PT-200-S
Cell on Wheels (COW)

Description

The PT-200-S portable Cell on Wheels (COW) tower is configured specifically to address the communications needs of special events, emergencies, highly mobile operations and strategic military deployments.

With the ability to raise (or lower) communications equipment to (or from) a height of 80 (24.38 meters) feet in 5 minutes or less, this unit offers the fastest response time and most effective mobility in the communications industry. In most short-term applications, a PT-200-S on the outriggers can be utilized un-guyed.

A wide range of options and accessories provide the ability to configure and customize the tower to meet a wide range of end-user needs.

Specifications

The Tower

**Height:**
Maximum tower height of the tower payload mounting bracket is 80 feet (24.38 meters) above the ground as deployed from a trailer mount, with stowed height of 11 feet (3.35 meters). The tower can be stopped and utilized at any desired height between its stowed and maximum height.

**Payload:**
Maximum tower payload capacity is application dependent. For most applications, however, the payload is established at 2,000 pounds (907 kg) for an 80 feet (24.38 meters) tower height.
**Construction:** The tower lattice chain sections are constructed of 6061-T6 aluminum extrusions assembled with robust bolts and rivets. During deployment, heavy cast stainless steel hooks engage and rigidly attach the individual tower sections together in the triangular shape. Key tower technologies are protected by patents.

Heavy mounting brackets are provided as standard equipment at the top of each of the three tower corners for attaching customers’ equipment using ½ inch (1.27 centimeters) diameter bolts.

**Deployment & Retraction Speed:** From the towers stowed height, an electric motor/gear drive system will self-erect the tower to a height of 80 feet (24.38 meters) in approximately 5 minutes “at the push of a button”. By releasing the button, the tower can be stopped (and held by the brake) for payload utilization at any height between the stowed and maximum limits.

**Drive:** Choice between an AC or DC electric tower drive motor is offered, both of which include a heavy duty brake, rated for severe conditions. No active power is required once the tower sections have been raised to the desired height as the tower is automatically secured by the brake.

**Power Source:** For tower operation, an appropriate AC or DC electrical power source is required, only when raising or lowering the tower. This source may be customer supplied power or one of Tower Solutions’ available power options.

An AC source is required for powering the shelter HVAC unit and customer’s electronic equipment. Manual or automatic transfer switches are a frequent option for transferring power service between shore power and genset sources.
**Emergency Crank Down:** The tower is equipped with an emergency manual crank down or up system for use if power sources fail. If conditions permit, a customer supplied battery-powered electric drill can be substituted for the crank.

**Enclosures:** All electrical controls are enclosed in drip proof enclosures. An optional lockable cabinet type enclosure over the entire tower frame is available. This enclosure protects the bales, cable reels and other components from the environment and fully encloses the three tower section bales, which rotate slowly within the tower frame.

**Standard Leveling System:** A level sensing system notifies the operator with an indicator light when the unit is level within +/- 1 degree. In addition, bubble level units are located at each corner of the trailer to further facilitate the leveling process. Each unit is leveled with four heavy duty drop-leg leveling jacks attached to the trailer frame.

**Remote Tower Control:** Tower deployment or retraction is actuated by UP and DOWN buttons located on a corded remote control pendant attached to the main electrical control box. A 25 foot (7.62 meter) long pendant control cord allows operators to strategically position themselves during deployment and retraction of the tower.

**Access Catwalk and Ladder:** Standard access to the customer equipment-payload on a retracted tower is provided by a non-skid catwalk. This catwalk offers access from the back side of the payload from a rear mounted ladder on the trailer.
The Outrigger System

Description: The outrigger system consists of four tubular assemblies that attach to the corners of the tower trailer frame and extend jacks out 14 feet (4.27 meters) diagonally from the tower vertical centerline, creating a 16 feet – 8 inch x 22 feet (5.08 meters x 6.7 meters) support pattern.

The outriggers are easily assembled on-site as part of the unit set-up. The outrigger system can accommodate a +/- 18 inch (46 centimeters) variance in ground surfaces. When not in use, the outriggers are stored in brackets on the exterior of the tower frame.

The Trailer

Description: The tower and outrigger assemblies are mounted on a heavy double axle steel trailer. The trailer is equipped with:

- electrically actuated braking system,
- fenders to protect the tower mechanism from road debris,
- 2-heavy duty, tandem, slip spring suspension axles,
- heavy duty commercial tires,
- An appropriate trailer hitch with towing height adjustment.
- Heavy duty tongue support jack

General Features

Color: The standard unit is delivered with the trailer and mechanism tan in color and the tower in natural aluminum. Standard product identification, instructional, safety and operational information decals are strategically applied to the unit for operator convenience and safety.
**Overall Size:** For a PT-200-S COW, the retracted footprint is approximately 102 inches (2.59 meters) wide x 212 inches (5.39 meters) long x 11.5 feet (3.5 meters) high, not including tower payload. Trailer length and approximate unit weight will be dependent on customer requirements.

**Options** Options are available to meet specific customer requirements.