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Small-Scale Open-cycle Wind Tunnel

Mohamed H. Elsadek, Abdelrahman M. Lotfy, Mohamed G. Abdelhameed, Mohamed G. Ali, Ammar M. Mohamed, Mohamed H. Intisar, Dalya G. Abdelhameed, Omnia N. Mahmoud, Hassnaa K. Mohamed 2nd year Mechanical Engineering Student, Zagazig University.

01009143094, aa01119067355@gmail.com

Supervisor: Prof. Dr. Ahmed Farouk AbdelGawad

Mechanical Power Engineering Dept.

Vice Dean for Graduate Studies and Research

Zagazig University, Egypt

afaroukgb@gmail.com

A wind tunnel is a tool used in aerodynamic research to study the effects of air moving past solid objects, Fig. 1. A wind tunnel consists of a tubular passage with the object under test mounted in the middle. Air is made to move past the object by a powerful fan system or other means. The test object, often called a wind tunnel model, is instrumented with suitable sensors to measure aerodynamic forces, pressure distribution, or other aerodynamic-related characteristics.

Aim of this work

The aim of this work is to design and fabrication of a small-scale open-cycle wind turbine for experimental measurements. The tunnel will be equipped with smoke generator for flow visualization of streamlines around test objects.