TELECOMMUNICATION
Triangular Tower
DATA SHEET

Product no.	**S CHS-24M-N-ML**
Ref. nr.	02.06.01.110
Latest rev.	05.12.2019

Series CHS

24m CHS - Normal

Description:
The given tower is designed as an equilateral triangle, with bolted flange connections between CHS sections, composed of legs and bracings made of circular hollow sections. The 24 m CHS mast is built of 4 sections each being 6 m long.

The tower is prepared for installation of a 2 m toppole.

Specification:
Total theoretical tower weight = 1390 kg
Leg distance at tower base =2090 mm
Foundation bolts: 18 x M20

The steel is hot dip galvanized according to DIN/EN ISO 1461.

The design of the lattice tower is according to:
DIN/EN 1993-3-1 – Design of steel structures – Towers, masts and chimneys.
DIN/EN 1991-1-4 – Actions on structures – Wind actions.

Zone	Description	Basic wind speed v_{b0}	Terrain category	Bearing capacity (A_w)
1	Most part of Nordrhein-Westfalen, Hessen, Rhenland-Pfalz, Saarland, Baden-Wurttemberg, Bayern and Thüringen.	22,5 m/s	II	25 m²
2	Hamburg, Berlin, Brandenburg, Sachsen-Anhalt, Sachsen and some parts of Schleswig-Holstein Thüringen, Niedersachsen, Mecklenburg-Vorpommern, Bayern and Baden-Wurttemberg.	25 m/s	II	18 m²
3	Northern part of Schleswig-Holstein, Bremen and Mecklenburg-Vorpommern.	27,5 m/s	II	13 m²
4	Costal part of Schleswig- Holstein and Bremen.	30 m/s	I	7 m²

A_w is the maximum total wind drag area incl. shape factor, that can be equally distributed over the top 9 m.

Ladder with hoops from base to top – 0,14 m²/m.
The following feeder load is assumed:
0,20 m²/m for each operator, (total of 0,60 m²/m) distributed on 2 sides.

Foundation types:
Normally a traditional Pier & Pad foundation is designed and casted for a CHS tower. Carl C. can assist with the design if required, based on site specific geotechnical specifications.