

AVIATION WINDSOCKS

EN

100-240 VAC + 2.8-6.6 A + 12 VDC SOLAR + UNLIT

FRANGIBLE ALUMINUM MAST + ALUMINUM POLE + WALL MOUNT + PORTABLE TRIPOD + FRANGIBLE GRP POLE

ICAO DOC 9157 + ICAO ANNEX 14 + FAA AC 150/5345-45C + FAA AC 150/5345-27D + TP312 5TH ED



Millard Towers offers a complete line of windsock assemblies for Aviation applications at Airports and Heliports. Windsocks and their support structures are made from high-grade materials and designed to provide reliable performance in even the most extreme environmental conditions. All equipment is designed to internationally recognized standards and thoroughly tested to ensure quality. Custom engineering and fabrication services are available. Millard also manufactures windsock assemblies for Industrial applications.

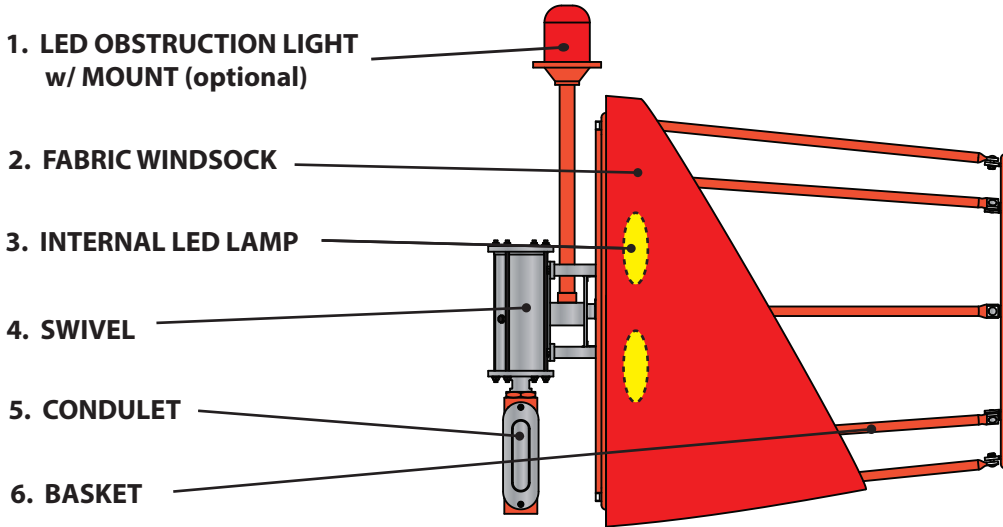


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WINDSOCK ASSEMBLY



1. LED OBSTRUCTION LIGHT (optional)

LAMP: Single Lamp LED (multiple source)
STANDARD: ICAO, FAA (L-810) and Transport Canada
POWER SUPPLY: 100-240 VAC or 12 VDC
WATTAGE: 1.5W
COLOUR: Red

2. FABRIC WINDSOCK

SIZE: 0.9m x 3.6m, 0.6m x 2.4m, and 0.45m x 2.4m
COLOUR: Orange, Red/White (5 bands)
MATERIAL: Polyurethane coated nylon weighing 135g/m²
GROMMETS: 1/2" Brass, located at mouth for installation and underside for drainage
REINFORCEMENT: Double stitched; Extra material on large diameter
FASTENERS: UV rated cable ties

3. INTERNAL LED LAMP

QTY: 2 for 100-240 VAC and 2.8-6.6 A
 1 for 12 VDC
TOTAL WATTAGE: 10W for 0.45m, 24W for 0.6m, 36W for 0.9m
 12 VDC uses 5W for 0.45m and 0.6m, 12W for 0.9m

4. SWIVEL

DESIGNS: Unlit, Internally Lit, and Externally Lit
MATERIAL: Aluminum Alloy parts, Stainless Steel hardware
ROTATION: 2 fully enclosed Stainless Steel bearings
IP CODE: IP65 rated
CIRCUIT: 6-circuit sliping, Internal Lamp and Obstruction Light independently wired, pre-wired
MOUNT: 1-1/2" NPT Male

5. CONDULET

MATERIAL: Aluminum Alloy parts, Stainless Steel hardware
WIRING: Strain relief pre-installed
MOUNT: 1-1/2" NPT Female Top, 2" NPT Female Bottom

6. BASKET

SIZE: 0.45m, 0.6m, and 0.9m Diameter
MATERIAL: Aluminum Alloy parts, Stainless Steel hardware
COLOUR: Powder Coated Orange
SHIPPING: Collapsible for low-cost shipping and easy assembly

7. ELECTRICAL (not shown)

POWER SUPPLY: 100-240 VAC, 2.8-6.6 A, 12 VDC (Solar)
STANDARD: CSA certification, upon request for 100-240 VAC
SAFETY: External manual disconnect switch
JUNCTION BOX: Weatherproof PVC (100-240 VAC), Vented Aluminum (2.8-6.6 A and 12 VDC), all pre-wired
WIRING: 6m SJOOW Cable, pre-wired

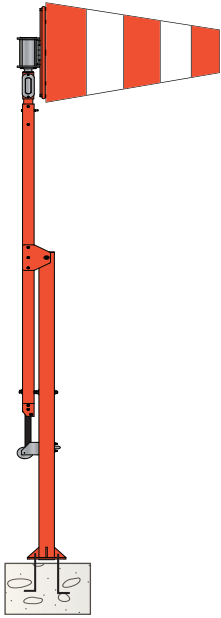
ORDERING INFORMATION:

POWER SUPPLY	DIAMETER (m)	WINDSOCK ASSEMBLY			STANDARD			FABRIC PART NO		OBSTRUCTION LIGHT ¹		PHOTOCELL	CSA CERT.
		PART NO	WATTS	LAMPS	ICAO	FAA	TC	ORANGE	RED/WHITE	PART NO	WATTS	PART NO	PART NO
UNLIT	0.45	WSCK-18UN	-	-	-	Size 1, Style II	Size 2	FABR-1808-ORNG	FABR-1808-RDWH	-	-	-	-
	0.60	WSCK-24UN	-	-	Heliport	-	Heliport	-	FABR-2408-RDWH	-	-	-	-
	0.90	WSCK-36UN	-	-	Airport	Size 2, Style II	Size 1	FABR-3612-ORNG	FABR-3612-RDWH	-	-	-	-
100-240 VAC	0.45	WSCK-18VL	10	2	-	Size 1, Style I-B	Size 2	FABR-1808-ORNG	FABR-1808-RDWH	SOL2-A	1.5	PHTO-CELL-012D	CERT-CSA
	0.60	WSCK-24VL	24	2	Heliport	-	Heliport	-	FABR-2408-RDWH	SOL2-A	1.5	PHTO-CELL-012D	CERT-CSA
	0.90	WSCK-36VL	36	2	Airport	Size 2, Style I-B	Size 1	FABR-3612-ORNG	FABR-3612-RDWH	SOL2-A	1.5	PHTO-CELL-012D	CERT-CSA
2.8-6.6 A	0.45	WSCK-18CL	10	2	-	Size 1, Style I-B	Size 2	FABR-1808-ORNG	FABR-1808-RDWH	SOL2-C	1.5	-	-
	0.60	WSCK-24CL	24	2	Heliport	-	Heliport	-	FABR-2408-RDWH	SOL2-C	1.5	-	-
	0.90	WSCK-36CL	36	2	Airport	Size 2, Style I-B	Size 1	FABR-3612-ORNG	FABR-3612-RDWH	SOL2-C	1.5	-	-
12 VDC	0.45	WSCK-18SL	5	1	-	Size 1, Style I-B	Size 2	FABR-1808-ORNG	FABR-1808-RDWH	SOL2-D	1.5	PHTO-CELL-012D	-
	0.60	WSCK-24SL	5	1	Heliport	-	Heliport	-	FABR-2408-RDWH	SOL2-D	1.5	PHTO-CELL-012D	-
	0.90	WSCK-36SL	12	1	Airport	Size 2, Style I-B	Size 1	FABR-3612-ORNG	FABR-3612-RDWH	SOL2-D	1.5	PHTO-CELL-012D	-

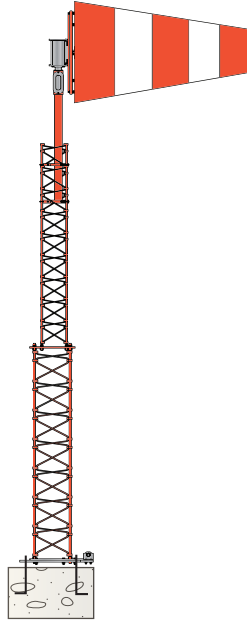
¹ Obstruction Light is only required by FAA standards. This standard requires that the Obstruction Light is powered by a different supply than the Windsock Assembly so that if the Windsock has its power supply interrupted, the Obstruction Light remains on. Consequently, all Obstruction Lights are designed for a 100-240 VAC power supply input regardless of how the Windsock Assembly is powered.



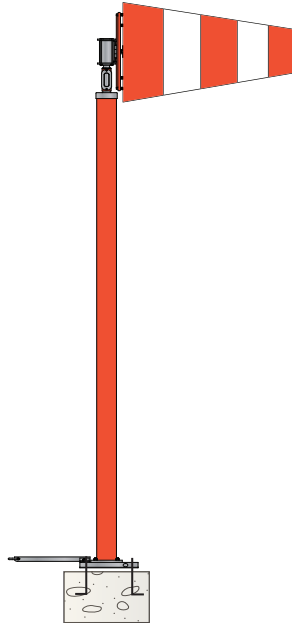
POLE / MAST ASSEMBLY



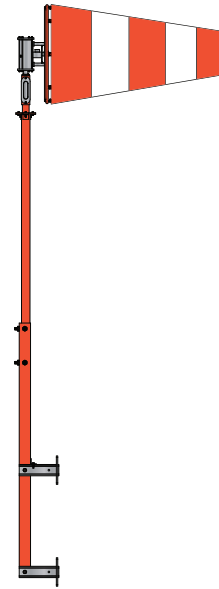
ALUMINUM POLE



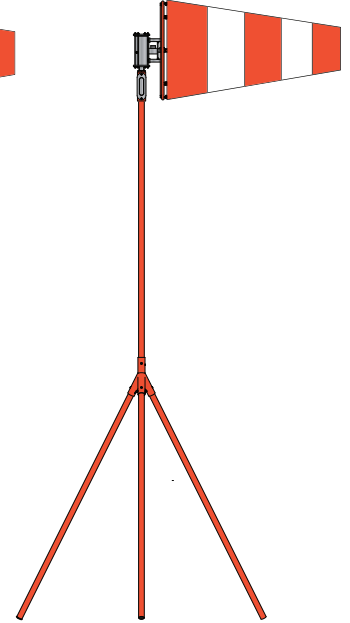
FRANGIBLE ALUMINUM MAST



FRANGIBLE FIBERGLASS POLE



WALL MOUNT POLE



PORTABLE TRIPOD

DESIGN	AL POLE		AL FRANGIBLE MAST		GRP FRANGIBLE POLE	
HEIGHT	2.25m	4.50m	2.25m	4.50m	2.25m	4.50m
SERVICEABILITY						
FIXED BASE	-	-	✓	✓	-	-
TILT BASE	✓	✓	✓	✓	✓	✓
CENTER HINGE	-	✓	-	✓	-	-
WALL MOUNT	✓	✓	-	-	-	-
PORTABLE TRIPOD	✓	✓	-	-	-	-
STANDARDS						
ICAO / FAA / TC FRANGIBILITY ²	-	-	✓	✓	✓	✓
FAA STANDARD	L-806	L-807	L-806	L-807	L-806	L-807
WIND LOADING (km/h)³						
MAX WIND SPEED, no ice	274	249	196	176	265	171
MAX WIND SPEED, 12.5mm radial ice	260	234	174	148	253	163
MAX WIND SPEED, 25mm radial ice	248	220	157	128	242	155

² Confirmed by 3rd party impact testing

³ Loading assumes a 0.9m Diameter Lit Windssock Assembly is installed. Loading for AL Pole Wall Mount and Portable Tripod differs. Please consult Millard for Wall Mount and Portable Tripod specifications.

ORDERING INFORMATION:

DESIGN	HEIGHT	SERVICING			OPTIONS			
		FIXED BASE	TILT BASE	CENTER HINGE	WINCH ⁴	FUSE BOLTS	TILT STAND ⁵	ORANGE/WHITE POWDER COATING ⁶
AL POLE	2.25m	-	225W-APT	-	-	FB34	TILT-STND-AS03	PCOW-225W-AP
	4.50m	-	450W-APT	450W-APCH	RMW4	FB34	TILT-STND-AS03	PCOW-450W-AP
AL POLE - WALL MOUNT	2.25m	-	225W-APWM	-	-	-	TILT-STND-AS03	PCOW-225W-AP
	4.50m	-	450W-APWM	-	RMW6	-	TILT-STND-AS03	PCOW-450W-AP
AL POLE - PORTABLE TRIPOD	2.25m	225W-APPT	-	-	-	-	-	PCOW-225W-AP
	4.50m	450W-APPT	-	-	-	-	-	PCOW-450W-AP
FRANGIBLE AL MAST	2.25m	225W-FAFB	225W-FATB	-	-	-	TILT-STND-AS01	PCOW-225W-FA
	4.50m	450W-FAFB	450W-FATB	450W-FACH	RMW2	-	TILT-STND-AS01	PCOW-450W-FA
FRANGIBLE GRP POLE	2.25m	-	225W-FFTB	-	FAAB-0100-2100	FB34	FAAB-0100-3000	-
	4.50m	-	450W-FFTB	-	FAAB-0100-2100	FB34	FAAB-0100-3000	-

⁴ Winches are required for 450W-APCH and 450W-FACH. They are optional for 450W-APWM, 225W-FFTB, and 450W-FFTB. All Winches are removable so only one is required per site although one per pole/mast may be desired.

⁵ When poles/masts are lowered for servicing either by Tilt Base or Center Hinge, an optional Tilt Stand can be purchased to provide support while maintenance is performed.

⁶ All poles/masts are powder coated Orange as a standard. The GRP Pole is painted Orange. Orange/White banding is available but may carry additional costs and lengthen lead times.



SPARE PARTS

PART	PART NO	DESCRIPTION	NOTES
SWIVELS	WSCK-SWVL-0004	Windsock Swivel - Unlit	1-1/2" NPT Mount (Male), lamps not included
	WSCK-SWVL-0005	Windsock Swivel - Lit	1-1/2" NPT Mount (Male), lamps not included
LAMPS	LAMP-05SD	5W Lamp - Voltage Driven Systems	100-240 VAC and 12 VDC Systems
	LAMP-05SC	5W Lamp - Current Driven Systems	2.8-6.6 A Systems
	LAMP-12SD	12W Lamp - Voltage Driven Systems	100-240 VAC and 12 VDC Systems
	LAMP-12SC	12W Lamp - Current Driven Systems	2.8-6.6 A Systems
	LAMP-18SD	18W Lamp - Voltage Driven Systems	100-240 VAC and 12 VDC Systems
	LAMP-18SC	18W Lamp - Current Driven Systems	2.8-6.6 A Systems
	OBLT-LED1-0002	3.5W Obstruction Light Lamp	SOL2 Replacement
	INTW-LAMP-LED2	30W Lamp - Current Driven Systems (old design)	Pre-2018 Design
BASKETS	BSKT-1836-1200	0.45m Diameter w/ Spacers	Powder Coated Orange
	BSKT-2436-1200	0.60m Diameter w/ Spacers	Powder Coated Orange
	BSKT-3636-0400	0.90m Diameter w/ Spacers	Powder Coated Orange
FABRIC	FABR-1808-ORNG	0.45m Dia. x 2.40m Length, Orange	UV Rated Cable Ties included
	FABR-1808-RDWH	0.45m Dia. x 2.40m Length, Red/White	UV Rated Cable Ties included
	FABR-2408-RDWH	0.60m Dia. x 2.40m Length, Red/White	UV Rated Cable Ties included
	FABR-3612-ORNG	0.90m Dia. x 3.60m Length, Orange	UV Rated Cable Ties included
	FABR-3612-RDWH	0.90m Dia. x 3.60m Length, Red/White	UV Rated Cable Ties included
ELECTRICAL	CAST-TYPC-2015	2" Condulet w/ Gasket Cover, Orange	1-1/2" NPT Female Top, 2" NPT Female Bottom
	DRVR-LED1-0001	100-240 VAC LED Driver	For 100-240 VAC Systems
	VLPS	100-240 VAC Junction Box, pre-wired	6m SJOOW Cable included
	CLPS	2.8-6.6 A Junction Box, pre-wired	6m SJOOW Cable included
	SLPS	12 VDC Junction Box, pre-wired	6m SJOOW Cable included

SOLAR POWER KITS

Millard Towers offers a Solar Engine Power Supply (SEPS) to go with its 12 VDC Windsock Assembly. The SEPS comes in two sizes - 80W and 160W - which is rated for 10+ days of autonomy in most locations. Although standardized, customers should always confirm installation location with Millard to ensure the SEPS is properly rated.

SPECIFICATIONS:

BATTERY: -40°C to +50°C, Deep cycle, exterior grade, non-spillable, international freight friendly (A67)

SOLAR PANEL: Available in 80W or 160W, fully adjustable between 0° and 90°

MOUNT: Two frangible AL pipes on AL flange bases, separately mounted from pole / mast

CONTROL: Fully potted 10A charge control w/ dusk to dawn lighting control

AUTONOMY: 10+ days at 25°C

CABINET: Powder coated Orange, Aluminum, Vented



PART NO	PANEL SIZE	LATITUDE ⁷	LOAD	BATTERY	AUTONOMY
SEPS-0080-1101	80W	30°S to 30°N	6W	1	10+ Days
			13W	2	10+ Days
		>30°	6W	1	10+ Days
SEPS-0160-2202	80W (x2)	>30°	13W	2	10+ Days

⁷ Latitude specified is typical. System performance is dependent on photovoltaic (PV) potential and will vary based on site specific conditions. Always confirm design with a Millard engineer.

