



Ground Screw Considerations for All Land Types

There are important considerations for developers, EPCs, and asset owners evaluating ground screw options that include:

1 Design Options:

Various thread and material coatings help address different subterranean rock and soil acidity profiles. It is important to ensure that screws are sized correctly for all soil conditions such as rock, ledge, and frost-prone soils that can function for the design-life of the site.



Preventing Three Common Subsurface Risks



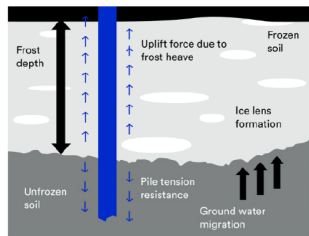
Refusals



Frost Heave & Frost Jacking

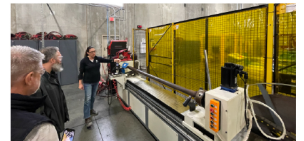


Corrosion



2 Manufacturing Options:

Few companies have the knowledge and scale to deliver cost-effective, US-made ground screws that comply with IRA Domestic Content provisions. Since ground screws are among the first components installed on site, manufacturing must focus on quality and lead time at scale to deliver shortened production schedules.



Every site is unique and demands a custom approach to long-term reliability. Asset owners increasingly are seeking longer design lives for their solar power plants. Understanding and managing corrosion of solar racking systems has become a critical factor when ensuring this long-term reliability, specifically sites located in coastal regions.



It's important to apply customized coatings to galvanize your system through a variety of tactics that mitigate underground corrosion and extend the life of your foundations. Corrosion experts will help you analyze, value-engineer, and manufacture a racking system that will deliver the life expectancy your asset owner is looking for.



Choosing a racking manufacturer that is highly automated with in-house processing lines helps to ensure the most cost-effective fabrication process across to custom build foundations and racking components for each individual site.



A safety-first approach with a manufacturing team that practices daily, weekly and year trainings are important to keep teams safe and uphold the products value during the creation and assembly process.

3 Racking System Integration:

Understanding the nuances of how screws and supporting structures are designed leads to a smooth installation process and operational life of a project. Ground screw designs must consider precise placement, torque, and field adjustability to avoid costly remediation.



The right solutions partner can seamlessly integrate ground screws with fixed tilt racking or single axis trackers. Take component compatibility out of the equation with a partner that owns the entire process.

- Compatible with fixed tilt racking that can accommodate up to a 36% slope
- Easily integrated with tracker racking that can accommodate up to a 20% slope
- Screw extensions allow for construction flexibility with east/west movability and vertical adjustments

4 Installation Considerations:

Some manufacturers produce and deliver the ground screws without a cohesive plan or the requisite experience for the installation. Successfully installing ground screws requires specialized equipment and know-how that is crucial when unforeseen challenges arise on a site. Refusal risks on rocky sites can derail schedules and budgets. Some manufacturers that include installation will own 100% of the refusal risks until they hand over the completed mechanical installation.

For seamless project execution, consider choosing one racking manufacturer that can complete the entire process from start to finish. Work hand-in-hand with one partner who can eliminate finger pointing and ensure a seamless process.

Project management

Surveying

Racking & Panel Installation



Scan here to learn more about the value of Terrasmart ground screws