

Product Name :
Astra Scientific Dead Weight Pressure Gauge Calibrator

Product Code :
Fluid Mechanics Lab0008



Description :

Astra Scientific Dead Weight Pressure Gauge Calibrator

Technical Specification :

DESCRIPTIONS:

The advanced equipment is self-contained and portable, so it may be used in lecture theatre demonstrations or as a master calibrator for the laboratory. Deadweight testers are the basic primary standard used worldwide for the accurate calibration of pressure gauges, pressure transducers etc. Deadweight testers are the basic primary standard used worldwide for the accurate calibration of pressure gauges, pressure transducers etc.

The instrument combines a low and high-pressure range provided by two pistons of different effective area. Calibration is accurate to within $\pm 0.025\%$ of reading. A laboratory calibration certificate is supplied for each piston together with a traceable certificate of overall accuracy. The pressure in the system is produced by means of a capstan-operated hydraulic ram, balanced by deadweight acting upon a piston of known area. Oil is used as the

hydraulic fluid.

The pressure developed is applied to the gauge that is to be calibrated.

A spirit level and adjustable feet are provided to enable the operator to level the instrument. A flotation indicator mounted on the top plate removes the guesswork when floating the piston.

FEATURES:

- A bench top unit comprising a simple Deadweight Pressure Calibrator with weights
- Pressure sensors, manometers or Bourdon gauges other than those supplied can be calibrated over the range 20 kNm⁻² to 200 kNm⁻²
- The direct measurement of pressure ($p=F/A$)
- Masses added are proportional to the target pressure
- Calibration of pressure gauges by deadweight method to accuracy better than 0.025% of reading
- Dual pistons enable calibration over a wide range of pressures
- Precision machined piston and cylinder with leveling screws
- Bourdon gauge with inlet and outlet valves
- Set of weights
- Educational software available as an option

SPECIFICATIONS:

- Portable, self-contained deadweight precision pressure gauge calibrator
- Calibration gauges with 1-1,200 bar range to $\pm 0.025\%$ of reading
- Supplied complete with laboratory calibration certificate
- Includes carrying case and weights
- Minimum standard weight increment is 0.05 bars.



Astra Scientific

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