

## Series CHS

### 42m CHS - Strong

#### 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 Strong series CHS tower is used in areas along the west coast of Jutland ( $v_b=27$  m/s, terrain category I).

#### Specification:

Total theoretical tower weight = 4410 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  $15 \text{ m}^2$  wind drag area equally distributed over the top 9 m.

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

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.

