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Product Name :

Coriolis Component of Acceleration Apparatus

Product Code :

SLE/MCE/77



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Description :

Coriolis Component of Acceleration Apparatus (Product Code: SLE/MCE/77) is a self-contained water-jet rig used to determine the Coriolis component of acceleration at different rotation speeds and water flow rates in theory of machines laboratories. Water leaves rotating arms with 9 mm and 6 mm orifice diameters, while a 250–2500 LPH rotameter shows the flowand a variable-speed swinging-field motor sets the speed. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Water tank	Stainless steel
Rotating arms	9 mm / 6 mm orifice diameter, length 300 mm
Rotameter	250 to 2500 LPH
Electric motor	Swinging field type, variable speed, with its own speed control unit
Pump	FHP (fractional horsepower) pump for water circulation
Water circuit	Self-contained, water re-circulating
Frame	Powder-coated rigid structure
Dimensions	800 x 800 x 1200 mm
Weight	115 kg
Power supply	230 V, 50 Hz, 1 phase; or 230 V, 60 Hz, 1 phase; or 120 V, 60 Hz, 1 phase
Product code	SLE/MCE/77
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Coriolis Acceleration Apparatus Used For?

When a body moves outward along a link that is itself rotating, it gains an extra acceleration at right angles to the link, equal to twice the product of the angular velocity and the sliding velocity. This is the Coriolis component, a key idea in the kinematics of slotted-link and quick-return mechanisms. In this apparatus the moving body is water flowing out along the rotating arms, which makes the effect measurable in a classroom.

A typical session holds the flow steady on the rotameter, runs the arms at several speeds with the speed control unit, then repeats at other flow rates, so students see how the component depends on both angular velocity and flow velocity and compare their results with theory. Because the tank, pump and arms form a closed re-circulating circuit on one powder-coated frame, the rig needs no water supply line, which suits engineering lab equipment rooms in India and abroad. Check the water level before each run and raise the speed gradually.

Wha