

EQUILIBRIUM SOLAR ARTICULATING TOWER

eSAT

The Challenge

Providing solar power to communications & signaling systems in dark territories in a safe, cost-effective manner is a challenge. Solar-powered systems are necessary in dark territory to provide power to existing C&S systems as well as new PTC installations. The mounting systems for these solar-powered systems must allow for safe & rapid installation, easy solar panel adjustment, low maintenance and safe operation.

The Solution

Pillar Innovations developed the Equilibrium Solar Articulating Tower or e-SAT, to provide a safe, cost-effective mounting structure for use in dark territory. In order to meet a multitude of site needs, two models were developed: the e-SAT 2010 and the e-SAT 2005. Both models provide a 20' high centerline mast for the panel mounting, allowing unobstructed solar access and increased vandalism resistance. The e-SAT 2010-90 boasts 110 square feet of solar panel capacity, while the e-SAT 2006-90 and the e-SAT 2006-120 can support up to 55 square feet of solar panels.

Pillar's innovative articulation method enables a worker to lower the tower to ground level for maintenance and repairs utilizing only an 18v battery operated drill. "True Positive Stop" technology utilizes a non-hydraulic jackscrew during articulation allowing towers to be safely raised and lowered without reliance on gravity and without regard to wind conditions.

The Pillar "Full Penetration Connection" ensures long term reliability, and offers an industry leading "tower-to-base" connection method. During a standardized fatigue test the "Full Penetration Connection" lasted more than twice as long as the closest competition.

Operator Safety

- Eliminates the need for climbing maneuvers and boom-truck operations
- "True Positive Stop" (TPS) technology protects the workers while articulating



Ease of Use

- Fully articulates utilizing an 18v battery-operated drill
- Operated by one worker
- Rapid installation; can mount to a Dixie precast foundation
- Pre-wired from the factory
- Single coaxial run does not require disconnection for articulation

Durability

- Hot dipped galvanization on both the tower and associated hardware
- "Full Penetration Connection" tower-to-base connection method
- Round tube design for better force dispersion
- Capable of handling wind loads of up to 100mph

Options

- Locking tamper resistant cover
- Hand-crank for tower articulation
- Custom made enclosures
- Varmint guard
- Antenna mount
- Variable height antenna mount
- Removable remote controlled articulation
- Full installation

Customer Testimonial

"Your design of the tower makes it a lot easier to install and maintain the panels as when the tower is lowered it puts all of the work waist high so there is never a need for a maintainer to be on a ladder. The installation was easier as you don't have to worry about orientation of the foundation because the tower itself has adjustments to get the panels facing the right direction."

- SAT Customer, New Construction Manager



Model	Height	Wind Rating	Solar Panel EPA	Antenna EPA
eSAT 2010-90	20'	90 mph	110 sq. ft.	3 sq. ft.
eSAT 2006-90	20'	90 mph	55 sq. ft.	3 sq. ft.
eSAT 2006-120	20'	120 mph	55 sq. ft.	3 sq. ft.

Additional Tower Services

- **Full Turn-key Installations**
 - Self-supporting lattice
 - Guyed wire lattice
 - Monopole Towers
- **24/7 tower climbing & rescue services**
- **100' mobile telescoping towers**
 - Available for Rent
 - Pulled to site & set up within hours