

**Product Name :**  
Experimental and Demonstration Polariscope

**Product Code :**  
NLAB-TECHNICALAB30011



**Description :**

Experimental and Demonstration Polariscope

**Technical Specification :**

It is placed on an overhead projector (not supplied), with the image projected on to a screen, and, used either in a laboratory or a lecture theatre, allows a striking demonstration of the stress fields in the loaded models.

It is also designed for quantitative work for tensile, compressive or flexural loading.

A system – unique to this unit – also allows the simultaneous rotation of the polarizer and the analyser for the isoclinical lines study.

The Polariscope consists of the following elements :

A model-loading frame.

An elastic load-measuring device, which uses a steel spring beam, and a micrometer dial gauge.

The device has a linear deflexion/load relation-ship.

A rotatable circular polarizing unit, in a graduated mount, carried on runners under the loading frame.

A quarter wave plate.

A rotatable circular analyser can be rotated through  $180^\circ$ .

The three units are carried on a pillar integral with the loading frame. The polarizer and the analyser are coupled so that they may turn simultaneously.

A set of fixtures required for the application of the loads to all the models supplied.

A set of models in the appropriate photo elastic material for example, a disk, a ring, a beam, etc.

Polarizer diameter : 200 mm

Model loading area : 190 x 220 mm.

Light source : standard overhead projector source (white light). Monochromatic light obtained with green filter swung into path of light beam.

Maximum load on models :  $\pm 40$  kg.

Teaching objectives

Observation of the stress concentration.

Study of strength of materials.

Structures analysis in civil engineering

Fields of application

Strength of materials.

Structures, civil engineering and architecture.

Applied mechanics, machine design, and welding technology.

Soil mechanics.

Biomechanics.

**Address:** 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India. **Phone:** +91-9896600003

## **Naugralabequipments**

**Website:** [www.naugralabequipments.com](http://www.naugralabequipments.com), **Email:** [sales@naugralabequipments.com](mailto:sales@naugralabequipments.com)