

## Windmill for wind machines with pneumatic power transmission

In traditional wind machines the wind wheel is mechanically connected to the generator and rotates it. In the pneumatic machine the wind wheel rotates free. The blades of the rotor, the head and the tower form a closed, continuous channel. When the wind rotates the wheel, at some parts of the blade surface the air pressure increases, elsewhere decreases. Where the decrease in the air pressure is the highest there is an outlet on the blade. Due to suction, the air exits here and enters the machine at the bottom of the tower and while flowing through the tower it rotates the turbine which drives the generator.

The structure's critical element is the blade of the wind wheel. The blades of a traditional wind machine are slim therefore the blade's drag is low. In these blades it fits only very small cross-section ducts. If the cross-sections of the blade and the duct in it are increased, the inner losses reduces, however grows outside.

Our invention resolves this discrepancy by move the outlet from the end of the blade to its approximate middle. Thus the wind wheel's part near the axis is a loose duct, the outer part of it is a slim blade. With such a form, the peripheral speed which creates the suction decreases. The air fittings placed near the outlet are accelerate the air and by this strengthen the suction.

This new wind machine utilizes the frequent and low-speed winds, has a simple structure, longer lifetime, therefore leverages the wind energy by a cheaper cost than a conventional wind machine could. My patent numbers about this invention are the following: 224 256, P1200735.

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