SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

Phone: +91 7015865225 **Email:** info@scienticoindia.com **Web:** scienticoindia.com **Address:** #71, Industrial Area, Ambala Cantt, Haryana, India

Multi-Purpose Teaching Flume (Length 2.5 m) | FluidoSurge-X 236

Category: Fluid Mechanics · **Country of Origin:** India

Product Overview

The Multi-Purpose Teaching Flume is a laboratory-scale open channel flume designed for teaching and experimental studies in hydraulic engineering. Made by Scientico India, ISO 9001:2015 certified, and supplied with a calibration certificate and operation manual.

View this product online: https://scienticoindia.com/product/multi-purpose-teaching-flume-length-2-5-m-fluidosurge-x-236/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Parameter	Specification
Apparatus Type	Open channel teaching flume
Experimental Section Length	2.5 m
Flow Cross Section (W x H)	85 x 300 mm ± 1 mm
Side Wall Material	Tempered glass
Wetted Materials	Stainless steel, glass reinforced plastic
Inclination Adjustment Range	-0.5% to +3%
Inlet Condition	Flow-optimized, low-turbulence
Model Mounting	4 evenly spaced threaded holes
Water Circuit	Closed
Tank Capacity	150 L
Inclinometer	Magnetic
Inclinometer Range	-90° to 0° to +90°
Pump Power Consumption	1.02 kW
Maximum Flow Rate	22.5 m³/h
Maximum Head	13 m

Key Features

Key Features

- 2.5 m long experimental section for comprehensive open-channel studies
- Tempered glass side walls for excellent visibility
- Smoothly adjustable flume inclination for slope simulation
- Closed water circuit with tank, pump, rotameter, and manual flow adjustment
- Low-turbulence inlet for uniform flow conditions
- Corrosion-resistant construction for long-term laboratory use
- Quick and secure mounting of hydraulic models

Applications

- Hydraulic engineering teaching laboratories
- Study of uniform and non-uniform open-channel flow
- Investigation of hydraulic jumps and energy dissipation
- Flow over weirs, gates, and control structures
- Velocity profile measurement and momentum studies
- Sediment transport and wave studies using optional accessories

Construction & Design Details

The experimental section is constructed with corrosion-resistant materials, with tempered glass side walls enabling detailed observation of flow behavior. The inlet element conditions the flow to reduce turbulence. The flume angle is smoothly adjustable to simulate varying bed slopes. Models are mounted using threaded points along the flume bed, allowing safe and rapid configuration changes.

Experiments

- Uniform and non-uniform discharge
- Hydraulic jump and energy dissipation
- Flow over sharp-crested, broad-crested, and ogee-crested weirs
- Discharge under gates and flow-measuring flumes
- Local losses due to obstacles and piers
- Transient flow including waves and vibrations
- Sediment transport and force-momentum studies

Data Acquisition Software (Optional)

Optional DAQ software developed in the NITM LabVIEW™ environment supports data acquisition, processing, and reporting on Windows systems. The software enables measurement and calculation of experimental parameters, visualization through tables and graphs, and generation of comprehensive CSV reports containing measured and calculated data with plots.

Standard Scope of Delivery

- 1 experimental flume
- 1 set of standard accessories
- 1 instruction manual

Export & Supply Capability

SCIENTICO manufactures the Multi-Purpose Teaching Flume FluidoSurge-X 236 for engineering institutes, technical universities, and research laboratories. The system is suitable for domestic and international supply. Export packing, documentation, and accessory configuration are provided as per destination requirements.

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q1. What is the length of the experimental section?
The experimental section is 2.5 m long.

Q2. Can the flume slope be adjusted?
Yes. The inclination can be adjusted from -0.5% to +3%.

Q3. What materials are in contact with water?
All wetted components are made of corrosion-resistant materials such as stainless steel and glass reinforced plastic.

Q4. Are hydraulic models included as standard?
Yes. A set of standard control structures and measuring instruments is supplied.

Q5. Is digital data acquisition available?
Yes. An optional DAQ system and software are available for data logging and analysis

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