

**Product Name :**  
Astra Scientific Tilting Flume

**Product Code :**  
Fluid Mechanics Lab0036



**Description :**

Astra Scientific Tilting Flume

**Technical Specification :**

**DESCRIPTION:**

The designed small open channel flume, available in 2.5m or 5.0m lengths, with clear acrylic sides to the working section for total visibility of the flow.

The channel is fitted with a PVC inlet tank, and is designed for free discharge into the Hydraulics Bench. The flume is mounted on a rigid framework, and can be tilted by use of a calibrated screw jack, which allows accurate slope adjustment of the channel.

The inlet tank incorporates a stilling arrangement to diffuse the water flow prior to entry into the channel, ensuring smooth uniform flow. The level in the working section of the flume is controlled using an overshoot weir at the discharge end.

Bed pressure tapings and fixing points for models are provided. A longitudinal scale positioned at the top of the channel allows depth gauges and Pitot-static tubes to be accurately positioned along the channel length.

Also available is an optional flow meter, which can be fitted to allow direct, flow measurements to be taken.

**FEATURES:**

- Study of open channel flume
- Use of hook and point gauges to measure water level
- Use of a Pitot-static tube to measure flow rate and velocity profiles
- Understanding the relationship between water level above the crest of a weir and flow rate over the weir
- Using hydraulic structures to control level, eg syphon spillways
- Understanding sub-and super-critical flow and the underlying characteristics of waves
- Hydraulic jump
- Using hydraulic structures for control of flow eg sluice gate
- Applying and understanding Manning's formula

**SPECIFICATION:**

- A 76mm wide, 250mm high open channel for use with an Hydraulics Bench
- Available in 2.5m and 5.0m working section lengths
- Clear acrylic sides to give visibility of the working section
- A jacking system permits the slope of the channel bed to be adjusted between -1% and +3%
- Inlet tank with flow stilling arrangement
- Includes a Venturi, sharp and broad-crested weirs, 2 vernier level gauges, adjustable undershot weir and crump weir
- Wide range of other models available as accessories.
- Optional flow meter
- Comprehensive instruction manual



## **Astra Scientific**

www.astrascientific.com, **Email:** info@astrascientific.com

**Address:** K-88, 20th Street, Annanagar, Chennai, India – 600040 **Phone:** +91-8860605265