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Product Name :

Impact of a Jet Apparatus

Product Code :

SLE/MCE/40



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Description :

Impact of a Jet Apparatus (Product Code: SLE/MCE/40) is a hydraulics experiment unit used to measure the force a water jet exerts on flat and curved surfaces, so students can verify the momentum equation in fluid mechanics laboratories. An 8 mm jet inside a clear acrylic cylinder strikes interchangeable 40 mm targets — flat, 120° curved and 180° hemispherical — balancedby calibrated masses. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM and engineering lab equipment manufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Construction	Cylindrical tank with transparent sides; discharge nozzle inside a clear acrylic cylinder
Jet diameter	8 mm
Impact surfaces	90° flat surface, 120° curved surface and 180° hemispherical surface
Impact surface diameter	40 mm
Force measurement	Weight-loaded scale; the vertical jet force is balanced with calibrated weights
Masses supplied	Set of 5, 10, 50 and 100 g masses
Counterbalance	Compression spring offsets the dead weight of the moving parts
Water supply and drainage	Nozzle connected to a hydraulics bench; drain holes in the tank base
Dimensions	800 x 800 x 800 mm
Weight	90 kg
Product code	SLE/MCE/40
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Impact of a Jet Apparatus Used For?

Turbine blades, spray nozzles and fire hoses all depend on the force produced when a moving stream of water changes direction. In this experiment the jet rises from the nozzle, hits the target and is deflected; the force it produces is found by adding calibrated weights until the lever returns to its level mark, while the flow rate is measured on the hydraulics bench.

Comparing the three targets shows why shape matters: the flat plate turns the jet through 90°, the 120° curved surface turns it further, and the hemispherical cup almost reverses it, giving the larges flow and c custo whee