

Series CHS

42m 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 42 m CHS mast is built of 7 sections each being 6 m long.

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

Specification:

Total theoretical tower weight = 3430 kg

Leg distance at tower base = 3050 mm

Foundation bolts: 18 x M27

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

The design of the lattice tower is according to:

BS/EN 1993-3-1 – Design of steel structures – Towers, masts and chimneys.

BS/EN 1991-1-4 – Actions on structures – Wind actions.

	In most areas in England, Cornwall and Wales, ($v_{b0}=24$ m/s)	In most areas up to Southern Scotland, ($v_{b0}=27$ m/s)	In most areas up to Northern Scotland ($v_{b0}=29$ m/s)
Bearing capacity (A_w) for terrain category II	19 m ²	13 m ²	9 m ²

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.

