THE TURBINE WITH A VERTICAL AXIS OF WIND INSTALLATION WITH CONCENTRATORS OF THE WIND STREAM

The simple design of wind installation with the vertical rotation axis turbine which includes a base part consists from four ferro-concrete poles located in corners of a square with distance in light between them of 2.8 m. The turbine base part represents frame with the girders, established on top of poles. The frame with the turbine is fixed on horizontal girders. Turbine levels are turned in space rather each other on a corner in 15^0.

By means of cores and fixing armature the turbine frame is fixed with ferro-concrete support. On a horizontal girder the asynchronous generator which is set in motion through a sheave with V-shaped belts is mounted. Round the turbine poles for fastening of confuser walls are mounted on perimeter. Confuser is mounted, since height of 6 m to 9 m.

Confuser walls are manufactured from L-steel frames of size 1500x500mm. The relation between areas of confuser input and output sections constitute 1.5-1.7.

Technical characteristics: *height of turbine H=3m, diameter -1,9 m, number of turbine levels- 3, number of blades -6; external diameter of the first confusers system - 6 m; external diameter of the second confusers system (project) - 10 m; electric capacity (at wind speed of 8 m/s) – 3kW; amplification factor of wind stream speed (calculation)-3,5.*