

Product Name :
Astra Scientific Axial Fan Demonstration Unit

Product Code :
Fluid Mechanics Lab0001



Description :

Astra Scientific Axial Fan Demonstration Unit

Technical Specification :

The designed advanced axial fan produces gas flow by virtue of the momentum changes imparted across the rotary blades, parallel to the axis of rotation. Such fans are more suitable for higher flows at lower delivery pressures than their centrifugal counterparts.

Comparison of the performance characteristics of the Axial Fan with those of the Centrifugal Fan thus provides an instructional exercise of valuable practical application

An axial fan, mounted on a stainless steel plinth. Transparent air inlet and air outlet ducts allow the fan construction to be clearly observed. A manually operated adjustable aperture allows the airflow rate to be varied.

A calibrated orifice plate is used on the discharge to measure the airflow rate. Electronic sensors measure the pressure head developed across the fan, the pressure across the orifice plate (and thus the flow rate), the rotational speed of the fan and the air temperature. The fan speed is controlled by modulated DC supply, complete with current sensing to allow the power drawn by the fan to be measured.

FEATURES

- Small-scale axial fan demonstration unit, comprising of an inlet duct, the fan, an outlet duct and an adjustable aperture, all mounted on a stainless steel base
- Equipped with electronic measurement sensors for fan head pressure, flow rate (via orifice plate), fan speed and air temperature
- Transparent ducts give visibility of the fan in operation
- Capable of being linked to a PC via a USB interface console (an essential accessory), which does not require internal access to the computer. Also enables interfacing to other software packages
- Supplied with software providing full instructions for setting up, operating, calibrating and performing the teaching exercises. Facilities for logging, processing and displaying data graphically
- Offers a complete teaching package of coursework and laboratory investigation

SPECIFICATIONS:

Max flow rate:
Max head:
Max rpm speed:
Motor power rating:
Max flow rate:
Max head:
Max rpm speed:
Motor power rating:

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