

# PT-100 Portable Tower

## Description

The PT-100 is a basically a PTM-100 tower configuration that includes a cabinet style enclosure around the tower frame. This aesthetic pleasing cabinet style enclosure, which includes lockable doors for security, protects the tower mechanism and equipment from the environment. In addition, the enclosure provides an additional level of safety by shrouding the bales, which rotate within the tower frame whenever the tower is deployed or retracted.

The enclosure further offers space for generator-sets, cable reels, electronic components and other customer supplied equipment. The PT-100 tower consists of our patented locking "ladder-like" lattice, which can rise to a height of 80 feet (24.38 meters) in 5 minutes or less. The tower's rigidity and stability are facilitated by an integrated robust trailer, supported by leveling jacks and stabilizing outriggers, allowing the tower to be operated un-guyed in many applications. The extra weight of the cabinet and other accessories contribute to un-guyed stability.

A wide range of options and accessories are available to meet most end-users needs.

## Specifications

### The Tower

- Height:** Maximum tower height is 80 feet (24.38 meters) above the ground as deployed from a trailer mount 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 at 80 feet (24.38 meters) is 2,000 pounds (907 kg)
- Construction:** The tower lattice chain sections are constructed of 6061-T6 aluminum extrusions assembled with robust bolts and rivets. During deployment, cast stainless steel hooks engage to rigidly attach and hold together individual tower sections. Key tower technologies are protected by patents.



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

***Deployment &  
Retraction***

***Speed:***

From the towers stowed height, an electric motor drive 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 at utilized (held by the brake) at any height between the stowed and maximum limits.

***Drive:***

Either an AC or DC electric motor/gear drive system is offered, both of which include a heavy duty brake that is rated for severe conditions. No active power is required once the tower sections have been raised to the desired height and automatically secured by the brake.

***Power Source:***

An appropriate AC or DC electrical power source is required for use only when raising or lowering the tower. This can be a customer supplied power source or one of Tower Solutions' available power options.

***Emergency***

***Crank Down:***

The tower is equipped with an emergency, manual crank down or up system. 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.

A lockable cabinet type enclosure over the entire tower frame is included. 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. Level bubble units located at each corner of the trailer facilitate the unit leveling process.

Each unit has four drop leg, leveling jacks attached to the trailer frame.

**Tower Control  
System:**

The tower is controlled by UP and DOWN buttons located on a corded remote control pendant, which allows the operator to control tower deployment and retraction from up to 25 feet (7.62 meters) from the main control box.

**Access Work  
Platform  
and Ladder:**

Access to customer payload equipment, on a retracted tower, is provided by a work platform mounted above the enclosure roof. This platform provides for 360 degree access to the payload and, for safety, includes a non-skid surface. A ladder located on the back of the trailer provides ground access to the platform.

## 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 inches 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 cm) 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 double axle steel trailer. The trailer is equipped with:

- electrically actuated braking system,
- fenders to protect the tower mechanism from road debris,
- 2-8,000 pound (3,629 kilograms) tandem slip spring suspension axles,
- heavy duty commercial tires, and
- a 2-5/16 inch (.79 cm) diameter ball style trailer hitch with adjustable height location.

## 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:** 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, including (or not including) the trailer hitch. Total approximate weight less customer payload is 10,500 pounds (4,763 kg).

## **Options**

Options are available to meet specific customer requirements.