Product Name : Impact of Jet Apparatus

Product Code : NLAB-ENGINEERINGLB20003



Description:

Impact of Jet Apparatus

Technical Specification :

DESCRIPTION:-

The unit consists of a plate, placed in the path of a liquid jet, experiences a force on it. This force can be calculated from the impulse-momentum equation, which is based on Newton's Second Law of Motion: "The algebraic sum of external forces applied to control volume of fluid in any direction is equal to the rate of change of momentum in that direction".

FEATURES:-

The set-up consists of a sump tank with centrifugal pump to circulate water. A chamber with one side acrylics is provided for visualization of impact of jet on vanes. Water from sump tank flows through a nozzle and strikes vertically the vane positioned above the nozzle. Arrangement is made for the movement of the plate of the vane under the action of the jet and also because of the weight placed on the loading hanger. Measuring tank and stop watch is provided for flow measurement.

RANGE OF EXPERIMENT:-

• To study the force exerted by a liquid jet impact on a Plane/Inclined/Curved surfaces.

SPECIFICATION:-

- A chamber with one side acrylics is provided for visualization of jet Impact.
- Flow control valve to change jet pressure.
- Weights- 25grm, 50grm, 100grm, 150grm.(Mild steel with Chrome plating)
- Plates- Flat plate, Curved Plate, Angle Plates(300,600), (M/s with Chrome plating)
- Transparent pizometer tubes with scale to measure measuring tank discharge.
- Measuring tank- 400 X 400 X 260 mm
- Sump tank- 700 X 400 X 450 mm
- Usha or Crompton Greaves motor for recalculating type unit.- 1 H.P. Self Priming
- Stop clock.

SERVICE REQUIRED:-

- Suitable Water supply.
- Suitable floor space to mount apparatus.
- 15 amps Single Phase Electrical Connection.

Naugralabequipments

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