TELECOMMUNICATION
Triangular Tower
DATA SHEET

Product no. S HYB 42M-S-00
Ref. nr. 02.08.01.24
Latest rev. 01.11.2024

Series HYB

42m HYB - Strong

Description:
The given tower is designed as an equilateral triangle, with a fully welded steel lattice structure, composed by legs and bracings made of circular hollow sections and solid round bars respectively.

The tower can be prepared for installation of a 2 m toppole.

Specification:
Total theoretical tower weight = 5283kg
Leg distance at tower base = 2825 mm
Foundation bolts: 18 x M36

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

The design of the lattice tower is made 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, $v_{b,0}$	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	35 m²
2	Hamburg, Berlin, Brandenburg, Sachsen-Anhalt, Sachsen and some parts of Schleswig-Holstein Thüringen, Niedersachsen, Mecklenburg-Vorpommern, Bayern and Baden-Wurttemberg.	25,0 m/s	II	26 m²
3	Northern part of Schleswig-Holstein, Bremen and Mecklenburg-Vorpommern.	27,5 m/s	II	20 m²
4	Costal part of Schleswig- Holstein and Bremen.	30,0 m/s	I	11 m²

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

A ladder with hoops or a fall arrest system can be installed from base to top.

A feeder load of 0,20 m²/m for each operator is assumed, (total of 0,60 m²/m) distributed on 2 sides.

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