

Specification for High Masts with base hinging system

LIGHTING STRUCTURES "HYDRO" TYPE MASTS

30 and 40 metre High Mast

The mast shall be designed in accordance with SANS 0225 and manufactured by an **ISO 9001: 2008** accredited company.

Designs shall be appropriate for the applicable Altitude and Terrain Category where the mast is to be installed

Mast Shaft

The Mast shall be constructed from flat steel sheets, cut and bent into a twelve sided continuously tapered shaft comprising of a number of sections which are slip fitted together on site to form the overall mast shaft. The slip lengths shall be in accordance with SANS 0225.

The mast shaft shall be slip fitted to the lid section described below.

The base section of the mast shall comprise of a base section and a lid section and two sections shall be joined at the hinge point by means of a solid round bar passing through the base and lid section.

The hinge point shall be no more than 1500 mm above the base plate of the mast thus ensuring that when in the lowered position the entire mast shaft is accessible from ground level allowing for inspection of the entire mast

The base section shall house the purpose designed locking mechanism which by nature of its design ensures that it is not possible for the mast to hinge open before the tension load has been released via the hydraulic Rams (See hinging description)

All steelwork is hot dipped galvanised to SABS ISO 1461

Floodlight Mounting Ring

The mast shall be equipped with a Floodlight Mounting Ring suitable to house the specified number and type of floodlights

The Floodlight mounting ring shall have the required number of floodlight spigots/mounting

Electrical Equipment

The mast shall be equipped with an electrical distribution board, mounted inside the base of the mast, accessible through a lockable door and housing the appropriate electrical control equipment.

A multicore NITRAL trailing cable fitted with a multi-pin socket shall plug into the distribution board and terminate in a weather proof Fibre Glass splitter box mounted on the floodlight ring. The floodlights shall be powered from flexible cables between the splitter box and the lights.

The floodlight luminaires shall be controlled by a photocell mounted on the splitter box

Hinging of the mast

The mast is hinged open by the installation of the portable Hydraulic rams onto the mast base and coupling these to the lugs in the lid section of the mast

The Hydraulic rams operated from a portable hydraulic pack extend (push) the rams, allowing for the safe uncoupling of the locking mechanism in the base and then the ram action is reversed (pulling the lid section and complete mast shaft into the lowered position until the mast head-frame assembly is at near ground level.