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Product Name :

Centrifugal Fan Module

Product Code :

SLE/EFM/15



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Description :

Centrifugal Fan Module (Product Code: SLE/EFM/15) is a trolley-mounted test rig for measuring how a centrifugal fan performs as its speed and airflow change. The module carries the fan andits instrumentation on a robust, mobile trolley, and it comes with three different impellers sostudents can compare blade designs on the same housing. It is designed for mechanicalengineering turbomachinery and air-handling practicals, and is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, a technical educational equipment manufacturer.

Specifications

Parameter	Detail
Layout	Fan and instrumentation mounted on a robust, mobile trolley
Impellers	Interchangeable; three different impellers supplied with the fan
Speed	Fully variable up to the maximum allowable for the fan
Speed, torque and power	Measured by the Universal Dynamometer
Airflow measurement	Shaped inlet nozzle used to measure the airflow rate
Airflow control	Slide-valve; air discharges past the valve to atmosphere
Safety	Housing interlock — the motor cannot run unless the fan is assembled correctly

Typical Use

A standard practical holds the fan at a fixed speed and closes the slide-valve in stages, recording the pressure difference across the shaped inlet nozzle (which gives the airflow rate) together with the speed, torque and absorbed power from the Universal Dynamometer. From these readings students plot pressure rise, power and efficiency against flow, producing the fan characteristic curves covered in fluid machinery courses. Repeating the test at other speeds lets them check the fan laws, and swapping to each of the three impellers shows how blade shape changes the curves.

The interlocked housing means an impeller change can be done safely: switch off, open the housing, fit the next impeller and close it again before the motor will restart. Keep the inlet nozzle free of dust and obstructions, since its reading sets the flow for every result. Wheeling the trolley between labs makes one module practical for several batches of students.

Manufacturer

Engineering teaching rigs such as this fan module are built by **Jain Scientific Equipments Private Limited**, which operates as **ScienceLab** from Ambala in Haryana, India. You can read about our history and capabilities on the company profile.

Related Fluid Mechanics Equipment

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