

Whisper Silent 4MW Wind Giro Mill



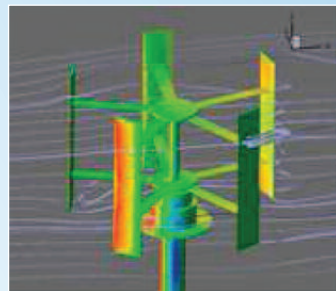
*at a rated wind speed of 13 m/s.

This new technology vertical axis, high energy 4MW wind giro mill, mounted upon its tall, free-standing tower is almost silent in operation and is visible and safe to migratory birds.

Specifically designed with wind farms in mind, The A-axis wind giro will outperform nearly any wind turbine in its class due to its powerful generator and large, multi-blade rotary mill.

The hydraulic technology used within this turbine gathers maximum power from the wind, whilst maintaining a steady 4MW of power at the rated speed*.

It is highly efficient - with the giro mill able to rotate at low wind speeds - and, accepting wind from any direction. (Unlike the traditional, much noisier horizontal turbines that must face into the wind and can be slow to react to constant changes in wind directions).



Performance

Rated power	4MW
Rated wind speed	13 m/s
Self start up speed	2 m/s
Operating range	3 - 30 m/s
Maximum wind speed	60 m/s
Nominal RPM	4.9

Noise levels at 3m distance

Less than 7 m/s	27 dB
Between 7 -10 m/s	32 dB
Between 10 -13 m/s	37 dB

Physical parameters

Mill size	150m diameter
Blade length	43m
Platform height	30m
Overall height	61.5m
Total weight	212t [metric]
[includes tower, generator and mill]	

Lightning Protection

Standard	On blade tips
----------	---------------

Over Speed Protection

Electronic

Generator

Type	Permanent magnet direct drive DC generator
Nominal output/ Rated VAC	4MW/600

Controller

Output	280-800vdc
Input (DC)	280-800vdc
Rated Voltage	690vac/50Hz

Gearbox

Type	Planetary/helical stages
Gear Ratio	1:25

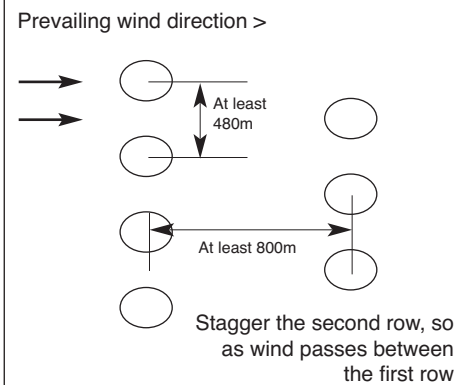
Standby Braking

Auto disc

Monitoring

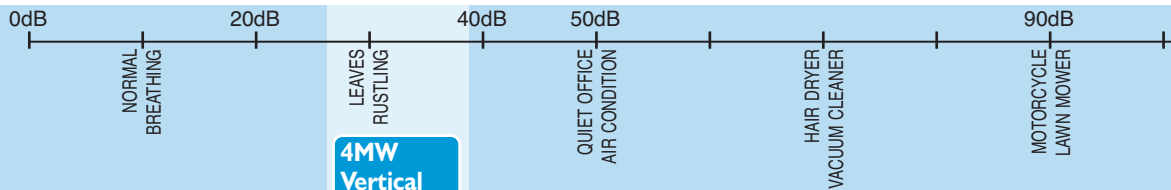
Computer based control (CPU bus mastering) of all vertical axis turbine functions with standard remote pass-code monitoring. Output regulation and optimisation is via the Vari-Pitch. Thermal and vibration sensors throughout.

Suggested Wind Farm Layout



The information contained within this leaflet is correct at the time of going to press, but may be subject to change.

A sound comparison



(HAWKSFORD INDUSTRIES) CY Limited

PO BOX 40149, 6301 LARNACA, CYPRUS

Telephone: 00 357 99 229420 Fax: 00 357 24 333433
Email: sales@hawksford.eu Web: www.hawksford.eu

4MW
Vertical
Axis
Wind
Turbine

