

Pre-Engineered Structures

Towers

Concerning Wind Speeds

Please be aware that all design wind speeds shown throughout this Catalog are basic wind speeds per ANSI/TIA/EIA-222-F-1996. These basic wind speeds are based on a fastest-mile wind speed at 33 ft. above ground corresponding to an annual probability of 0.02 (50-year recurrence interval). Fastest-mile wind speeds are the accepted method of measuring wind according to ANSI/TIA/EIA-222-F-1996.

Today the tower industry is in a state of flux when it comes to measuring and reporting wind speeds. ANSI/TIA/EIA-222-F-1996 still uses fastest-mile wind speeds whereas most new and more recently updated standards and building codes (ASCE, IBC, FBC, etc.) now use a 3-second gust wind speed. Three-second gust wind speeds are the latest method of measuring and reporting wind speeds. They are also measured at 33 ft. above ground corresponding to an annual probability of 0.02 (50-year recurrence interval).

Fastest-mile and 3-second gust wind speeds are NOT interchangeable. Fastest-mile wind speed values typically used for tower designs are 15 to 20 mph less than corresponding 3-second gust wind speed values. This is not to say that towers designed to fastest-mile wind speeds are lighter designs than the "equivalent" 3-second gust wind speeds. Fastest-mile wind speed designs result in wind pressures and tower structural capacities that meet or exceed "equivalent" 3-second gust wind speed designs. The conversions shown below should be used as a convenient guide to compare "equivalent" wind speeds. This same conversion chart can be seen in many current codes, such as Table 1609.3.1 of the 2000 International Building Code.

When using this catalog or ordering a tower, please be sure you know whether the wind speed requirements for your site are based on fastest mile or 3-second gust. If unsure, Sabre Site Solutions representatives are available to help.

FASTEST-MILE

70 MPH
75 MPH
80 MPH
85 MPH
90 MPH
95 MPH
100 MPH
105 MPH
110 MPH

3-SECOND GUST

85 MPH
90 MPH
100 MPH
105 MPH
110 MPH
115 MPH
120 MPH
125 MPH
130 MPH



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