



Type 23B/3

Higher power capability base mounted marine HF whip antenna for large vessels over 18 metres (60 feet)

The type 23B/3 is a 7 metre (23 ft) heavy duty self supporting whip antenna with a power capability of 1.2 kW PEP in the frequency range 1.6 to 30 MHz. It is designed to provide efficient and reliable communications for Professional Ocean going vessels, where higher power and environmental capability is required.

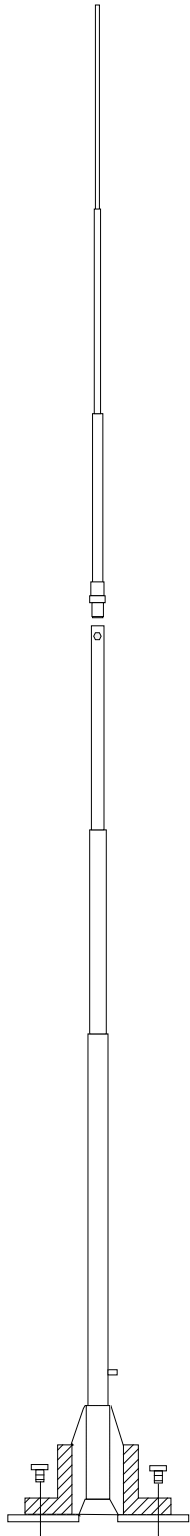
The 23B/3 is base mounted and designed to withstand constant wind speeds up to 250 km/h (156 mph) without permanent deformation effects. Construction is of heavy gauge marine grade aluminium alloy tubing to give a large low loss surface area for maximum radiating efficiency, fully protected by a high durability epoxy based coating resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation. The base insulator is ribbed low loss polypropylene with stainless steel connection. A low loss loading coil 2.75 m (9 ft) from the top is available as an option.

For ease of transport, the antenna breaks down into two sections [base 3.76m (12.3 ft); top 3.35m (11 ft)] which slip together and fasten with four stainless steel locking screws.

The 23B/3 is available unloaded or resonant at a single frequency of 4.6 MHz. For operation on frequencies other than the resonant frequency, the difference is made up in the antenna tuning unit.

Specifications

Colour	Standard is White. Optional other colours.
HF Marine Band	2-30 MHz
Length	7.0 metres (23 ft)
Pattern	Omnidirectional
Polarisation	Vertical
Frequency Range	Pretuned to 4.6 MHz or, unloaded, 1.6-30 MHz with suitable ATU
Wind Loading	8.8 kg at 100 km/h (19.5 lbs at 60 mph) 20 kg at 150 km/h (44 lbs at 94 mph) Antenna survival : 250 km/h (156 mph)
Power Capability	1.2 kW PEP for unloaded top sections, 800 w PEP for 4.6 MHz top sections
Base Insulator	>25 kV insulator flash over voltage (test conditions: antenna dry)
Radiator	Total radiating surface: 5,500 sq cm (5.9 sq ft)
Mountings	Cast aluminium alloy base flange and support tube with integral base insulator and O ring
Base Mount Finish	Epoxy based enamel
Connection	M6 stainless steel stud and lock nuts direct to antenna
Packed Weight	9kg (19.8 lbs) Antenna and base unpacked 7 kg (15.4 lbs)



Specifications subject to change – Issued 07/13

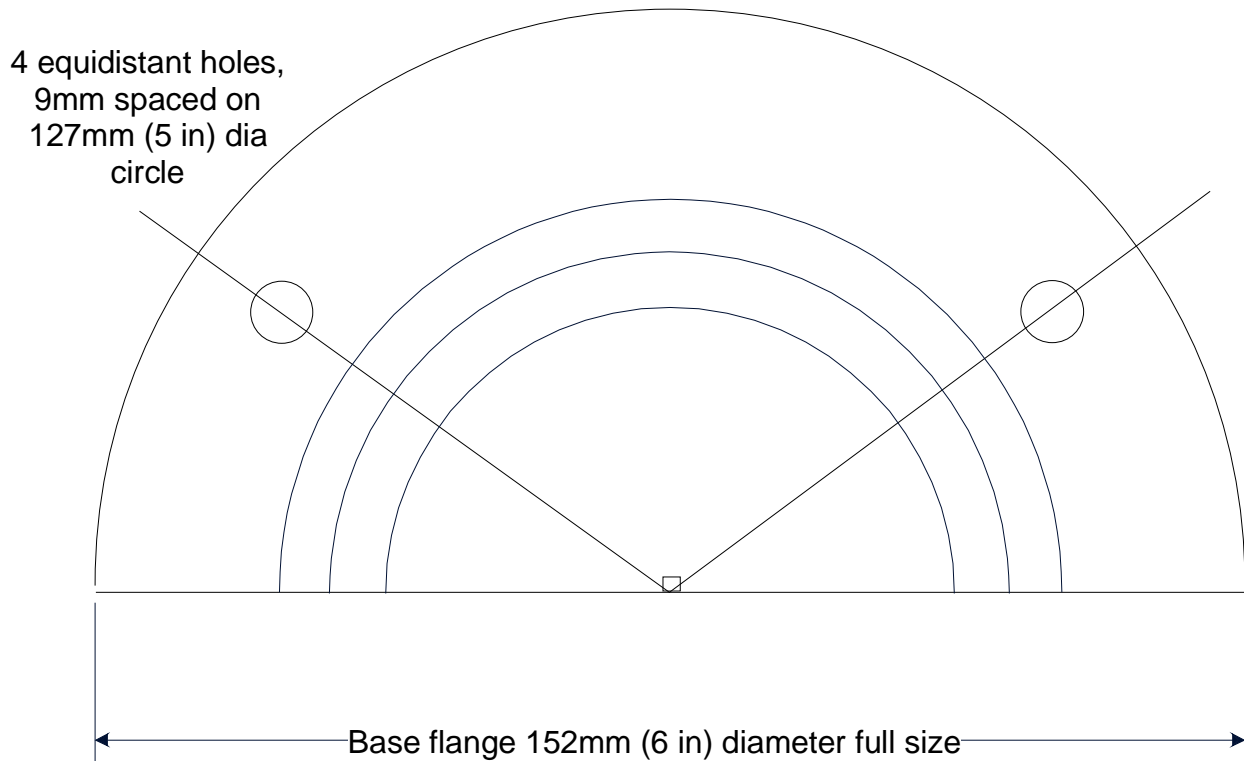
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23B/3 INSTALLATION INSTRUCTIONS



Assembly

1. For ease of maintenance lightly smear the antenna middle joint with grease and push firmly together. Place silicone sealant on screw thread before screwing into place.
2. Tighten screws firmly and cover heads with sealant.
3. Drill four 8 mm (5/16 in) clearance holes to suit base mount in position required. Erect the aerial and bolt down using 8mm (5/16 in) S/S bolts.
4. Use sealant on underside of mount and on bolts to prevent ingress of moisture.

Connection

Connecting wire from tuning unit to aerial should be not less than 7/1.04 hard drawn insulated copper cable. It should be run well clear of metal objects and be as short and direct as possible. Cover the connections liberally with silicone sealant. We recommend the use of Moonraker feedthrough and standoff insulators for this antenna.

N.B. Sealant should be non-acid neutral cure type. Acid cure type sealant will attack copper and aluminium.



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