

## Windmills: The Hands of God

Windmills are another of source of renewable energy. They usually work as engines driven by strong sustaining winds and the ancient ones were used for a variety of purposes like grinding seeds or organic produce, pumping water, hammering motions and other such mechanical functions. However, the modern ones are used to generate electricity and are appropriately called wind turbines.

Windmills, as a concept have been around for ages and the earliest windmills have been found in Persia around 7 B.C and also in ancient China. The first such windmill blades were made with thick sails hollowed so as to capture wind and hence enable a rotating motion. These windmills were usually vertical shafts and have been used to generation mechanical motions for varied uses like grinding seeds, lifting and dumping and such like.

In Europe, windmills were found to be installed on long and tall walls to enable the same mechanical motions to derive at the function of grinding or as saw mills etc. Windmills were found in Paris and parts of present day United Kingdom. However, these windmills were not used to generate electricity until the advent of industrial revolution which swept the European continent into a wave of innovation.

The introduction of Steam as a source of energy and then the grand entry of the Internal Combustion Engines, have seen the popularity and functionality of the windmills decrease to a large extent. The long maintained historic ones have been maintained purely for their historic value, the others were set back in time to perform the same old tasks of grinding and pumping.

In the U.S, the water-pumping windmill was a harbinger of the windmill technology, which also saw the rapid rising of ranching and farming activity in the rural U.S. The ubiquitous steel vertical shafts with rotating turbine blades have become a landmark in the ranches of Rural America.

The turbines on the tall but stout vertical shafts were designed to provide for the energy to derive the mechanical motion required to pump. A tower top gearbox and crankshaft assembly help convert the rotary motion of the wind turbines into a reciprocal motion for the piston of the pump in the cylinder connected to the apparatus.

While we had thousands of manufacturers to produce windmills in those olden days, we have just one reputed manufacturer left today Aermotor Windmills, to produce conventional windmills left in the U.S today.

Source: <http://www.articlecircle.com>

### About the Author

Jason Uvios writes about "Windmills: The Hands of God" to visit: <http://www.generator-stoday.info>, <http://www.generator-now.info> and <http://www.crisp-generator-.info>