PRESSURE MEASUREMENT BENCH

F110



Year 1
study

Features

- ONE bench apparatus, FIVE pressure methods (U-tube, Inclined tube, Positive bourdon, Compound bourdon, Fluid densities)
- Allows Investigation of Different Methods of Pressure Measurement.
- Introduces Students to Pressure Calibration Methods.
- Allows Investigation Above And Below Atmospheric Pressure.
- Optional Deadweight Tester with Optional Digital Readout.
- Investigation of manometer fluid density effect

Description

The Hilton F110 Pressure Measurement Bench allows students to investigate measurement of one of the fundamental parameters that will be present in almost every branch of engineering and physics. A bench top, panel mounted U tube and inclined tube manometer together with a positive pressure Bourdon tube pressure gauge and compound (positive and negative) pressure gauge. A means of creating measureable pressures is also provided. The manometers allow investigation of the use of U and inclined tubes for pressure measurement and demonstrate the use of fluids of different density. All of the manometers and the panel mounted pressure gauges may be interconnected and linked to the common pressure source supplied. The action of the supplied pressure source may be reversed to generate pressures below atmospheric pressure. This allows the concept of “gauge” and absolute pressure to be investigated.

Related Laws/Applications

- Aeronautical Engineering
- Chemical Engineering
- Mechanical Engineering
- Plant and Process Engineering
- Refrigeration
- Air Conditioning
- Physics

Learning capabilities

- Investigation of Manometer Pressure Measurement Methods.
- Investigation of Pressures Above and Below Atmospheric Pressure.
- U-tube and inclined tube manometer range and accuracy/resolution investigation
- Investigation of Manometer Fluid Density effect

Technical Specification

- Compound Bourdon Tube: -50 to +50 mBar
- Bourdon Tube: 0 to +60 mBar
- Linear manometer scale: 1mm resolution

Recommended Ancillaries

- F110A – Deadweight Tester
- F110B - Pressure Transducer & Digital Display

What's in the Box?

- 1 x F110
- 1 x Syringe
- 1 x Bottle Dye
- 4m PVC hose - plus connecting Tee's
- Instruction manual
- Packing List
- Test Sheet

Weights & Dimensions

- Unit: 770(L) x 380(W) x 800(H)mm
- Net Weight: 5 Kg

Essential Services

- Sturdy Bench top

Operational Conditions

- Storage temperature: -10°C to +70°C
- Operating temperature range: +10°C to +50°C
- Operating relative humidity range: 0 to 95%, noncondensing

Ordering information

To order this product, please call PA Hilton quoting the following code:
F110

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