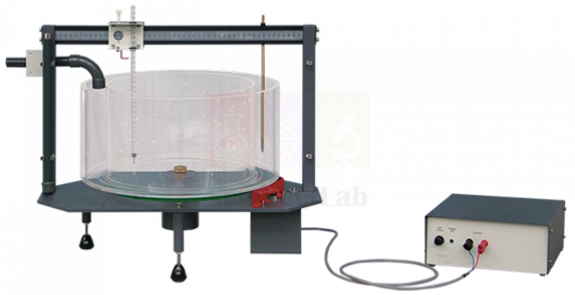
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Product Name :

Vortex Apparatus

Product Code :

SLE/EFM/27



Description :

Vortex Apparatus (Product Code: SLE/EFM/27) is a rotating-vessel apparatus used to create a forced vortex in water and measure the shape of its free surface in engineering college and polytechnic fluid mechanics labs. A low-voltage, variable-speed motor spins the vessel about its vertical axis, and a traverse probe with a linear scale on each axis maps the surface point by point. It is manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Key Details

Parameter	Detail
Type	Forced vortex apparatus with a rotating water vessel
Drive	Low-voltage, variable-speed motor rotating the vessel about its vertical axis
Speed control	Separate speed-control unit, sited away from the mainapparatus
Water fill	Water added to the rotating vessel until it is about half full
Surface measurement	Traverse probe moving horizontally and vertically, with a linear scale on each axis
Total head measurement	Traverse probe can be replaced by a Pitot tube to measure the distribution of total head
Product code	SLE/EFM/27
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Vortex Apparatus Used For?

Students start the vessel turning, add water until it is roughly half full and watch a forced vortex develop: the surface falls rapidly towards the centre and produces an air core. After a few minutes of steady rotation the vortex becomes constant, and only then are readings taken, stepping the traverse probe across the radius and recording surface height against radial position from the two scales. Repeating the traverse at different motor speeds shows how the profile deepens as rotation increases, and the results can be compared with the parabolic shape predicted by forced-vortex theory.

For a second set of readings the traverse probe is swapped for a Pitot tube, so the class can plot how total head varies across the vessel. Because the speed-control unit sits away from the vessel, the instructor can adjust rotation without disturbing the water, which suits group demonstrations as well as individual lab reports. It is practical engineering lab equipment in India for hydraulics and fluid mechanics syllabi at degree and diploma level.

OEM Manufacturer

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