

Installation inspection and maintenance must start during construction. Failure to complete initial inspections will invalidate subsequent inspection data and may require undue maintenance.

1. Initial inspection during operation period

At least three locations should be identified during construction for repeat inspections during the service life of the installation, including one table or structure along the north row, south row and interior (or such other location that may experience higher exposure or abuse). Inspect these locations within one month of the substantial completion of the project. At this time, for friction connections, and after verification the specified bolt torque has been applied, the bolt head should be striped as shown in the picture below to set a baseline.



1. Mark of inspection bolt

2. Inspection during warranty period

Inspections shall be completed at a minimum of every year for the following components:

- a. Torque specified in original construction drawings on all friction connections (i.e., all connections that rely on clamping force between two surfaces without a positive stop).
 - Visually inspect friction connections with striping indicated above. If the orientation of the striping of the bolt, nut and structural component has deviated in any of the preset locations, employ the inspection process below.
 - If, at any maintenance inspection, measured torque for a connection is less than specified torque, re-torque that connection to specified torque, and check random sample of 50 of the same type connections. If the 10% or more of the connections do not meet the torque specified by Solarstem, implement a project-wide plan to check and re-torque that particular type of connection (e.g., cone point set crews). When re-tightening is required, make sure to refer to the original documentation that calls out torque and any special procedure if any exists.
 - If at any maintenance inspection any checked connections were found to have torque of less than their specified value, set the next maintenance interval at half the previous. (E.g., if torque values were low, set the next maintenance check for 6 months thereafter.)
- b. Visual inspection for corrosion that may affect structural performance.
 - Corrosion that can be wiped away is to be expected.

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- Red rust on more than 5% of total surface area.
- Localized corrosion resulting in loss of significant cross-section.

Note: Solarstem's components are made in aluminum and hot-dipped galvanized. Both materials will show White rust. Not corrective action is required.

- c. Visual inspection for plastic deformation or wear of components.
- Beam or columns that are permanently bend or deformed.
 - Permanent deformation of any clamps or connections.
 - Elongation of immediate area around bolted connections.
 - Significant misalignment or disjointed components.
 - Cracks in any profile.
 - Condition joints EPDM.

3. Notas adicionales respecto a la corrosión.

Solarstem uses pre-galvanized material on certain components. During the manufacturing process, the pre-galvanized material is thereafter slit or cut to length and drilled, such that the edges of such components are not galvanized. Those uncoated edges are expected to show red rust after limited outdoor exposure. Such corrosion does not affect the structural performance of the components. Solarstem does not warrant the cosmetic appearance of components for Steel.

4. Extraordinary inspections.

Inspections should plan immediately after a period of strong winds, snow or earthquakes.

Likewise in the case of repair or modification operations installation inspection should be performed to check whether the work has affected the structure.

5. Exclusions

These maintenance inspection requirements apply only to the installation structure. For solar, electrical, and grounding and bonding system operations and maintenance requirements, contact their respective manufacturer/installer.