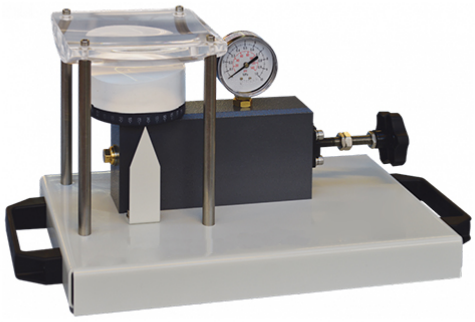
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Product Name :

Hertzian Contact Apparatus

Product Code :

SLE/ETM/09



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Description :

Hertzian Contact Apparatus (Product Code: SLE/ETM/09) is a self-contained bench unit usedto show how two curved surfaces meet under load, so that measured contact shapes can be checked against Hertz's original theories in engineering laboratories. Mechanical engineering students use it because the lower pad rotates against a pointer, turning the contact zone from circular to elliptical. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM engineering lab equipment manufacturer, at its own factory in Ambala, India.

Key Details

Parameter	Detail
Type	Self-contained, easy-to-use contact mechanics unit
Loading	Hand-operated hydraulic pump and cylinder force the two pads together
Contact pads	Two pads with curved contact surfaces; the upper pad has compound radii
Lower pad	Rotatable, with a pointer showing the angle of rotation
Contact zone	Circular or elliptical, depending on the relative angular positionof the pads
Measuring aid	Transparent scale (supplied) to measure contact shape andangle
Overload protection	Locknuts on the pump threads limit the maximum pressure
Theory compared	Hertz's original contact theories
Product code	SLE/ETM/09
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Hertzian Contact Apparatus Used For?

Whenever a ball meets its race, a gear tooth meets its mate or a wheel rolls on a rail, the load passes through a very small patch of contact, and the size and shape of that patch decide the contact stress. This apparatus lets a class see that patch for itself. The hydraulic cylinder presses the two curved pads together, students read the contact outline with the transparent scale, and the result is compared with the size predicted by Hertz theory.

Turning the lower pad changes the relative curvature of the two surfaces, because the upper pad has compound radii. At some angles the contact is circular; at others it stretches into an ellipse, which makes the unit a practical piece of engineering lab equipment in India for tribology, machine design and theory of machines courses. Record the pointer angle for every reading, and leave the pump locknuts at their set position so the maximum pressure stays limited.

OEM

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