

Mast Design Audit Certificate

Mast Reference Type	T1100
Mast Description	39m Triangular Tubular Lattice Mast
Mast Type	Self-Supporting
Manufacturer / Supplier	RTS
Client	TBC

The tower has been audited to SANS10160-3:2011 Standard and approved for construction with respect to the following design parameters as detailed below:

Basic Fundamental Wind Speed	28m/s
3-Second Gust Wind Speed	39.2m/s
Wind Return Period	50yrs
Terrain Category	B
Site Altitude	0m Above Mean Sea Level
Ground Datum	0m
Mast Loading	4m ² Over Top 6m of Mast
Material Grade	S355JR
Bolt Grade	Grade 8.8
Main Leg Members	193.7 OD 6.0mm Circular Hollow Section (L1) 193.7 OD 4.5mm Circular Hollow Section (L2) 177.8 OD 4.5mm Circular Hollow Section (L3) 177.8 OD 4.0mm Circular Hollow Section (L4) 165.1 OD 4.0mm Circular Hollow Section (L5) 152.4 OD 3.5mm Circular Hollow Section (L6) 152.4 OD 3.0mm Circular Hollow Section (L7) 114.3 OD 3.5mm Circular Hollow Section (L8) 101.6 OD 3.5mm Circular Hollow Section (L9) 101.6 OD 2.5mm Circular Hollow Section (L10) 76.2 OD 3.5mm Circular Hollow Section (L11) 60.3 OD 3.0mm Circular Hollow Section (L12) 38.1 OD 4.0mm Circular Hollow Section (L13)
Diagonal Members	38.1 OD 4.0mm Circular Hollow Section (D1 – D3) 38.1 OD 2.5mm Circular Hollow Section (D4 – D13)
Horizontal Members	38.1 OD 4.0mm Circular Hollow Section (H1 – H3) 38.1 OD 2.5mm Circular Hollow Section (H4 – H13)

<p>Main Leg Member Connection Bolt Requirements</p>	<p>9x M20 Bolts per Leg Connection (L1) 8x M20 Bolts per Leg Connection (L2) 7x M20 Bolts per Leg Connection (L3) 6x M20 Bolts per Leg Connection (L4) 5x M20 Bolts per Leg Connection (L5) 4x M20 Bolts per Leg Connection (L6) 3x M20 Bolts per Leg Connection (L7 – L13)</p>
<p>Main Leg Member Connection Plate Requirements</p>	<p>20mm Thick Plate per Leg Connection (L1 – L4) 16mm Thick Plate per Leg Connection (L5 – L13)</p>

This document does in no way relieve the supplier, fabricator or installer of any of their responsibilities for the structure.

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