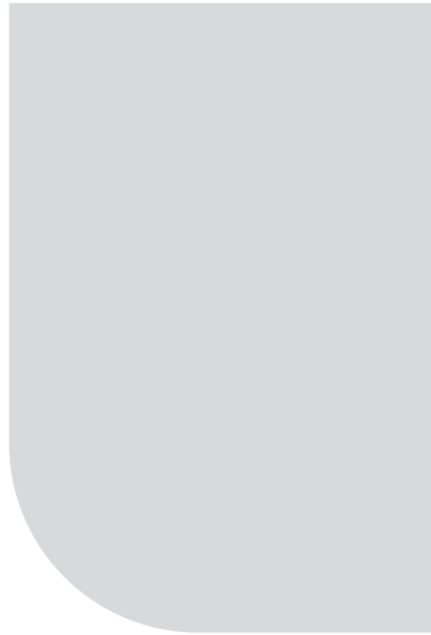




Innovation beyond Expectation!



About us

We, Mac Tech, incepted in the year 2012, are well established manufacturers and suppliers of a qualitative range of Industrial and Fabrication Products. These products are available in numerous specifications, which can be customized as per the requirement of our clients. Our range is highly appreciated by our clients for the optimum quality, durability, sturdy construction, corrosion resistance and low maintenance characteristics.

Mac Tech is a metal fabrication company that is totally dedicated to serving the sign industry. We believe that our customers should never settle for less than the best. We are proud of our reputation and will continue to provide quality products and unmatched service to our customers.

Mac Tech, a Delhi based firm, offering a variety of Lighting Poles. The variety of Lighting Poles that we offer includes Tubular Poles (For Street Lighting & Transmission Lines), Decorative Lighting Poles, Octagonal Poles, High Mast Poles, M.S/G.I. Pipes, Electric Poles etc.





Design Engineering

We have vetted design software to design the mast structure. We use check design stability both for Lighting Mast as well as Lighting Pole using design software developed by us considering the standards.

Reference Codes of Practice:

- IS-800-2007
- IS-875 Part 3
- IS-6533 Part 2, 1989
- Technical Report No. 7-High Mast for Lighting & CCTV, Inst. of Lighting Engineers, 2003
- BS-5649-1985

Material Specification & Manufacturing Process

Material Specification

- Mast & Pole Shaft: BS EN 10025, IS:2062 or equivalent
- Base Plate: IS : 2062 to E 250
- Foundation Bolts: Special High Tensile MS round conforming to 2062, E250 A. The bolts are threaded by threading machine with the help of chaser and threading head
- Galvanization: BSEN ISO : 1461, IS : 4759/ISO 1461

Manufacturing Process

- Cut to Length: Decoiling Process width-2200mm, shearing capacity- 8mm, coil loading capacity- 30T
- Trapezoidal Cutting: Taper cutting on using CNC plasma cutting M/c (Capacity 14m x 4m x 20mm tick by plasma & 150mm thick by Oxy Flame)
- CNC Press Break: Bending to polygonal capacity- 13m Long & 8mm Thick
- Welding: Longitudinal butt welding on using CNC Pole closing machine
- Grinding: The grinding work is done to give better surface finish
- Base Plate Fitting: Base Plates are welded at the bottom of the Pole Shaft to convert them into pole
- Door Fitting: Doors are fitted generally at 500mm projection of the Base Plates to place all the electrical accessories inside the Pole Shaft
- Galvanization: Galvanization done by seven tank process in single hot dipping method. Our Zinc Bath of 12.25m (L) x 1.05m (W) x 1.25m (D) is capable of single hot-dip galvanizing which ultimately gives better finish
- Straightening & Finishing: Straightening of pole done after galvanization with the help of straightening machine. Final finishing and fittings of electrical accessories done after the completion of straightening of the poles
- Loading and Dispatch: The loading is done by EOT cranes with trained person for loading. The materials are dispatched after proper loading and complete documentation





Octagonal Pole

Mac Tech designs and manufactures a wide range of octagonal poles, for primary use as street lighting poles. Products are fabricated using premium quality raw material and are customized to client's specification.

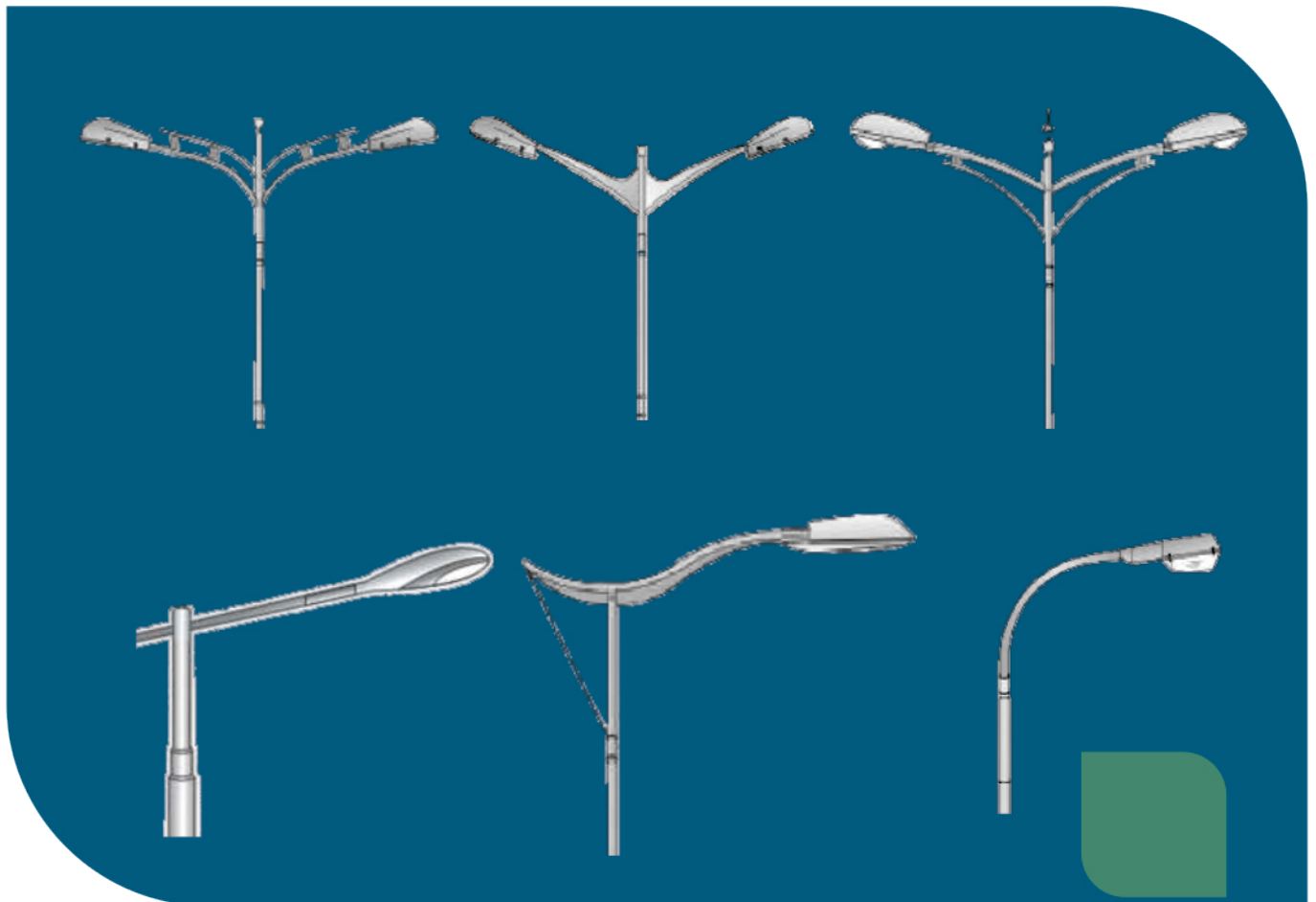
The poles are manufactured from tapered polygonal sections, which are slipped together at site and so maintenance of close tolerances and straightness are thrust areas. They come ready as flange-plated, galvanized and custom designed.

Mac Tech uses high-strength sheet steel and can produce single-piece poles up to a length of 14 meters. The two shell halves are welded together with advanced systems and with automatic sigma machines. The octagonal poles shafts are continuously tapered with single longitudinal welding & no circumferential weld. The manufacturing facilities available allows production of single section of length up to 14 meters, which can be galvanized through single dip process at the company's in-house sophisticated galvanizing facilities, and guarantees great corrosion resistance. X-ray, ultrasound, and surface-crack inspections ensure top material quality and help maximize the life of Mac Tech poles and masts.

Octagonal Pole

OCTAGONAL POLE - Technical Data Specifications

Pole Height (Mtrs.)	5 Mtrs	7 Mtrs	9 Mtrs	9 Mtrs	10 Mtrs	11 Mtrs	12 Mtrs
Metal Protection Treatment	H.D. Galvanised	H.D. Galvanised	H.D. Galvanised	H.D. Galvanised	H.D. Galvanised	H.D. Galvanised	H.D. Galvanised
Avg Thickness of Galvanisation	76 Microns	76 Microns	76 Microns	76 Microns	76 Microns	80 Microns	80 Microns
Thickness of Sheet	3 mm	3 mm	3 mm	3 mm	3 mm	3 mm	3 mm
Thickness of Base Plate	12 mm	16 mm	20 mm	20 mm	20 mm	20 mm	25 mm
Bottom Diameter	130 mm	150 mm	150 mm	200 mm	200 mm	200 mm	240 mm
Top Diameter	70 mm	75 mm	75 mm	100 mm	100 mm	100 mm	110 mm
Number of Foundation Bolts	4	4	4	4	4	4	4
Base of Foundation Bolt	220 x 220 mm	240 x 240 mm	260 x 260 mm	310 x 310 mm	310 x 310 mm	310 x 310 mm	350 x 350 mm
Bolt Diameter	16 mm	16 mm	20 mm	20 mm	20 mm	25 mm	25 mm



High Mast Pole

High mast lighting is today preferred over conventional lighting. Especially where large areas are to be illuminated. This system eliminates the need for numerous lighting columns which, under certain circumstances, can pose hazardous to movement. This is possible because the high mast lighting system achieves very large space to height ratios.

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

Mast Structure

High mast is continuously tapered; polygonal cross section of 12 to 20 sides fabricated from special steel plates, and is delivered at site in sections. Sections are joined together by slip-stress-fit method and are provided with fully penetrated and welded flange.

Construction

High mast is fabricated from steel plates, cut and folded to form a polygonal section. Masts come in two sections for 16 & 20 Mtr and in three sections for 25 & 30 Mtr heights and are only longitudinally welded.

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 Galvanized (Single Dip) internally and externally, that results in uniform coating thickness of 65 to 85 micron as per sheet thickness.



High Mast Pole Accessories

TDS - HIGHMAST AND ACCESSORIES

Nominal height of mast (mtrs.)	12 MTR	12.5 MTR	16 MTR	16 MTR	20 MTR	25 MTR	30 MTR
1. High mast Structure							
Nominal Thickness	Single Section-3 MM	Base Section-4mm Top Section-3mm	Base Section-4mm Top Section-3mm	Base Section-4mm Top Section-3mm	Base Section - 4mm Top Section - 3mm	Base Section - 4mm Middle Section-4mm Top Section - 4mm	Base Section - 5mm Middle Section-4mm Top Section- 4mm
Cross section of mast	12 sided polygon	12 sided polygon	20 sided polygon	20 sided polygon	20 sided polygon	20 sided polygon	20 sided polygon
Length of individual sections (approx)	Single Section 12 Mtr	Base Section - 6.5 mtrs Top Section- 6.5 mtrs	Base Section - 8.375 mtrs Top Section- 8.375 mtrs	Base Section - 8.375 mtrs Top Section- 8.375 mtrs	Base Section-10.375 mtrs Top Section-10.375 mtrs	Base Section- 8.75mtrs Middle Section-8.75 mtrs Top Section-8.75 mtrs.	Base Section-10.50 mtrs Middle Section-10.50 mtrs Top Section- 10.50mtrs.
Note: No circumferential weld is allowed and only one longitudinal weld is allowed.							
Base and top diameter (Approx.)	Base Dia-340mm Top Dia-100 mm	Base Dia-350mm Top Dia-150 mm	Base Dia-350mm Top Dia-150 mm	Base Dia-460mm Top Dia-150 mm	Base Dia-460mm Top Dia-150mm	Base Dia-485mm Top Dia-150mm	Base Dia-600 mm Top Dia. -150 mm
Type of joints	Telescopic stress fit	Telescopic stress fit	Telescopic stress fit	Telescopic stress fit	Telescopic stress fit	Telescopic stress fit	Telescopic stress fit
Nominal length of overlap	Nil	Top & Bottom - 650 mm	Top & Bottom - 650 mm	Top & Bottom - 650 mm	Top & Bottom - 700 mm	Top & middle - 700 mm. Middle & Bottom 800 mm	Top & middle - 700 mm. Middle & Bottom 850 mm
Size of base	Diameter- 540 mm	Diameter- 560 mm	Diameter- 560 mm	Diameter - 670 mm	Diameter - 670 mm	Diameter - 730 mm	Diameter -840 mm
flange diameter and thickness (approx)	Thickness - 25 mm	Thickness - 25 mm	Thickness - 25 mm	Thickness - 25 mm	Thickness - 30 mm	Thickness - 30 mm	Thickness - 32 mm
Metal protection treatment of mast sections.	Hot dip galvanized.	Hot dip galvanized.	Hot dip galvanized.	Hot dip galvanized.	Hot dip galvanized as per	Hot dip galvanized as per	Hot dip galvanized as per
Type of door construction and locking arrangement	Close fitting door with Allen key locking and suitable reinforcement to avoid buckling.	Close fitting door with Allen key locking and suitable reinforcement to avoid buckling.	Close fitting door with Allen key locking and suitable reinforcement to avoid buckling.	Close fitting door with Allen key locking and suitable reinforcement to avoid buckling.	Close fitting door with Allen key locking and suitable reinforcement to avoid buckling.	Close fitting door with Allen key locking and suitable reinforcement to avoid buckling.	Close fitting door with Allen key locking and suitable reinforcement to avoid buckling.
Size of anchor plate and its thickness	540mm x 540mm Thickness - 3 mm	550mm x 550mm Thickness - 6 mm	550mm x 550mm Thickness - 6 mm	750mm x 750mm Thickness - 6 mm	750mm x 750mm Thickness - 6 mm	750mm x 750mm Thickness - 6 mm	840mm x 840mm Thickness - 6 mm
Details of template	P.C.D.-440 mm	P.C.D.-460 mm	P.C.D.-460 mm	P.C.D.-650 mm	P.C.D.-650 mm	P.C.D.-660 mm	P.C.D.-740 mm
No.of foundation bolts	6 Nos.of M 25	8 Nos.of M 25	8 Nos.of M 30	8 Nos.of M 30	12 Nos.of M 30	16 Nos.of M 30	16 Nos.of M 30

Cable and Cable Connections

Control Panel

Top Pulley Assembly

Stainless Steel Wire Ropes

Earthing Terminals & Lighting finials

Foundation Bolts

Winches

Winch Driving Power Tools



Swaged Pole

Mac Tech manufactures all kinds of poles at its well-equipped plant which features machinery like Hydraulic Swaging machines, Straightening and Welding Machines and has facilities to produce poles up to the length of 16 meters & thickness up to 8 mm. Customization is also done as per a customer's specifications.

Swaged Poles include Light Poles in single hang & double hang, Street Light Poles, Traffic Light Poles etc., and are made of ERW tubes of suitable lengths swaged and joined together.

Features:

- Zero maintenance.
- Light weight structure
- Custom designs – made to customer's exact specifications
- Durable
- No copper wire grounding required
- Fully recyclable and non-toxic



Solar Light Pole



Utilizing the modern technology and latest machinery, we bring forth the wide array of Solar street light post. It is widely demanded by our clients for its excellent design and durability. The offered light post available in various specifications, as per the requirements of our esteemed clients.

Premium quality raw material is used by the professionals, along with contemporary production equipment to manufacture our offered light post. Clients can avail this Solar street light post from us at market leading price.

Features:

- Accurate dimensions
- Easy installation
- Corrosion resistance
- Durability

Conical Pole

In our extensive range of products, we also offer our esteemed clients a broad array of Conical Poles. These poles are manufactured using quality assured steel that is procured from trusted vendors of the market with the help of latest technology. Our offered poles are provided with hollow polygonal poles having closely circular cross section at both ends and mainly used for street, roadways, pedestrian lighting purpose. Further, these Conical Poles are available in various specifications as per our client's requirement at market leading prices.

Mac Tech developed during all these years of experience machines and solutions to produce such poles with high quality, reliability, high production rate making system very flexible to match the market target.

Application:

- CCTV System
- Flag Holder
- Exterior Hi-Bay Lighting
- Traffic Light and Sign



HT-LT Line Pole

The electric lines that generate the most public interest are often highvoltage transmission lines. These are the largest and most visible electric lines. Most large cities require several transmission lines for reliable electric service.

Transmission lines are larger than the more common distribution lines that exist along rural roads and city streets. Transmission line poles or structures are commonly between 60 and 140 feet tall. Distribution line structures are approximately 40 to 60 feet tall.

There are several different kinds of transmission structures. Transmission structures can be constructed of metal or wood. They can be single-poled or multi-poled. They can be single-circuited, carrying one set of transmission lines or double-circuited with two sets of lines.

Different transmission structures have different material and construction costs, and require different right-of-way widths, distances between structures (span length), and pole heights. Construction requirements and costs also vary with the different sized voltages. In the past, many transmission lines were constructed on H-frame wood structures and metal lattice structures. New lines are most often constructed with single pole structures because of right-of-way width limitations and environmental considerations. Current right-of-way widths vary between 80 to 150 feet.





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