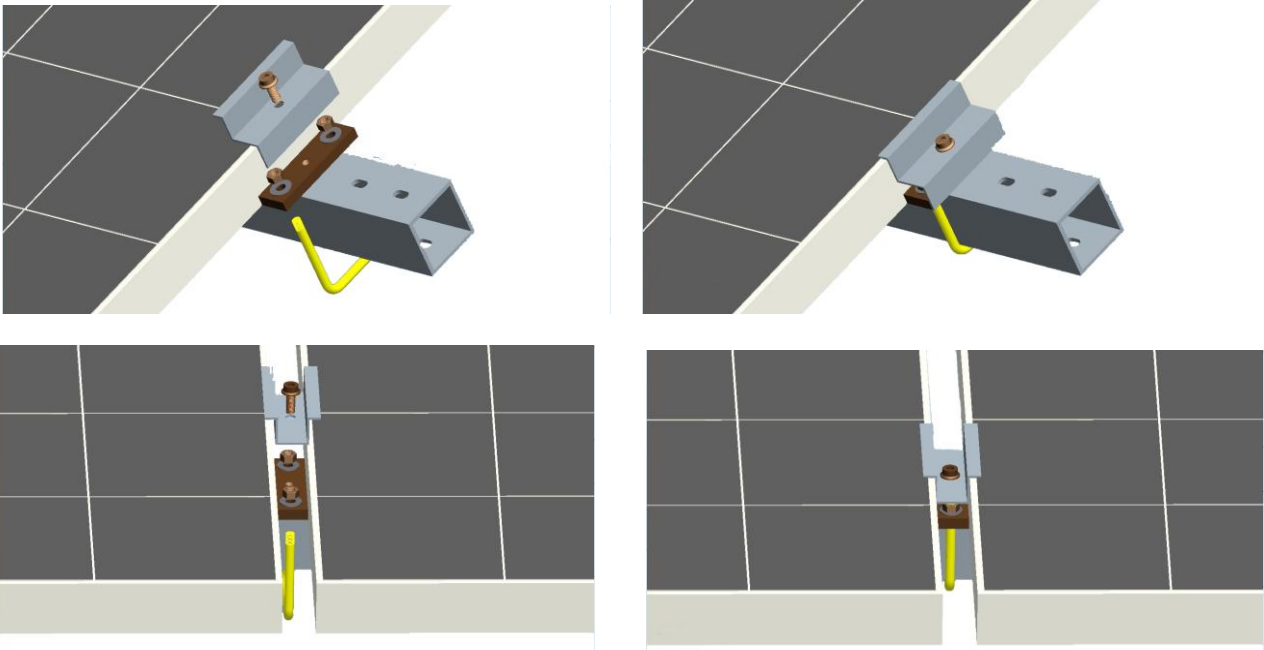
11. The two purlins are now connected.



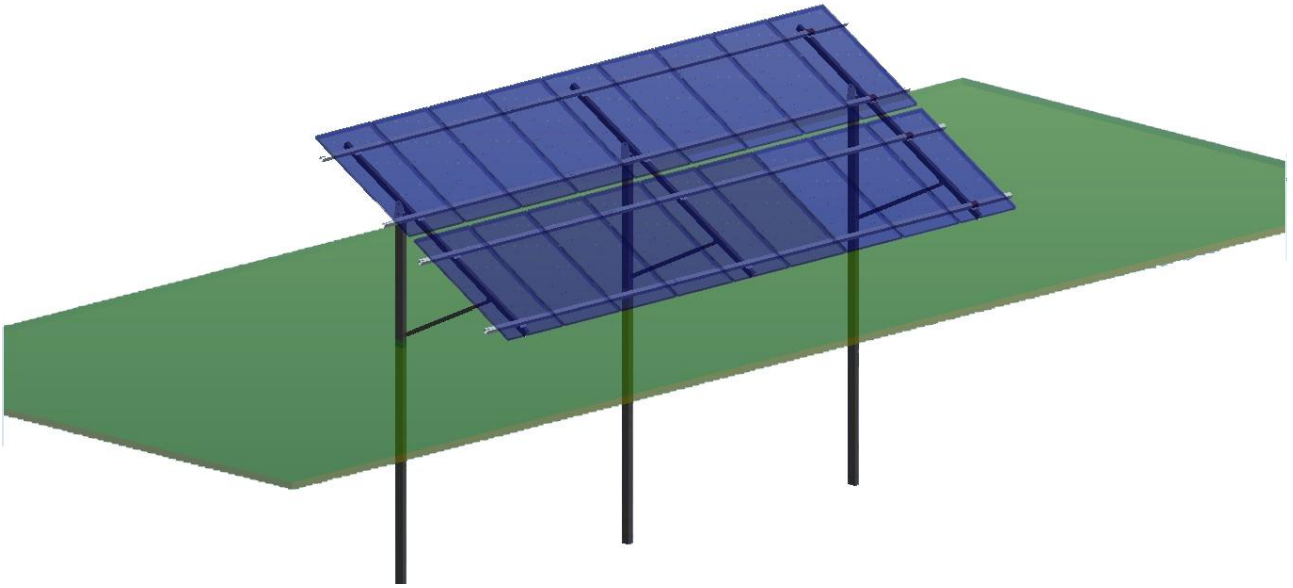
12. Secure and connect other purlins in a row with following the same steps as listed above.



13. Place the solar panels onto the purlins along with multi-plates, which will be fastened in place in step 14.



14. To secure solar panels: first, fasten the multi-plates with U-bolts (913501-088), then fasten the end clamps or mid clamps with flange bolts.



15. Attach all the other solar panels to the purlins with following the same steps as listed above.

Notice: there are six holes in the small strut, one is for the connection with the girder, and the other five holes are for setting different angles. There are five marks on the strut, please choose the desired angle before installation.

