

## Series CHS

### 48m 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 48 m CHS mast is built of 8 sections each being 6 m long.

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

#### Specification:

Total theoretical tower weight = 5580 kg

Leg distance at tower base = 3370 mm

Foundation bolts: 18 x M30

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	30 m <sup>2</sup>	22 m <sup>2</sup>	18 m <sup>2</sup>

$A_w$  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 m<sup>2</sup>/m.

The following feeder load is assumed:

0,20 m<sup>2</sup>/m for each operator, (total of 0,60 m<sup>2</sup>/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.

