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**Product Name :**

Viscosity And Particle Drag

**Product Code :**

SLE/EFM/11



Science Lab
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# Description :

**Viscosity And Particle Drag** (Product Code: SLE/EFM/11) is a simple falling-sphere viscometer that shows students how the viscosity of a liquid resists a sphere dropping through it. The self-standing unit holds two glass tubes of test fluid side by side, so two liquids can be compared in one session without repeated draining and refilling. It is used in fluid mechanics teaching laboratories of engineering colleges, polytechnics and technical institutes, and is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, as part of its engineering lab equipment in India.

## Specifications

| Parameter | Detail |
|---|---|
| Type | Falling-sphere viscometer, self-standing unit |
| Test columns | Two glass tubes, each filled with a chosen test fluid for direct comparison |
| Illumination | Back plate with a low-voltage backlight so the spheres stay visible through the fluid |
| Draining | Valve system at the tube base that minimises fluid loss and helps empty the tube after tests |
| Test bodies | Spheres chosen for the correct density and size for each fluid; shapes must fit through the valve at the base |
| Suitable test fluids | Water, thin machine oil, castor oil and motor oil |
| Measurement method | Stopwatch timing of the sphere as it falls a set distance down the tube |

## Typical Use

Students fill the two tubes with the liquids they want to study, pick a sphere whose density and size suit each fluid, and release it at the top of the column. Once the sphere has settled to a steady speed, they time it over the marked fall distance with a stopwatch. From the fall time they work out the terminal velocity and relate it to the drag on the sphere and the viscosity of the liquid — the classic Stokes' law exercise. Running water in one tube and castor oil in the other makes the contrast between a thin and a thick fluid obvious to the whole group.

For consistent readings, let air bubbles clear before each drop, release the sphere along the centre of the tube, and repeat several drops per fluid to average the times. Because viscosity changes with temperature, note the room temperature with each data set. Departments looking for a viscosity measurement apparatus in India that also introduces particle drag will find the twin-tube layout saves bench time between groups.

## Manufacturer

This twin-tube viscometer comes from **Jain Scientific Equipments Private Limited**, a company base
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