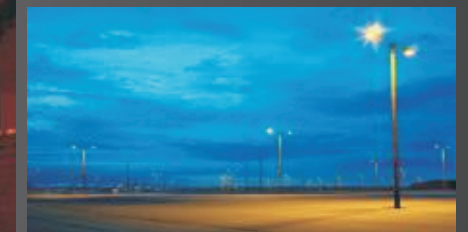
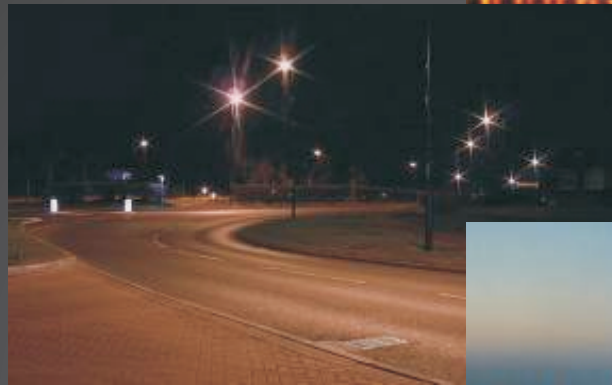
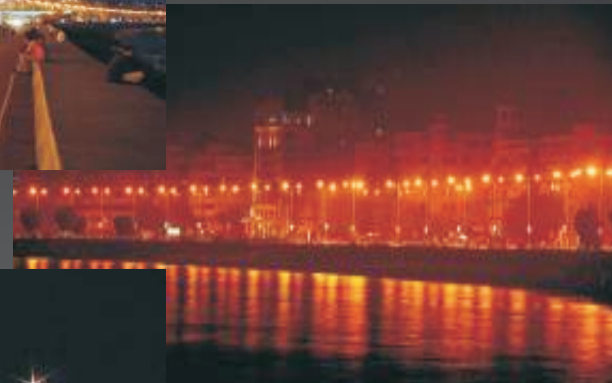




BHARAT Power Project



Contact:

Bharat Power Project

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- ◆ High Mast
- ◆ Stadium Mast
- ◆ Octagonal Pole
- ◆ Conical Pole
- ◆ Mono Poles
- ◆ Signage Board
- ◆ Brackets
- ◆ LED Flood & Street Light
- ◆ Highmast Panel
- ◆ Crash Barrier
- ◆ V-Cross
- ◆ Solar Structure

Solutions For Ever

From The Desk of Proprietor...

Welcome To Bharat Power Project

With Great Pleasure, we are introducing ourselves as a reputed manufacturer & Govt. supplier of various project material. We have supplied various project materials to our clients for their different projects, for their full satisfaction regarding price, date of delivery schedule & overall quality materials. In this condition, you are requested to kindly enlist our company name as a supplier to your esteemed organization for purchase of any materials as details given below:



Company Profile

We proudly introduce ourselves as the indigenous Manufacturer & Supplier of High Masts. We have successfully used our high masts in different fields, such as Street lighting, Oil depot lighting, Stadium lighting, Apron lighting, Port lighting, Telecommunication (cellular network operators) and many other places. We produce Masts ranging from 9mtrs. to 73 mtrs. (All heights) suitable to install light fitting 6/9/12/18/24/32/ nos. as per customer's needs. The most important aspect in our product is that it is completely indigenous and with complete Indian technology derived with an extensive research by a team of specialized engineers & personnel since 1998. The design has been appreciated and approved by I.I.T & different agencies. We have an in-house design & drawing facility, which enables us to make a continuous research and development. This has led to certain advantages as compared to other foreign manufacturers in High Mast System with mobile lantern carriage.

Our Products

BHARAT POWER PROJECT is an high mast & pole related services provider, delivering business value to customers worldwide. **BHARAT POWER PROJECT** service are tailored to meet the individual needs of your organization. From project-based work to support and training to full outsourcing. We have the right people and technology to meet any challenge. With constant up gradation in fabrication technology **BHARAT POWER PROJECT** is able to produce premium results for its customers. From high mast, pole, signage and display graphics, pop material, way finding signs and store fixtures, retail decor and brand identity programs, the company acts as a one stop effective solution provider.

High Mast

Introduction of High Mast

High-Mast lighting is a tall pole with lighting attached to the top pointing towards the ground, usually but not always used to light a highway or recreation field. The Pole that the lighting is mounted on is generally at least 30 metres (98ft) tall (Under this height it is referred to as conventional lighting system), while the lighting consists of a luminaire ring surrounding the pole with one or several independent lighting fixtures mounted around it. Some units have the lighting surrounded by a circular shield to prevent or reduce light pollution or light trespass from affecting neighbourhood adjacent to the highway. Maintenance of these systems are done by lowering the luminaire ring from the mast head to the base using a winch and motor to the ground or at a height accessible by a cherry picker and located in areas to allow for easier access without disturbing traffic.

Advantages of High Mast

- A) we can provide single longitudinally welded mast on request.
- B) minimum thickness is not less than 4 mm unlike other foreign manufacturers of 3 mm.
- C) lantern carriage has a 3 point suspension system with perfect balancing.
- D) the double drum, winch has a 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 masts are hot dipped galvanizing in single dip process up to 14 mtrs. Long sections.



HIGH MAST FEATURES

MAST STRUCTURE:

Our high mast is continuously tapered, Polygonal Cross section of atleast 20 sides, Presenting a good & Pleasing appearance which is based on proven in- Tension design confirming 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 for loading as per Is 875 (Part3) 1987.

CONSTRUCTION:

High mast is fabricated from steel plates confirming to BS-EN 10025, cut and folded to form a polygonal section, Masts are in two section for 16&20 Mts. and in three sections for 25 & 30 Mtr. heights having only longitudinal weld confirming to BS 5135/AWS. The Mast is Provided with a fully Penetrated flange which is free from any laminations or 3 incursions. the welded connection of the base flange is fully developed to the strength 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 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, cable, 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 R & L system will comprise of a double drum winch, SS wire ropes, head frame and lantern carriage. the winch is Self lubrication 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 A/A/316 with minimum 6mm diameter & 7/19 Construction its Central core is also SS and have a Minimum breaking Strength of 2350 Kgs. 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.



DYNAMIC LOADING

Our mast structure is designed to sustain maximum reaction arising from wind speed as per 875 (Part3) 1987 (three Seconds) which is Measured at a height of 10Mtrs above ground level. Our standard masts are suitable for a wind speed of 180Km/hr (50Mtr. / sec.) We can also offer masts suitable for a wind speed of 225Kms/Hr (62.5mtr/sec.)

METAL PROTECTION

The entire mast shall be hot dip galvanized after fabrication, internally in accordance with BSEN ISO 1461 or equivalent. Our Zinc bath of 14x1.05m x 1.15m is capable of single dip hot galvanizing which ultimately gives better finish & long lasting.

HIGH MAST FEATURES

MAST HEAD ASSEMBLY:

The Pulleys shall be large diameter, appropriate to the multi core flexible cable used. They shall be of non corrosive material and run on self lubricating bearing with stainless spindles. Arrangements shall be provided to ensure that the electric cables & steel wire ropes are separated before passing over their respective pulley grooves. the pulleys shall be housed in a chassis integral with a sleeve which slips over the top to the mast and is secured axially. Guides & shops shall be provided for docking the lantern carriage. The complete chassis assembly.

WINCH

winches shall be completely self - without the need for brake, spring clutches which required adjustment, of which can be affected by moisture of lubricant. the gear ratio is 53:1 or 50:1 The Winch shall be self lubricating by means of an oil bath. the winch shall be designed to be installed or removed through the door opening . which drums shall be grooved to ensure a tidy rope lay. the winch shall be capable of operation by hand or power tool.

SS/GI WIRE ROPE

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

EARTHING TERMINAL

Hot Dip galvanized Heavy duty pipe finial 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 a lightning and cable earthing point.

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 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 alignments is also provided.

CABLE

Multi Core, Flexible, round & sheathed Cable provided with metal casing plus 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.

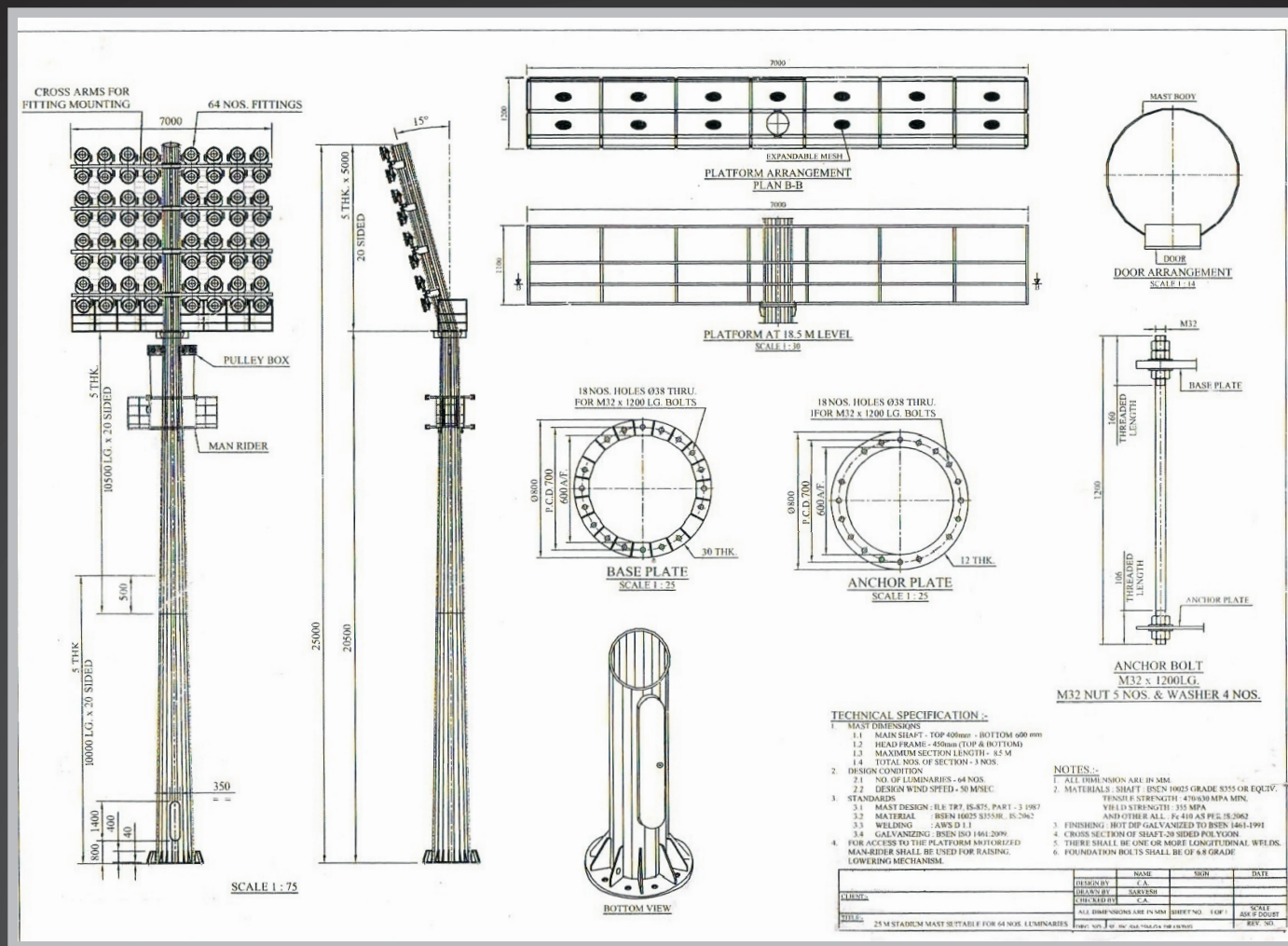
LIGHTNING ARRESTOR

A suitable lightning arrestor is provided on top of head frame cover at centre position.



construction.





Stadium Mast

The Stadium high Masts with fixed head frame for mounting the flood lights are mostly used for those outdoor places where the high concentration of light is required over a small area, such as a football stadium, Race Course, Etc. the height of the mast and the number of the flood lights are specified the customer or the flood lights supplier based on the lighting study for the concerned area.

Design

Stadium high masts are designed to AASHTO Standard Specifications for Structural supports for stadium lighting and luminaries " and its Latest Revisions. Design wind Speed is 160 Km/Hr or As per the customer request multiplied by gust factor of 1.3 (gust speed is 208 Km/Hr or as specified in the project specifications) Design of stadium high masts is performed utilizing computer software to analyse the high mast shaft, base plate and anchor bolts.

Finishing

Shaft, Base Plate, other accessories are hot dip galvanized according to BS EN 1461 and its recent revisions, the minimum average coating thickness is according to BS EN 1461, or as per the customer requirements, but not more than 120 microns in any case. No welding, Cutting or drilling is done after galvanizing. The anchor bolts including nuts and washers are hot dip galvanized according to ASTM A 153

Shape

the stadium high masts are usually made out of continuously tapered steel shafts with polygonal shape of sixteen sides. with dimensions and thicknesses complying with the structural design analysis and the functions requirement. Shafts are made from steel folded to required shape and welded longitudinally by automatic arc welding machine. Shafts are made out of multiple segments depending on the height of the mast each segment will have length of not more than 14m, with minimum overlap of 1.5 times the across flat of the female segment / The Shaft will be equipped at the top with a fixed head frame to accept the flood lights, the head frame will be tilted with an angle up to 15 degree for flood light aiming. the size of the head frame is based on the size and the number of the flood lights.

The stadium high mast will be equipped at the top of the shaft with a fixed platform and service ladders for maintenance purposes. A caged ladder with resting or power lift will be used to reach the platform. Circular base plate with holes suitable for the anchor bolts is welded to the bottom of the shaft by double fillet weld according to international standards base plate will be open in the centre to allow cables in. Base plate dimensions given in our drawing are complying with structural design analysis and the foundation requirements.

Anchor bolts to fix the base plate to the concrete foundation are supplied with the required nuts and washers and having the size & dimension as per the structural analysis. shaft is provided with a door opening at a convenient height with dimensions and size complying with the requirements of the required electrical equipments. Door Opening is reinforced to maintain the shaft strength; in addition, a rubber gasket is fixed around the door frame for weather proofing. Door cover is fixed to the shaft by using steel hinges. the door cover will be held in position with M8 Allen head Locking screw. An Earthing lug will be provided inside the shaft at the door opening level and equipped with the required bolt, Nuts and washers for Earthing purposes. Straightness, tolerances and plumbness of the pole are maintained with Permissible limits according to international standards.

Certificate

This is to Certify that

Bharat Power Project

NH - 11, Infront of Jheerla, Bharatpur, Rajasthan - 321001, India

has been found in Compliance with requirements of

Quality Management System

ISO 9001:2015

for the following scope:

Supply, Installation, Testing & Manufacturing of High Mast System, Octagonal Pole, Conical Pole, Swage Pole, Monopole, Stadium Mast & HT & LT Transmission Tower For The Following Departments:- RITES (India Railways), IOCL, BPCL, HPCL, NTPC, NHAL, PWD (All States), CPWD, BHEL, SAIL, RIDCOR, RSRDC, TELECOM, ALL STATES DEVELOPMENTS AUTHORITIES

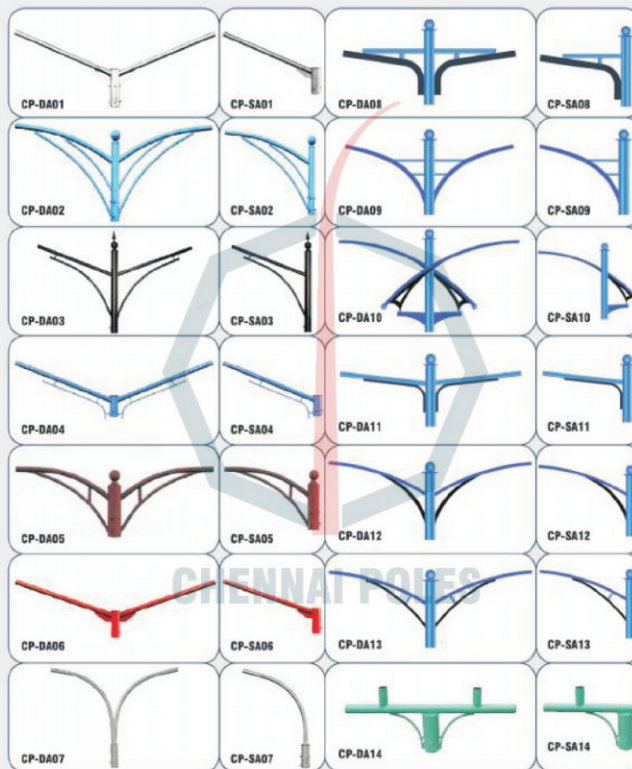
Certificate No. : QMS/07321/0718
Original Certificate Date : 20-July-2018
Issue Date : 20-July-2018
Expiry Date : 19-July-2021

To check this certificate status visit:
<http://uasl.uk.com/certifiedorganization.html>

Authorized Signature
Quality Control Certification
UK Office: 1529, Chynoweth House, Trevelyan Park, Truro-TR46JN, Cornwall, UK
India Office: 2nd Floor, Arora Market, Narela Mandi, Delhi - 110 040, India



BRACKET DESIGNS



HIGH MAST

SPECIFICATION

2 / 3 POINT SUSPENSION OF LANTERN
CARRIAGE WIND SPEED UPTO 180KM/HR

Applications

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



MAST STRUCTURES	12 MTR	12.5MTR	16MTR	20MTR	25MTR	30MTR
Material Construkton	BSEN 10025 EQUIVALENT	BSEN 10025 EQUIVALENT	BSEN 10025 EQUIVALENT	BSEN 10025 EQUIVALENT	BSEN 10025 EQUIVALENT	BSEN 10025 EQUIVALENT
Type of Weldinmg Cross Sectionm of Mast in Polygonal Of Sides)	Longitudinal Weld 20 Sided	Longitudinal Weld 20 Sided	Longitudinal Weld 20 Sided	Longitudinal Weld 20 Sided	Longitudinal Weld 20 Sided	Longitudinal Weld 20 Sided
Top Section (in MM)	6500	7000	8500	10500	5500	10500
Middle Section (in MM)	NIL				10500	10500
Bottom Section (in MM)	6000	6000	8000	10000	10000	10000
No of Section of Mast	2	2	2	2	3	3
Thickness (in MM)	3.3	3.3	3.3	4.3	4.4.3	4.4.3
Base Dia & top Dia (in Mm)	150/360	150/360	150/360	150/460	150/460	150/460
Thickness of Galvanization	86 Microns (Avg.)	86 Microns (Avg.)	86 Microns (Avg.)	86 Microns (Avg.)	86 Microns (Avg.)	86 Microns (Avg.)
Average Surface Area						
Size of Opening door At Base	300/700	300/700	300/700	300/700	300/700	300/700
Size of Base plate Diameter (in MM)	540	540	540	660	660	660
Size of Base Plate Thickness	20	20	20	25	25	25
FOUNDATION ACCESSORIES						
No of Foundation Bolts.	6	6	8	8	12	12
PCD of Foundation Bolts	440	440	440	440	560	560
Type of Foundation Bolts	MS	MS	MS	MS	MS	MS
Diameter	M25	M25	M25	M25	M25	M25
MECHANICAL COMPONETS						
RESTING BRACKET						
RING BRACKET						
ANCHOR PLATE						
HEAD FRAME						
WINCH BRACKET						
WINCH						
COMPENSATING DISC WITH PLATE						
MOTOR						
WIRE ROPE						
ELECTRIC CABLE						
U CLAMP						
THIMBLE						
NUT & BOLTS						
EXTRA						
CHAIN & SPROCKET						
WINCH HANDLE						
JUNCTION & PANEL BOX						
CG PATTI (PER PIECE)						
LIGHTINING ARRESTOR						
TERMS & CONDITIONS						
ADVANCE 50% BALANCE AGAINST PERFORM INVOICE						
TAXES AND TRANSPORTATION EXTRA						
RATE MAY VARY ACCORDING TO ZING AND RAW MATERIAL RATE						

Introduction of Conical Pole

Applications

- Sports lighting,
- Parks and reserves,
- Commercial and industrial developments,
- Construction sites
- Mining sites ,
- Railways,
- Airports,
- Car park lighting,
- Shopping centres

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

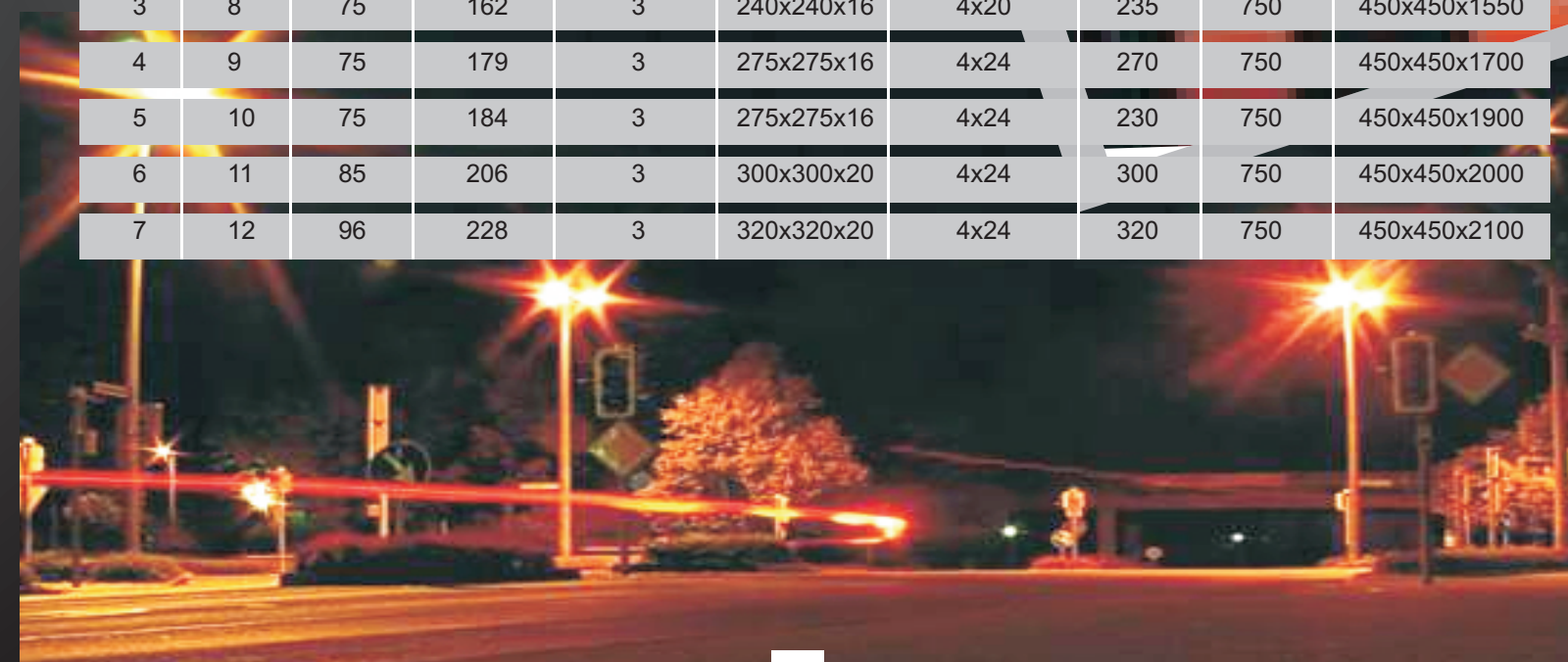
The conical poles are designed using hr coils which can easily be procured high tensional gaze 490 mpa. Thus, there is increases the safety factor of the pole.

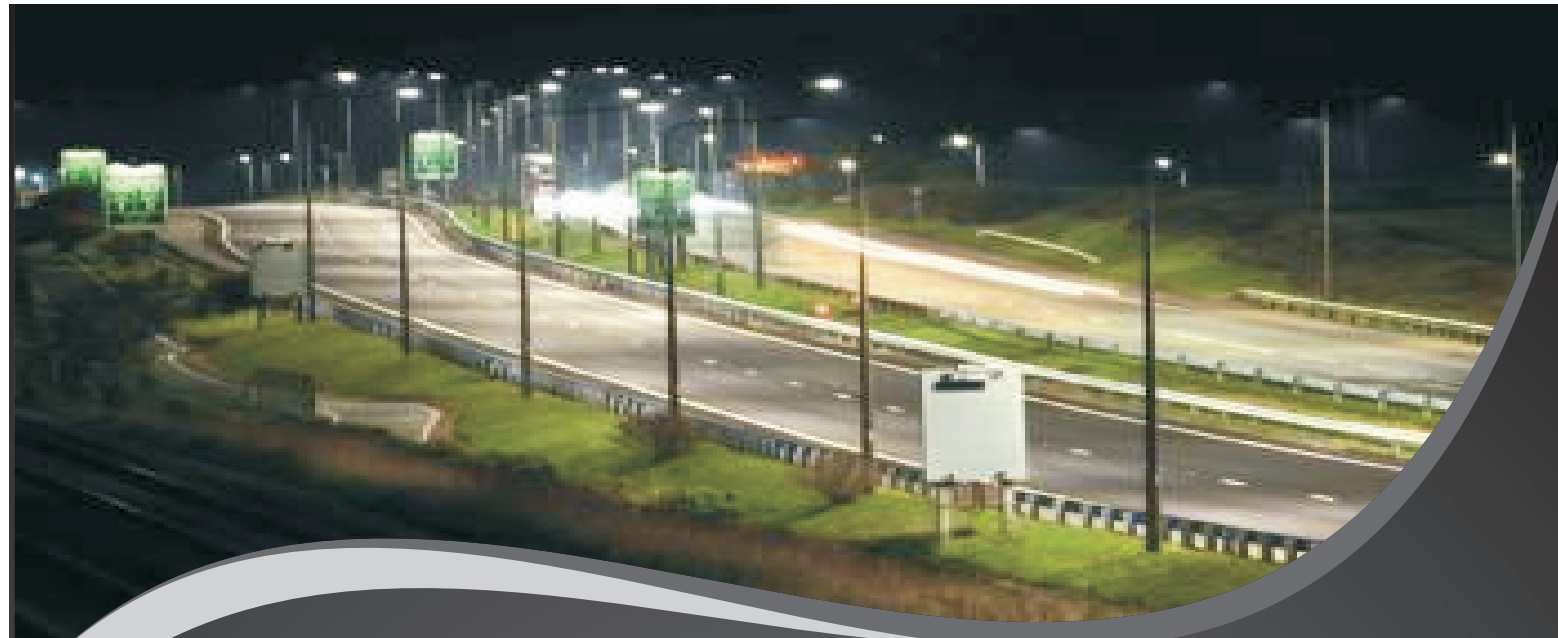
Conical pole can be very easily shifted and reused

GI Conical Pole Standard Dimensions

S.No.	Height (Mtr.)	Top Dia In mm	Bottom Dia. in MM	Sheet Thickness in Mm	Base Plate	Foundation Bolt Size No. X Dia. in mm	PCD in Mm	Bolt Lengh in mm	Foundation Size in mm
1	3	75	107	3	200x200x12	4x16	200	450	450x450x600
2	7	75	151	3	240x240x16	4x20	235	700	450x450x1400
3	8	75	162	3	240x240x16	4x20	235	750	450x450x1550
4	9	75	179	3	275x275x16	4x24	270	750	450x450x1700
5	10	75	184	3	275x275x16	4x24	230	750	450x450x1900
6	11	85	206	3	300x300x20	4x24	300	750	450x450x2000
7	12	96	228	3	320x320x20	4x24	320	750	450x450x2100

We are engaged in offering a comprehensive range of conical poles, which is manufactured using superior quality galvanized steel conical poles to withstand dead loads and dynamic loads 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 out door lighting and lighting fixture.





OCTAGONAL POLE

Octagonal Poles Are Produced From High Grade Hot Rolled Steel Coil By And 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 Application Complying With Saso Specification, Specifications Can Be Catered As Per The Requirement Of Clients.

Gi Octagonal Pole Standard Dimensions

	Length (In Mtr.)	Top In mm	Bottom in MM	Thickness in Mm	PCD in Mm	Base Plate X Thickness (In MM)
OCTAGONAL POLE	4	70	130	3	220	220x220x12
	5	70	130	3	220	220x220x12
	6	70	130	3	220	220x220x12
	7	70	130	3	220	220x220x12
	8	70	130	3	220	260x260x16
	9	70	155	3	260	275x275x20
	9	70	175	3	275	260x260x16
	10	70	155	3	260	275x275x20
	10	70	175	3	275	260x260x16
	11	70	155	3	260	275x275x20
	11	70	175	3	275	260x260x16
	12	70	155	3	260	275x275x20
	12	70	175	3	275	260x260x16

Terms And Condition

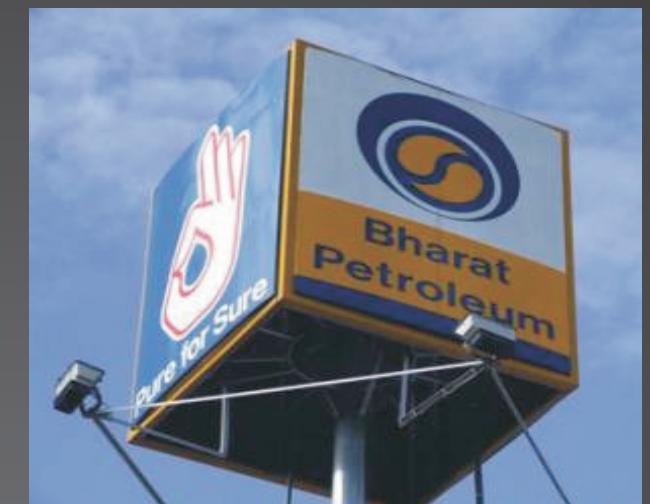
Advance 50% Balance Against Performa Invoice

Taxes And Transportation Extra

Rate May Vary According To Zinc Nad Raw Material Rates

INTRODUCTION OF SIGNAGE MAST & BOARD

We Offer Signage Mast Lighting, Which Is Appreciated For Its Durability, Uniform Illumination, Techno - Economic, Easy Maintenance And Minimum Ground Level Obstruction. It Is Obtained From Dynamic Perfect Engineering And Used For Construction, Breakdown Or Any Emergency Purpose. High Mast Lighting Provided By Us Is Suitable For Outdoor Lighting Purposes Such As Yard Lighting, Area Lighting And Lighting In Petrochemical Plant. Signage High Mast Is Polygonal High Mast Pole Commonly Used For The Installation Of Signages.



Features :

- Octagonal Sided tapered steel pole.
- Manufactured by press shaping of steel. Plates and welding them longitudinally.
- Highly durable.
- Available with in-built junction box. Decorated brackets.

Quality :

- Octagonal Street Light Pole is duly tested So as to assure their impeccable quality
- Resistant to rust
- Are available in various sizes
- Can be availed as per the customer's specifications

Uses :

- For Street Lighting
 - Used to light highways and main roads
 - Area Lighting and Flood Lighting Purpose
- Manufacturing Process Includes :

Manufacturing Process :

- Trapezium cutting,
- Longitudinal folding,
- Longitudinal welding

Advantages

- The entire signage can be lowered to ground level for maintenance.
- Whenever required, the signage board can be changed.
- Mast can be also used for general illumination of surrounding area.
- Commonly 17 meter high mast is used, however a mast from 20m to 30m can also be used for bigger signages

Applications

- Advertisement banner
- Petrol/Gas pump/Station banner
- Retail outlets
- Railway Station
- Commercial Complexes
- Road Direction Board

High Mast Suitable For 2/3 Point Suspension System Of Lantern Carriage For Wind Speed Up To 180km/hour

Height of Mast	MTR	30MTR	25MTR	20MTR	16MTR	12.5MTR
Material Construction		S 355 grade as per BS-EN- 10 025	S 355 grade as per BS-EN- 10 025	S 355 grade as per BS-EN- 10 025	S 355 grade as per BS-EN- 10 025	S 355 grade as per BS-EN- 10 025
No. of Longitude Welds	No	Single / Double	Single / Double	Single / Double	Single / Double	Single / Double
Top/bottom (Diameter of High Mast)	mm.	150/540	150/540	150/410	150/410	150/410
Cross Section Of Polygore(No. of Sides)	No.	20Sides	20Sides	20Sides	20Sides	12Sides
Nos of Section	No.	3	3	3	3	2
Thickness of Section	MM	3-4-5	3-4-5	3-4	3-4	3-4
Thickness of Galvanisations (Min.)	Micron	As per BS-N ISO: 1461	As per BS-N ISO: 1461	As per BS-N ISO: 1461	As per BS-N ISO: 1461	As per BS-N ISO: 1461
Size of Base Plate (Min.)	MM	730	730	570	570	520
Thickness of Bolt Plate (Min)	MM	30	30	30	30	25
Foundation Bolt						
Nos of Bolts	No.	12	12	8	8	6
Pcd of Foundation	MM	650	650	490	490	445
Bolts Diameter	MM	30x850	30x850	30x850	30x850	30x850
Lantern Carriage (Nos	No.	2	2	2	2	2
Nos of Fitting (2x4x)	No.	12	12	12	12	6
Winch						
Nos of Drum	Drum/Winch	2	2	2	2	2
Capacity (min.)	Kg.	SWL 750	SWL 500	SWL 500	SWL 500	SWL 500
Wire Rose (Nos. / Thickness)	Nos (MM)	2/3/6mm	2/3/6mm	2/3/6mm	2/3/6mm	2/3/6mm
Power Tool (Reversible)		415V.3 Phase	415V.3 Phase	415V.3 Phase	415V.3 Phase	415V.3 Phase