Email : sales@scilabexport.com
Phone: +91-7082934803

Product Name :

Pressure Measurement Bench

Product Code :

SLE/EFM/26



Email : sales@scilabexport.com
Phone: +91-7082934803

Description :

The **Pressure Measurement Bench** (Product Code: SLE/EFM/26) is a two-unit teaching apparatus that lets students investigate and compare vertical and inclined U-tube manometers with Bourdon-type vacuum and pressure gauges, and then see how a Bourdon gauge is calibrated. Because manometers and Bourdon gauges sit inside more complex instruments such as pneumatic comparators and flow indicators, the bench gives mechanical and instrumentation students a clear grounding in how these devices work before they meet them in larger systems. It is manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, an engineering lab equipment manufacturer, as lab equipment for technical institutes, engineering colleges and polytechnics.

Key Details

Parameter	Detail
Type	Bench apparatus for studying pressure-measuring instruments
Units supplied	Two: a manometers and gauges unit, and a Bourdon pressure gauge calibration unit
Manometers andgauges unit	Framed structure with a backboard carrying all the instruments listed below
Manometers	Vertical U-tube manometer; U-tube manometer with an inclined limb
Bourdon gauges	One gauge for measuring vacuum; one gauge for measuring positive pressure
Pressure source	Syringe assembly for pressurising and for reducing pressure
Calibration unit	Separate Bourdon gauge with dead-weight calibration apparatus, arranged so the Bourdon tube mechanism can be clearly observed
Learning focus	Operation, characteristics and principles of calibration of manometers and Bourdon gauges

Typical Use

In a typical practical, students use the syringe assembly to apply a small positive pressure or a partial vacuum and read the vertical U-tube, the inclined-limb manometer and the matching Bourdon gauge side by side. Comparing the readings shows why an inclined limb spreads a small pressure change over a longer length of scale, why liquid-column instruments suit low pressures, and how a mechanical dial gauge responds to the same input. Changing the syringe setting slowly and letting the liquid columns settle before reading gives more consistent results.

The second half of the session moves to the calibration unit. Students load the dead-weight apparatus, note the Bourdon gauge reading against the known applied pressure, and build a calibration table or curve while watching the curved Bourdon tube move the pointer. The bench is well suited to fluid mechanics and instrumentation courses that need engineering lab equipment in India for both demonstration and small-group work.

Man

This l