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Product Name :

Air Blower Test Setup

Product Code :

SLE/MCE/57



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Description :

Air Blower Test Setup (Product Code: SLE/MCE/57) is a radial-fan test rig used to measure the flow rate, pressure head and performance of an air blower in mechanical engineering and fluid machinery laboratories. As engineering lab equipment for colleges and polytechnics, it stands out for measuring airflow four ways — venturi nozzle, orifice plate, inlet cone and travelling pitot tube — against twin inclined water manometers. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Fan type	Radial fan: air is drawn in axially to the drive shaft, deflectedby 90° by the rotating rotor and discharged radially
Maximum flow rate (unchoked)	Over 12 m³/min
Maximum head (fully choked)	Over 80 mm water
Inlet duct	With flow straightener
Outlet duct	With flow straightener and damper
Airflow measurement	Venturi nozzle, orifice plate, inlet cone and travelling pitot tube using an inclined water manometer
Differential pressure measurement	Twin inclined water manometers, 0–450 mm with 1 mm graduation; multiple slope 1:10, 1:5, 1:2 and 1:1
Accessories	Thermometer and barometer
Power supply	220 V, single phase, 50 Hz
Product code	SLE/MCE/57
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Air Blower Test Setup Used For?

Students run the blower at a series of damper settings, from fully open to fully choked, and record volume flow and pressure at each point to plot the fan characteristic (head against flow). The rig spans an unchoked flow of over 12 m³/min and a fully choked head of over 80 mm of water, so the whole curve can be drawn in one practical. Because the same airflow can be read on the venturi nozzle, orifice plate, inlet cone and travelling pitot tube, it also doubles as a lesson in comparing flow-measurement devices.

The thermometer and barometer let students correct air density for room conditions before calculating flow. Choose the manometer slope (1:10 down to 1:1) to suit the size of the reading, level the manometers before each run and let the fan settle after every damper change. Radial fans [illegible] up a good

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