



**Easy to
Transport
and Set Up**
Fits into a carrying bag

Overview

The CM375 is a corrosion-resistant 10 m (30 ft) mast for applications requiring a tall yet portable instrument mount. It can support sensors, an environmental enclosure, a solar panel, and an antenna. Sensors are attached to the CM375 mast via mounts such as the CM202,

CM204, and CM206 crossarms. To reinforce the mount, the CM375 is guyed at 3.7 m (12 ft) and 7.3 m (24 ft) heights. Duck-bill anchors and the guy-wire tensioning kit ensure proper guying.

Benefits and Features

- › Light weight (30 kg (66 lb))
- › Portable (includes tote with a handle on each end)
- › Fast and easy to set up (two people can assemble and tilt up in minutes)
- › Corrosion resistant construction (galvanized pipe with stainless-steel base)
- › Choice of standard or heavy duty duckbill anchors
- › Guy wire tensioning kit offered to facilitate set up

Guy Duckbill Anchor Kits

Two duckbill anchor kits are offered as common accessories (see Ordering Information). The 19282 Guy Duckbill Standard Anchor Kit is adequate for most sandy and loamy soils.

Clay soils and other soils with higher corrosive properties will require the 25699 Guy Duckbill Heavy Duty Anchor Kit. These corrosive soils, also known as aggressive soils, have one or more of the following properties:

- › High electrical conductivity ($>0.33 \text{ dS m}^{-1}$)
- › High acidity ($\text{pH} < 5$)
- › High chloride concentration ($> 1000 \text{ ppm}$)
- › High sulfate concentration ($> 500 \text{ ppm}$)
- › Poor aeration



Ordering Information

Portable Instrument Mount		Accessories	
CM375	Portable 10 m Mast for Lightweight Applications. Includes five 2 m (6 .56 ft) galvanized pipes, a stainless-steel base, guy cables, and grounding kit. The guy tensioning kit is recommended. Must choose a duckbill anchor kit (see Accessories).	19282	Guy Duckbill Standard Anchor Kit is for standard soils. Use the 25699 kit (see below) for corrosive (aggressive) soils.
		25699	Guy Duckbill Heavy Duty Anchor Kit is for corrosive (aggressive) soils.
		22071	CM375 Guy Cable Tensioning Kit that includes equipment used to tension the guy wires and align the mast.

Specifications

- Weight: 30 kg (66 lb)
- Base Radius: 6 m (20 ft) to each of three guy points; 120 degrees apart
- Guy Configuration: Three guy cables at two levels; guyed at 3.6 m (12 ft) and at 7.2 m (24 ft) heights
- Recommended Guy Wire Pretension^a: 45.4 kg (100 lb) each
- Maximum Allowable Weight of Mounted Equipment: 34 kg (75 lb)
- Maximum Wind Gust (see Wind Gust Assumptions): 136 km h⁻¹ (85 mph)

- Mast
- Number of Sections: 5
 - Length of Each Section: 2 m (6.56 ft)
 - Total Length: 10 m (32.8 ft)
 - Main Diameter: 48.26 mm (1.9 in)
 - Top Section Diameter: 44.2 mm (1.74 in)

Wind Gust Assumptions

The amount of wind gust that this mount can withstand is affected by quality of anchoring and installation, guy wire tension, soil type, guy angle, and the number, type, and location of instruments fastened to the CM375. The maximum wind gust specification assumes:

- Standard air quality or wind assessment configuration (see Table that follows)

- Proper installation
- Proper anchoring:
 - Adequate soil (guy anchors/base support)
 - Guy anchors at 20 ft from base with 120 degrees of separation
 - Guy tension of 45.4 kg (100 lb) each
- No ice buildup

Standard Air Quality Configuration		Standard Wind Assessment Configuration	
Height	Component	Height	Component
9.1 m	CM204 crossarm with a Wind Monitor and a 43502/43347 aspirated shield and RTD attached	9.1 m	Two CM202 crossarms with a 03101 Wind Sentry Anemometer attached to each crossarm
		8.5 m	CM202 with a 03301 Wind Sentry Wind Vane attached
3 m	41003-5 radiation shield housing an HC2S3 temperature and RH probe; antenna; CM202 2 ft crossarm with a 43502/43347 aspirated shield/RTD attached	3 m	41003-5 Radiation Shield housing an HC2S3 temperature and RH probe; antenna; CM202 2 ft crossarm with a 03101 Wind Sentry Anemometer attached
1.5 m	SP20 20 W Solar Panel	1.5 m	SP20 20 W Solar Panel
1 m	ENC16/18 16 in. by 18 in. enclosure housing a CR1000 datalogger and a PS100 power supply	1 m	ENC16/18 16 in. by 18 in. enclosure housing a CR1000 datalogger and a PS100 power supply

^a Check and adjust guy wire tension at least once a month, and after wind gusts exceeding 80 km h⁻¹ (50 mph).