

### 30 ft Universal Tower with Adjustable Mast

#### Overview

The UT30 is a durable instrument tower that can be used for a variety of applications. The UT30 tower provides a sturdy mount for many meteorological monitoring applications—especially air quality stations and regional Mesonets, where the 9.14 m (30 ft) measurement height for wind sensors is

standard. It also holds antennas, solar panels, environmental enclosures, radiation shields, and crossarms. It is a versatile instrument mount: many of the same sensor mounts that are used with either our tripods or other towers can be used with the UT30.

#### **Benefits and Features**

- > Sturdy, long-term instrument mount
- Corrosion-resistant

## **Detailed Description**

The UT30 tower includes three 3 m (10 ft) sections, one extendable mast, and two cable tie kits. The extendable mast has a 1.5 m (5 ft) length and a 3.175 cm (1.25 in) outer diameter [swagged to 2.5 cm (1 in) OD].

#### Top 3 m Section

The top section is constructed from 2.5 cm (1 in) OD aluminum tubing. Its width is 25.7 cm (10.1 in) on a side (center of tubing to center of tubing).

#### Center 3 m Section

The center section is constructed from 2.5 cm (1 in) OD aluminum tubing. Its width is 33.3 cm (13.1 in) on a side (center of tubing to center of tubing).

#### **Bottom 3 m Section**

The bottom section is constructed from 3.175 cm (1.25 in) OD aluminum tubing. Its width is 43.2 cm (17 in) on a side (center of tubing to center of tubing).

#### Mounting Base, Grounding Kit, and Guying Kit

This tower requires a mounting base and grounding kit. Campbell Scientific also recommends guying the UT30 with our UTGUY Guy Kit. See Ordering Info on the web page for more information.



# **Specifications**

Material	Hardened drawn 6063-T832 aluminum
Guyed Tower Area Requirements	~5 m (17 ft) radius
Required Concrete Pad Dimensions	91 x 91 x 122 cm (36 x 36 x 48 in.) for B18 Concrete Mounting Base
	Concrete pad requirements assume heavy soil; light, shifting, or sandy soils require a larger concrete pad.
Extendable Mast	<ul><li>1.5 m (5 ft) length</li><li>3.175 cm (1.25 in.) outer diameter (swagged to 2.5 cm [1 in.] outer diameter)</li></ul>
Pipe Outer Diameter	<ul> <li>3.18 cm (1.25 in.) for vertical tubing of lower section</li> <li>2.5 cm (1.0 in.) for vertical tubing of upper sections</li> <li>0.953 cm (0.375 in.) for cross supports/webbing</li> </ul>
Crossarm Measurement Height	10 m (33 ft)
Height	10.1 m (33 ft)
Shipping Dimensions	310 x 46 x 46 cm (122 x 18 x 18 in.)

Shipping Weight	29 kg (65 lb)
Maximum Wind Load Recommendation	
B18 Base (unguyed)	177 km/h (110 mph)
RFM18 Base (with UTGUY)	177 km/h (110 mph)
UTBASE (unguyed)	177 km/h (110 mph)
-NOTE-	Wind load endurance is affected by quality of anchoring and installation; guy wire tension; soil type; guy angle; and number, type, and location of instruments fastened to the tower.
	Wind load recommendation assumes proper installation, proper anchoring, adequate soil, and total instrument projected area of less than 0.19 m <sup>2</sup> (2 ft <sup>2</sup> ).
	For the RFM18 base, the wind load recommendation also assumes that the UTGUY's turnbuckles are preloaded just enough to equalize tension and that the tower is

guyed at a 60 degree angle relative to the ground (maximum).