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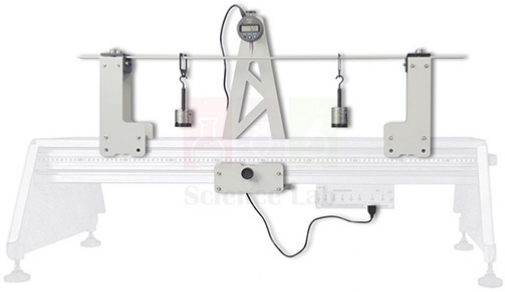
Product Name :

Deflection of Beams and Cantilevers

Product Code :

SLE/EG/17



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Description :

Deflection of Beams and Cantilevers (Product Code: SLE/EG/17) is a flexible beamexperiment: loads can be placed at any position along the beam and the resulting deflectionmeasured at any point, with the beam on its supports or fitted to a single support as a cantilever.Built by **Jain Scientific Equipments Pvt Ltd (ScienceLab)** in Ambala, it comes with beamspecimens in different metals and cross-sections for strength of materials classes in engineeringcolleges and technical institutes.

Key Details

Parameter	Detail
Type	Beam and cantilever deflection experiment
Loading	Loads applied at any position along the beam
Deflection measurement	Deflection indicator with its own display, usable at any point along the beam
Configurations	Beam on supports, or fitted to one support only to form a cantilever
Specimens	Set of beam specimens of different metals and cross-sections, for comparing elastic properties and ‘I’ value
Span	Effective length of the beam can be varied
Positioning	Pointers on each support work with the scale on the platform
Data connection	Deflection indicator can connect to the USB interface hub of the Structures Platform for computer display and data acquisition

Typical Use

A standard session starts with one metal beam at a fixed span: students add load in steps, record deflection and compare it with the value predicted by the textbook beam formula. They then reset the span with the support pointers and platform scale and see how quickly deflection grows as the beam gets longer, before moving the indicator to other points to map the deflected shape.

Switching specimens separates the two ingredients of beam stiffness — the metal’s elastic modulus and the section’s second moment of area (‘I’ value) — so students see why a deeper section or a stiffer metal deflects less. Removing one support turns the beam into a cantilever for tip-load tests. As the indicator works on its own display, the practical runs well as lab equipment for college groups even before the computer link is set up.

Manufacturer

Jain Scientific Equipments Private Limited, trading as ScienceLab, manufactures structures teaching apparatus such as this from Ambala in Haryana, India. Visit the company profile to learn more about us.

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