# Size specifications of common industrial wind turbines

Vestas and General Electric (GE) dominate the market for industrial wind turbines in the U.S. Many older U.S. facilities use NEG Micon turbines, and Vestas has absorbed that manufacturer. Other older facilities use turbines from Zond, which was acquired by Enron (the inventor of "green tags"), whose wind business GE acquired in turn to take over the racket. Information about Vestas models can be found at www.vestas.com, GE models at www.gepower.com/businesses/ge_wind_energy/en, Siemens Bonus models at www.powergeneration.siemens.com/en/windpower/products, Suzlon models at www.suzlon.com./product_overview.htm, Clipper models at www.clipperwind.com, REpower models at www.repower.de/index.php?id=12&L=1. Enercon, Fuhrländer, Mitsubishi, Nordex, and Ecotècnia are also major manufacturers, but their turbines do not appear to be currently used in the U.S.

| model | capacity | blade length* | hub ht† | total ht | area swept by blades | rpm range | max blade tip speed‡ | rated wind speed§ |
|---|---|---|---|---|---|---|---|---|
| GE 1.5s | 1.5 MW | 35.25 m (116 ft) | 64.7 m (212 ft) | 99.95 m (328 ft) | 3,904 $m^2$ (0.96 acre) | 11.1-22.2 | 183 mph | 12 m/s (27 mph) |
| GE 2.3 | 2.3 MW | 47 m (154 ft) | 100 m (328 ft) | 147 m (482 ft) | 6,940 $m^2$ (1.71 acres) | 5.0-14.9 | 164 mph | ~14 m/s (~31 mph) |
| GE 2.5 | 2.5 MW | 44 m (144 ft) | 85 m (279 ft) | 129 m (423 ft) | 6,082 $m^2$ (1.50 acres) | 5.5-16.5 | 170 mph | ~14.5 m/s (~32.5 mph) |
| GE 2.7 | 2.7 MW | 42 m (138 ft) | 70 m (230 ft) | 112 m (336 ft) | 5,542 $m^2$ (1.37 acres) | 6.0-18.0 | 177 mph | ~15 m/s (~34 mph) |
| Vestas V82 | 1.65 MW | 41 m (135 ft) | 70 m (230 ft) | 111 m (364 ft) | 5,281 $m^2$ (1.30 acres) | ?-14.4 | 138 mph | 13 m/s (29 mph) |
| Vestas V90 | 1.8 MW | 45 m (148 ft) | 80 m (262 ft) | 125 m (410 ft) | 6,362 $m^2$ (1.57 acres) | 8.8-14.9 | 157 mph | 11 m/s (25 mph) |
| Vestas V100 | 2.75 MW | 50 m (164 ft) | 80 m (262 ft) | 130 m (427 ft) | 7,854 $m^2$ (1.94 acres) | 7.2-15.3 | 179 mph | 15 m/s (34 mph) |

| | | | 100 m (328 ft) | 150 m (492 ft) | | | | |
|---|---|---|---|---|---|---|---|---|
| Gamesa G87 | 2.0 MW | 43.5 m (143 ft) | 78 m (256 ft) | 121.5 m (399 ft) | 5,945 $m^2$ (1.47 acres) | 9/19 | 194 mph | c. 13.5 m/s (30 mph) |
| Bonus (Siemens) | 1.3 MW | 31 m (102 ft) | 68 m (223 ft) | 99 m (325 ft) | 3,019 $m^2$ (0.75 acres) | 13/19 | 138 mph | 14 m/s (31 mph) |
| Bonus (Siemens) | 2.0 MW | 38 m (125 ft) | 60 m (197 ft) | 98 m (322 ft) | 4,536 $m^2$ (1.12 acres) | 11/17 | 151 mph | c. 15 m/s (c. 34 mph) |
| Bonus (Siemens) | 2.3 MW | 41.2 m (135 ft) | 80 m (262 ft) | 121.2 m (398 ft) | 5,333 $m^2$ (1.32 acres) | 11/17 | 164 mph | c. 15 m/s (c. 34 mph) |
| Suzlon 950 | 0.95 MW | 32 m (105 ft) | 65 m (213 ft) | 97 m (318 ft) | 3,217 $m^2$ (0.79 acres) | 13.9/20.8 | 156 mph | 11 m/s (25 mph) |
| Suzlon S.64/1250 | 1.25 MW | 32 m (105 ft) | 73 m (240 ft) | 105 m (344 ft) | 3,217 $m^2$ (0.79 acres) | 13.9/20.8 | 156 mph | 12 m/s (27 mph) |
| Clipper Liberty | 2.5 MW (4 × 650 KW) | 44.5 m (146 ft) | 80 m (262 ft) | 124.5 m (409 ft) | 6,221 $m^2$ (1.54 acres) | 9.7-15.5 | 168 mph | c. 11.5 m/s (c. 26 mph) |
| | | 46.5 m (153 ft) | | 126.5 m (415 ft) | 6,793 $m^2$ (1.68 acres) | | | c. 12.5 m/s (c. 28 mph) |
| | | 49.5 m (162 ft) | | 126.5 m (425 ft) | 7,698 $m^2$ (1.90 acres) | | | c. 12.5 m/s (c. 28 mph) |
| REpower MM92 | 2.0 MW | 46.25 m (152 ft) | 100 m (328 ft) | 146.25 m (480 ft) | 6,720 $m^2$ (1.66 acres) | 7.8-15.0 | 163 mph | 11.2 m/s (25 mph) |

*This figure is actually half the rotor diameter. The blade itself may be about a meter shorter, because it is attached to a large hub.
†Where different hub (tower) heights are available, the usually used size is presented.
‡Rotor diameter (m) × π × rpm ÷ 26.82
§The rated, or nominal, wind speed is the speed at which the turbine produces power at its full capacity. For example the GE 1.5s does not generate 1.5 MW of power until the wind is blowing steadily at 27 mph or more. As the wind falls below that, power production falls exponentially.