

Wind Ratings



The listed wind ratings for base station antennas are defined as follows:

- **Projected Area (no ice)** - A statement of the equivalent flat plate surface area of the antenna. This has been calculated in accordance with AS1170.2:2002, the Australian Wind Loading standard, which is based on ISO4354, an international standard covering wind actions on structures.
- **Projected Area (with ice)** - A uniform radial build-up of 0.5" of ice is applied to all surfaces of the antenna, in accordance with TIA329C. The projected area is then re-calculated in accordance with AS1170.2:2002.
- **Wind Load (thrust)** - The effective force applied perpendicular to the plane of the antenna presenting the greatest projected area, as a result of the pressure applied due to a constant 100mph wind velocity.
- **Wind Gust Rating** - A structural engineering calculation in accordance with AS1170.2:2002, giving consideration to the yield strength of the materials used in the construction of the antenna. This figure determines the maximum wind velocity at which the mechanical stresses in the antenna components are just below the allowable yield strength of the boom and/or other elements.
- **Torque** - The bending or turning moment resulting from the Wind Load (thrust) calculated above, acting at the uppermost clamping point. For Corner Reflectors, the torque figure represents a rotational torque.

These important engineering specifications have been published in imperial units. The following conversion factors may be used to convert these and other listed mechanical units to metric units:

Metric to Imperial conversion table

Length	1m = 3.281 ft
	1 mm = 0.0394 inches
Weight	1 kg = 2.205 lbs
Projected Area	1 cm ² = 0.00108 ft ²
Wind Load	1N = 0.2248 lbs (f)
Wind Gust Rating	1 km/h = 0.6214 mph
Torque	1 Nm = 0.7375 ft-lbs