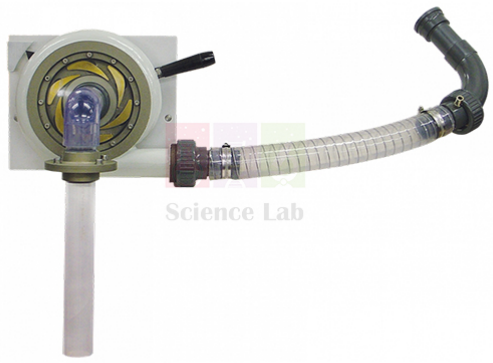
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Product Name :

Francis Turbine

Product Code :

SLE/EFM/04



Email : sales@scilabexport.com
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Description :

The **Francis Turbine** (Product Code: SLE/EFM/04) is a teaching model of the reaction turbine found in many hydroelectric plants. Adjustable guide vanes control the water entering themachine and direct it at an angle onto the blades of a radial impeller, and a clear viewing windowand draft tube let students watch the turbine working as they change the vane setting. It ismanufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, a technicaleducational equipment manufacturer supplying engineering departments and polytechnics.

Specifications

Parameter	Detail
Turbine type	Reaction turbine
Moving part	Radial impeller
Flow control	Adjustable guide vanes that control the water flow and direct it at an angle to the impeller blades
Visibility	Clear viewing window and draft tube
Learning focus	How the guide vane setting affects the way the turbine works

Typical Use

The Francis design is widely used around the world because it adapts to a wide range of applications, which makes it a natural centrepiece for hydraulic machines practicals. A typical session sets the guide vanes to one opening, loads the turbine in stages and records speed, torque and flow to build output and efficiency curves; the vanes are then moved to a new position and the test repeated. Students quickly see that each vane opening has its own best operating point, and why power stations adjust guide vanes rather than simply throttling the supply.

Being a reaction machine, the runner turns under both the pressure and the velocity of the water, unlike an impulse wheel. Watching through the window and down the draft tube, the class can relate swirl and flow pattern to efficiency and discuss how the draft tube recovers energy from the leaving water. For engineering lab equipment in India’s degree and diploma programmes, testing this turbine against a Pelton wheel gives a complete picture of reaction and impulse behaviour.

Manufacturer

Our Francis Turbine is made by Jain Scientific Equipments Private Limited, which trades as ScienceLab and is headquartered in Ambala, Haryana. The firm builds hydraulics, mechanics and science apparatus for teaching laboratories; see the company profile for background.

Related Fluid Mechanics Equipment

Apparatus that complements a turbine study programme:

- Pelton Wheel (Turbine) — the impulse-turbine counterpart for comparison tests
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