



SONIC SOLUTION FOR THE REDUCTION OF WEIGHT OF THE WIND TOWER NACELLE

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Abstract

The paper presents an original method, as well as a calculus mode of the main hydraulic parameters, for the transfer of the aeolian power from the nacelle of the tower to its base. The system proposes the existence in the nacelle of a two-, three- or poly- phased sonic generator, from which the obtained energy is transferred by some pipes to the base of the tower, where this can be easily transformed in electric energy. The paper treats the two-phase variant. An important consequence of the proposed solution is the reducing of the costs for setting up for the equipments mounted in the nacelle, as well as the maintenance and reparation costs, as well. Also, the protection and safety of the workers who exploit the tower is increased, while the cost of the aeolian generator is substantially reduced by decreasing the mass of the mobile equipments.

Keywords: sonic generator, sonic motor, wind power

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