

ventev®

TESSCO
making wireless work

True Positive Stop Articulating Towers

Communication and Solar Tower Solutions for Railroads

Solving Your Trackside Communications and Solar Power Needs Just Got Safer, Faster and More Economical

Available exclusively through TESSCO, the Ventev® True Positive Stop™ (TPS™) Articulating Towers are an industry-leading choice for ensuring lowest total lifecycle costs and maximizing worker safety. As the industry's only TPS articulating mast, the towers' innovative, equilibrium design ensures safe, reliable, ground-level access to all solar panels and antennas. Complete kits meet all AREMA standards, including EIA/TIA-222-G and AASHTO, and offer efficient installation with minimal required maintenance – making these Ventev towers ideal for railroad communication and solar applications.





Ventev True Positive Stop Articulating Towers

Safety Saves in the Long Run

Not all towers are created equal. Unlike winch and cable systems that rely on gravity to articulate, the non-hydraulic jackscrew used in the Ventev® TPS™ Articulating Tower guarantees the tower will stop moving at any point in ascension or descension when the user stops articulation – eliminating safety concerns posed by icing or windy conditions. Using a common, ½-inch, 18-volt cordless drill, a single technician can safely achieve ladder-free, ground-level access to the whole solar array and antenna in less than five minutes. A hinged base plate option ensures safe installation, guaranteeing the tower will not foul the track, eliminating the need for track time for most installations.

Vandal-Resistant, Secure Design

Vandalism and theft protection are integral to the TPS design. The tower hinge locks in place using a padlock, which prevents unauthorized articulation of the tower. An optional varmint guard and completely sealed design ensure that unwanted animals and insects are not able to make the tower a home. In addition, the round tube design prevents climbing of the tower.

Lowest Total Installation/Maintenance Cost

The Ventev-engineered solution dramatically reduces installation time and maintenance requirements. After arriving on site, most Ventev TPS Articulating Towers can be installed in less than 30 minutes – simply unfold the mast, secure the jackscrew, attach the hinge plate to the foundation, and raise the tower with a crane or boom truck. Towers come prewired for all solar and communications needs. The solar model has a unique, built-in mount, enabling complete ground-level access to all of the solar panels. In addition, the solar mount enables 360-degree rotation of the array after installation, ensuring the proper array alignment. The Ventev TPS Articulating Tower is designed to last. The tower is hot-dipped galvanized after manufacturing. The jackscrew design is based on traditional tractor trailer jacks, making it fully weatherized with a 20-year life expectancy that requires minimal maintenance.

Universal Foundation Compatibility Design

Engineered for compatibility with a full line of industry-standard helical and precast concrete foundation solutions, the Ventev TPS Articulating Towers reduce stress on the supply chain and enable install crews to overcome any geological obstacles they may encounter.



The True Positive Stop Articulating Tower

Your Choice for Trackside Communications and Solar Solutions

Ventev® TPS™ Articulating Tower is the industry's only True Positive Stop™ articulating mast that meets both EIA/TIA-222-G (Class II) for communications structures, and the AASHTO standards for solar arrays, while ensuring long-term, safe and highly efficient operation.

Factory-installed wiring and connectors are internally routed to ensure protection and kink-free operation with simple replacement.

Round tube mast design evenly distributes force from all wind directions, eliminating the concentrated forces suffered by square tube and I-beam designs, while reducing flexure and the inherent tendency to fatigue over time.

The power of TPS enables single-technician articulation and ground-level access to all panels and antennas using an 18-volt cordless drill. An optional remote control mechanism enables operation from outside the towers' articulation radius.

Optional hand wheel ensures easy articulation without power tools.

Tower serialization ensures simple asset tracking.

Includes complete three-point grounding kit with 8' factory-welded tower lead, copper-clad steel ground rods, grounding ring wire, and one-shot exothermic molds. Communications cable is grounded to the tower with a factory-installed grounding kit.



Wind generator mount is optional for locations requiring supplemental power (eSAT models only).

Variable height antenna mount is available for mounting the primary or secondary antenna below the top of the mast.

360-degree adjustable mount enables proper solar array alignment after installation and securely mounts up to 10 solar panels. All panels and antennas are fully accessible at ground level after articulation (eSAT models only).

Tower steel is hot-dipped galvanized per ASTM-123 with all structural bolts made of high-strength steel per ASTM-325.

Safety saves in the long run with a design that features a vandal-resistant locking mechanism that ensures complete control in both ascension and descension.

Three cable exits – through the foundation, at 3½" above ground, and 8' above ground.

Varmint guard is optional to ensure that unwanted pests do not make your tower a home.

Hinged base plate with universal foundation interface secures to industry-standard helical or precast concrete foundations, ensuring safe installation without fouling the track.

Ventev TPS Towers Safely Keep Your Networks Communicating



Every Ventev® TPS™ Tower Includes:

- Exclusive TPS Equilibrium Design.
- Fully Wired for All Communications and Solar Needs.
- Available in 20-, 40-, and 60-foot Models for Solar, Communications or Solar Plus Communications.
- 360-Degree Universal Solar Mount With Ground-Level Access to All Panels (eSAT only).
- Three Cable Exit Points – Underground, Enclosure Height and 8-Foot for Above-Ground Connection to Bungalow.
- Three-Point Grounding System With All Necessary Grounding Kits, Exothermic Molds and Ground Rods.
- Tower Serialization.
- Installation Manual and DVD.
- Optional Varmint Guard.
- Optional Remote Control for Operation Outside Tower's Articulation Radius.
- Optional Hinged Base Plate for Simple, Safe Installation.
- Optional Variable Height Antenna Mount.
- Onsite Installation Support.

eCAT Model Selections

The eCAT is available in several models to specifically meet the needs of your site and communications equipment.

Height	Wind Rating	EPA
20 ft.	90 mph	3 sq. ft.
40 ft.	110 mph	10 sq. ft.
60 ft.	120 mph	--

eSAT Model Selections

The eSAT is available in several models to specifically meet the needs of your site and solar equipment (all panels are mounted at 20 ft).

Height	No. of Solar Panels	Wind Rating	EPA
20 ft.	6	90 mph	3 sq. ft.
40 ft.	10	110 mph	10 sq. ft.
60 ft.	--	120 mph	--

Placing Your Order

Contact TESSCO Customer Service for Order Placement and Support, Customer Service, Quote and Proposal Requests, and Product Marketing Information:

- Call: 800.472.8065
- Email: ptc@tessco.com
- Visit www.tessco.com/go/railroad

Sales & Technical Support

Ventev and TESSCO have direct sales and application engineering teams available to discuss all your tower needs, including the industry-leading Ventev TPS Articulating Tower. Our collective experience, knowledge, lowest-total-cost solutions, and expertise ensure that we can design and deploy the right system that meets your specific needs. See if this solution is right for you by calling 800.472.8065; emailing ptc@tessco.com; or visiting www.tessco.com/go/railroad.

Call TESSCO to Learn More and Order the Ventev TPS Articulating Tower of Your Choice

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