

CM375

Portable 10-Meter Mast for Light-Weight Applications

The CM375 is a corrosion-resistant 30-ft mast for applications requiring a tall yet portable instrument mount. It comes with five 6-ft galvanized pipes, a stainless-steel base, guy cables, a 1 m crossarm, and a mounting bracket. The duck-bill anchors and guy-wire tensioning kit are ordered separately. All of the components fit inside an 80 in-long bag allowing the CM375 to be carried from site to site.

The CM375 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.

Features

- 30 foot (9.1 m) sensor height
- Light weight (66 lbs (30 kg))
- Portable (includes 80 in (2 m) long 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 (see page 2)
- Guy wire tensioning kit offered to facilitate set up



Guy Duckbill Anchor Kits

Two duckbill anchor kits are offered as common accessories. The 19282 Guy Duckbill Standard Anchor Kit is for standard soils. The 25699 Guy Duckbill Heavy Duty Anchor Kit is for aggressive soils.

Aggressive soils have:

- Resistivity of less than 3000 ohm-cm
- pH of less than 5
- Chloride of greater than 1000 ppm
- Sulfate of greater than 500 ppm
- Poor aeration

Ordering Information

Portable Instrument Mount

CM375 Portable 10 m Mast for Lightweight Applications. Includes five 6-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 below).

Accessories

19282 Guy Duckbill Standard Anchor Kit, 1100 lbs. This kit is for standard soils. Use the 25699 kit (see below) for aggressive soils.

25699 Guy Duckbill Heavy Duty Anchor Kit, 30000 lbs. This kit is for aggressive soils.

22071 CM375 Guy Cable Tensioning Kit that includes equipment used to tension the guy wires and align the mast.

Specifications

Weight:	66 lbs (30 kg)
Mast	
Total Length:	30 ft (9.2 m)
Configuration:	Five 6 ft (1.82 m) sections
Mast Diameter	
Main:	1.9 in (48.26 mm)
Top Section:	1.74 in (44.2 mm)
Base Radius:	20 ft (6 m) to each of three guy points, 120 degrees apart
Guy Configuration:	Three guy cables at two levels; guyed at 12 ft (3.6 m) and at 24 ft (7.2 m)
Recommended Guy	
Wire Pretension:	100 lbs each (check and adjust guy wire tension at least once a month, and after wind gusts exceeding 50 mph)

Maximum Weight of Mounted Equipment: 75 lbs (34 kg)

Maximum Allowable Wind Gust¹: 85 mph (136 km h⁻¹)

The wind gust value assumes:

- Proper installation
- Proper anchoring:
 - ? Adequate soil (guy anchors/base support)
 - ? Guy anchors at 20 ft from base with 120° of separation
 - ? Proper guy tension (100 lbs each)
- No ice buildup
- Standard air quality or wind assessment configuration (see Table below)

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
3 m	41003-5 Radiation Shield housing an HMP45C Temperature/RH Probe; Antenna; CM202 crossarm with a 43502/43347 Aspirated Shield and RTD attached	3 m	41003-5 Radiation Shield housing an HMP45C Temperature RH Probe; Antenna; CM202 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 Enclosure housing a CR1000 datalogger and PS100 Power Supply	1 m	ENC12/14 Enclosure housing a CR1000 datalogger and PS100 Power Supply

¹The 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.

