

High Mast | Mobile Mast | Signage Mast | Stadium Mast | Conical Pole | Octagonal Pole

No, 354 Bharathi street Gnamoorthy nagar ambattur Chennai-600053 Tamilnadu

Mobile:+91-9677085836; off:- 044-65476548 mail us dhakshanpower@gmail.com web: www.dhakshanpower.com

No354, Bharathi street Gnamoorthy nagar Ambattur , chennai-600053.Tamilnadu India

Mobile:+91-9677085836: 044-65476548: +919962955515// www.dhakshanpower.com/ // www.indiamart.com/dhakshan-power/

Introduction of High mast

Although there are relatively few reports describing the use of lighting tower, those that are available seem to converge in their conclusions that the use of lighting tower for nighttime driving, Sports stadium, Airport, Railway yard, Road construction & many other place has the potential to improve visibility for night time road work and in some cases, to allow it be completed more efficiently in some locations.

The high Mast shall be of continuously tapered, polygonal cross section polygon type (**Minimum 16 - Sides**) good visual appearance and shall be based on proven design to given assured performance, reliability and service. The Mast shall have an approximate top diameter of say 180 mm to 200 mm and bottom diameter of 400mm to 450mm. The weight of the Mast shall not exceed more than 1600 kgs according to the height. Excluding weight of Luminaries, to maintain good elasticity of slender structure.

Our Commitment

- a) We can provide single longitudinally welded Mast on request.
- b) Minimum thickness is not less than 4mm unlike other foreign manufacturers of 3mm
- c) Lantern carriage has a 3 point suspension system with perfect balancing.
- d) The double drum, Winch has compensating disc, by virtue of which the tilt of the lantern carriage can be straightened without lowering the carriage ring.
- e) The 3 pulley system is provided with guide to prevent wire & cable slip off in any position
- f) Torque limiter and limit switch provided for self motor trip off during docking of lantern carriage.
- g) Our mast are hot dipped galvanizing in single dip process up tp 14mtr long sections

Applications

- Sport lighting
- Parks and reserves
- Commercial and industrial developments
- Construction sites
- Mining sites
- Railways
- Airports
- Car park lighting
- Shopping centers



HIGH MAST FEATURES

MAST STRUCTURE

Our high mast is continuously tapered polygonal cross section of at least 20 sides, presenting a good & pleasing appearance which is based on proven tension design confirming to the technical report n0-7 -1996 of the institution of lighting engineers.UK. To give 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 confirming to BS - En 10025, cut and folded to form a polygonal section, Mast are in two sections for 16 & 20 Mtr. And in three section for 25 & 30 Mtr. Height having only longitudinal weld confirming to BS 5135/AWS. The mast is provided with a fully penetrated flange which is free from laminations or inclusions. The welding connection of the base flange is fully developed to the strength of the entire gussets between bolt holes to ensure elimination of helical stress concentration. For environmental protection of the mast the entire fabricated mast is Hot Dip Galvanized (Single Dip) internally externally, having uniform coating thickness of 85 / 65 microns for bottom / top section 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 , wire rope , plug & socket etc. And also facilities 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

ACCESSORIES

The High mast is providing with accessories as per customers requirements. Generally these include a raising and lowering system (R & L), training cable, power tool, feeder pillar for automatic switching operation of luminaires, lighting final and aviation obstruction warning light. The power tool integral / external type suitable for handling the total head load. It has a mechanical torque limiter to ensure safety and also a manual handle is provided. The R & L system will comprise of a double drum winch. ss wire ropes, head frame and lantern carriage. The winch is self lubricating and self sustaining type. It does not require any brake or clutch and a lifting capacity of SWL 750KGS. It has gravity operated pawls to ensure safety. The wire ropes are of stainless steel grade AIA316 with minimum 6mm diameter & 7/19 construction its central core is also SS and have a minimum breaking strength of 2350KGS.

HIGH MAST GALLERY



HIGH MAST FEATURES

METAL PROTECTION

The entire mast shall be hot dip galvanized after fabrication, internally and externally in accordance with BSEN ISO 461 or equivalent. Our zinc bath of 14m X 1.05m X 1.15m is capable of single dip hot galvanizing which ultimately gives better finish & long lasting.

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 10mtr above ground level. Our standards mast are suitable for a wind speed of 180 Km.hr (50mtr/sec). We can offer mast suitable for a wind speed of 225kms / hr(62.5mtr / sec)

MAST HEAD ASSEMBLY

The pulleys shall be large diameter, appropriate to the multi core flexible cable being used. They shall be of non corrosive material and run of self lubricated bearing with stainless steel spindles. Arrangements shall be before passing over their respective pulleys grooves.

The pulleys shall be housed in a chassis integral with a sleeve which slips over the top of the mast and is secured axially. Guides & stops shall be providing for the lantern carriage. The complete chassis assembly.

WINCH

Winches shall be completely self-sustaining without the need for brake; spring clutches which require adjustment, or which can be affected by moisture or lubricant. The gear ratio is 53:1 or 50:1. The winch shall be lubricating by means of an oil bath

The winch shall be designed to be installed or removed through the door opening capable of operation by hand or power tools.

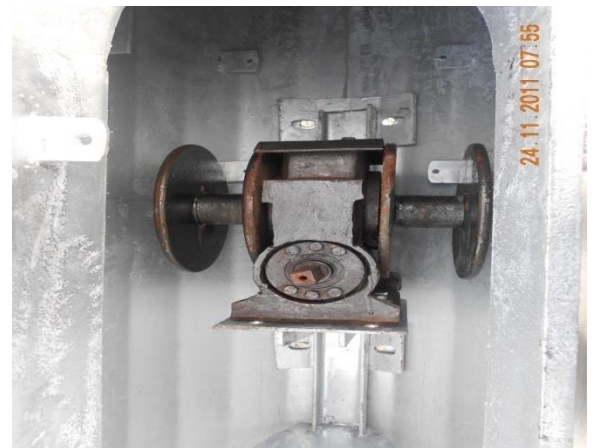
SS/GI WIRE ROPES

SS / GI wire are flexible 'marine grade' stainless steel of 7/19 construction. Thimbles & terminals are of compatible material. Eye bolts and bulldog grip are not used for adjustment of individual ropes on multi-drums winches.

EARTHING TERMINAL

Hot dip galvanized heavy duty pipe final is supplied along with each mast. A 12mm diameter stainless steel stud is attached to the mast structure at a convenient point within the base compartment to provide lighting and cable earthing point.

HIGH MAST GALLERY



LANTERN CARRIAGE

The lantern carriage is of durable steel tube designed to act as an electric conduit with cable holes fully protected by grommets. It is fitted with junction box mounting plate. It is in halves joined by bolted flanges to permit removal from the erected mast.

FOUNDATION BOLTS

Guaranteed performance high tensile hot dip galvanized holding down bolts are supplied complete with anchor plate for casting into the foundation. A precision made steel template with precise holes to ensure correct vertical and horizontal bolt alignment is also provided.

CABLE

Multi Core, Flexible, round & sheathed cable provided with metal cased plug and socket with guard ring terminates in the base compartment. At the mast head cable is connected through suitable PVC gland to weather proof junction box fitted on lantern ring.

LIGHTING ARRESTOR

A suitable lighting arrestor is provide on top of the head frame cover at center position.

FEEDER PILLAR BOX

Feeder pillar boxes are made by power coated sheet metal panel consists of contractor , MCB & the dual timer of operating the luminaries and power tool's.

INSTALLATION :

Our experienced installation team's work internationally on projects big and small – either as your main contractor or specialist sub-contractor, supplying everything from foundations to commissioning.



FOUNDATION:

We shall see the site closely and minutely with regard to the nature of the soil, average depth of decomposed garbage and debris at proposed Mast locations and the other site conditions before working out the type of foundation and specifications for the proposed High Mast.

We shall be responsible for the design of the foundation and safe erection and installation of the High Mast in mechanically and structurally safe working condition for the design life of the Mast. The load bearing (safe) capacity of the soil shall be indicted by purchaser to decide the type of foundation and its specifications. The holding down bolts shall be **atleast 20 nos.** of high tensile strength and shall be supplied complete with anchor plate of 6 mm thick for casting into the foundation. The precision made steel template with tube holes shall be provided to ensure correct verticality and horizontality of bolt alignment.



Introduction of octagonal pole

Octagonal poles are produced from high grade hot rolled steel coils by an automated procedure of cutting and folding /pressing the trapezoidal sheet into octagonal shape and welding the sides longitudinally by submerged arc welding. Below is the illustration of some standard octagonal poles for street lighting applications complying with SASO specification. Specification can be catered as per the requirement of clients.

Features

Octagonal sided tapered steel pole.

Manufactured by press shaping of steel

Plates and welding them longitudinally

Highly durable

Decorated brackets

Quality

Octagonal Street light poles is duly tested

So as to assure their impeccable quality

Resistant to rust

Are available in various size

Can be availed as per the customer's specifications

Uses :

For Street lighting

Used to lighting highways and main roads

Area lighting and flood lighting purpose

Manufacturing process includes:

Cutting to length,

Trapezium cutting,

Longitudinal folding,

Longitudinal welding

We are providing Street Light poles, Street light fittings, which is available as per the different specification such as sizes, shapes and designs. These are coated in neon colors to increase visibility in the night and renowned for corrosion resistance and low maintenance.

Introduction Conical pole

We are engaged in offering a comprehensive range of conical poles. Which is manufactured using superior quality galvanized steel conical poles to with stand dead loads and dynamic load acting on the pole. Designed with perfection. These poles are manufactured in accordance with international quality standards. Our range comes with three different types of poles, and is extensively used for outdoor lighting and lighting fixture.



Applications

- ❖ Sport lighting
- ❖ Parking and reserves
- ❖ Commercial and industrial developments
- ❖ Construction sites
- ❖ Mining sites
- ❖ Railways
- ❖ Car Parking lighting
- ❖ shopping



Salient Features



- ❖ Galvanized conical pole are mounted above the ground and will not rust due to hot dip galvanized protection.
- ❖ Conical poles are designed using one length of sheet and provide continuous tapering.
- ❖ The conical poles of all categories have internal flushed type doors.
- ❖ The conical poles are designed using hr coils which can easily be procure high tensional gaze 490mpa. Thus, there is increases the safety factor of the pole.
- ❖ Conical pole can be very easily shifted reused.



DIMENSION OF CONICAL POLES

S.No	Pole Type	Height (Mtr)	Top Dia.	Bottom Dia.	Sheet Thickness	Base Plate Dimensions (LxBxT)	Bolt Size (no. x dia)	Pitch Circle Dia.	Foundation Bolt Length	Projected Bolt Length	Anchor Plate Thickness	Size of the Door	Height of door above base
1	DPE 5 3 150 1	5	90	150	3	310x310x12	4x25	310	500	140	3	75x250	500
2	DPE 5 4 150 1	5	90	150	4	310x310x12	4x25	310	500	140	3	75x250	500
3	DPE 6 3 175 1	6	90	175	3	310x310x12	4x25	310	600	140	3	75x250	500
4	DPE 6 4 175 1	6	90	175	4	310x310x12	4x25	310	600	140	3	75x250	500
5	DPE 7 3 175 1	7	90	175	3	310x310x12	4x25	310	600	140	3	75x250	500
6	DPE 7 4 175 1	7	90	175	4	310x310x12	4x25	310	600	140	3	75x250	500
7	DPE 8 3 175 1	8	90	200	3	310x310x12	4x25	310	700	140	3	75x250	500
8	DPE 8 3 175 1	8	90	200	4	310x310x12	4x25	320	700	140	3	75x250	500
9	DPE 9 3 175 1	9	90	175	3	310x310x12	4x25	310	700	140	3	75x250	500
10	DPE 9 4 175 2	9	90	175	4	310x310x12	4x25	310	700	140	3	75x250	500
11	DPE 9 3 175 2	9	100	200	3	310x310x12	4x25	310	700	140	3	75x250	500
12	DPE 9 4 200 1	9	100	200	4	310x310x12	4x25	310	700	140	3	75x250	500
13	DPE 10 3 200 2	10	100	200	3	310x310x12	4x25	310	700	140	3	75x250	500
14	DPE 10 4 200 1	10	100	200	4	310x310x12	4x25	310	700	140	3	75x250	500
15	DPE 11 3 175 1	11	90	175	3	310x310x12	4x25	310	700	140	3	75x250	500
16	DPE 11 4 175 2	11	90	175	4	310x310x12	4x25	310	700	140	3	75x250	500
17	DPE 11 3 200 3	11	100	200	3	310x310x12	4x25	350	700	140	3	75x250	500
18	DPE 11 4 200 1	11	100	200	4	310x310x12	4x25	350	700	140	3	75x250	500
19	DPE 12 3 240 2	12	110	240	3	310x350x20	4x25	350	700	140	3	75x250	500
20	DPE 12 4 240 1	12	110	240	4	310x350x20	4x25	350	700	140	3	75x250	500
21	DPE 12.5 3 270 2	12.5	110	270	3	400O/Dx20	4x25	310	700	140	3	75x250	500
22	DPE 13 3 270 1	13	110	240	3	310x350x20	4x25	310	700	140	3	75x250	500
23	DPE 13 4 240 2	13	110	240	4	310x350x20	4x25	310	700	140	3	75x250	500
24	DPE 13.5 3 270 1	13.5	110	270	3	400x400x20	4x25	400	800	140	3	75x250	500
25	DPE 13.5 4 270 2	13.5	110	270	4	400x400x20	4x25	400	800	140	3	75x250	500

DIMENSION OF OCTAGONAL POLES

Type	Height	Top Across	Bottom Across	Thickness	Sq.Base Plate	PCD	Foundation Bolt size	No. of Bolt	Door opening
Flat Flate									
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
3.0 FT	4000	70	130	3	200 x 12	200	M 16 x 500	4	90 x 350
4FT	4000	70	130	3	200 x 12	200	M 16 x 500	4	90 x 350
5FT	5000	70	130	3	200 x 12	200	M 16 x 600	4	90 x 350
6FT	6000	90	155	3.5	275 x 16	250	M 20 x 600	4	90 x 400
6.5FT	6500	90	160	3.5	275 x 16	250	M 20 x 600	4	90 x 400
7FT	7000	90	165	3.5	275 x 16	250	M 20 x 600	4	90 x 400
7.5FT	7500	90	170	3.5	275 x 16	270	M 20 x 600	4	90 x 400
8FT	8000	90	175	3.5	275 x 16	270	M24 x 800	4	90 x 400
8.5FT	8500	90	180	3.5	275 x 16	270	M24 x 800	4	90 x 400
9FT	9000	90	185	4	275 x 16	270	M24 x 800	4	90 x 400
9.5FT	9500	90	190	4	300 x 20	300	M24 x 800	4	90 x 400
10FT	10000	90	195	4	300 x 20	300	M24 x 800	4	90 x 400
10.5FT	10500	90	200	4	300 x 20	300	M24 x 800	4	120x 500
11FT	11000	90	205	4	300 x 20	300	M24 x 800	4	120x 500
11.5FT	11500	90	210	5	300 x 20	320	M 30 x 900	4	120x 500
12FT	12000	90	215	5	300 x 20	320	M 30 x 900	4	120x 500
12.5FT	12500	100	220	5	300 x 20	320	M 30 x 900	4	120x600
13FT	13000	100	225	5	300 x 20	350	M 30 x 900	4	150x600
13.5FT	13500	100	230	5	300 x 20	350	M 30 x 1000	4	150x600
14FT	14000	100	235	5	300 x 20	350	M 30 x 1000	4	150x600

HIGH MAST

SPECIFICATION

3 POINT SUSPENSION LANTERN CARRIAE
WIND SPEED UPTO 180KM / HR

MAST STRUCTURE	30Mtr	25Mtr	20Mtr	16MTr
Material Construction	BSEN 10025	BSEN 10025	BSEN 10025	BSEN 10025
Type of welding	Longitudinal weld	Longitudinal weld	Longitudinal weld	Longitudinal weld
Cross section of mast in polygonal (NO of sides)	20 sided	20 sided	20 sided	20 sided
Length in longer section	10500mm	8750mm	10375mm	8375mm
Top section	10500mm	8750mm		
Middle section	10500mm	8750mm	10375mm	8375mm
No. of section of mast	3Nos	3Nos	2Nos	2Nos
Base Dia & Top Dia (OAF)	5 / 4 / 4 mm	4 / 4 / 4 mm	4 / 3 mm	4 / mm
Thinckness of Galvanization (minimum) is 2629	86 Microns	86 Microns	86 Microns	86 Microns
Size of opening door at base	300 x 1000mm	300 x 1000mm	300 x 1000mm	300 x 1000mm
Size of base plate diameter	730 mm	30 mm	630 mm	580 mm
Size of base plate thickness	30mm	30 mm	25 mm	25 mm
FOUNDATION ACCESSORIES				
No of foundation bolts	12 Nos	12 Nos	8 Nos	8 Nos
PCD of foundation bolts	650 mm	650mm	530 mm	500 mm
Type of foundation bolts	Tor steel	Tor steel	Tor steel	Tor steel
Bolt diameter	25 mm	25 mm	25 mm	25 mm
Lantern carriage(L.C)				
Number of fittings	9 / 12 Nos	9 / 12 Nos	6 / 9 Nos	6 / 9 Nos
WINCH				
Number of drums / Winch	Double Drum	Double Drum	Double Drum	Double Drum
Capacity(Kg)	SWL 750 Kg	SWL 750 Kg	SWL 750 Kg	SWL 750 Kg
WIRE ROPE (ASIS 316)				
No. of ropes of 6mm thickness(7 / 19)				
Per lantern carriage	3 Nos	3 Nos	3 Nos	3 Nos
Per Double drum winch	2 Nos	2 Nos	2 Nos	2Nos
CABLE				
Type	EPR coated PCP sheathed multicore flexible cable			
POWER TOOL (REVERSIBLE)				
Input Supply	415 / 250 Volts Integral or External			

CONTACT DETAILS

DHAKSHAN POWER ENGINEERING

No. 354, Bharathi street

Gnanamoorthy nagar

Ambattur, Chennai -600 053, tamilnadu,india

Phone : +91 - 44 - 65476548

Mobile : +91 - 44 - 9677085836

e-mail : dhakshanpower@gmail.com

Web : www.dhakshanpower.com

No354, Bharathi street Gnanamoorthy nagar Ambattur , chennai-600053.Tamilnadu India

Mobile:+91-9677085836: 044-65476548: +919962955515//www.dhakshanpower.com/ www.indiamart.com/dhakshan-power/