Email : sales@laboratoryinstrumentindia.com

Product Name : Flow Channel	**Product Code :** LBNY-0005-16000029

Description :

This experimental and demonstration apparatus consists of an open channel of rectangular cross section supported at each end by frames, one of which is adjustable so that the slope of the channel may be varied. This Flow Channel provides a low cost experiment with accuracy comparable with larger scale channel investigations. The channel walls are made from clear acrylic plastic so that full visibility of the flow characteristics can be achieved. A number of test models are provided along with inclinometer and surface profile measuring instrument.

Experimental Capability:
Hydraulic jump - determination of energy head and power loss at the jump section by means of specific energy considerations.
Study of long base weir and calibration of broad crested weir.
Study of Venturi Flume, observation of flow through a throated Flume, calibration of the Flume when used as a flow measuring instrument.
Study of uniform flow in inclined channel, verification of Chazy equation and determination of Chazy Coefficient and Mannings Friction Factor.
Calibration of sharp crested, thin plate overshot weirs. Friction factor and roughened channel bed studies.
Determination of Hydraulic Mean Depth for the flow channel.
Study of flow over triangular hump section, plotting of Specific energy - Depth relationships, comparison of theoretical and experimental values of critical height.
Study of flow under a sluice gate (undershot weir) with application of Specific Energy and Momentum Functions.

Technical Specification :

The Flow Channel includes: Triangular Weir, Broad Crested Weir, Venturi Flume, Overshot Sharp Crested Weir, Undershot weir, Ogee (Overflow) weir with built in manometer.
Rectangular cross section 55 x 175 x 2500 mm [or] 80 x 250 x 5000 mm.
Variable height
Flow control valve at discharge tank
Stilling arrangement at inlet to promote smooth flow into the working section.
Clear acrylic plastic for full visibility.
Pitot-static pressure measurement of flow
Suitable for personalized project works, user structures.
Scales to allow measurement of all important heights and levels.

Laboratory Instrument India