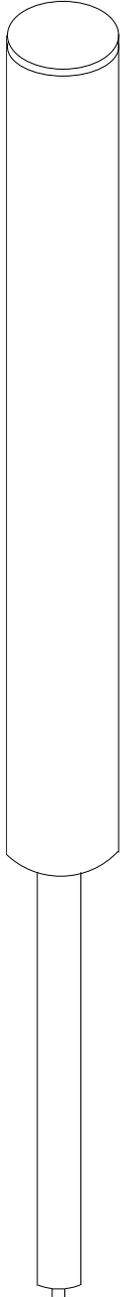




Type MD/HS

High Strength Low Maintenance VHF Base Station Antenna



A rugged fully radome enclosed VHF base station antenna for professional use in harsh environments.

The MD/HS antenna was developed in response to user requests for a very low maintenance omnidirectional VHF base station antenna able to withstand high wind velocities, together with radial ice build up such as on mountain tops and highly corrosive atmospheres with cyclonic winds as in the tropics.

The MD/HS meets these criteria.

The antenna is a derivation of our high performance half wave ground independent Type MD, fully enclosed in a poly vinyl chloride radome with a heavy duty galvanised mounting pole. The radome minimises the affects of precipitation static yet provides a low surface tension to reduce ice build up. All metal parts of at DC earth potential for static discharge with other fittings of nylon and stainless steel.

Specifications

VHF Band	66-180 MHz
Overall Length	2.07 metres (6.8 ft) approx (frequency dependent)
Mounting Pole Length	812 mm (32 in)
Mounting Pole Diameter	42.5 mm (1.67 in)
Diameter of Radome	69 mm (2.7 in)
Pattern	Omnidirectional, maximum radiation 90° to radiator
Polarisation	Vertical
Frequency Range	Pre-tuned to any specified frequency in the VHF Bands. Special frequencies (e.g. aircraft bands) to order.
Bandwidth	7 MHz
VSWR	Better than 1.2:1 at centre frequency
Gain	2.2 dBi
Impedance	50Ω nominal
Power Capability	100 watts; higher powers to order
Connection	Female N Type or UHF S0239 connector permanently fitted into base
Wind Loading	Designed to withstand wind velocities of 230 km/h (143 mph) with no ice and 170 km/h (106.25) with 25mm (1 in) radial ice build up
Mountings	Utilise side clamps directly on to mounting pole. Do not drill mounting tube. Minimum mount spacing 300mm (11.8 in)
Packed Weight	7 kg (15.4 lbs)



Specifications subject to change – Issued 07/13

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TYPE MD/HS INSTALLATION INSTRUCTIONS

Mounting

The antenna is designed to be clamped to a short mounting pole or mast.

As the antenna is designed to withstand 230 km/h winds, it is important that the mounting pole or mast is constructed from strong material.

The antenna should be clamped to mounting pole using two (2) U bolts or similar. It is important that the clamps used are heavy duty to maintain the 230 km/h rating. Moonraker can supply suitable mounts upon request.

1. Slide the U bolt clamps over the antenna base tube and then over the mounting pole that is to support the antenna.
2. The clamps should be spaced a minimum of 300mm apart.
3. Ensure that the clamps are fitted with spring or anti vibration lock washers.
4. Securely tighten the U bolt nuts onto the lock washers.
5. When attaching the coaxial cable, ensure that the joint is sealed against water ingress.
6. Arrange the coaxial cable in a U shape to provide a drip point for water to run off and not run onto joint (connector).
7. Fasten the coaxial cable securely to the mounting pole so that no strain is placed upon the connector.

Important Factors

1. The mounting tube must not be drilled or damaged in any way.
2. The antenna should be mounted as high as possible and kept clear of metal objects which may affect antenna tuning. For best results antenna should be vertical and not sloping.
3. Note that due to the internal arrangements in this antenna it will exhibit a short circuit if tested with an ohm meter or DC circuit tester.



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