



Email : sales@laboratoryinstrumentindia.com

Product Name :
Round Diaphragm Apparatus

Product Code :
LBNY-0005-17600018



www.laboratoryinstrumentindia.com

Description :

Sturdy, compact, self contained bench top unit for determining the surface strains and deflections of a flexible diaphragm under varying pressures. Round Diaphragm Apparatus the diaphragm is flexed, the strain gauge output is fed into a digital display, which is supplied. An aluminium diaphragm is clamped rigidly around its outer edge, creating a volume underneath its surface into which oil is filled. On the top surface of the diaphragm are attached 8 precision strain gauges at differing orientations.

An analogue pressure indicator monitors the pressure, whilst an electronic pressure sensor monitors the same pressure but gives an output signal to the digital display. The force applied to the diaphragm is created by pressurising the oil underneath the diaphragm using a fine adjustment control mechanism.

Experimental Capabilities:

Measurement of diaphragm disc surface strain using strain gauges

Determination of circumferential strain

Diaphragm surface profile

Measurement of diaphragm disc deflection with a dial gauge

Determination of radial strain

Comparison of actual and theoretical results

Mohr Circle

Strain gauge technology and uses.

Technical Specification :

Apparatus for determining surface strain and deflection of flexible diaphragm

Digital display for strain, pressure and deflection values

Data acquisition software for key experimental parameters
Diaphragm pressurised causing deflection and surface strain
To have fine pressure adjustment for adjusting applied pressure to diaphragm
To have strain gauge attached to surface
To utilise digital dial gauge for recording surface deflection and profile of diaphragm.



Laboratory Instrument India