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Product Name :

Effect And Jet Flow

Product Code :

SLE/EA/08



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Description :

Effect And Jet Flow (Product Code: SLE/EA/08) is an air-flow experiment module used to demonstrate how a jet of air attaches to a nearby wall and can be deflected or switched — the wall-attachment behaviour known as the Coanda effect — in fluid mechanics and aerodynamics teaching laboratories. An aerodynamically shaped nozzle produces the jet, the attachment wall can be rotated to bend the jet through large angles, and a second wall allows flip-flop switching like a fluidic switch. 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
Format	Experiment module
Jet source	Aerodynamically shaped nozzle from which a jet of air emerges
Attachment wall	The jet flows against a wall and attaches to it; the wall can be rotated to show deflection of the jet through large angles
Second wall	Can be introduced on the other side of the jet; the jet may then be switched from one side to the other, as in a fluidic flip-flop switch
Further investigations	Effect of sealing the walls; effect of adding a central splitter
Product code	SLE/EA/08
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Jet Flow Module Used For?

A free jet entrains the air around it. When a wall is close to one side, the jet cannot draw in air from that side as easily, the pressure there drops, and the jet is pulled onto the wall and follows it. Students see this first with a single wall, then rotate the wall to discover how far the jet will follow a surface before it breaks away — the principle behind many aircraft high-lift devices and industrial air knives.

Adding the second wall turns the module into a simple bistable device: the jet locks onto one wall and stays there until it is disturbed, then flips to the other. This is exactly how a fluidic flip-flop switch works, a no-moving-parts logic element. Sealing the walls and inserting the central splitter let students test how each change alters attachment and switching, so the module supports open-ended project work as well as set practicals.

What to Specify When Ordering

- The air supply or base unit the module will be used with; confirm fit with us, for example with the Modular Air Flow Bench.
- Whether you also need a smoke source to make the jet visible.
- Number of modules for your student groups

OEM

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