

MP 124 AXIAL FLOW FAN TEST SET

GENERAL DESCRIPTION

This is a bench top set for studying industrial type axial flow fan characteristics. The unit consists of a single stage variable pitch axial flow fan and motor, an advanced inverter, inlet and outlet ducts, and instruments for measurement of air flow rate, pressures, and temperature. The unit is on wheels. Instruction manual is also included.



EXPERIMENT CAPABILITIES

- Flow rate vs pressure.
- Fan input, output and efficiency.
- Effect of speed on fan performance.
- Effect of impeller pitch angle on fan performance.
- Investigations of velocity distribution.
- Effect of guide vane on fan performance (optional).

TECHNICAL DATA

- Fan:
 - Diameter : 380 mm
 - Impeller construction : Single stage, aerofoil aluminium blades
 - : Adjustable pitch angle
 - Rated maximum flow rate : 4,000 m³/h
 - Rated maximum pressure : 35 mm water
- Inlet duct with inlet cone and flow straightener
- Outlet duct with flow straightener and damper
- Speed control : Advanced inverter
- Measuring instruments:
 - Air flow rate : Travelling pitot and inlet cone and inclined water manometer
 - Differential pressure : Twin inclined water manometer (one for air flow rate), 0-450 mm x 1 mm graduation, multiple slope 1:10, 1:5, 1:2 and 1:1
 - Fan speed and motor input power : Advanced inverter
 - Temperature : Thermometer
- Accessory : Barometer
- Software for data display and analysis by computer (separately supplied).
- Power supply : 220V 1Ph 50 Hz. Other power supply is available on request.

OPTIONAL EQUIPMENT

- MP 100-011A Differential pressure digital display (2 required) instead of twin inclined water manometer
 - MP 124-010 Anemometer for flow rate measurement
 - MP 124-010A Anemometer for flow rate measurement instead of travelling pitot and inclined water manometer
 - MP 124-005 Guide vane for increasing fan output pressure
 - MP 124-006 Second fan and motor unit for Two Stage Axial Flow Fan Test Set
 - MP 124-007 Exhaust silencer
 - MP 124-050 Computer interface
- Sensors with computer interface unit for key data acquisition instead of analog data measuring instruments. This includes computer interface unit with two differential pressure sensors and a temperature sensor instead of thermometer and twin inclined manometer.

Net (unpacked) shipping dimensions WxLxH : 85 x 360 x 130 cm
Net weight : Approx. 430 kg