



WINDSOCK MASTS

TECHNICAL INFORMATION

CONTENTS

Pollite are one of the largest manufactures of fibreglass masts in Europe with an international presence that spans across Europe, Asia, USA, The Middle East, and Australasia. Boasting over 40 years experience in the manufacturing of fibreglass and the design of frangible safety poles.

Our custom-built manufacturing facility is based in the UK where we design and manufacture every single Pollite mast. We have the onsite facilities and experience to manufacture signage, flagpoles, radio antenna masts and bespoke architectural features. As part of a larger company, Pollite has the staff, resource, technical knowledge and manufacturing expertise to take on large scale international projects. Continuous research and development from our UK manufacturing plant ensure mast construction is always improving.

The last 10 years has seen Pollite pioneer the development of a series of frangible masts principally for airfields. Fulfilling the specifications with simplicity and minimal maintenance requirement is of paramount importance. Since the launch of ICAO's Aerodrome Design Manual, Part 6 Frangibility in 2006, Pollite have developed a strict inspectional and testing policy. Quality is at the core of what we create and deliver, to bring you cutting edge fibreglass products. At Pollite we work with a large globally recognised testing house that specialises in airfield products to continually push the boundaries and comply to ICAO and FAA requirements. We not only aim to meet safety standards and compliance, we strive to exceed them.

Our core focus is to work with you across every aspect of the design and manufacturing process to deliver masts and poles that are globally, the best in class.

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WINDSOCK MAST

TECHNICAL INFORMATION

Windsock Mast Design Criteria

Pollite windsock masts have been developed to fully comply with the ICAO Annex 14 Vol 1 Wind direction Indicator requirements and the most recent frangibility stipulations detailed in ICAO Aerodrome Design Manual Part 6. In addition Pollite provide windsock masts that comply with the CAA's CAP168 and the FAA's AC 150/5345-27D type L-806 and 807 design criteria

All Pollite Windsock masts are manufactured from glassfibre and polyester resin, finished with a UV resistant gel coat that can be coloured to any aviation specification. Each pole has a unique break system incorporated within the main mast that has been fully tested and independently certified as frangibility compliant by a leading aviation testing house.

The windsock is attached to the mast by means of a lightweight mounting frame holding the throat of the windsock fully open. The frame and sock freely rotate around the mast using stainless steel roller bearings giving a clear indication of wind direction particularly in lighter wind conditions.

Standard Mast Heights:

Pollite manufacture a range of standard ICAO, FAA and CAA compliant mast heights including 1.8m, 3m, 4.8m, 6m and 7.5m however masts can be manufactured to any specific height and heights will vary depending on lighting arrangements if required.

Base Fixing

All Pollite windsock masts come complete with a unique hinged foot which allows for easier raising and lowering of the mast for servicing the lighting or windsock. Complete foundation and installation details are provided with all masts.

Advantages of a Pollite Glassfibre mast

- Maintenance Free Mast
- UV Resistant Gel Coat Finish
- Corrosion Free
- Temperature/Weather Resistant
- No electro magnetic interference
- Frangibility tested

Windsock Details

All windsocks are manufactured to meet ICAO requirements for size, material and colour. Client specific colours can be provided and all colours used are designed to give maximum contrast with their background.

Windsock Details

All windsocks are manufactured to meet ICAO requirements for size, material and colour. Client specific colours can be provided, and all colours are designed to give maximum contrast with the background.

Recommended Windsock Size

ICAO/CAA Standard Airfield
3600mm (Length) x 900mm (Throat Dia.) Mast Height 6000mm

ICAO/ CAA Standard Heliport
2400mm (Length) x 600mm (Throat Dia.) Mast Height 3000mm

FAA L806- Low Mass Supporting Structures. Size 1
8ft (2.5m) (Length) x 18" (0.45m) (Throat Dia.) Mast Height 3m (Max)

FAA L807- Rigid Supporting Structures (Size 1)
8ft (2.5m) (Length) x 18" (0.45m) (Throat Dia.) Mast Height 3m (Max)

FAA L807- Rigid Supporting Structures (Size 2)
12ft (3.75m) (Length) x 36" (0.9m) (Throat Dia.) Mast Height 4.8m

Windsock Lighting Options

For aerodromes that are used at night Pollite has available two types of lighting for windsocks;

Externally Lit

Our externally lit masts are engineered to provide the correct levels Of illumination as recommended by CAP 168 without causing unwanted glare. Lighting can be provided by either 4x 70W IP65 SON or 4x 20W LED Floodlights.

Internally Lit

Our internally lit windsock is available in all standard sizes. The internal lighting is mounted within the windsock throat section. Lighting can be provided by either 50,000hr 30W LED or 15,000hr 40W Compact Fluorescent Bulbs.

Obstruction Light

All masts can be fitted with an L810 compliant obstruction light. This is provided by either a single or twin 100,000hr 3W Red Bulbs.

Photocell Switch

All externally and internally lit masts come complete with a Photocell Switch and are also available with a Double Switch Gear Isolator if required.

Power Supply

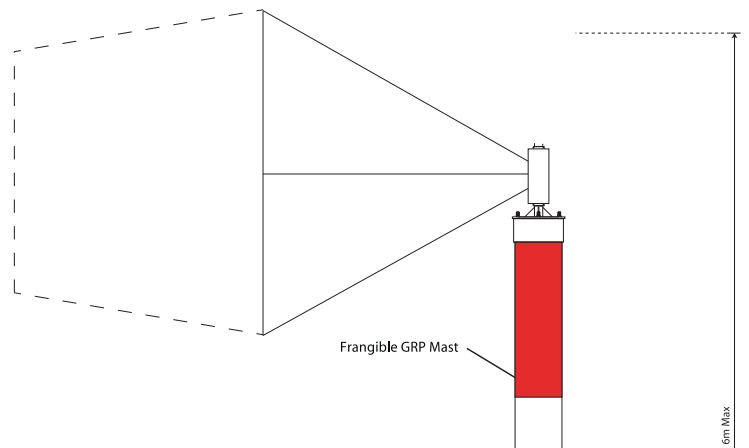
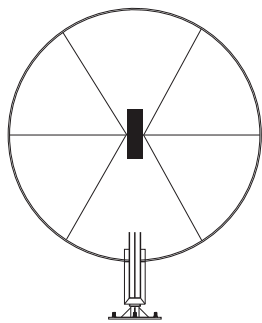
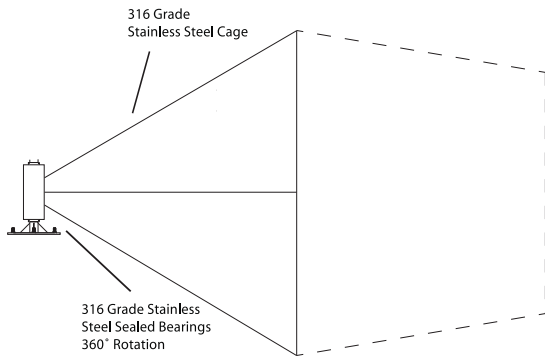
All illuminated Pollite WDI's require 220v - 240v AC for operation.

Pollite

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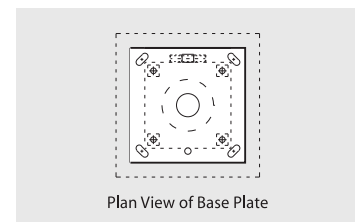
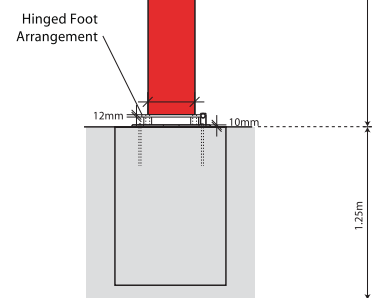


BASIC UNLIT WINDSOCK MAST



STANDARD UNLIT WINDSOCK MAST

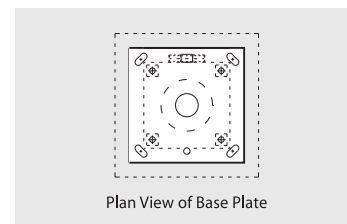
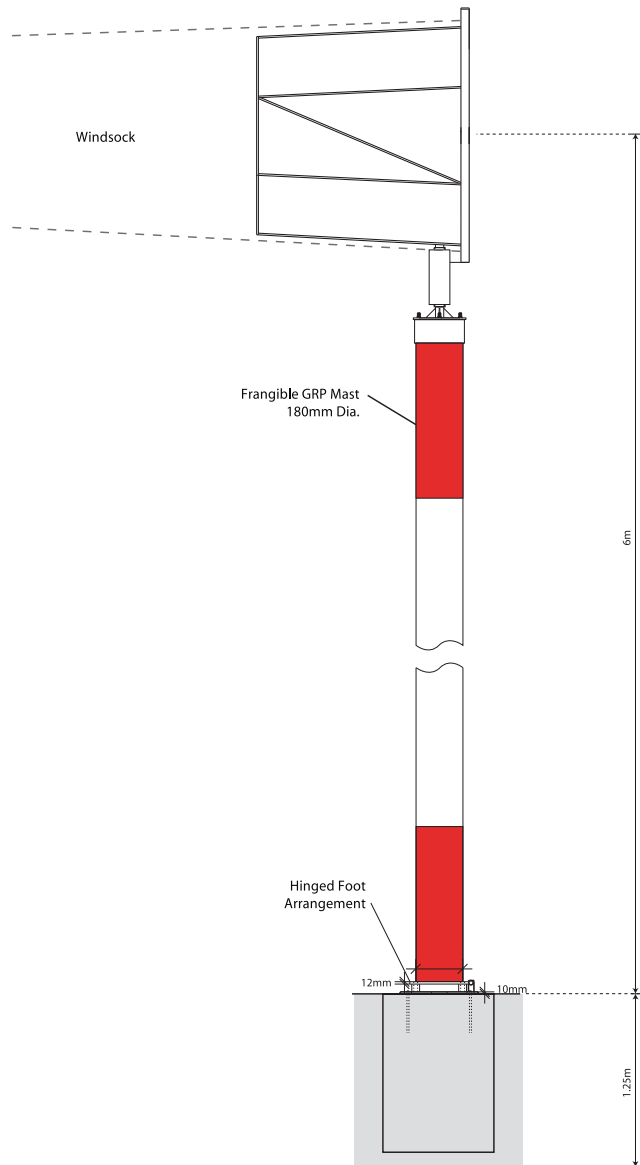
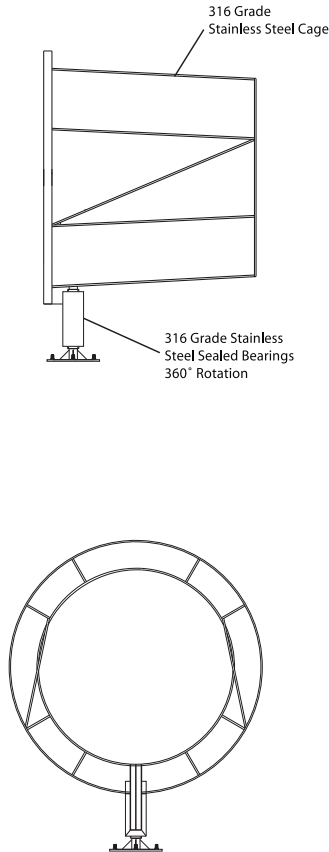
Pollite Frangible Windsock Masts	Millimetres
Pole Diameter (at Base)	125/140/180mm
Wall Thickness	4
Base Plate Measurements	180x180/400x400
Base Plate Thickness	10
Ground Rod Length (Total)	500
Height of Windsock above Ground	6000 Max



Technical drawing is for illustration purposes only

UNLIT AIRPORT WINDSOCK MAST

FAA L807
STYLE II SIZE 2



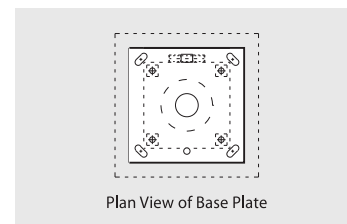
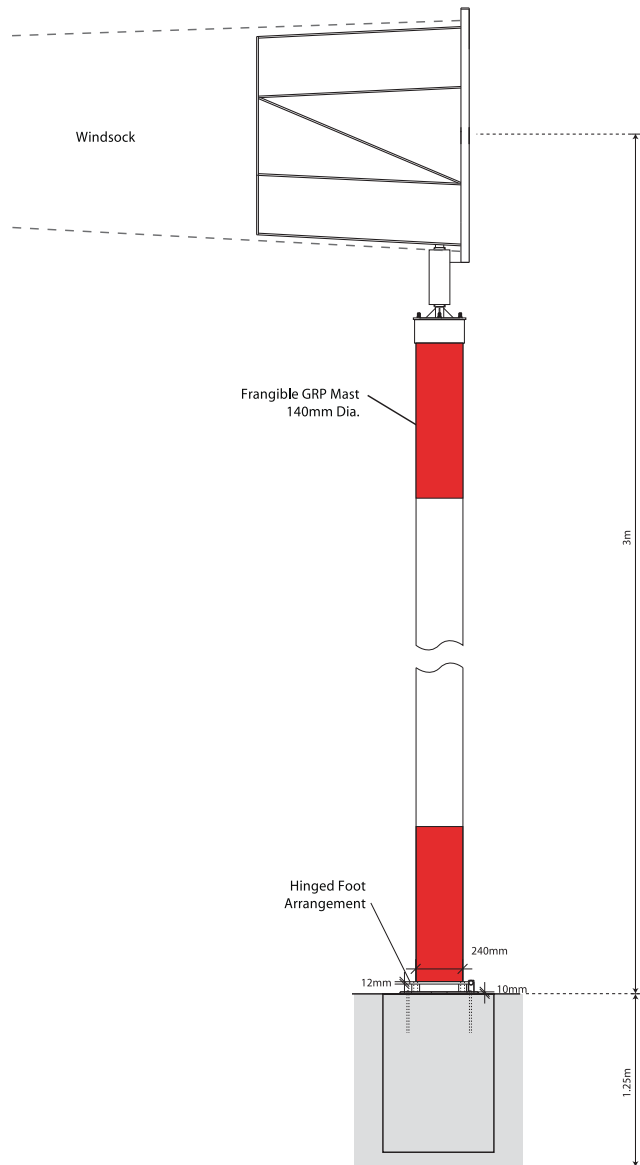
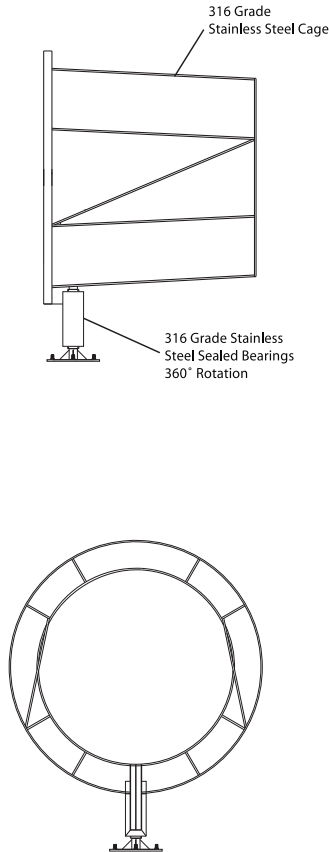
STANDARD UNLIT WINDSOCK MAST

Pollite Frangible Windsock Masts	Millimetres
Pole Diameter (at Base)	180
Wall Thickness	4
Base Plate Measurements	400x400
Base Plate Thickness	10
Base Plate Hole Centres	320x320
Ground Rod Length (Total)	500
Foundation Detail (Guide Only)	650x650x1250
Height of Windsock above Ground	6000
Windsock Throat Opening	900mm
Windsock Length	3600mm - 3750mm

Technical drawing is for illustration purposes only

UNLIT HELIPORT WINDSOCK MAST

FAA L806
STYLE II SIZE 1



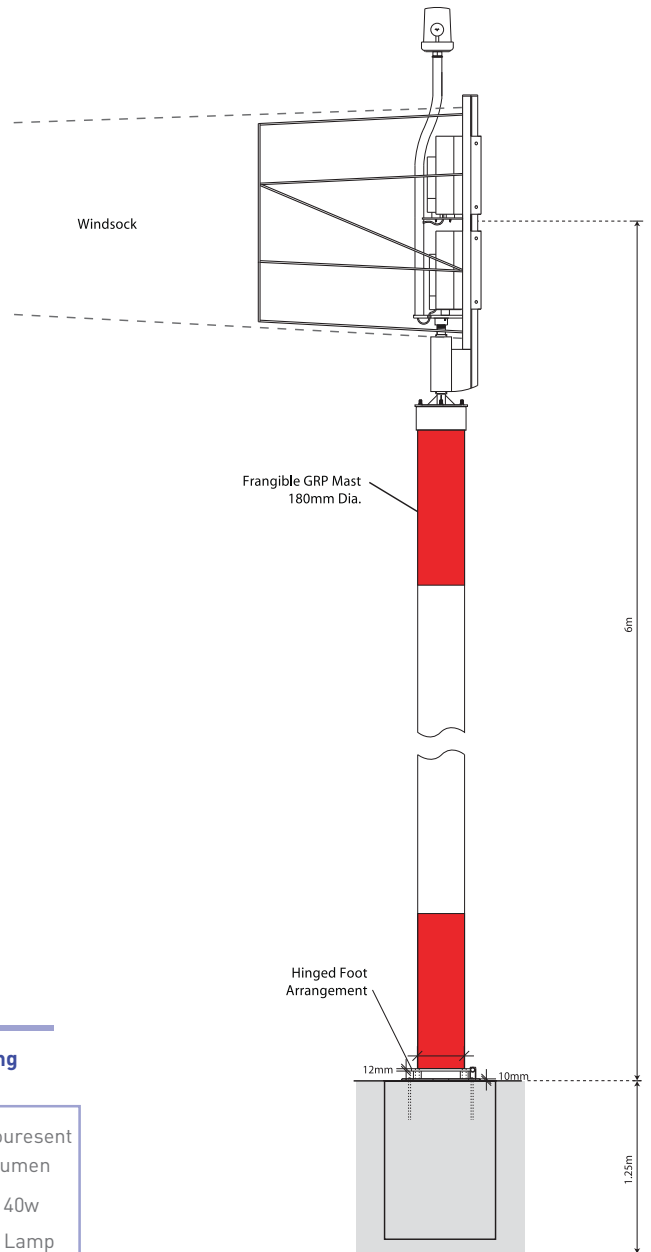
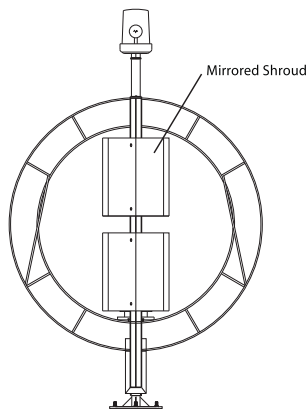
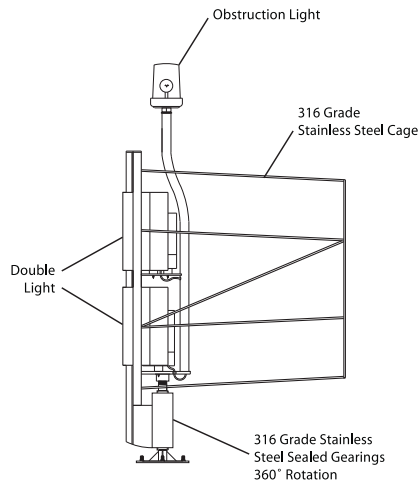
STANDARD UNLIT WINDSOCK MAST

Pollite Frangible Windsock Masts	Millimetres
Pole Diameter (at Base)	140
Wall Thickness	4
Base Plate Measurements	180x180
Base Plate Thickness	10
Ground Rod Length (Total)	500
Height of Windsock above Ground	<3m
Windsock Throat Opening	600mm
Windsock Length	2400mm

Technical drawing is for illustration purposes only

INTERNALLY LIT AIRPORT WINDSOCK MAST

FAA L807
STYLE I-B SIZE 2



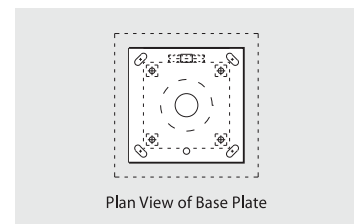
STANDARD WINDSOCK MAST WITH INTERNAL LIGHTING

Pollite Frangible Windsock Masts	Millimetres
Pole Diameter (at Base)	180
Wall Thickness	4
Base Plate Measurements	400x400
Base Plate Thickness	10
Base Plate Hole Centres	320x320
Ground Rod Length (Total)	500
Foundation Detail (Guide Only)	650x650x1250
Height of Windsock above Ground	6000
Windsock Throat Opening	900mm
Windsock Length	3600mm - 3750mm

Lighting

Compact Fluorescent
2x 2680 Lumen
15,000hr 40w
Megaman Lamp

LED
2x 3100 Lumen
50,000hr 30w
LED Lamps



Technical drawing is for illustration purposes only

INTERNALLY LIT WINDSOCK MAST

TECHNICAL DATASHEET - STANDARD MODEL (ICAO-FAA)

FAA L807
STYLE I-B SIZE 2

MAST DETAILS

- Fibreglass Frangible 180mm Outside Diameter Mast
- Wall thickness 4mm
- Height of mast to centre of sock, 6m
- Galvanised Base Plate 400 x 400mm, 10mm wall thickness
- Hole Centres for Base Plate, 320 x 320mm
- Galvanised Steel Foot, 12mm wall thickness
- Ground Rod Length 500 mm
- Recommended Foundation Detail 650 x 650 x 1250mm

WINDSOCK CAGE AND LIGHTING DETAILS

- 90cm diameter Internally Lit 316 Stainless Steel Windsock Frame
- 240V Twin 30W LED Illumination, 50,000 hour life
- All framework and bearings in 316 stainless
- Rotating Windsock Frame on 2 x sealed stainless steel bearings
- Fitted 7m x 3 Core Flexible Armoured Cable with Connector
- 100,000 hour life, 3W LED Obstruction Light (ICAO & FAA Approved) including upright, mount & cable
- Photocell activated, single switch for Obstruction & Windsock lighting

WINDSOCK DETAILS

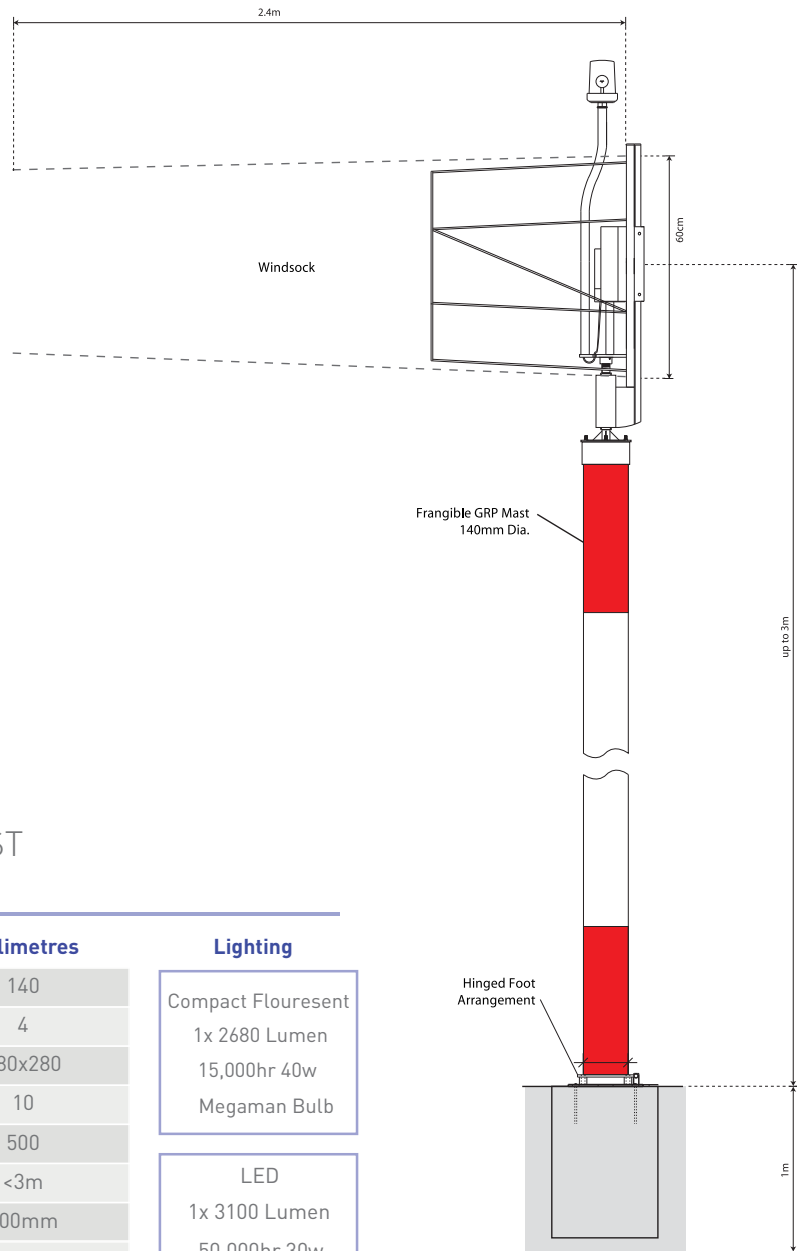
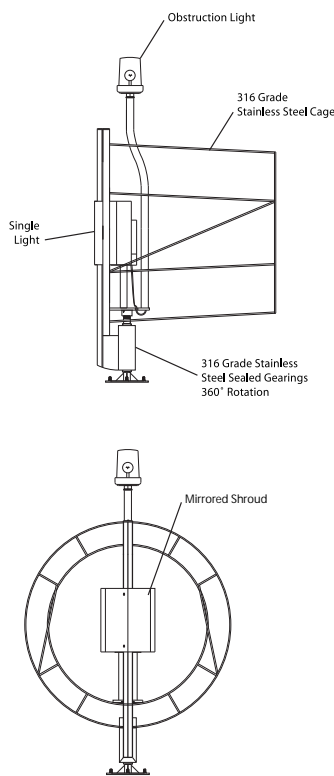
- 3.6m x 90cm Windsock, polyester, available in Red & White bands, Aviation Orange, White, and Black & White bands

INTERNALLY LIT HELIPORT WINDSOCK MAST

TECHNICAL DRAWING

In line with ICAO Annex 14 Vol II Heliports, Pollite have designed a fully frangible and compliant windsock mast. The mast is made from fibreglass and it's frangibility certified to ICAO requirements. The windsock is affixed to a stainless steel frame which rotates 360 degrees on concealed stainless bearings and can be lit internally using a compact fluorescent or LED light source. An LED or standard rough service obstruction light is also available for this wind direction indicator

- Standard Windsock size 2.4m x 0.6m x 0.3m
- Standard Mast Height < 3m
- Windsock Colour Orange/ White / Red & White
- Designed to be visible from up to 200m above



STANDARD WINDSOCK MAST WITH INTERNAL LIGHTING

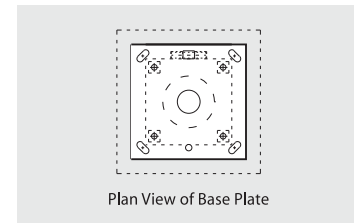
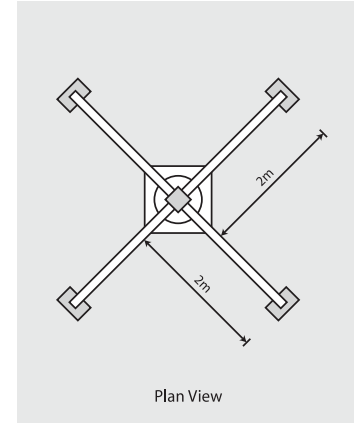
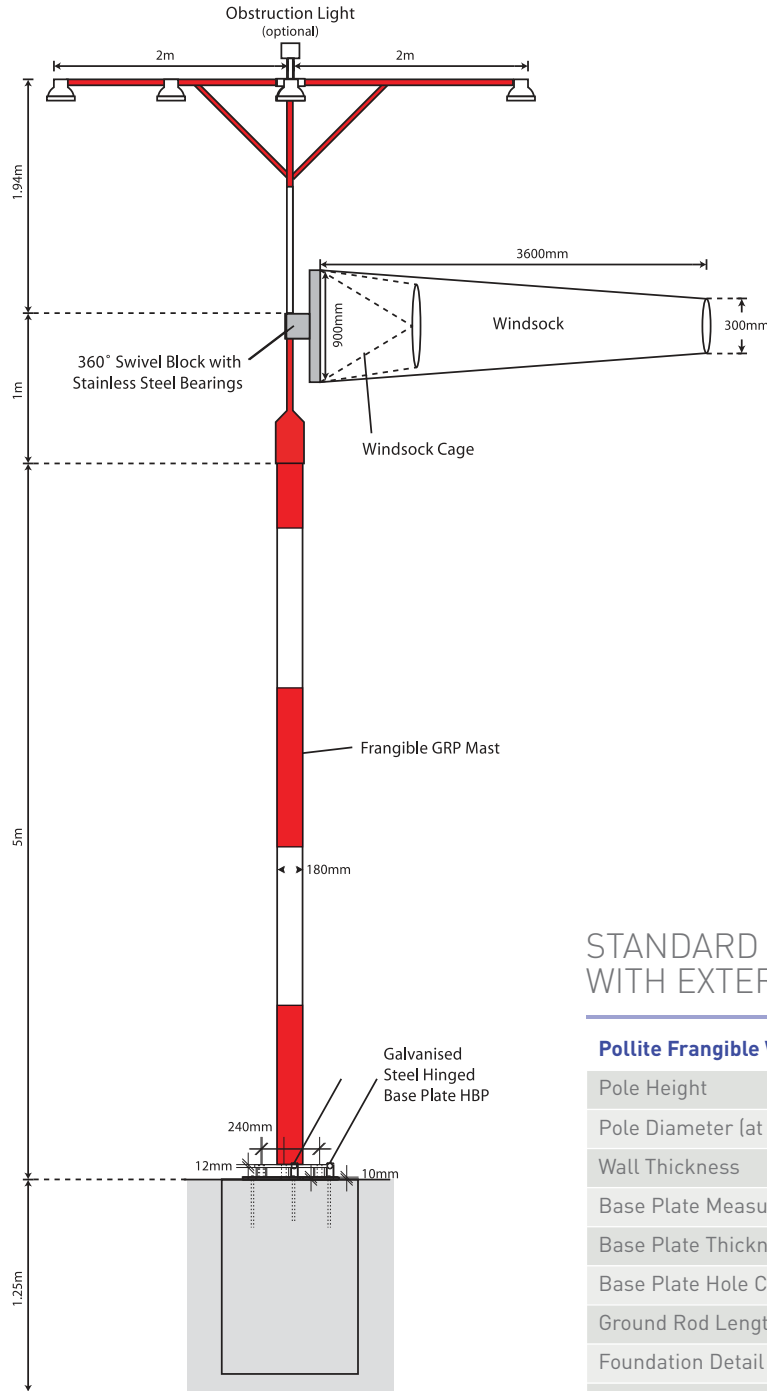
Pollite Frangible Windsock Masts	Millimetres	Lighting
Pole Diameter (at Base)	140	Compact Fluorescent 1x 2680 Lumen 15,000hr 40w Megaman Bulb
Wall Thickness	4	
Base Plate Measurements	280x280	LED 1x 3100 Lumen 50,000hr 30w LED Lamps
Base Plate Thickness	10	
Ground Rod Length (Total)	500	
Height of Windsock above Ground	<3m	
Windsock Throat Opening	600mm	
Windsock Length	2400mm	

Technical drawing is for illustration purposes only

EXTERNALLY LIT WINDSOCK TECHNICAL DRAWING

MAST

FAA L807
STYLE I-A SIZE 2



STANDARD WINDSOCK MAST WITH EXTERNAL LIGHTING

Pollite Frangible Windsock Masts	Millimetres	Lighting
Pole Height	7940	4 x 70w 15,000hr SON Floodlights
Pole Diameter (at Base)	180	
Wall Thickness	4	
Base Plate Measurements	400x400	
Base Plate Thickness	10	4 x 30w 50,000hr LED floodlights
Base Plate Hole Centres	320x320	
Ground Rod Length (Total)	500	
Foundation Detail (Guide Only)	650x650x1250	
Height of Windsock above Ground	6000	

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EXTERNALLY LIT WINDSOCK MAST

TECHNICAL DATASHEET - STANDARD MODEL (ICAO-FAA)

MAST DETAILS

- Fibreglass Frangible 180mm Outside Diameter Mast
- Wall thickness 4mm
- Height of mast to centre of sock, 6m
- Galvanised Base Plate 400 x 400mm, 10mm wall thickness
- Hole Centres for Base Plate, 320 x 320mm
- Galvanised Steel Foot, 12mm wall thickness
- Ground Rod Length 500 mm
- Recommended Foundation Detail 650 x 650 x 1250mm

WINDSOCK CAGE AND LIGHTING DETAILS

- 316 Stainless Steel Windsock Frame
- Alloy Swivel Frame and Acetyl bearing blocks (standard) or Rotating Windsock Frame on 2 x sealed stainless steel bearings (optional)
- 4 x 70W IP65 SON or 4 x 20W LED Floodlights and Support Arms
- Fitted 7m x 3 Core Flexible Armoured Cable with Connector
- 100,000 hour life, 3W LED Obstruction Light (ICAO & FAA Approved) including upright, mount & cable
- Photocell activated, single switch for Obstruction & Windsock lighting

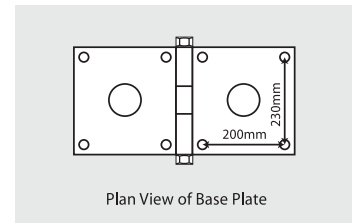
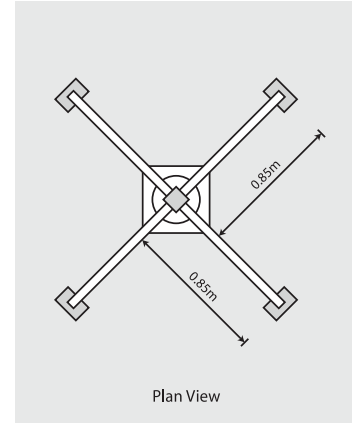
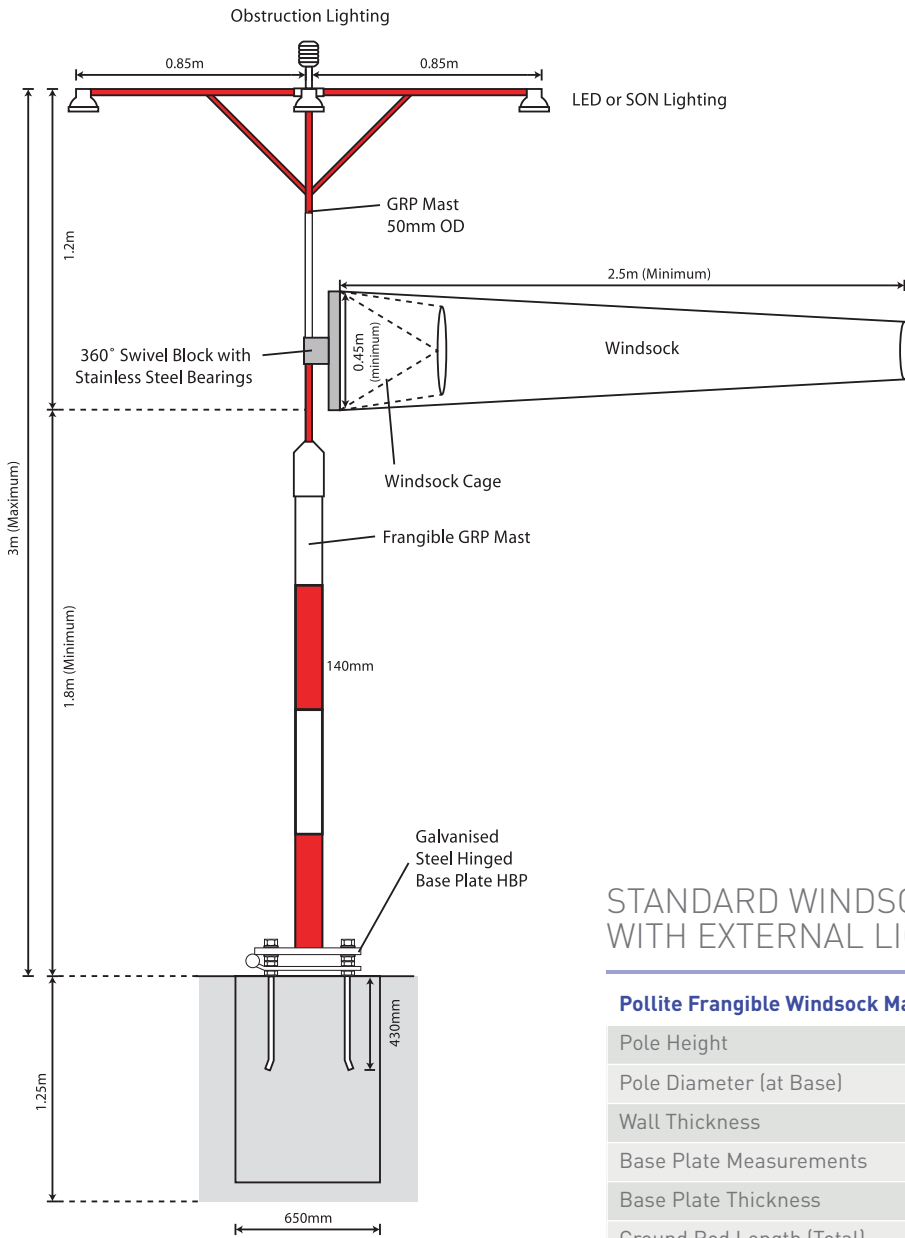
WINDSOCK DETAILS

- 3.6m x 90cm Windsock, polyester, available in Red & White bands, Aviation Orange, White, and Black & White bands

EXTERNALLY LIT HELIPORT WINDSOCK MAST

TECHNICAL DRAWING

FAA L806
STYLE I-A SIZE 1



STANDARD WINDSOCK MAST WITH EXTERNAL LIGHTING

Pollite Frangible Windsock Masts	Millimetres
Pole Height	3000
Pole Diameter (at Base)	140
Wall Thickness	4
Base Plate Measurements	280x280
Base Plate Thickness	10
Ground Rod Length (Total)	500
Foundation Detail (Guide Only)	1250x650x650

Lighting

4x 50w
15,000hr
SON
Floodlights

4x 20w
50,000hr
LED
Floodlights

Power Supply 220-240v AC

Technical drawing is for illustration purposes only

WINDSOCK MASTS

IMAGERY



Reflective Back Panel



Rotating Head



Stainless Steel Open Throat 90mm Dia



Twin 40W Compact Fluorescent Light Arrangement

WINDSOCK MASTS

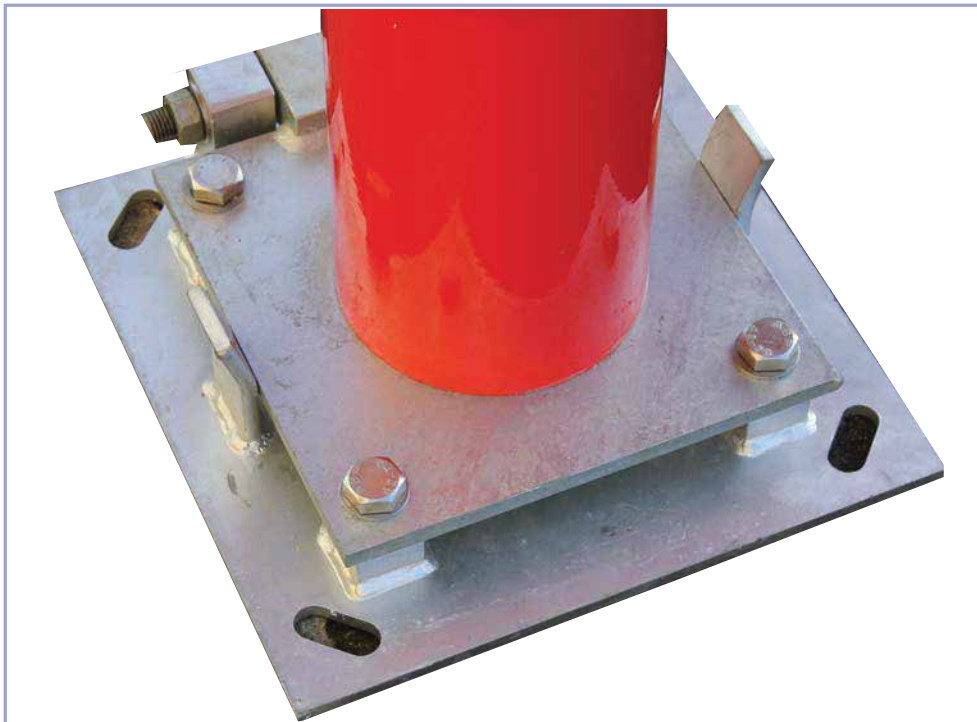
IMAGERY



Twin 30W LED Light Arrangement



LED Obstruction Light Fitted above sock



Hinged Base Plate

NOTES

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