



Email : sales@laboratoryinstrumentindia.com

Product Name :
Thin Cylinder Experiment

Product Code :
LBNY-0005-1760005



Description :

Internal pressure is applied to the cylinder by mean of a hydraulic hand pump. Pressure in the cylinder is indicated on a pressure gauge. A hand screw is attached to one end of the frame to operate a piston on one side of the cylinder. Thin Cylinder Experiment is used for studying the stresses in a thin wall cylinder. The strain gauges are fixed onto the cylinder at different angles. Each strain gauge is wired to form a full bridge with temperature compensation gauge and zero adjustment in a bridge box with strain gauge indicator. A thin wall aluminum alloy cylinder is mounted on a rigid steel frame. By applying the hand screw, only circumferential stress occurs on the cylinder or both circumferential and axial stresses occur.

Experiments:

Measurement of strains and stresses under internal pressures.
Comparison of theoretical stresses and strains with experimental values.
Determination of Young's modulus and Poisson's ratio.

Technical Specification :

Cylinder
Outer diameter : 80 mm.
Maximum internal pressure : 3.5 N/mm².
Length : 360 mm.
a. Pressure gauge : 50 kg/cm².
b. Pressure gauge : 50 kg/cm².
Bridge box and strain indicator : 8 inputs.
Strain gauges : 6 ea. at different angles.

Power supply : 220V 1Ph 50Hz.



Laboratory Instrument India