



Millard Towers frangible Windsock towers rigidly support the heavy wind loading of windsocks, yet yield if accidentally impacted. Frangibility has been confirmed by third-party full-scale impact testing and FEA modelling. In fact, Millard masts are present in ICAO Doc 9157 as examples of proper frangible design and testing.

Serviceability features are simple and reliable. Tilt bases allow for installation by manually raising and lowering, while an arm hinge provides a mechanical, safe, and easy alternative. Standard solutions are available in 2.25m and 4.50m although custom solutions are available.

Millard's Aluminum design is engineered for all climatic conditions and backed by a standard 10-year warranty. Millard's frangible designs have been installed at over 500 airports in over 65 countries.



**CONSTRUCTION.**

SECTIONS, PLATES, ACCESSORIES (ASTM): 6000 Series Aluminum  
 HARDWARE (ASTM): ECO GUARD Grade 5 Steel  
 POWDER COATING (AAMA): Aviation Orange, banded optional  
 RECYCLABLE (LEED): Made from 75% recycled Aluminum  
 WARRANTY: 10 Years

**PERFORMANCE.**

FRANGIBILITY: ICAO Doc 9157 & FAA AC 150 / 5345-45  
 WIND LOAD w/ NO ICE: 180km/h Gust\*  
 WIND LOAD w/ 12mm ICE: 150km/h Gust\*  
 WIND LOAD w/ 25mm ICE: 130km/h Gust\*  
 TYPICAL LIFSPAN: 25 Years  
 \* Assumes 90cm Millard Lit Windsock Assembly

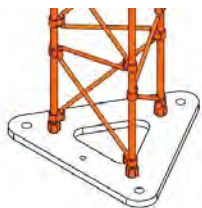
**STANDARD DESIGNS**

Custom heights, loads, mounts, and finishes are available.

| PART NO         | HEIGHT | SERVICING   | BASE | MOUNT            | FINISH |
|-----------------|--------|-------------|------|------------------|--------|
| TFWM-0225-FR00  | 2.25m  | Fixed Base  | 9T   | 2" NPT (60mm OD) | Orange |
| TFWM-0225-TR00  | 2.25m  | Tilt Base   | 9T   | 2" NPT (60mm OD) | Orange |
| TFWM-0450-FR00  | 4.50m  | Fixed Base  | 13T  | 2" NPT (60mm OD) | Orange |
| TFWM-0450-TR00  | 4.50m  | Tilt Base   | 13T  | 2" NPT (60mm OD) | Orange |
| TFWM-0450-AR00* | 4.50m  | Arm Hinge** | 9S   | 2" NPT (60mm OD) | Orange |
| TFWM-0450-AH00  | 4.50m  | Arm Hinge** | 13S  | 2" NPT (60mm OD) | Orange |

\* Design has a wind gust rating of 160km/h instead of 180km/h

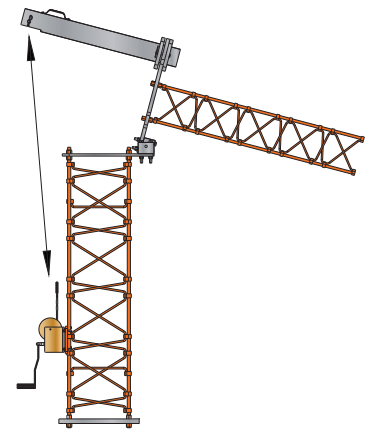
\*\* Requires Removable Winch to operate. Minimum one required per site.

**FIXED BASE**

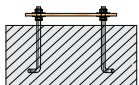
Fixed Base designs must be maintained from the ground if it can be reached, or by a portable ladder. However, designs are light enough to be installed by hand without the use of a crane.

**TILT BASE**

Tilt Base designs are assembled and maintained along the ground and raised manually by hand. Operation should be performed by 2-3 people.

**ARM HINGE**

Arm Hinges utilize a Tilt Tube and Wormgear Winch for mechanical raising and lowering of the tower. Maintenance can be safely performed by a single technician.

**FOUNDATION KIT**

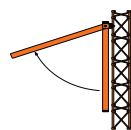
- CNC cut wood template
- HD galvanized anchors
- Tilt Base and Center Hinge

9T: ATF-09T0-0000

9S: ATF-09S0-0000

13T: ATF-13T0-0000

13S: ATF-13S0-0000

**TILT STAND**

- Supports pole during maintenance
- Mounts to pole and pivots
- Powder coated orange

ALL: ATA-TT00-0007

**REMOVABLE WINCH**

- Required for all Arm Hinges
- Wormgear winch + tilt tube
- Stainless steel aircraft cable

ALL: ATA-WN00-0006

**CABINET MOUNT**

- Aluminum strut (x2 per set)
- Powder coated orange
- Included if Windsock also purchased

ALL: AMT-1616-1801

**FUSE BOLTS**

- Frangible shear anchors
- HD galvanized
- Set of four

3/4" QTY.4: CFFS-0700-0001