SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Pipe Friction Apparatus | FluidoSurge-X 168

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

Product Overview

A CE-certified apparatus for studying head losses due to pipe friction in laminar and turbulent flow regimes, manufactured by Scientico India to ISO 9001:2015 standards. Supplied with calibration certificate, operation manual, and complete export documentation. Designed for Fluid Mechanics laboratories in engineering colleges and technical institutions.

View this product online: https://scienticoindia.com/product/pipe-friction-apparatus-fluidosurge-x-168/



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

Technical Specifications

Parameter	Specification
Model	FluidoSurge-X 168
Type	Pipe Friction Apparatus
Application	Pipe Friction Loss Measurement
Flow Regimes	Laminar and turbulent
Maximum Flow Rate	30 L/h
Test Pipe Length	Greater than 500 mm
Test Pipe Bore	3 to 4 mm
Flow Control	Needle valve
Elevated Tank Capacity	Approx. 1 to 1.8 L
Head Tank Type	Adjustable cylindrical tank with level indicator
Water Manometer	Inverted U tube, 0 to 500 mm
Mercury Manometer	U tube, 0 to 500 mm
Water Supply	Hydraulic bench or laboratory water connection

Key Features

Key Features-

- Experimental setup for measuring pipe friction losses
- Study of laminar and turbulent flow regimes
- Adjustable elevated tank for constant head laminar flow experiments
- Needle valve for precise flow rate control
- Measurement of head loss using water and mercury manometers
- Determination of critical Reynolds number

Applications-

- Measurement of pressure loss in pipe flow
- Study of friction factor for laminar and turbulent regimes
- Determination of critical Reynolds number
- Verification of theoretical pipe flow relationships
- Fluid mechanics and hydraulics laboratory experiments

Construction & Design Details-

The apparatus includes a small bore test pipe mounted securely with pressure tapings at appropriate locations.
An adjustable elevated cylindrical tank provides a constant head supply for laminar flow experiments.
Manometers are arranged for clear reading of pressure differences across the test section.
Rapid action hose couplings enable easy connection to a hydraulic bench or laboratory water supply.

Export & Supply Capability

SCIENTICO manufactures the Pipe Friction Apparatus FluidoSurge-X 168 for domestic and international supply.
The unit is suitable for export to engineering colleges, universities, and technical training laboratories.
Standard packing, accessories, and documentation are provided with each unit.

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 flow regimes can be studied using this apparatus?
Both laminar and turbulent flow regimes can be studied.

Q2. How is pressure loss measured?
Pressure loss is measured using inverted U tube water manometer and U tube mercury manometer.

Q3. Is mercury supplied with the apparatus?
No, mercury is not supplied due to transport regulations.

Q4. How is flow rate controlled during experiments?
Flow rate is controlled using an integrated needle valve.

Q5. What water supply is required for operation?
The apparatus can operate using a hydraulic bench with closed water circuit or a laboratory water connection.

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