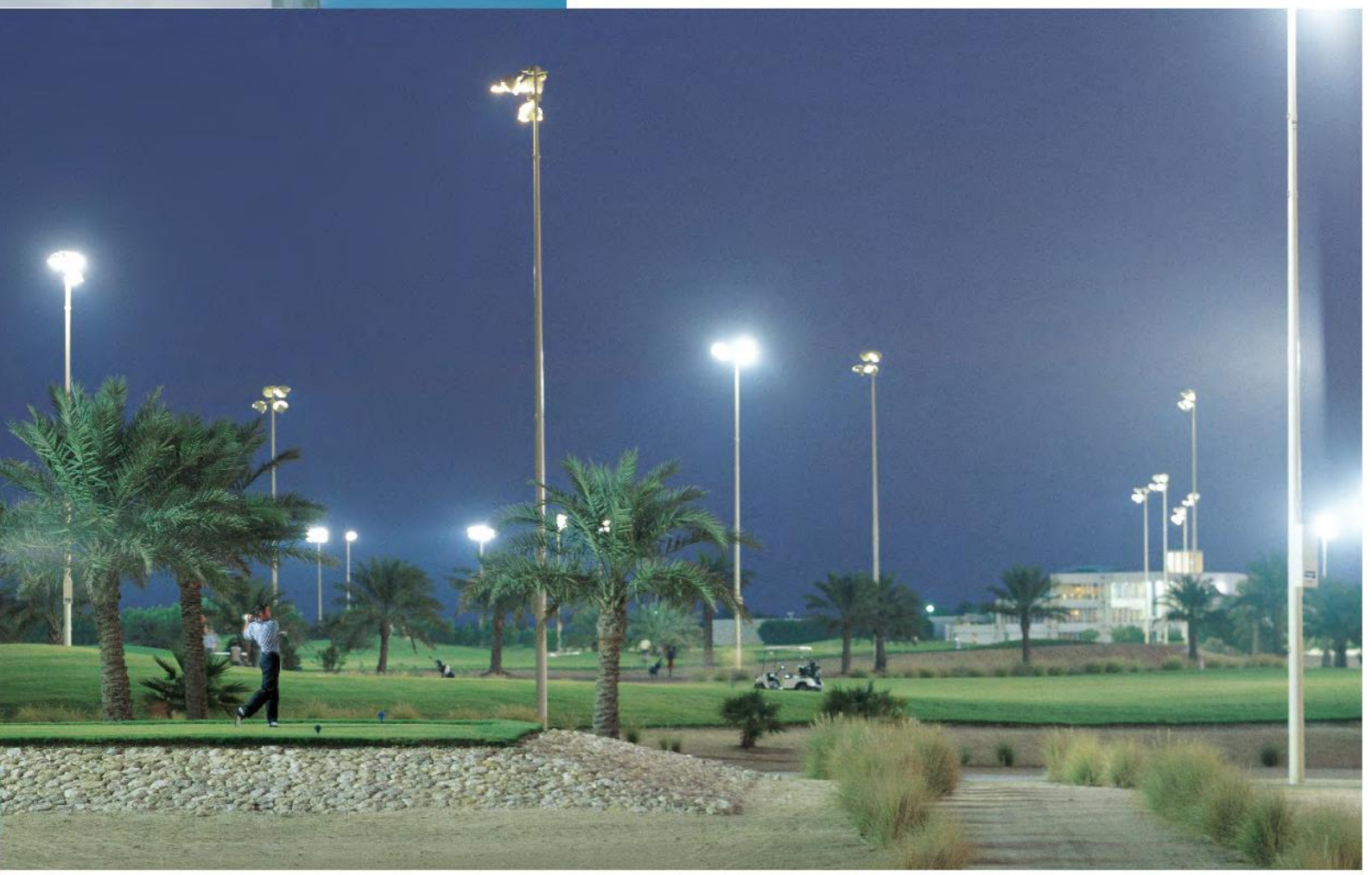
TRANSPOWER®
INDIA



HIGH MASTS

TRANSPOWER TRANSFORMING LIGHTING INDIA

THE COMPANY PROFILE

TRANSPOWER SWITCHGEAR INDUSTRIES

Transpower Switchgear Industry is an ISO 9001 : 2008 Certified, Mumbai (Maharashtra) based business entity, is acknowledged in the market for setti unsurpassable paradigm of excellence. The company is primarily engaged in t manufacturing, supplying and exporting of Power Products H.T. & L.T. Materi Distribution & Special Purpose Transformers up to 33KV line, Street Light Pol Octagonal Poles Manufacture, Luminaries & Accessories etc.

The company is certified to ISO-9001 TO 2015 Certification that reflects the genuineness of the products and our reliability. Isolators i.e. Air Break Switch (G.O.D), Drop Out Fuse up to 33KV Line with Kiosk Metering Set, V.C.B, S.F. Isolators, R.M.U. & Breaker, Cables, Capacitors.
Rated By NSIC – CRISIL and Experiencing magnificent growth, since its establishment in the year 1995.

Transpower, a Mumbai based firm, offering a variety of Lighting Poles, Pipes and Lines Materials. The variety of Lighting Poles Pipes and Lines Materials that we offer includes Tubular Poles (For Street Lighting & Transmition Lines), Decorative Lighting Poles, Octagonal Poles, High Mast Poles, M.S/G.I. Pipes, Electric Poles, Line Materials etc. Our organization is showing a substantial growth since the time of its establishment in the year 2013. We are flourishing at a fast pace under the due guidance of our knowledgeable Chairman Mr.Sambhaji Haribhau Kudekar. We have also carve niche for ourselves among the topmost Poles Suppliers in India.

Our Mission

To build a strong brand and maintain superior quality standard for customer satisfaction.

Our Vision

Achieve numerous positions in pole, cable, and pipes industry in terms of volume, turnover and quality in the Asian Continent.

Our Quality

Our focus on quality is evident in our product range. We have never compromised on quality and have successfully achieved a high level of customer appreciation resulting in long-lasting relations.

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.

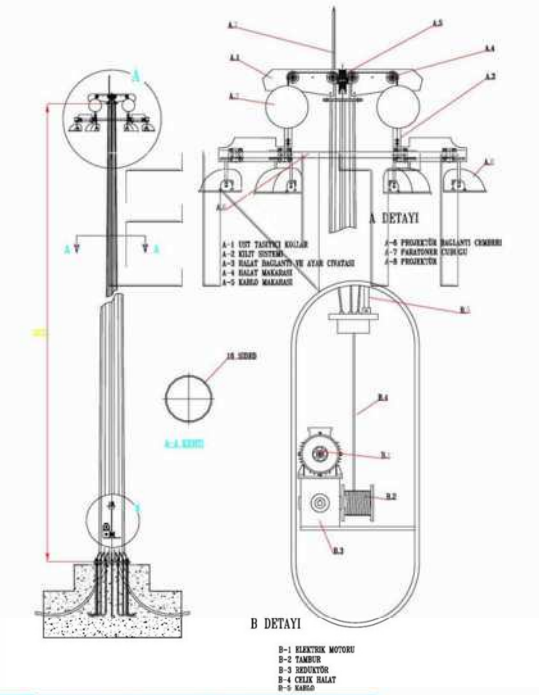
High-mast lighting is ideal for industrial or commercial areas, docks, airports, flyovers, stations, car parks and even some hazardous areas. All of these require the best possible lighting with minimum interference from the installation itself combined with ease of maintenance.

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.

The design is based on proven in-tension design conforming to the Technical Report No 7-1996, Institution of Lighting Engineers. UK. This ensures assured performance and reliable service. The structure is suitable for loading as per IS 875 (part3) 1987.

Construction

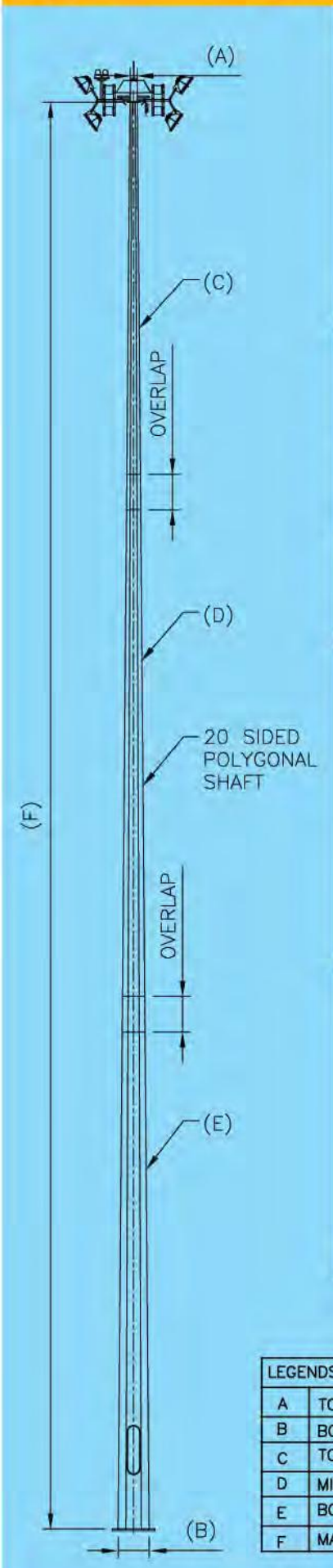


High mast is fabricated from steel plates conforming to BSEN 10025, GR-S255 JO or equivalent as per customer's requirement, cut and folded to form a polygonal section. Masts come in two sections for 16 & 20 Mtr and in three sections for 25 & 30 Mtr heights and are only longitudinally welded, conforming 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.

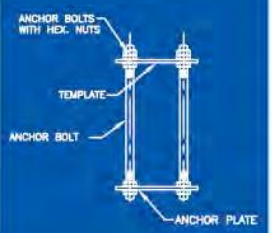
For environmental protection of the mast, the entire fabricated mast is Hot dip Galvanized (Single Dip) internally and externally, that results in uniform coating thickness of 65 to 85 as per sheet thickness & maintaining BSEN ISO-1461 or equivalent.

Typical drawing of High Mast



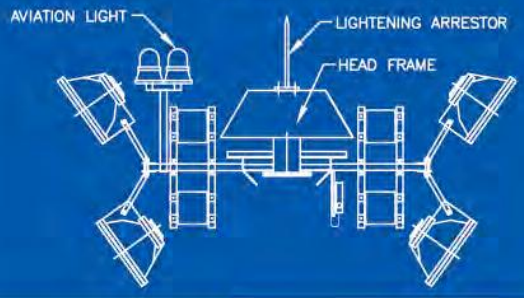
Baseplate Details

Anchor Bolt Cage Details



Mast Bottom

Head Frame Assembly



LEGENDS	
A	TOP A/F
B	BOTTOM A/F
C	TOP SECTION
D	MIDDLE SECTION
E	BOTTOM SECTION
F	MAST HEIGHT

TECHNICAL SPECIFICATION OF HIGH MAST LIGHTING SYSTEM

Structure:

The Highmast is of continuously tapered, polygonal cross section, presenting a good and pleasing appearance and is based on proven design conforming to international standards, to give an assured performance, and reliable service. The structure is suitable for wind speed as per IS 875 part 3 1987.

Construction:

The mast is fabricated from special steel plates, conforming to ASTM A 572/ BS EN 10025 with 350MPa min. yield. Plates are cut, folded and welded using a sub-arc automatic machine to form a polygonal section. Silicon content of the steel shall be less than 0.06 % to provide a good galvanizing finish. No circumferential welded joints are provided in individual sections. The welding is in accordance with AWS. The mast is provided with fully penetrated flange, which is free from any lamination or incursion. For the environmental protection of the mast, the entire fabricated mast is single hot dip galvanised, internally and externally as per ASTM A 123 AND 153.

The mast is delivered in multiple sections of length up to 16 meters so a 30m mast can be delivered in two sections. At site the sections are joined together by slip-stressed-fit method. The minimum over lap distance is 1.5 times the outside diameter of the top section. The top/bottom diameters and plate thickness of the mast are designed as per CP3/IS 875 and TR No 7. The design life of the mast is a minimum of 25 years.

Door opening is provided at the base of the mast to access winches, cables and plug & socket, etc. The door opening is provided with a close fitting, vandal resistant and weatherproof door. It is provided with a heavy-duty double internal lock with special paddle key

uctures to meet the most demanding requirements worldwide.

Cable and Cable Connections

Multi core, flexible, round and sheathed power cable(s) provided with metal or PVC 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.
One circuit of 5Cx2.5 sq mm cable is provided for every 8.5 KW load.

Earthing Terminals & Lighting finials

Suitable earth terminal using 12 mm diameter stainless steel bolts are provided at a convenient location or at the base of the mast.

Control Panel

Provided with a control panel fabricated out of 14/16 SWG CRCA sheet comprising incoming MCB isolator, copper wiring, and suitable lining contactor.

Foundation Bolts

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.

Top Pulley Assembly

The pulleys are of large diameter, appropriate to the multicore flexible cable being used. They are of non-corroding material and run on self-lubricating bearings with stainless steel spindles. Arrangements are provided to ensure that the electric cables and steel wire ropes are separated before passing over their pulleys to prevent ropes and cables leaving the pulley's grooves.

The pulleys are housed in a chassis integral with a sleeve, which slips over the top of the mast and is secured axially and in azimuth. Guides and stops are provided for docking the lantern carriage. For 2 or 3-point suspension carriage, an anchor point is securely welded to the assembly to receive the safety maintenance equipment wherever relevant. The complete chassis assembly is hot dip galvanized after lubrication. A weather proof hot dip galvanized canopy protects the pulley assembly.

Winches

Winches are completely self-sustaining without the need for brakes, spring or clutches which require adjustment or which can be affected by moisture or lubricant. The gear ratio is 53:1. The winches are self-lubricating by means of an oil bath and recommended lubricant only is used. A suitable high-powered, electrically driven, internally mounted power tool, with manual override may by supplied for the raising and lowering of the lantern carriage.

Stainless Steel Wire Ropes

Steel Wire ropes are flexible marine grade (ATSI 316) and of stainless steel 7/19 construction. Thimbles and terminals are of compatible materials.

Winch Driving Power Tools

The power tool is a single or 3 phase, single speed, heavy-duty type electric motor having a special driving shaft for transmitting torque to winch gearbox. A remote control switch with suitable length of cable allows the equipment to operate from a distance.

Arrangements are provided to support the power tool accurately and securely during its operation. Separate handle is also provided for manual operation of the winch.

TDS - HIGHMAST AND ACCESSORIES

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AN ISO CERTIFIED COMPANY

Nominal height of mast (mtrs.)	12 MTR	12.5 MTR	16 MTR	16 MTR	20 MTR	25 MTR	30 MTR
1. High mast Structure							
Material of construction	IS 5986 Fe 510 or equivalent	IS 5986 Fe 510 or equivalent	IS 5986 Fe 510 or equivalent	IS 5986 Fe 510 or equivalent	IS 5986 Fe 510 or equivalent	IS 5986 Fe 510 or equivalent	IS 5986 Fe 510 or equivalent
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	Base Dia-340mm	Base Dia-350mm	Base Dia-350mm	Base Dia-460mm	Base Dia-460mm	Base Dia-485mm	Base Dia-600 mm
diameter (Approx.)	Top Dia-100 mm	Top Dia-150 mm	Top Dia-150 mm	Top Dia-150 mm	Top Dia-150mm	Top Dia-150mm	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	530mm x 530mm Thickness - 6 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.-460 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
2. Dynamic Loading							
Max.design wind speed	180 km/hr.	180 km/hr.	180 km/hr.	180 km/hr.	180 km/hr.	180 km/hr.	180 km/hr.
Gust time considered	3 sec	3 sec	3 sec	3 sec	3 sec	3 sec	3 sec
Height above ground level at which wind velocity is measured.	10 mtrs.	10 mtrs.	10 mtrs.	10 mtrs.	10 mtrs.	10 mtrs.	10 mtrs.
Factor of safety for wind load	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Factor of safety for other loads	1.15	1.15	1.15	1.15	1.15	1.15	1.15

TDS - HIGHMAST AND ACCESSORIES

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Nominal height of mast (mtrs.)	12 MTR	12.5 MTR	16 MTR	16 MTR	20 MTR	25 MTR	30 MTR
3. Lantern Carriage							
Material of construction	M.S. (Hot dip galvanised).	M.S. (Hot dip galvanised).	M.S. (Hot dip galvanised).	M.S. (Hot dip galvanised).	M.S. (Hot dip galvanised).	M.S. (Hot dip galvanised).	M.S. (Hot dip galvanised).
Diameter of carriage ring (mm) Including arms.	2400 mm (approx)	2400 mm (approx)	2400 mm (approx)	2400 mm (approx)	2400 mm (approx)	2400 mm (approx)	2400 mm (approx)
Number of sections	2 Sections.	2 Sections.	2 Sections.	2 Sections.	2 Sections.	3 Sections.	3 Sections.
Load carrying capacity	Approx. 500 kgs.	Approx 500 kgs.	Approx 500 kgs.	Approx 500 kgs.	Approx 750 kgs.	Approx 750 kgs.	Approx 750 kgs.
Total weight of assembly with fittings.	Approx 350 kgs.	Approx 350 kgs.	Approx 350 kgs.	Approx 350 kgs.	Approx 500 kgs.	Approx 500 kgs.	Approx 500 kgs.
Number of luminaires	4 to 6 nos	6 to 9 Nos	6 to 9 Nos	6 to 9 Nos	9 to 12 Nos	9 To 12 Nos	9 To 12 Nos
4. Winch							
TYPE	Single Drum	Double Drum	Double Drum	Double Drum	Double Drum	Double Drum	Double Drum
Capacity	550 kgs	750 kgs	750 kgs	750 kgs	1500 kgs	1500 kgs	1500 kgs
Safe Working Load	375 kgs.	375 kgs.	375 kgs.	375 kgs.	750 kgs.	750 kgs.	750 kgs.
Method of operation	Manual / Electrical	Manual / Electrical	Manual / Electrical	Manual / Electrical	Manual / Electrical	Manual / Electrical	Manual / Electrical
Gear ratio	.53:1	.53:1	.53:1	.53:1	.53:1	.53:1	.53:1
Gear material	Phosphor Bronze	Phosphor Bronze	Phosphor Bronze	Phosphor Bronze	Phosphor Bronze	Phosphor Bronze	Phosphor Bronze
Tested load per drum	750 kgs.	750 kgs.	750 kgs.	750 kgs.	750 kgs.	750 kgs.	750 kgs.
5. Stainless Steel Wire Ropes							
Wire Rope	Stainless Steel.AISI 316	Stainless Steel.AISI 316	Stainless Steel.AISI 316	Stainless Steel.AISI 316	Stainless Steel.	Stainless Steel.	Stainless Steel.
Number of ropes	1 for winch	2 for winch	2 for winch	2 for winch	2 for winch	2 for winch	2 for winch
Diameter (mm)	5 mm	6 mm	6 mm	6 mm	6 mm	6 mm	6 mm
Factor of safety	5 or More	5 or More	5 or More	5 or More	5 or More	5 or More	5 or More
Construction	7/19 with central core SS.	7/19 with central core SS.	7/19 with central core SS.	7/19 with central core SS.	7/19 with central core SS.	7/19 with central core SS.	7/19 with central core SS.
6. Integral Power Tool							
Input supply	415V 50 HZ	415V 50 HZ	415V 50 HZ	415V 50 HZ	415V 50 HZ	415V 50 HZ	415V 50 HZ
Wattage/HP	1.5 HP	2 HP	2 HP	2 HP	2 HP	2 HP	2 HP
Reversible	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Torque Limiter							
Lifting Capacity	500 kgs.	750 kgs.	750 kgs.	750 kgs.	750 kgs.	750 kgs.	750 kgs.
Type	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical

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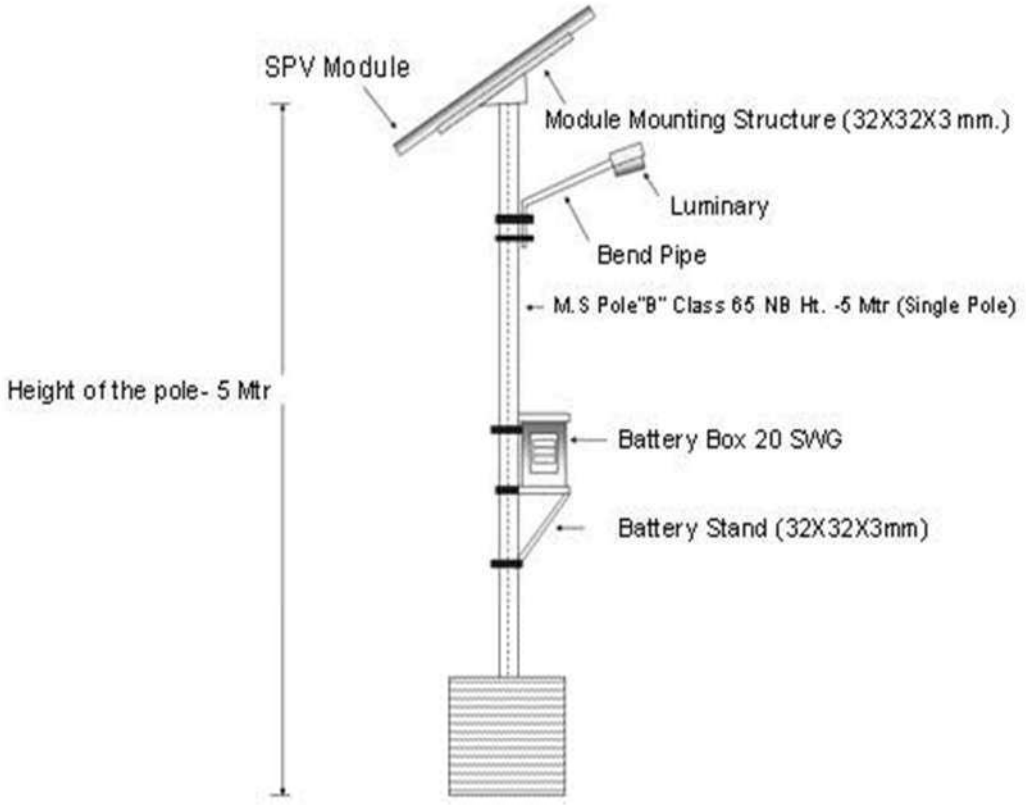
SOLAR LIGHT POLE

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
- Corrosion resistance
- Easy installation
- Durability

To cater to the rising demands and requirements of our clients, we come with superlative quality Street Light Pole. Manufactured using advanced technology, the offered product is assured of premium quality. Easy to install and to maintain, the entire range of street light poles offered by us has amassed words of intense praise among our respected clients.



	LED street lighting				CFL street lighting	
SPECIFICATIONS	**200LS**	**300LS**	**400LS**	**750LT**	**350CS**	**600CS**
Type of lamp	LED	LED	LED	LED	CFL	CFL
Lamp (WxQty.)	7x1	12x1	15x1	30x1	11x1	11x2
PV array wattage (WpxQty.)	35x1	65x1	80x1	75x2	75x1	60x2
Battery (Ah)	40	60	75	150	75	100
Pole height (m)	4	4	4	6	4	4
Light output (lumens)	630	1080	1350	2700	900	1800
Recommended hours of charging at full sun shine (1kW/m2 irradiance) for daily usage of 12 hours*	5	4.5	4.5	5	3.5	4.5
Maximum autonomy days, assuming 12 hours of usage per day (days)	3	3	3	3	4	3
Maximum continuous back up (hours)	45	40	40	40	56	36
Diameter spread on ground (m)	5	5	5	8	5	5
Savings per year as compared to a grid based system (RS)**	2,470	3,310	4,950	9,920	2,470	4,950

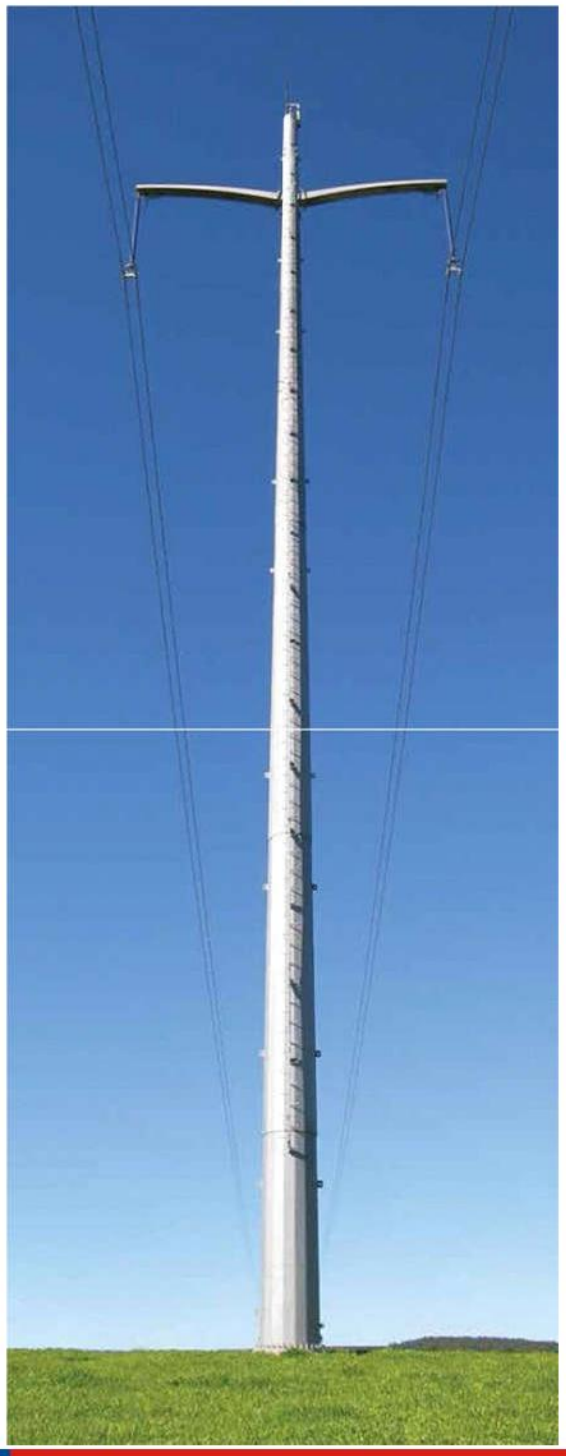
GALLERY

HT-LT LINE POLE

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

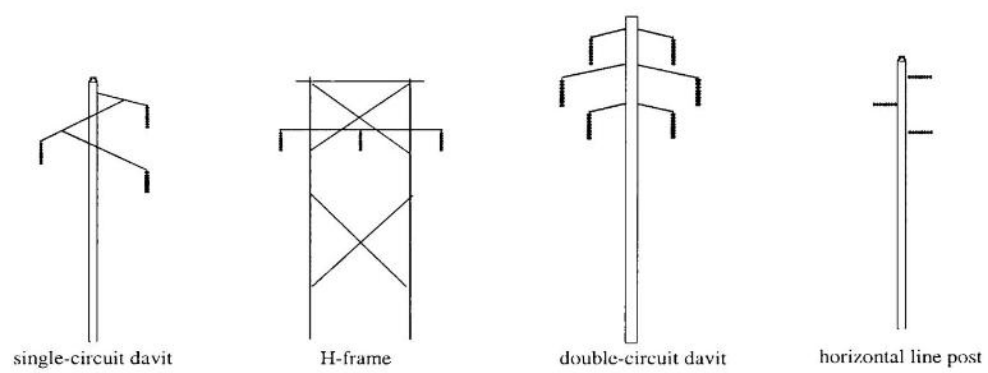
Transmission lines are larger than the more common distribution lines that exist along rural roads and city streets. Transmission line poles or structures are commonly between 60 and 140 feet tall. Distribution line structures are approximately 40 to 60 feet tall.

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.

Pole height and load capacity limitations determine the distance between poles (span length) either on the basis of ground clearance or ability to support heavy wind and ice loads. In areas where single-pole structures are preferred, weak or wet soils may require concrete foundations for support. Where a transmission line must cross a street or slightly change direction, larger angle structures or guy wires may be required. Poles with guy wires impact a much larger area. Angle structures are usually more than double the diameter of other steel poles. They are made of steel, usually five to six feet in diameter, and have a large concrete base. The base may be buried ten or more feet below the ground surface. The diameter of the pole and the depth the base is buried depends on the condition of the soils and the voltage of the line.



single-circuit davit | H-frame | double-circuit davit | horizontal line post

Clientele

TRANSPOWER®
SWITCHGEAR INDUSTRIES
AN ISO CERTIFIED COMPANY

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