

INTEGRATED TOWER SITE TECHNICAL DATA

Costworx has integrated a functional organisation into each of its units. The main mission of this organisation is to check the product quality and compliance with international engineering codes and standards.

Material Specification

Material	Standard	Steel Grade	Tensile Strength	Yield Strength
Structural steel	GB 700-88	Q235	375~500 N/sq.mm	235 N/sq.mm
	GB/T 1591-94	Q345	470~630 N/sq.mm	345 N/sq.mm
Bolts	BS 3692	8.8	830 N/sq.mm	664 N/sq.mm

Standard Codes of Practice

ANSI/TIA 222-G : 2005 Structural Standards for Steel Antenna Towers and Antenna Supporting Structures

ANSI/AISC 360-05 : 2005 Specification for Structural Steel Buildings

BS 8100: 1986 Lattice Towers And Mast Part 1 : Code Of Practice For Loading

BS 8100: 1999 Lattice Towers And Mast Part 3 : Code Of Practice For Strength Assessment

AS 3995-1994 Design of Steel Lattice Towers and Masts

Design Wind Speed

Basic Wind Speed	Typically 40-45m/s, Maximum 85m/s, (3-sec gust speeds)
Operational Wind Speed	Typically 70% of the basic wind speed
Height	Typically 25-35m, Maximum 50m

Design Parameters (ANSI/TIA 222-G)

Structure Class	Typically 2, can be 1-4
Exposure Category	Typically C, can be A-D
Topographic Category	Typically 1, can be 1-4

Load Combinations

Strength Limit State	1. 1.2 DL + 1.6 VB
	2. 0.9 DL + 1.6 VB
Service Limit State	1. 1.0 DL + 1.0 VO

Ancillary Loads

Antenna	Typically 10m ² over top 10m, up to 25m ²
Cable and Ladder	0.3m ² /m

Factor of Safety

Factor of Safety on overturning is 1.2 as standard, differing parameters can be considered upon request.

Equipment Platform

Equipment platform included with > 50m² of usable space able to carry in excess of 4 tonnes of equipment load.

Site Preparation

Levelling system to accommodate 3° of site slope included.
Soil bearing support for ≥50kPa.

INTEGRATED TOWER SITE SPECIFICATIONS

