

# Airport / Heliport Nylon Windssocks & Masts

## Compliance and Applications

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

We have a complete line of windssock assemblies for aviation applications at airports and heliports. Windssocks 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. We also manufacture windssock assemblies for industrial applications.

## Windssock 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
- Color: Red

### 2. Fabric Windssock

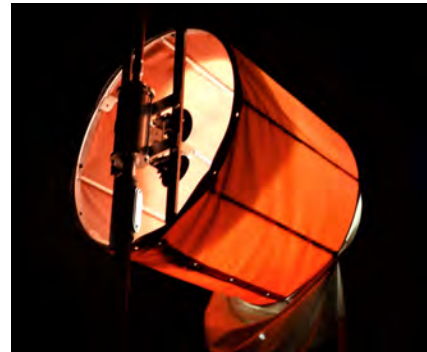
- Sizes: 0.45m x 1.85m, 0.45m x 2.4m, 0.6m x 2.4m, 0.9m x 3.6m
- Color: Orange, red/white (5 bands)
- Material: Polyurethane coated nylon weighing 135g/m<sup>2</sup>
- Grommets: 1/2" brass, located at mouth for installation and underside for drainage
- Reinforcement: Double stitched; extra material on 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 slipring, internal lamp and obstruction light independently wired, pre-wired
- Mount: 1-1/2" NPT male



1. LED Obstruction  
Light with Mount  
(optional)

2. Fabric Windssock

3. Internal  
LED Lamp

4. Swivel

5. Condulet

6. Basket

### 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
- Color: 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 SJ00W cable, pre-wired

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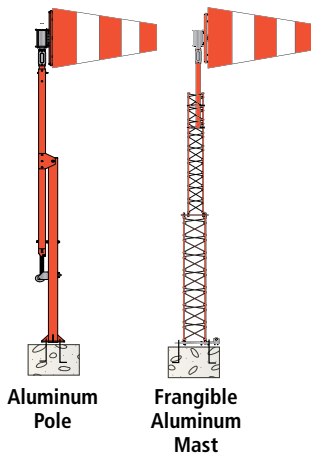
Flight Light Inc., 2708 47th Ave.  
Sacramento, CA, 95822, USA

## Windsock Assembly Ordering Information

POWER SUPPLY	DIAMETER (m)	WINDSOCK ASSEMBLY			STANDARD			FABRIC PART NO		OBSTRUCTION LIGHT <sup>1</sup>		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	-

<sup>1</sup> 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

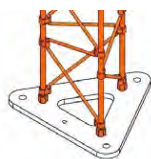
## Pole / Mast Assembly Specifications



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

<sup>2</sup> Confirmed by 3rd party impact testing.

<sup>3</sup> Loading assumes a 0.9m Diameter Lit Windsock Assembly is installed. Loading for AL Pole Wall Mount and Portable Tripod differs. Please consult Flight Light for Wall Mount and Portable Tripod specifications.



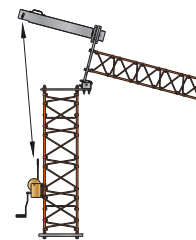
## Fixed Base

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.



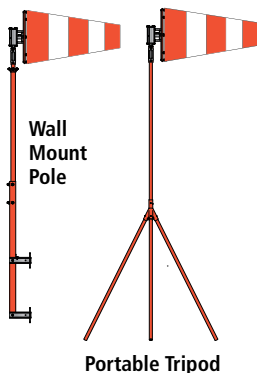
## Tilt Base

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.



## Pole / Mast Assembly Ordering Information

DESIGN	HEIGHT	SERVICING			OPTIONS			
		FIXED BASE	TILT BASE	ARM HINGE	WINCH <sup>4</sup>	FUSE BOLTS	TILT STAND <sup>5</sup>	ORANGE/WHITE POWDER COATING <sup>6</sup>
AL POLE	2.25m	-	225W-APTb	-	-	FB34	TILT-STND-AS03	PCOW-225W-AP
	4.50m	-	450W-APTb	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	TFWM-0225-FR00	TFWM-0225-TR00	-	-	-	TILT-STND-AS01	PCOW-225W-FA
	4.50m	TFWM-0450-FR00	TFWM-0450-TR00	TFWM-0450-AR007 TFWM-0450-AH00	RMW2	-	TILT-STND-AS01	PCOW-450W-FA

<sup>4</sup> Winches required for 450W-APCH, TFWM-0450-AR00, TFWM-0450-AH00 (450W-APWM optional). Winches are removable so only one is required per site although one per pole/mast may be desired.

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

<sup>6</sup> All poles/masts are powder coated Orange as a standard. Orange/White banding is available but may carry additional costs and lengthen lead times.

<sup>7</sup> Design has a wind gust rating of 160km/h.

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Product specifications may be subject to change without prior notice. Verify current specifications when ordering. © Flight Light Inc. | 10/15/2021

## 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	CWFF-1806-OR01	0.45m x 1.85m Orange Windsock, Certified	UV Rated Cable Ties included
	CWFF-1808-OR01	0.45m x 2.4m Orange Windsock, Certified	UV Rated Cable Ties included
	CWFF-1808-RW01	0.45m x 2.4m Red/White Windsock, Certified	UV Rated Cable Ties included
	CWFF-2408-OR01	0.6m x 2.4m Orange Windsock, Certified	UV Rated Cable Ties included
	CWFF-2408-RW01	0.6m x 2.4m Red/White Windsock, Certified	UV Rated Cable Ties included
	CWFF-3612-OR01	0.9m x 3.6m Orange Windsock, Certified	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
	VLP5	100-240 VAC Junction Box, pre-wired	6m SJOOV Cable included
	CLP5	2.8-6.6 A Junction Box, pre-wired	6m SJOOV Cable included
	SLP5	12 VDC Junction Box, pre-wired	6m SJOOV Cable included

## Solar Power Supply

We offer a solar power supply to go with our 12 VDC Windsock Assembly. This off-grid solution is easy to install and runs with free, renewable energy from the sun. The power supply is engineered based on site specific irradiation data and is designed to meet minimum autonomy requirements during the darkest time of year. Customers should always confirm installation location with Flight Light to ensure the power supply is properly rated.

## Specifications

- Supports & Cabinet (ASTM): 6000 Series Aluminum
- Hardware (ASTM): ECO GUARD Grade 5 Steel
- Powder Coating (AAMA): Orange, RAL 2002
- Recyclable (LEED): Made from 75% recycled Aluminum
- Warranty: Electrical 1 year, Structural 5 years
- Battery: 110Ah, 12VDC, Deep Cycle AGM, Sealed
- Panel: 90W, 12VDC, Class 1 Division 2
- Controller: 12VDC, 75V Max PV, 15A Charge
  - Bluetooth-Enabled and Programmable via App
- Wind Load: 220km/h Peak Gust

## A 90W SOLAR PANELS

- Available as 1 or 2 panel systems

VOLTAGE: 12VDC  
 OPERATING TEMPERATURE: -40°C to +85°C  
 CERTIFICATION: UL1703, cUL1703  
 HAZARD RATING: C1D2

## B ADJUSTABLE PANEL MOUNT

- To optimize irradiation

MATERIAL: Powder coated Aluminum (orange)  
 ADJUSTMENT: 15° to 55° (5° increments)

## C FRANGIBLE POLE, DOUBLE

- Mounts both Enclosure and Panels

MATERIAL: Powder coated Aluminum (orange)  
 THREAD: 2" NPT  
 SIZE: 1.20m x 60mm OD  
 FRANGIBILITY: ICAO Doc 9157

## D FLANGE MOUNT

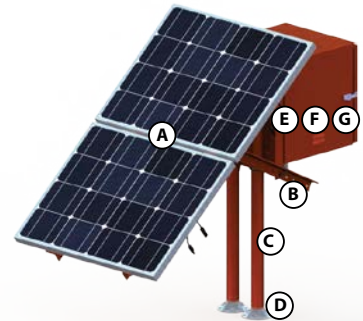
- For installation on concrete pad or pile

MATERIAL: Anodized Aluminum  
 THREAD: 2" NPT  
 MOUNTING: Ø16mm (x4)  
 MOUNT LAYOUT: Ø121mm

## E WEATHERPROOF ENCLOSURE

- Available in two sizes to suit 1 or 2 batteries

MATERIAL: Powder coated Aluminum (orange)  
 CERTIFICATION: UL 508A, NEMA 3R  
 CLOSURE: Lockable clasp, gasket lined  
 MOUNTING: Double pole (60mm OD)



## F BATTERY (not shown)

- Available as 1 or 2 battery systems

VOLTAGE: 12VDC  
 CAPACITY: 110Ah  
 TYPE: Deep Cycle AGM Lead  
 FEATURES: Sealed and Spillproof

## G CONTROLLER (not shown)

- Bluetooth App used for remote monitoring
- Programmable schedule or dusk/dawn operation
- Intelligent Battery Management to prolong life

VOLTAGE: 12V or 24V (factory programmed)  
 CHARGE CURRENT: 15A  
 MAX PV VOLTAGE: 75V  
 PEAK EFFICIENCY: 98%  
 OPERATING TEMPERATURE: -30°C to +60°C

PART NO	BATTERY QTY	PANEL QTY	AUTONOMY (HOURS)*			RECHARGE TIME (DAYS)**			
			45cm	60cm	90cm	2,000 Wh/m <sup>2</sup>	3,000 Wh/m <sup>2</sup>	4,000 Wh/m <sup>2</sup>	5,000 Wh/m <sup>2</sup>
AEP-DCDC-0007	1	1	132	55	37	3.91	2.60	1.95	1.56
AEP-DCDC-0008	1	2	132	55	37	1.95	1.30	0.98	0.78
AEP-DCDC-0009	2	1	264	110	74	7.82	5.20	3.90	3.12
AEP-DCDC-0003	2	2	264	110	74	3.90	2.60	1.96	1.56

\* Autonomy is presented using our standard 12VDC Windsocks, by diameter. 50% Rule has not been applied.

\*\* Recharge Time is the number of days it takes for the panels to fully charge the batteries from 50%. Calculations are based on the given Daily Average Direct Irradiation values. These are reference calculations only as site-specific data is used for each project. Please specify exact installation location when ordering to ensure the power supply is properly rated.

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