Email : sales@scilabexport.com
Phone: +91-7082934803

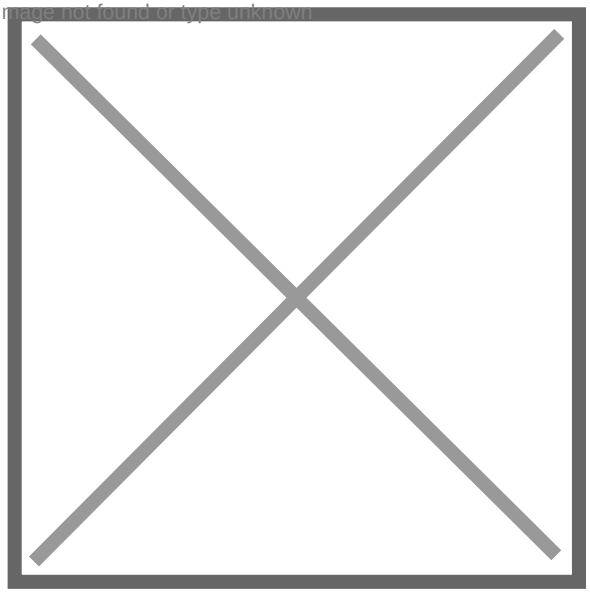
Product Name :

Searle's Apparatus

Product Code :

SCL248/023

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Description :

Searle's Apparatus (Product Code: SCL248/023) is a twin-frame extension-measuringapparatus used to determine Young's modulus of the material of a wire in school and collegephysics laboratories. Senior secondary and undergraduate students use it for elasticity practicals,where a micrometer head reading to 0.01 mm measures how far a loaded wire stretches. It ismade by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer and physics instruments supplier in India, at its own factory in Ambala, within its mechanics lab equipment range.

Specifications

Parameter	Detail
Frames	Two cast metal rectangular frames hinged parallel to each other, allowing only vertical relative motion
Reference level	Spirit level fixed on a cross-bar pivoted across the two frames
Scale	Vertical scale 10-0-10 mm on one frame
Micrometer	Micrometer head reading to 0.01 mm, used to re-level the spiritlevel
Wire holding	Self-centring chuck at the top of each frame
Load attachment	Load hook at the bottom of each frame
Included accessories	Ceiling bracket, counterpoise weight, set of two wires (one brass, one steel)
Product code	SCL248/023
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is Searle's Apparatus Used For?

Searle's Apparatus is the standard set-up for finding Young's modulus by Searle's method, a practical that appears in physics practical equipment lists for CBSE and university labs. One wire carries the counterpoise weight and acts as the reference; the other is loaded in steps. As the loaded wire stretches, its frame slides down relative to the reference frame and tilts the spirit level. Turning the micrometer until the bubble is level again gives the relative displacement, which is the extension.

Young's modulus then follows from stress divided by strain, using the load, the original length of the wire, its cross-sectional area and the measured extension. For consistent results, straighten the wire before clamping it in the self-centring chucks, add loads gently, wait a moment before each reading, and record readings while both loading and unloading so any slip or permanent stretch shows up.

What to Specify When Ordering