

WindEn Sweden AB was started in 2006 by the two brothers, Niclas and Fredrik Axelsson, both civil engineers, decided to develop a wind turbine suitable for private homes and small farms.



The name WindEn is an abbreviation of Wind Energy. The company has since 2009 been part of the Mattsson Group, a family owned group of engineering companies, which was started in 1961. With more than 250 employees this ensures a high level of knowledge and stability to the customers. WindEn can today offer two different sizes of turbines, 30kW and 45kW, both of them specifically designed to ensure the needs from small companies and private homes. The design is based on Quality and Safety.

Turbines from WindEn...

- Combine high level of safety, up-time and quality
- Give good value for money
- Require minimal service and maintenance.
- Are designed, tested and manufactured in Sweden
- Are easy to install and to connect to the grid
- Fulfill all standard requirements for European wind turbines
- Have an estimated live time of at least 20 years.



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Wind –
Make it blow your way



The WindEn wind turbines are designed to suit the needs of individual households, enterprises and farmers that want to take control over their future costs of energy. Wind is a totally free of charge and renewable, source of energy. An investment in a wind turbine will start to pay itself back from the day the installation is finished. With a calculated life-span of 20+ years, you can look forward to many years without paying bills to electric companies.

So why not make yourself and the environment happy, invest in a WindEn wind turbine.

Profit from the Wind

All the wind turbines are designed with the clear ambition to combine a high level of quality and safety with a competitive price level. All designs have been made according to the European standard concerning small wind turbines SS-EN 61400-2:2006, a prerequisite to obtain CE-marking.

Quality

In order to ensure the quality of the wind turbine, a robust and secure technical solution has been chosen to form the base. The turbines are being built from a mix of uniquely designed parts together with standard parts from well established European companies. Assembly takes place at our affiliated company, UFAB in Uddevalla, on

Sweden's west coast. They ensure a high quality final product.

The turbine uses the force of the wind to find the most efficient position to operate in. In addition to always following the varying directions of the wind, it is also a robust and uncomplicated solution. The wind turbines are equipped with asynchronous generators, which are close to impossible to wear out. At the same time, they also offer an uncomplicated connection to the electrical network. A large diameter rotor combined with low rpm's makes the operation quiet and also gives a high output at low winds.

Safety

As the small wind turbines often are located close to homes, safety is crucial.

Our turbines have therefore been designed with two totally independent safety systems. Apart from that, all vital parts are calculated using huge safety margins.

- All parts in the construction are dimensioned to sustain very high wind speeds without putting safety at risk.
- WindEn 30 and 45 are both equipped with two different brake systems that work independently from each other. One is applied on the generator shaft, whereas the other tilts the tip of the wing creating a loss of speed for the rotor. The result is a wind turbine with a high level of safety.

Assembly at site and commissioning

Our turbines are simple to assemble. Some parts of the work can, by choice, be made by the customer, whereas some parts must be performed by certified technicians. The dealer can in most cases offer a fully erected wind turbine at your site.

Maintenance and Spare parts

The WindEn turbines are designed to minimize the need for maintenance. The only planned action is a change of oil in the gearbox once every five years.

The wind turbine can be monitored at a distance and the software can be updated automatically. As the turbines have a long expected life-span, future access to spare parts is very important. For that reason, the turbines are well documented with all ingoing parts. These are also furnished by European suppliers which have high



The efficient wing tip brake in activated position

reputations. This serves as a guarantee so that spare parts will be available for many years to come.



	WindEn 30	WindEn 45
Effect kw	30	45
Energy produced at an average annual wind speed of 5 m/s, kWh/year	46 000	68 000
Energy produced at an average annual wind speed of 6 m/s, kWh/year	73 000	106 000
Energy produced at an average annual wind speed of 7 m/s, kWh/year	98 000	142 000
Smallest possible fuse, A	50	63
Tower heights	18-36 m	18-36 m
Level of sound dB(A) at a distance of 130m	40	40

Above: a WindEn 45 at full production.

Below: This picture shows the content of the control cabinet.

Here the production statistics can be followed on graphical displays.



Above the platform, that makes maintenance easy and safe can be seen. To the right the production of WindEn45 at UFAB in Uddevalla, Sweden.

