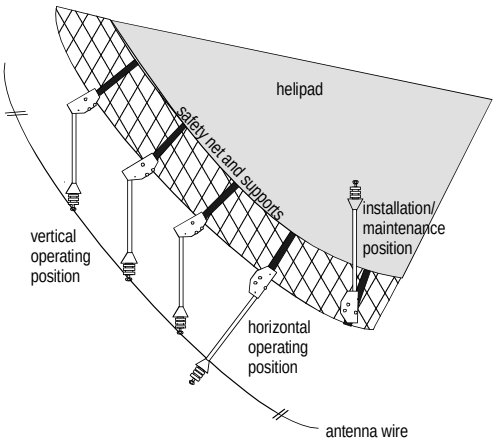
MOONRAKER

Type HD MF

Professional high quality self supporting LF/MF antenna system for helidecks

Designed for use on offshore oil and gas platforms and buildings with non directional LF/MF beacons operating in the 200-500 KHz aircraft band, where land and air space available for installation is at a minimum.



The HD MF antenna system extends around the perimeter of the helicopter landing pad at or below deck level. The system comprises multi strand hard drawn copper wire radiating element, which is supported by a number of tubular standoffs and insulators.

For optimum performance, the required antenna length is determined by operating frequency. However, this may be varied according to the size of the helipad where insufficient space is available, an efficient antenna tuning unit (ATU) being required to make up the difference. The number of standoff support insulators is determined by physical antenna length. A typical installation would comprise 12 standoffs plus a support standoff at each end. RF connection is direct from one end of the antenna to the antenna tuning unit.

Insulator construction is of low loss polypropylene. Insulator outer ends are fitted with a stainless steel eyebolt to facilitate threading through the antenna cable. The inner ends of the galvanised steel tubular sections are fitted with a hot dip galvanised steel channel section permitting the tubes to be locked in the vertical upwards maintenance/installation position or the vertical downwards or horizontal operating positions, thus allowing maximum freedom for landing aircraft and to comply with local safety regulations. The channel section may be bolted or welded to the helideck safety net supports. Antenna cable is supplied with stainless steel wire clamp grips for making off and the two end tubes are fitted with stainless steel thimbles and turnbuckles to enable tensioning of the antenna from each end.

Efficiency and range of this type of antenna is dependent upon a number of factors: quality of installation and earth, transmitter power, ATU efficiency, frequency of operation and atmospheric noise. All have a bearing on range. Notwithstanding, with a transmit power of 100w, a reliable operating range of better than 100 km (52 miles) should be possible.

Specifications

Frequency Range	200-500 KHz (with suitable ATU); other frequencies to order
Antenna Length	Frequency/site dependent
Antenna Standoff Distance	480mm (1.6ft)
Antenna Standoff Positions	Either horizontal or vertical below the deck with a vertical up position for installation and maintenance
Pattern	Omnidirectional
Polarisation	Horizontal
Power Capability	150w CW plus 100% amplitude modulation; higher powers to order
Wind Survival	230 km/h (144 mph)
Mounting	By bolting or welding to helideck safety net supports
RF Connection	Direct from one end of antenna to ATU
Earth Connection	To achieve optimum performance at these frequencies an efficient earth connection is essential, particularly with physically short antennas. Systems can be designed for individual conditions where a suitable earth does not exist.
Packed Weight (typical)	38 kg (83.6 lbs)

Specifications subject to change – Issued 01/09/13

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