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Product Name :
Impact of Jets

Product Code :
LBNY-0005-15800017



Description :

The apparatus is supported on a PVC base into which a vertical water supply pipe is fitted. Surrounding the supply pipe is a transparent plastic shield fitted with a top PVC flanged cover assembly. Impact of Jets apparatus enables experiments to be carried out on the reaction of a jet of water on vanes of various forms. In operation, water from the Hydraulics Bench is fed into the unit and a vertical jet is produced through the supply pipe and its interchangeable nozzle. The water from the jet is deflected by the reaction vane under test, and drains away through the large aperture in the base of the chamber. The reaction vane is held within the transparent shield approximately 20 mm above the vertical water supply pipe nozzle by a rod which passes through the top cover and supports a flat tray, onto which masses may be placed. Three different types of reaction vane are supplied with the apparatus and the types are flat, hemispherical cup and 45° cone form. The force produced by the jet impinging on the target is transmitted by the rod, to the flat tray where weights are placed in order to balance this transmitted force. Two interchangeable nozzles for the supply pipe are supplied, one of 8 mm and one of 5 mm diameter. Each vane can be secured to the pivot arm by a set screw and when not in use is stored on pegs on the unit base plate.

Technical Specification :

Experimental Capability:

Demonstration that the force exerted on the vane when struck by the jet, is proportional to the rate of change of momentum of the jet stream
Determination of the reaction of a jet striking a fixed flat vane, mounted normal to the jet direction, at different jet diameters and flow rates.
As above but for a cone shaped target equivalent to an angled target plate.
As above but for a hemispherical target.

Dimensions And Weights:

Length: 23cm

Width: 16cm

Height: 45cm

Gross weight: 5kg

Nett weight: 4kg.



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