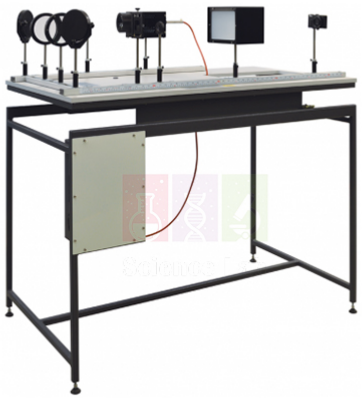
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Product Name :

Schlieren Apparatus

Product Code :

SLE/EA/02



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Description :

Schlieren Apparatus (Product Code: SLE/EA/02) is an optical flow-visualisation system used to make density gradients in air visible, so that students can see supersonic flow patterns, shockwaves and expansions around models in aerodynamics and gas dynamics laboratories. It displays density changes as variations in illumination intensity and includes digital imaging equipment to record what students see. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Key Details

Parameter	Detail
Principle	Density gradients shown as variations in intensity of illumination
Flow features shown	Supersonic air-flow patterns around models; shockwaves and expansions
Optics	Mirrors and lenses of high optical standard to reduce thepossibility of image distortion
Image recording	Digital imaging equipment included
Typical pairing	Useful with an intermittent supersonic wind tunnel
Learning outcome	Students compare shock and expansion positions and angles with values predicted by theory
Product code	SLE/EA/02
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Schlieren Apparatus Used For?

Air is invisible, but where its density changes, light passing through it is bent very slightly. A schlieren system turns that bending into brighter and darker regions on the image, so a shockwave in front of a model appears as a sharp line and an expansion fan appears as a graded band. This lets students see the structure of supersonic flow instead of only inferring it from pressure readings.

Intermittent supersonic tunnels run for short bursts, which is why the included digital imaging equipment matters: each run can be captured and studied afterwards. Students measure shock angles from the saved images and check them against oblique-shock theory for the model and Mach number used. Keep the mirrors and lenses clean and covered when not in use, and align the optics before every session.

What to Specify When Ordering

- The wind tunnel or test section the apparatus will be used with, including the size of the viewing window.
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