

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.

The Normal series CHS tower can be used in most areas in Denmark ($v_b=24$ m/s, terrain category II).

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 DS/EN ISO 1461.

The design of the lattice tower is made according to:

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

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

The tower is designed for three operators equal to 15 m^2 wind drag area equally distributed over the top 9 m.

Ladder with hoops from base to top – $0,14 \text{ m}^2/\text{m}$.

or

Ladder with fall arrest rail from base to top – $0,17 \text{ m}^2/\text{m}$.

The following feeder load is assumed:

$0,20 \text{ m}^2/\text{m}$ for each operator, (total of $0,60 \text{ m}^2/\text{m}$) 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.

