Pressure measurement is important in any branch of Science and Engineering. Bourdon tube pressure gauges are extensively used in industry. Proper calibration of these gauges is essential to make accurate pressure measurements. Calibration using dead weights is a direct method commonly used for industrial Bourdon tube pressure gauges. Tesca Pressure Gauge Calibrator is important equipment necessary for any Fluid Mechanics and Hydraulics Laboratory of an educational institution.

Tesca Pressure Gauge Calibrator has been designed to demonstrate the principle of calibration using dead weights and enable students to calibrate a Bourdon tube pressure gauge of interest to the education and industry. It consists of a vertically mounted precision machined leak proof piston and cylinder assembly mounted on a base with leveling screws. The piston rod has an extension and a platform to place weights during calibration. A set of weights and a Bourdon tube pressure gauge are supplied with the apparatus.

The cylinder is connected to the gauge through a system of leak proof valves and flexible tubing. A non-return valve is fitted at the water supply side of the cylinder. Blanking pugs are provided to drain water from the apparatus. The gauge can be subjected to known pressures by placing different weights on the piston. Applied pressures can be calculated and the values compared with the readings obtained indicated on the pressure gauge scale. The Pressure Gauge Calibrator can also be used to calibrate other Bourdon type pressure gauges with proper tubing connections.

Water can be supplied from the 32096 Hydraulic Bench or any other source.

Option :

Computer based learning software is included to enable students to understand and conduct experiments, tabulate results and plot graphs. All components are manufactured from corrosion resistant material. The Pressure Gauge Calibrator is an important experimental set-up for any Fluid Mechanics and Hydraulics Laboratory of an educational institution.

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.
IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com

Experiment :

1. Demonstration of the principle of working of Bourdon tube pressure gauge.
2. Understanding of pressure and its measurement.
3. Calibration of Bourdon tube pressure gauge.
4. Error analysis of Bourdon gauge pressure measurement.

Important Specifications:

1. Pressure Gauge, Bourdon tube type, 0-2.5 bar, 150 mm transparent dial.
2. Piston and cylinder assembly, stainless steel, bore: 12mm. 0.5 Kg piston mass.
3. Set of standard weights, 0- 5 Kg. to get step size of 0.5 Kg.
4. Spirit level.
5. Computer based learning software.

Services Required:

Water supply and drainage.

Overall Dimensions

Height : 0.4m, Width : 0.4m, Length : 0.4m.

Option :

Dead weight pressure calibrators for calibrating other types of pressure transducers and for different applications can be supplied on request.

Instruction Materials

The manual describing the theoretical and practical aspects of the apparatus, operation, analysis of results, and sample of results will be supplied with the equipment.

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.
IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com