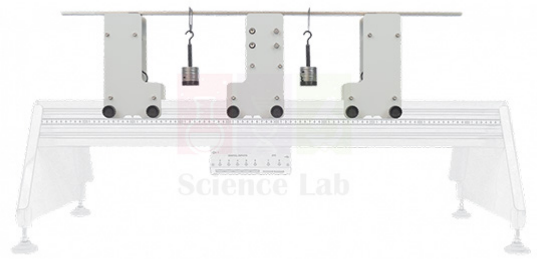
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Product Name :

Continuous and Indeterminate Beams

Product Code :

SLE/EG/09



Description :

Continuous and Indeterminate Beams (Product Code: SLE/EG/09) is a beam experiment set that takes students from simple, statically determinate beams to continuous and statically indeterminate beam systems. It combines a ‘rigid’ heavy beam, a light ‘flexible’ beam, a slide-mounted precision deflection indicator and two additional supports, one of which can act as a simple, clamped or sinking knife-edge support. It is manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, an engineering lab equipment manufacturer supplying strengthof materials and structures laboratories.

Key Details

Parameter	Detail
Type	Continuous and statically indeterminate beam experiments
Beams	A ‘rigid’, heavy beam and a light, ‘flexible’ beam
Basic supports	Two simple supports for the statically determinate experiments
Additional supports	Two: one allows measurement of the support fixing moment; the ‘universal support’ works as a simple support, a clamped support or a sinking knife-edge support
Deflection measurement	Precision indicator on a slide, easily positioned along the beam
Positioning	All supports and the indicator slide have pointers that work with the scale on the Structures Platform
Topics	Moments, principle of superposition, uniformly distributed loads; statically indeterminate beams and measurable beam deflection

Typical Use

The first group of experiments uses the heavy ‘rigid’ beam on two simple supports. Because this beam barely deflects, students can focus on statics: taking moments, applying the principle of superposition and working with uniformly distributed loads, then confirming their reaction calculations. Once those basics are secure, they change to the light ‘flexible’ beam, where deflection becomes large enough to measure with the slide-mounted indicator.

The second group of experiments introduces the extra supports. Adding a third support makes the beam continuous and statically indeterminate; the fixing-moment support shows the moment developed at a built-in end; and the universal support, set as a sinking knife edge, lets students see how settlement of one support redistributes the forces. These exercises bring methods such as the three-moment equation or compatibility of deflections to life, making the set useful mechanics lab equipment for second- and third-year civil and mechanical courses.

Manufacturer

Jain Scientific Equipments Private Limited of Ambala, Haryana manufactures this beam set and t

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