



High Masts & Poles

HIGH MASTS

Crompton manufactures energy-saving high mast lights that illuminate large areas. These high-performance lights are perfect for golf courses, sports stadiums, oil refineries and busy airports. This lighting solution helps in ensuring pedestrian safety and monitoring places of storage.

Crompton High Mast lighting as a concept in area lighting is increasingly preferred over conventional lighting. This is especially true for large areas where numerous lighting columns can be a hazard to movement. High mast lighting systems achieve very large space to height ratios, providing maximum illumination with the least possible number of lighting columns.

High mast lighting is ideal for many areas, particularly complicated or multi-level road systems, industrial or commercial areas, docks, airports, stations, car parks and even some hazardous areas. All of these areas require the best possible lighting with minimum interference from the installation itself combined with ease of maintenance.

FEATURES

Our high mast is a continuously tapered, polygonal cross section of at least 20 sides, presenting a good and pleasing appearance which is based on proven in tension design conforming to the Technical report no.7 - 1996 of the Institution of Lighting Engineers. UK. to give an assured performance and reliable service. The structure is suitable for loading as per IS 875 (part 3) 1987.

CONSTRUCTION

High mast is fabricated from steel plates conforming to BS-EN 10025, cut and folded to form a polygonal section. Masts are in two sections for 16 & 20 Mtr and in three sections for 25 & 30 Mtr heights having only longitudinal weld conforming to BS 5135/AWS. The mast is provided with a fully penetrated flange which is free from any laminations or incursions. The welded connection of the base flange is fully developed to the strength of the entire section. The base flange is provided with supplementary gussets between bolt holes to ensure elimination of helical stress concentration. For environmental protection of the mast, the entire fabricated mast is Hot Dip Galvanised (Single Dip) internally and externally, having uniform coating thickness of 85 / 65 microns for bottom / top sections respectively.





DOOR OPENING

An adequate door opening is provided at the base of the mast. The opening is such that it permits clear access to equipments like winch, cable, wire rope, plug & socket etc. and also facilitates easy removal of the winch for servicing. The door opening is complete with a close fitting vandal resistant allen key locking with provision for external lock. The door opening is carefully designed and reinforced with adequate steel section so that the mast section at the base is unaffected, and undue buckling of the cut portion is prevented under heavy wind condition.

DYNAMIC LOADING

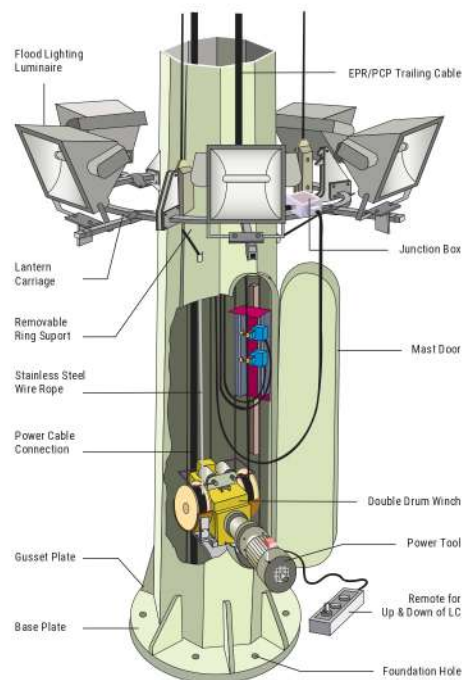
Our mast structure is designed to sustain an assumed maximum reaction arising from wind speed as per IS 875 (Part 3) 1987 (three seconds) which is measured at a height of 10 mtrs above ground level. Our standard masts are suitable for a wind speed of 180 Kms/hour (50M/Sec) we can also offer masts suitable for a wind speed of 198 kmph and 225 kmph (62.5 M/sec).

ACCESSORIES

The high mast is provided with accessories as per customer requirements. Generally, these include a raising and lowering system (R & L), trailing cable, power tool, feeder pillar for automatic switching operation of luminaires, lighting finial and aviation obstruction warning light. The R & L system will comprise a double drum winch, SS wire ropes, head frame and lantern carriage. The winch is of a self-lubricating and self-sustaining type. It does not require any brake or clutch and has a lifting capacity of SWL 750 Kgs.

The wire ropes are of stainless steel grade AISI316 with minimum 6mm diameter and 7/19 construction. Its central core is also SS and has a breaking strength of 2350Kgs.

The power tool is integral / external type suitable for handling the total head load. It has a mechanical torque limiter to ensure safety, and a manual handle is also provided. It is suitable for use in open areas, airports, railway stations, road junctions, container yards etc.



HIGH MAST STRUCTURE

Height of mast (mtrs.)	12.5 Mtr.	16 Mtr.	20 Mtr.	25 Mtr.	30 Mtr.
Material of Construction	BSEN 10025 Equivalent				
Plate Thickness	Top 3 mm - Bottom 3 mm	Top 3 mm - Bottom 4 mm	Top 3 mm - Bottom 4mm	Top 4 mm Middle 4 mm Bottom 5 mm	Top 4 mm Middle 4 mm Bottom 5 mm
Cross Section of Mast	12 Sided Polygon	20 Sided Polygon	20 Sided Polygon	20 Sided Polygon	20 Sided Polygon
Section Leght	Top 6500 - Bottom 6500	Top 8250 - Bottom 8250	Top 10300 - Bottom 10300	Top 8750 Middle 8750 Bottom 8750	Top 10500 Middle 10500 Bottom 10500
Bottom (A/F)	300	360	410	460	600
Top (A/F)			150		
Diameter of Base Plate	520	540	570	670	840
Thickness of Base Plate	25	25	30	30	32

FOUNDATION BOLTS

No. of Foundation Bolt	6	8	8	12	12
PCD of Foundation bolts	445	460	490	590	740
Diameter	M 24	M 30	M 30	M 30	M 30
Length of Foundation Bolts	750	850	850	850	850

LANERN CARRIAGE

No. of Luminaires	6	9	12	12	16
Orientation	Symmetrical				
Number of Joints	2 or 3				
Number of Arms	6	9	6	6	6

DYNAMIC LOADING

Max Design Wind Speed	50 m/s				
Winch / Power Tool Type	Double drum				
SWL of Winch	500 Kg	500 Kg	500 Kg	750 Kg	750 Kg
Method of Operation	Integral Motor				
Motor Capacity	1.5 HP	1.5 HP	1.5 HP	2 HP	2 HP
Torque Limitor			Mechanical		

STAINLESS STEEL WIRE ROPE

Grade	AISI 316				
Construction	7/19				
Number of Ropes	3 Nos of 6 mm for Lantern Carriage, 2 Nos of 6 mm for Double Drum Winch				
Diameter	2 wire rope system for 12.5m HM, 6 mm				
Breaking Load Capacity	2350 Kg				

TRAILING CABLE

Conductor	5 core 2.5 sq mm or 5 core 4 sq mm				
Insulation	Flexible				
No. of Circuits per Mast	One	One	One	One	Two

POWER TOOL

STANDARD ESSENTIAL ACCESSORIES OFFERED WITH HIGH MASTS: Mast shaft, head frame with pulleys lantern carriage, luminaire mounting arms (6 nos), 'U' bolts, lighting finial, stainless steel wire ropes 3 nos. for lantern carriage +2 nos for winch, transient plate, double drum winch, power tool, winch & power tool mounting bracket, foundation bolts & nuts, anchor & tern - plate top junction box & LED type aviation light.

OPTIONAL ITEM: • LED type aviation light • Feeder pillar

STREET LIGHTING POLES

With the passage of time the concept of Street lights have under gone a major transformation. From being merely functional elements satisfying illumination requirements during the night time, it now doubles up as street furniture during the day time. The street lighting poles are also contributing immensely to the beauty and character of the changing cityscape. To reduce the clutter on the streets the street lighting poles, today, are also being designed for various street functions.

Crompton offers a wide variety of Hot Dip Galvanised Octagonal poles with a study base plate. Our octagonal poles have a galvanising thickness of 65 microns (internally and externally). This protective coating ensures a long product life and does not require periodic painting. Octagonal poles by Crompton have a distinct edge over conventional round stepped-swedged welded poles.

- Hot dip galvanized (65 microns) internally and externally
- Sleek, elegant and pleasing aesthetics with flushed door
- Bracket design as per customer requirements (on request at extra cost)



HOT DEEP GALVANIZED POLES

Crompton offers a wide variety of Hot Dip Galvanised Octagonal / Conical poles which can be used for illumination, power distribution and various other application.

These poles are hot dip galvanized after fabrication, internally and externally in accordance with IS-2629 / BSEN ISO 1461 or equivalent. Octagonal poles by Crompton have a distinct edge over conventional round stepped-swedged welded poles.

FEATURE :

- Ease of installation
- Sleek, elegant and pleasing aesthetics. with flushed door.
- Galvanizing reduces the risk of corrosion and maintenance costs.
- Electrically safe with inside cable termination and earth connection.

MATERIAL SPECIFICATION :

The steel galvanized used to manufactured steel poles is as per BSEN 10025 or equivalent.

MOUNTING BRACKET :

Crompton Greaves can supply galvanised arm brackets along with spigots matching with diffrent types of poles and as per customer requirments. Typical arrangement and dimensional details for single arm and double arm bracket along with spigot suitable for different types of poles given here in.





DECORATIVE POLES

CROMPTON CANDLEYA

Steel poles made out of GI pipe section with lower portion of pole made of MS. The poles have diameter 60mm to 90mm at the top. Base is made of 8mm/12mm thick MS sheet with holes suitable for 16mm foundation bolts. The base is so designed that the foundation bolts are not visible.

The poles are painted with multiple coats of weather resistant polyurethane paint. The service window at the lower part of the pole contains connector, cut-outs, MCB.



CROMPTON VOILA

Steel poles made out of GI pipe section with dia cast aluminium embellishments. The poles have diameter 60mm to 90mm at the top and 114mm to 140mm at the bottom. Base is made of die cast MS with holes suitable for 16/20/24mm foundation bolts.

Pole is pure polyester based powder coated with high corrosion resistance and chemical chromatised protection. Also available with multiple coats of weather resistant Polyurethane paint in various colors. The service window at the lower part of the pole contains connector, cut-outs, MCB.



CROMPTON MAATRA

Steel poles made out of GI pipe section with dia cast iron pedestal. The poles have diameter 60mm at the top and 114mm at the bottom.

Pole is pure polyester based powder coated with high corrosion resistance and chemical chromatised protection. Also available with multiple coats of weather resistant Polyurethane paint in various colors. The service window at the lower part of the pole contains connector, cut-outs, MCB.



Crompton

CROMPTON TROSSA

Steel poles made out of GI section with cast iron embellishments. The poles have diameter 78mm at the top and 140mm at the bottom. Base is made of die cast iron with holes suitable for 16mm foundation bolts.

Pole is pure polyester based powder coated with high corrosion resistance and chemical chromatised protection. Also available with multiple coats of weather resistant polyurethane paint in various colors. The service window at the lower part of the pole contains connector, cut-outs, MCB.

Grooved Steel Pole

Pole is also available in Grooved GI Sections. The poles have diameter 72mm at the top and 133 mm at the bottom.



CROMPTON BRASSO

Steel poles made out of GI section with cast iron embellishments. The poles have diameter 90mm at the top, diameter 114 in middle and 140mm at the bottom. Base is made of die cast iron with holes suitable for 20mm and 24mm foundation bolts.

Pole is pure polyester based powder coated with high corrosion resistance and chemical chromatised protection. Also available with multiple coats of weather resistant polyurethane paint in various colors. The service window at the lower part of the pole contains connector, cut-outs, MCB.

Grooved Steel Pole

Pole is also available in Grooved GI Sections. The poles have diameter 83mm at the top, diameter 107mm in middle and 133 mm at the bottom.



CROMPTON GLOWEL

Steel poles made out of GI section with cast iron embellishments. The poles have diameter 90mm at the top, diameter 114 in middle and 140mm at the bottom. Base is made of die cast iron with holes suitable for 20mm and 24mm foundation bolts.

Pole is pure polyester based powder coated with high corrosion resistance and chemical chromatised protection. Also available with multiple coats of weather resistant polyurethane paint in various colors. The service window at the lower part of the pole contains connector, cut-outs, MCB.

Grooved Steel Pole

Pole is also available in Grooved GI Sections. The poles have diameter 83mm at the top, diameter 107mm in middle and 133 mm at the bottom.



CROMPTON FRONTERA

Steel poles made out of GI section with cast iron embellishments. The poles have diameter 60mm at the top and diameter 165mm at the bottom. Base is made of die cast MS with holes suitable for 16mm to 24mm foundation bolts.

The poles are painted with multiple coats of weather resistant polyurethane paint. The service window at the lower part of the pole contains connector, cut-outs, MCB.





BRACKETS

Brackets are made out of steel sections of various diameters. Brackets can be made to be mounted on the pole of diameter 60mm/90mm as per requirement. Embellishment are made in MS/Aluminum. The brackets are painted with multiple coats of weather resistant polyurethane paint. Hot dip galvanizing can be done on the complete bracket on request.

SINGLE ARM



WALL



DOUBLE ARM



SINGLE ARM



DOUBLE ARM



SINGLE ARM



DOUBLE ARM



SINGLE ARM



DOUBLE ARM



SINGLE ARM



DOUBLE ARM



SINGLE ARM



DOUBLE ARM



SINGLE ARM



DOUBLE ARM

