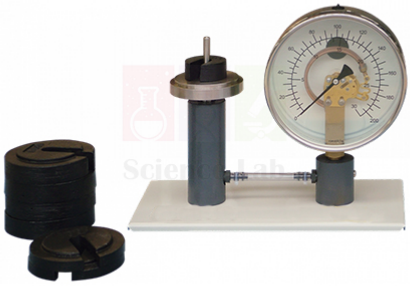
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Product Name :

Calibration of a Pressure Gauge

Product Code :

SLE/EFM/25



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Description :

Calibration of a Pressure Gauge (Product Code: SLE/EFM/25) is a teaching apparatus that shows both how a Bourdon-type pressure gauge works and how it is calibrated. A gauge with a transparent dial, so its working mechanism is on view, is connected to a dead weight tester; students load known weights, calculate the pressure they produce and compare it with the gauge reading. It introduces the principles of lab equipment calibration to mechanical, instrumentation and civil engineering students, and is manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala.

Specifications

Parameter	Detail
Arrangement	Pressure gauge connected to a dead weight tester
Gauge dial	Transparent, showing the working mechanism
Gauge mechanism	Thin-walled tube of oval cross-section bent into an arc; one end held rigidly and admitting pressure, the other free and linked to a dial and pointer
Pointer response	Moves by an amount proportional to the pressure increase as the tube tries to straighten
Dead weight tester	Weights on a platform apply a known force to a piston of known area
Pressure transfer	Flexible tube containing water carries the piston pressure to the gauge tube

Typical Use

Students add weights to the dead weight tester platform in increments, and at each step they calculate the true pressure from the total load and the known piston area and write down the gauge reading. They then remove the weights step by step and record the readings again on the way down. Plotting gauge reading against true pressure for loading and unloading reveals the gauge's error at each point and any hysteresis, and lets them draw up a correction chart.

Watching the oval tube through the clear dial as it tries to straighten under pressure makes the Bourdon principle easy to grasp, and many students meet this mechanics lab equipment before using dial gauges on larger rigs. Place the weights gently and centrally, rotate the piston slightly while readings are taken if the design allows, and make sure no air is trapped in the water-filled flexible tube.

Manufacturer

The apparatus is designed and built in Ambala, Haryana, by **Jain Scientific Equipments Private Limited**, which markets its instruments as **ScienceLab**. More details are on our company profile.

Related Laboratory Equipment

Press

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