



*Sweden's leading manufacturer of
small-scale wind power stations!*



Product Information

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Prices exclude VAT

+46 44 228523 Org.Nr 556669-7222

e-mail / web: info@hannevind.com / www.hannevind.com

Specifications and prices are subject to change without prior notice.



The company

The development of designs and controls has been managed by innovator Sven-Åke Hannevind since the year 2000. Hannevind Vindkraft AB was formed in November 2004 by Paula and Sven-Åke Hannevind. In July 2007 Kristianstads Svets & Montage AB, a company of 20 employees acquired Hannevind.

Board chairman: Göran Månsson
CEO: Sven-Åke Hannevind

Activity

Hannevind Vindkraft AB produces small-scale wind power stations that are installation-ready for the cottage, estate, farm or small company. Hannevind Vindkraft AB offers a whole solution with operation secured products. The products are easy to transport, simple to assemble and require very little maintenance. For security reasons and in order to full guarantee will apply we recommend investing in one of our package solution alternatives.

Vision

We shall be the natural choice for renewal energy solutions. Together with sub-contractors and market leading partners. Hannevind Vindkraft AB has a vision to be the natural choice for renewal energy solutions.

Business concept

We shall provide a reliable source of energy for a low investment cost. Our wind turbines generate from 3000-100 000 kWh/year, and the pay-back period is 6-12 years with today's prices of electricity and an annual wind speed average of at least 6m/s. The designed life span of the wind turbines is least 20 years.

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Requirements for a successful result

- Yearly average wind speed of 5-6m/s.
- No physical obstructions to the wind's flow.
- Appropriate distances from neighbors.
- Soil conditions which are appropriate for constructing the foundation of the wind power station.
- It is incumbent upon the customer to conduct the soil assessment and calculate the concrete foundation.
- Approval of the utility owner for the connection, to ensure that the cable/ wire gauge capacity is adequate for the wind power stations output.

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Product overview Hannevind wind power stations

<i>Model</i>	<i>Hannevind 2,2 kW</i>	<i>Hannevind 5,5 kW</i>	<i>Hannevind 11 kW</i>	<i>Hannevind 15 kW</i>
Turbine Diameter	3,5 m / 137,8 in	6 m / 236,2 in	10 m / 393,7 in	10 m / 393,7 in
Number of blades	3	3	3	3
Connection	On or Off grid	On or Off grid	On or Off grid	On or Off grid
Annual energy output	3-5 000 kWh	10 000 kWh	20 000 kWh	30 000 kWh
Building permit	Yes	Yes	Yes	Yes
Assembly alternative	Small self-supporting lattice tower	Small self-supporting lattice tower	Self-supporting lattice tower	Self-supporting lattice tower
Available mast heights	12/33 m	15/33 m	21/27/33 m	21/27/33 m
Cut-in wind speed	2-4 m/s	2-4 m/s	2-4 m/s	2-4 m/s
Maximum output at:	9 m/s	9 m/s	9 m/s	9 m/s
Tower-top weight without blades	80kg	150kg	350kg	400kg
Voltage	400V 3-phase	400V 3-phase	400V 3-phase	400V 3-phase

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Product overview Hannevind wind power stations

<i>Model</i>	<i>Hannevind 22 kW</i>	<i>Hannevind 30 kW</i>	<i>Hannevind 45kW</i>
Turbine Diameter	13 m / 511,8 in	13 m / 511,8 in	18 m / 708,7 in
Number of blades	3	3	3
Connection	On or Off grid	On or Off grid	On or Off grid
Annual energy output	40 000 kWh	50-55 000 kWh	100 000 kWh
Building permit	Yes	Yes	Yes
Assembly alternative	Self-supporting lattice tower	Self-supporting lattice tower	Self-supporting lattice tower
Available mast heights	24/30/36 m	24/30/36 m	24/30/36 m
Cut-in wind speed	2-4 m/s	2-4 m/s	2-4 m/s
Maximum output at:	9 m/s	9 m/s	9 m/s
Tower-top weight			
without blades	650kg	700kg	1500kg
Voltage	400V 3-phase	400V 3-phase	400V 3-phase

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Technical description of Hannevind's wind power stations.

The **2,2kW** wind power station utilizes a fin at the back to follow the wind direction.

The **5,5-45kW** wind power stations utilizes a motor to follow the wind direction.

The power stations are three bladed and attached to the gear-box's main axle via a hub which was developed by Hannevind. The generator is asynchronous, meaning that when a power interruption occurs, the power station loses its magnetism and therefore its ability to deliver power. This protects line personnel from turbine generated power in the event of an outage. This also causes the brakes to activate and prevents the turbine from overrunning and causing damage. Apart from power interruption there are additional protections which stop the turbines when, for example, imbalance or storms occur. During normal operation in wind velocity up to 10-12 m/s, the turbine performs normally, and when the wind increases over these values it is yawed out of the wind approximately 45 degrees, but continues to deliver power. In this situation, the wind is measured at 15 minute intervals, and if peaks exceeding the specified values continue to be measured, the power station remains in this position. If the wind decreases, the power station is yawed toward the wind again. At wind velocity over 18-20m/s the power station is yawed 90 degrees out of the wind and is shut down with the brakes. This is controlled by a computer which is preprogrammed for standard wind conditions, but also easily can be adjusted to customer specific parameters. Surpluses of the energy can be used to heat water or can be sold to your electricity supplier.

Hannevind wind turbines which are connected to the power grid are always connected on the customer's side of the electricity meter. As soon as the rotor reaches the correct rotating speed, it begins to deliver electricity proportional to the wind velocity.

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Smaller models

Hannevind 2,2 kW

With a turbine diameter of 3,5 m, this wind turbine is the smallest in our series. It is perfect for the summer cottage, the hunting cabin, or for those who want only supplementary power in order to lower heating costs. The turbine produces 3 - 5 000 kWh of electricity annually. A building permit is required. Contact your municipality for advanced notifications and building permits. The appropriate tower height is 12 m or more when placed in an unobstructed location. Cut-in wind is approximately 2-4 m/s, and the turbine produces maximum output at approximately 9 m/s. Tower top weight is approximately 100 kg.

Hannevind 5,5 kW

With a turbine diameter of 6 m, this turbine is perfect for those who have an annual energy requirement of 8-10 000 kWh/year. The turbine can be linked in to the existing power network, work entirely independently or together with a local electricity grid where there is no existing electricity today, as on an island or similar. A building permit is required. Contact your municipality for advanced notifications and building permits. The appropriate tower height is 15 m or more when placed in an unobstructed location. Cut-in wind speed is approximately 2-4 m/s and the turbine produces maximum output at approximately 9 m/s. Tower top weight is approximately 250 kg.

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Larger models

Hannevind 11 kW

With a turbine diameter 10 m, this turbine is for those whose electricity consumption is over 20 000 kWh/year. The turbine can be linked in to the existing power network, work entirely independently or together with a local electricity grid where there is no existing electricity today, as on an island or similar. Contact your municipality for advanced notifications and building permits. An appropriate tower height is 21 m or more when placed in an unobstructed position. Cut-in wind speed is approximately 2-4 m/s and the turbine produces maximum output at approximately 9 m/s. Tower top weight is approximately 580 kg.

Hannevind 15 kW

With a turbine diameter 10 m, this turbine is for those whose electricity consumption is over 30 000 kWh/year. The turbine can be linked in to the existing power network, work entirely independently or together with a local electricity grid where there is no existing electricity today, as on an island or similar. Contact your municipality for advanced notifications and building permits. An appropriate tower height is 21 m or more when placed in an unobstructed position. Cut-in wind speed is approximately 2-4 m/s and the turbine produces maximum output at approximately 9 m/s. Tower top weight is approximately 630 kg.

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Larger models

Hannevind 22 kW

With a turbine diameter 13 m, this turbine is for those whose electricity consumption is over 40 000 kWh/year. The turbine can be linked in to the existing power network, work entirely independently or together with a local electricity grid where there is no existing electricity today, as on an island or similar. Contact your municipality for advanced notifications and building permits. An appropriate tower height is 24 m or more when placed in an unobstructed position. Cut-in wind speed is approximately 2-4 m/s and the turbine produces maximum output at approximately 9 m/s. Tower top weight is approximately 900 kg.

Hannevind 30 kW

With a turbine diameter 13 m, this wind power station is for those whose electricity consumption is over 50 000 kWh/year. The wind power station can be linked in to the existing power network, work entirely independently or together with a local electricity grid where there is no existing electricity today, as on an island or similar. Contact your municipality for advanced notifications and building permits. An appropriate tower height is 24 m or more when placed in an unobstructed position. Cut-in wind speed is approximately 2-4 m/s and the turbine produces maximum output at approximately 9 m/s. Tower top weight is approximately 950 kg.

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Larger models

Hannevind 45 kW

With a turbine diameter of 18 m, this Wind power station is for those whose electricity consumption is over 100 000 kWh/year. The wind power station can be linked in to the existing power network, work entirely independently or together with a local electricity grid where there is no existing electricity today, as on an island or similar. Contact your municipality for advanced notifications and building permits. An appropriate tower height is 27 m or more when placed in an unobstructed position. Cut-in wind speed is approximately 2-4 m/s and the turbine produces maximum output at approximately 9 m/s.

Tower top weight is approximately 1 900 kg.

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Hannevind 2,2kW

- Hannevind Wind power station: 2,2 kW generator including controls and (3) 1,75 meter fiberglass blades.
 - Galvanized Self-Supporting small Lattice Tower 12-18 meter. Power and control cable, tower height +4m. Assembly approximately: 8-16 hours.
 - Bolt groups with associated fix-template for casting in foundation is to be bought separately for each tower size
 - Time of delivery: 6 weeks from confirmed order.
- * excluding transport, foundation, crane and electrical installation to the property.



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Hannevind 5,5kW

- Hannevind Wind power station: 5,5 kW generator including controls and (3) 3 meter fiberglass blades.
- Galvanized Self-Supporting small Lattice Tower 15-21 meter. Power and control cable, tower height +4m.

Assembly approximately: 8-16 hours.

Bolt groups with associated fix-template for casting in foundations is to be bought separately for each tower size.

- Time of delivery: 8 weeks from confirmed order.

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Hannevind 11kW

- Hannevind Wind power station: 11 kW generator including controls and (3) 5 meter fiberglass blades.
- Galvanized Self-Supporting Lattice Tower 21-33 meter. Power and control cable, tower height +4m.
- Assembly approximately: 16-24 hours.
- Bolt groups with associated fix-template for casting in foundations is to be bought separately for each tower size.
- Time of delivery: 8 weeks from confirmed order.

*excluding transport, foundation, crane and electrical installation to the property.



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