



This equipment has been developed for the study of the characteristics of an axial fan, performing a range of experiments and experiences.

The unit has a digital display of revolutions that lets us know the working speed of the fan at all times in a simple manner. This speed is regulated by the control.

Similarly pressure transducers measure the working pressure in each tapping under study through its digital displays and boosting practical experience.

Pressure taps are sealed to prevent leaks that distort the readings taken.

Besides using the speed regulation for modifying the flow of work equipment also it has an IRIS type valve that can vary the airflow through the conduit.

LEARNING OBJECTIVES

- Obtaining the speed profile of the flow in the suction pipe.
- Using the Pitot tube. Total pressure difference between static and dynamic.
- Flow measurement using Pitot tube.
- Study and obtaining the characteristic curves of an axial fan.
 - Static Pressure - Flow (DPE - Q)
 - Total pressure - flow ((DPT - Q)
 - Power-flow (P-Q)
- Study of the regulation of an axial fan varying its speed. Obtaining new characteristic curves at different speeds.

TECHNICAL DATADimensions:

- 1000 x 350 x 620 mm

Inner Diameters:

- Intake and delivery pipes:
 - \varnothing int = 114 mm
 - \varnothing ext = 120 mm

Manometers:

- Pressure transducer \pm 100 Pascal
- Pressure transducer 0-1000 Pascal

Fan Features:

- Maximum pressure 1000 Pascal
- Maximum flow 500 m³ / h
- Rated power 90W
- Rotation speed 9500 rpm - 158 Hz

Other items:

- Digital rpm indicator
- Speed control via a potentiometer
- Pitot tube \varnothing 4 mm

REQUIREMENTS:

- Input: 230V / 50 Hz.