



# MEGATRO TOWER

Qingdao Megatro Holding Co., limited



## Company Overview

Since 2004, MEGATRO has been manufacturing lattice transmission tower & tapered steel poles for lighting, traffic control, communication and utility applications. MEGATRO pioneered the development of transmission tower, telecom tower, substation, and other steel structure and was also at the forefront in the design of Transmission tower



Today, with over 10 years of experience and our commitment to excellence, MEGATRO remains an industry leader in the manufacture and design of steel tubular & angular & monopole structures for all Highway, Municipal, Custom, telecom, lighting and electric Utility applications. MEGATRO has a complete staff of professional engineering personnel trained in the PLS Pole program and three different manufacturing processes for producing steel towers, poles and other supports. We utilize the latest versions of PLS-CADD, PLS-POLE, TOWER, AutoCAD and other CAD software.

MEGATRO offers Turnkey Solutions for transmission line steel Towers & Structures, including Engineering Designs, Drawings, Manufacture, Supply and Installation. Transmission Line Towers up to 1100kV, with related Equipment Support Structures and Substation Gantry, Structures may have one of the three basic configurations: horizontal, vertical, or delta, depending on the arrangement of the phase conductors. Towers have self-supporting, guyed and monopole types. Our in-house design, detailing, prototyping, testing, manufacturing and supply capabilities give us unmatched ability to provide your Optimized Transmission Structure Solution.



## Distribution Steel Pole

Design Data of Class 1 Transmission Steel Pole for TMGe A & B							
Pole Length (FT) / (M)	Top Diameter	Butt Diameter	Steel Thickness (Minimum)	Horizontal Load 2 ft. from Top (Minimum)	Specified Min. Yield Stress, Fy	Specified Min. Ultimate Stress, Fu	Minimum Vertical Load
	(in)	(in)	(in) / (mm)	(kips) / (kn)	(ksi) / (mpa)	(ksi) / (mpa)	(kips) / (kn)
40 / 12.19	5-8	12-15	0.133 / 3.38	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00
45 / 13.72	5-8	12-15	0.133 / 3.38	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00
50 / 15.24	5-8	14-18	0.133 / 3.38	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00
55 / 16.77	5-8	15-18	0.133 / 3.38	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00
60 / 18.30	5-10	15-18	0.162 / 4.11	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00
65 / 19.32	5-10	15-18	0.162 / 4.11	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00
70 / 21.34	6-10	15-18	0.162 / 4.11	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00
75 / 22.87	6-10	15-18	0.162 / 4.11	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00
80 / 24.40	6-10	15-18	0.162 / 4.11	2.312 / 10.28	65 / 450	80 / 550	6.50 / 29.00

## Transmission Steel Pole

Design Data of Class 3 Transmission Steel Pole for TMGe A & B							
Pole Length (FT) / (M)	Top Diameter	Butt Diameter	Steel Thickness (Minimum)	Horizontal Load 2 ft. from Top (Minimum)	Specified Min. Yield Stress, Fy	Specified Min. Ultimate Stress, Fu	Minimum Vertical Load
	(in)	(in)	(in) / (mm)	(kips) / (kn)	(ksi) / (mpa)	(ksi) / (mpa)	(kips) / (kn)
40 / 12.19	5-8	12-14	0.12 / 3.05	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43
45 / 13.72	5-8	14-18	0.12 / 3.05	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43
50 / 15.24	5-8	15-18	0.125 / 3.18	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43
55 / 16.77	5-10	15-20	0.125 / 3.18	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43
60 / 18.30	5-10	15-20	0.138 / 3.51	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43
65 / 19.32	5-10	15-20	0.138 / 3.51	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43
70 / 21.34	6-10	15-20	0.138 / 3.51	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43
75 / 22.87	6-10	16-25	0.138 / 3.51	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43
80 / 24.40	6-10	16-25	0.138 / 3.51	1.875 / 8.34	55 / 380	70 / 480	3.236 / 14.43

Including hot-dip Galvanizing, as Chinese Standard GB/T 13912-2002, ASTM A123, BS Standard or other standard.

The above data is mainly for NGCP pole specification, and we can design according to client's technical requirements and design data.



At MEGATRO, we believe the most effective method of distribution is via poles, weather steel or other type, our engineers will design the various positions according to terrain & our customers requirements. If supplying a power transformer, switchgear, oil well or motor, we will advise the most practical design based on actual site condition. Our ranges of distribution poles are used for low and medium volt-age overhead lines. We offer poles in different heights as per the design requirements and in voltages up to 500kV in single and double circuit categories.

Poles type including slip type, flange type, staggered pole, H-type, and others. Our ranges of transmission monopoles – tapered, polygonal, octagonal and stepped – are available in different heights as per the design requirement. MEGATRO's engineering section designs these monopoles, with the help of latest software, to ensure that users get the most convenient solution both technologically and economically.

A complete selection of towers including self-support, lattice steel tower, monopoles and guyed towers, form custom-designed radar towers to broadcast towers and energy infrastructure. MEGATRO carries a variety of related products including fall protection, transmission lines, antennas, obstruction lights, and accessories, and other products if client need, MEGATRO also tailored product as per client condition.



MEGATRO is a full service engineering company with a global reputation for delivering excellence and innovation in telecommunications systems. Over 10 years of experience and innovation in engineering, designing and building towers has evolved MEGATRO into its current form:

- Comprehensive provider including design, engineering services, manufacturing, tech services, value added reseller and monitoring, maintenance and network ownership
- Specialize in developing supplying and optimized tower & shape design of telecommunications systems, as well as accessories service
- Single source from Design to System Integration
- Top quality, ISO 9001 registered

Manufacturer & Exporter of a wide range of Telecom Towers which include such as Guyed Mast Tower, Guyed Mast, Self Supporting Mast, Self Supporting Towers, Monopole Towers, Poles and many more items such as monitor pole, camera pole, Meteorological tower etc. Our effective marketing strategy and quality fabrication services assist us in catering to the needs of Wireless and Networking industry all over china and global market.



## OTHER PRODUCTS



### 1 Substation

Substation is a high-voltage electric system facility, used to switch generators, equipment, and circuits or lines in and out of a system, which includes Gantries and Equipment Support Structures. MEGATRO mainly provide every type of substation gantries structure with complicated technology and adopted sophisticated production.

### 2 Camouflage tower

MEGATRO bring camouflage and concealment application in integrating contemporary structures with naturalistic environments, or with existing structures, for industries, educational institutions, and historical sites nationally and abroad.

### 3 Light poles

Material: Q235, SS400, Q345, ASTM A36, 570 GR50, or other material as per clients' requirements  
Shape of Pole: Round conical; Octagonal conical; Straight square; Polygonal or as per clients (slip or flange connection)  
Surface: Hot-dipped galvanization, painting or other finish  
Wall thickness: 2mm-20mm or as per clients

### 4 Wind tower

MEGATRO provides wind tower mast which matched wind generator from 300W to 1.5MW. These wind towers are made from solid steel and welded by certified welders, which is the tower units for wind power turbine, applied with wind power Generator during wind power generation.



## Tower – Fabrication Facilities

MEGATRO utilize the latest high-tech equipment and machinery in order to sustain competitiveness in the industry and to consistently serve our customer with the highest level of quality, timely delivery and satisfaction.

### Key Strengths

- Geographical Spread
- Manufacturing Facilities
- Human Resources
- Sophisticated Machinery
- Fabrication Capacity
- Galvanization Capacity
- Quality Certification
- Quality Assurance Plan
- 2 Strategic Locations
- 24 Self Driven Units (including two 2400 tons bending machines)
- Highly Skilled, 720 staff
- Meeting the Industrial Standards (ASTM, EN, DIN, JIA, AS, JIS, CSA etc)
- 250,000 MT/Annum
- 200,000 MT/Annum
- Accredited With ISO 9001:2000 & 14001:2004 & 18000
- As Mutually Agreed upon with Customer



### Prototype Assembly & Inspection

- Dedicated independent prototype assembly units
  - In House Proto Test Facility
  - Spectro Analyzer for Materials Strength measurement & Chemical composition
  - Prototype inspection done by internal QA Team, Third party & by Customers also as applicable for the final approval and for Mass production approval and for Mass production
  - Routine tower testing for size, chemical and physical property, zinc coat, welding, UT, MT, PT, RT etc.
- The quality checks conducted by us are based on the parameters of material strength, fabrication & galvanization process, thickness of the coatings and the verticality of tower using theodolites.



Our team has the ability to tackle the most challenging and complex over-head projects through 1100KV. Proven over more than ten years in the industry, MEGATRO brings to the table qualifications and personal services second to none.

MEGATRO'S dedication to project performance and safety show in the awards and bonuses earned on our projects.

All of which means that when you work with MEGATRO you can expect unparalleled, comprehensive, and diverse capabilities.

Well equipped with special T&P, maintenances tools and highly skilled team to execute transmission lines up to  $\pm 1100\text{KV}$  HVDC.

Innovative design/installation/build solutions  
Fast-track scheduling for right outage restraints  
Immediate access to helicopter capabilities  
Tower maintenances/repair services (re-galvanized, painting and repair services etc)  
Environmental services

Our years of experiences including every type of steel structure design, solid electric and under-ground design, loading analysis, maintenances, anti-corrosion, re-galvanization, painting and make structure harmony, and balance cost with customers sensitivity and the environment.





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