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Product Name :

Demonstration Pelton Turbine

Product Code :

SLE/MCE/35



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Description :

Demonstration Pelton Turbine (Product Code: SLE/MCE/35) is an impulse-turbine test unitused to show how a water jet drives a Pelton wheel and to measure turbine torque, inlet pressureand speed in fluid mechanics laboratories. It delivers about 5 W at 500 min-1 (rpm) withapproximately 30 L/min at a 2 m head, using a 14-blade wheel of 132 mm external diameter anda 10 mm jet. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEMmanufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Turbine type	Pelton turbine (impulse turbine)
Output	5 W at 500 min-1, approx. 30 L/min, H = 2 m
Pelton wheel	14 blades
Blade width	33.5 mm
External diameter	132 mm
Jet diameter	10 mm
Jet deflection in the blades	Approximately 180°
Torque measurement	Force measurement on a band brake, read on spring balances
Force measuring range	2 x 0–10 N
Inlet pressure measurement	Manometer at the turbine inlet, 0–1 bar
Speed measurement	Requires a non-contact speed sensor
Dimensions	1000 x 800 x 1200 mm
Weight	90 kg
Product code	SLE/MCE/35
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Demonstration Pelton Turbine Used For?

In a Pelton turbine the pressure energy of the water is converted into kinetic energy entirely in the distributor: the jet is accelerated in a nozzle and directed tangentially onto the blades of the wheel. Each blade turns the jet back through roughly 180°, transferring the jet's impulse to the wheel — a clear, visible example of the impulse principle that students can contrast with reaction turbines.

During a test, students tighten the band brake in steps, read the spring balances to find the braki
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