



Rotor

Rotors of wind turbine produced from light weight steel pipes stretched with EPDM cover. Wind calls any direction (min. 4km/h) starts whirl vertical wind turbines.

Generator (20 kWh)

Whirling rotors transmit the torque to power generators directly and generators become producing electric energy. Each generator produces their maximum capacity when wind velocity reaches 15 km/h.

Gearbox

In terms of high level of wind velocity, generator conducts additional power to the gearbox. The gearbox shifts the gear up proportional to incident energy and all the power be transmitted to vacuum fan.

Vacuum Fan

Vacuum fan starts turning with transmitted power and that way the system begins vacuuming outside air to system.

Condenser

Vacuumed humid air be refined while passing through a "air filter". The clean humid air that reached condenser, condense here and turn to water drops.

Air Filter

Vacuumed humid air form main body vents purified from dust and dirt.

Carbon Filter

Condensed water filtered by a carbon filter.

Water Tank (3000 L)

Filtered clean water accumulate in a water tank.

Water Pipes

Recirculation water of condensers must be remained chill in order to condense the humid. Temperature reaches at 13 degree maximum even on warmest day of the year under the ground. Warm water coming from condensers chills in soil and discharges to condensers as chilled thanks to water pipes on the ground.

VAWTAC WORKING PRINCIPLE

The main working principle of VAWTAC is as below, wind calls any direction (min. 4km/h) starts whirl the wind turbine. Whirling rotors transmit the torque to power generators directly and generators become producing electric energy. Each generator produces their maximum capacity when wind velocity reaches 15 km/h. In terms of above the that level of wind velocity, generator conducts additional power to the gearbox. The gearbox shifts the gear up proportional to incident energy and all the power be transmitted to vacuum fan. (Traditional similar systems use breaking mechanism for high wind speed conditions and possible additional energy has been absorbed. Wind turbine rotors and generator provide their maximum capacity on 15km/h wind velocity, above the value of wind speed, additional produced power transmits to vacuum fan thanks to gearbox. Our system doesn't include any brake mechanism unlikely traditional systems. The gearbox provides brakes the rotors via shifting gear up to protect rotors over-run without any brake mechanism. The gearbox also provides transmitting additional energy to fans to make profit all wind energy but any loss.) In that way the system begins vacuuming outside air to system. Vacuumed humid air be refined while passing through a "air filter". The clean humid air that reached condenser, condense here and turn to water drops. After that, condensed air filtered by a carbon filter. Filtered clean water accumulate in a water tank. The air purified of humid and dust exhausted from top of the system. Acquired water will provide shower need whom people have a swim.

