

CSS Racking System

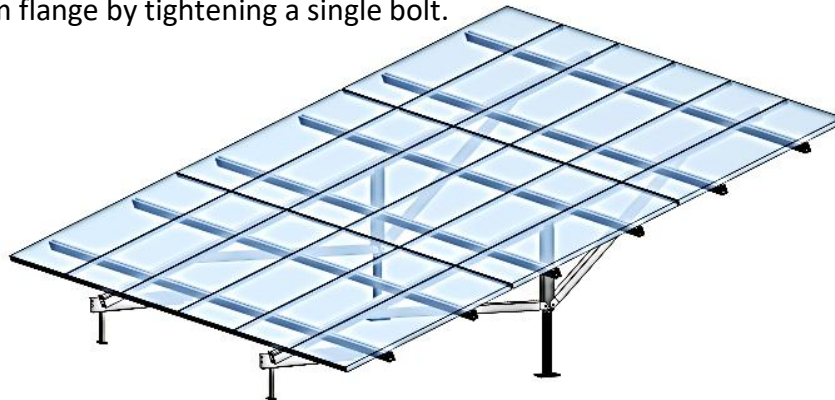
The CSS (Central Support System) Racking System is a long span racking system that anchors to the building's main beams (girders) and major secondary supports (purlins). This provides the following benefits:

- **Solution for attaching to weak roofs**
- **Reduces roof penetrations up to 90%**
- **Accessible for Re-roofing & servicing**
- **Almost the entire roof can be covered**



Solution for Weak Roofs – The CSS racking system provides a simple to assemble, versatile system spanning distances of 20 feet or more to anchor into the strongest roof beams. By anchoring into the roof girders the possibilities for roof mounted solar are open to many more commercial buildings – regardless of their age or construction. Even buildings that don't meet current load requirement standards can still incorporate solar.

Reduced Roof Penetrations – The CSS long span racking system can reduce the number of penetrations to as little as one for every 12 modules. In addition to the cost savings of fewer sealing penetrations, the owner will have a more trouble free roof life. Any type of main beam including wood beams, steel beams, and open web joist beams can be accommodated by the variety of CSS mounting options. The **SureGrip Claw** is an excellent choice for mounting to steel beams and requires no bolt holes – it just clamps to the beam flange by tightening a single bolt.



Re-Roofing Access – One of the CSS's most valuable features is its accessibility for re-roofing. The CSS has a tilt option that allows each array to be tilted horizontally so at there is a 4 foot clearance under the array for re-roofing – the height recommended by the National Roofing Contractors Association. The building owner doesn't need to wait until the roof needs to be replaced before installing a solar array. Taller versions of the CSS are also available to eliminate shadowing.

ISA Proposal Support – ISA provides plenty of proposal support to help move forward to a successful project. This includes a 3D design package showing the proposed array on the building. ISA can also provide structural guidance if the roof framing drawings are available. This provides confidence that the proposed system will work before beginning the project.

How to Move Forward

Contact ISA so we can help you begin the proposal and project efforts:

Provide us with the following:

- Size of the array – number of modules and module size
- Roof geometry including equipment on roof – or provide address
- Roof framing drawings – if available - so we can provide structural guidance

ISA then provides the following for the proposal:

- 3D Layout of solar array shown on specific roof
- Roof mounting locations – if positions and sizes of roof beams are known
- Preliminary structural review

ISA provides the following for the project:

- Complete Racking Assembly Drawings shown on Building for Permitting
- Roof Mounting Detailed Drawings for Permitting
- Project Specific Installation Instructions

Materials	6000 Series USA Manufactured Aluminum with 300 Series stainless steel fasteners
Weight	350 Pounds for 24 module array (60 cell) 0.85 pound per square foot
Warranty	20 Years
Standard Array Sizes (Other sizes Available)	18, 20, & 24 Module Arrays



CSS Rack



East-West Beam



CSS-90 Rack



North-South Beam