



Providing most of your own energy requirements, that is now possible with the venti Urban Wind Turbine. Designed for the urban environment, this wind turbine is a revolution in wind energy technology.

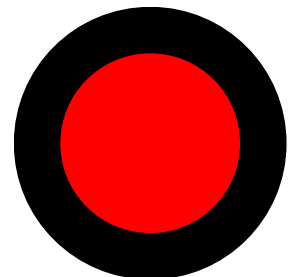
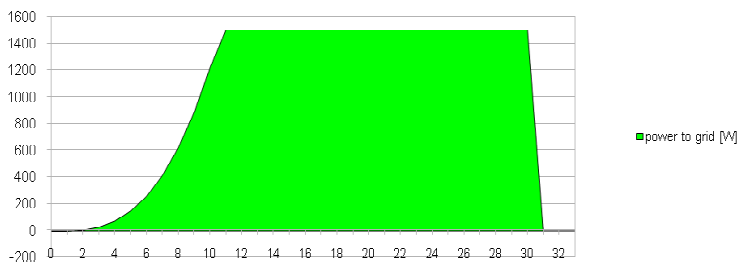
By using the latest computer modeling technology, the venti Urban Windmill has been designed to operate silently in an environment with turbulent wind conditions as found around buildings.

The venti uses a venturi to create a turbulent free fast air flow around the turbine. In addition to making the turbine more tolerant for turbulence, this also lowers the “cut-in” speed, the wind speed at which the turbine starts generating power.

The output of the venti is network compatible. Generated power that is not used in the building itself is exported to the public grid.

General		Turbine	
Life expectancy	> 15 years	Type	Venturi
Min/max temperature	-20°C / 75°C	Material	ABS with SS construction
Certificates	IEC 61400-2, NEN 6700	Turbine type	Horizontal upwind
		Venturi max diameter	2000 mm
		Venturi length	1000 mm
Output		Colour	Standard RAL 9001 white, other colours on request
Rated power	1500 W	Blades	3
Maximum power	1500 W	Blade type	3D CFD Optimized
Rated wind speed	12.5 m/s	Rotor diameter	1500 mm
Output revolutions	2500 rpm	Rotor swept area	1.77 m <sup>2</sup>
Cut-in wind speed	2.5 m/s	Blade tip speed ratio	4.5
Cut-out wind speed	30 m/s	Noise	Max 2dB above background noise
Construction		Blade material	Glass fiber reinforced nylon
Weight	110 kg		
Mast	SS 304 114x6 mm (4" 40S)	Inverter	
Mast length (min / max)	1 m / 5 m	Type	Turbine integrated
Electric contact	Anti-twist	Output	230V / 50Hz
Damping mast foot	Rubber vibration damper	Grid connection device	Inverter integrated
Earthing	Via mast foot		

PV-curve Urban Windmill





**Special properties of the venti urban wind turbine**

The wind turbine has been designed so it can be safely mounted on homes and offices. The turbine is near noise less, vibration free and there is no shadow flicker from moving rotor blade shadows. Thanks to the innovative venturi technology and noise damper, the wind turbine has a high output and is quiet.

**Life expectancy**

The turbine components have been designed for 20 year life and for 15 year maintenance free operation. Warranty is 24 months and service contracts are available

**Availability**

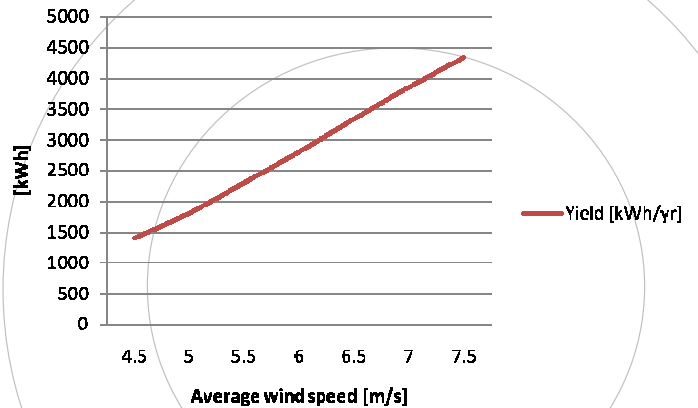
Only a limited number are available in 2009 - 1000pcs.

**Yield**

The potential yield of the turbine is high due to the venturi. At average wind speed of 4.5m/s, the potential yield is 1800 kWh/yr. This equates to a reduction of 1000 kg CO<sub>2</sub>-e.

Site specific details such as surrounding buildings will affect yield. The venturi design aims to limit the negative effects of turbulence.

Wind tunnel test data is currently being verified with real life test data from turbines in the field.



The venti Urban Wind turbine generates 1400 – 1800 kWh/yr at an average wind speed of 4.5m/s. The output of the turbine is connected to the switchboard in your home / office. If you have any appliances switched on while the turbine is generating electricity, this energy will be directly consumed by these loads. If there are no electric loads switched on (e.g. at night), the generated energy will be fed back into the public electricity grid.

The wind turbine can be combined with other distributed power generators such as gridPak PV Solar generators. By carefully placing the solar modules, the yield of the wind turbine can even be increased

Provide your own power with your venti Urban Windmill

