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Product Name :

Cavitation In Venturi

Product Code :

SLE/EFM/13



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Description :

Cavitation In Venturi (Product Code: SLE/EFM/13) is a self-contained, mobile teaching unit that produces clearly visible cavitation in a Venturi so students can watch vapour bubbles form and collapse while taking flow and pressure readings. It gives mechanical, chemical and civil engineering students hands-on practice with the continuity equation and Bernoulli's equation in a setting where the theory visibly breaks down. The unit is produced by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, an engineering lab equipment manufacturerserving colleges and polytechnics.

Specifications

Parameter	Detail
Construction	Robust frame holding all components; self-contained, mobile unit
Main components	Water tank, electric pump, flow-control valve, flow meter and Venturi
Pressure measurement	Pressure gauges upstream of the Venturi and at the Venturi throat
Temperature	Thermometer showing the temperature of the water in the tank
Safety features	Pump with electrical protection; water tank with splash cover to prevent spillage
Learning outcomes	Calculating flow and pressure, different methods of creating cavitation, and causes of error

Typical Use

With the pump running, students open the flow-control valve step by step and read the flow meter together with the gauges upstream of the Venturi and at its throat. As velocity through the throat rises, throat pressure falls until it reaches the vapour pressure of the water and a cloud of bubbles appears. Comparing the measured pressure drop with the value predicted by the continuity and Bernoulli equations shows where simple theory holds and where losses and cavitation take over. Because vapour pressure depends on temperature, the tank thermometer reading is recorded with every set of results.

Classes can explore more than one way of bringing on cavitation and then discuss the sources of error in their calculations. Keep the splash cover in place while running, top up the tank with clean water, and let the pump stop before adjusting pipework. As lab equipment for college India departments, the unit wheels between rooms, so one set can serve several practical groups.

Manufacturer

Cavitation In Venturi is part of the hydraulics range made by **Jain Scientific Equipments Private Limited**, a private limited company in Ambala, Haryana, whose products carry the **ScienceLab** brand. For details of the company's background and other product lines, visit our company profile.

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