SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Energy Losses in Pipe Apparatus | FluidoSurge-X 148

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

Product Overview

The Energy Losses in Pipe Apparatus is designed for experimental investigation of head losses in pipe flow. It enables measurement of pressure losses under laminar and turbulent flow conditions. 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/energy-losses-in-pipe-apparatus-fluidosurge-x-148/



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

Technical Specifications

Parameter	Specification
Model	FluidoSurge-X 148
Type	Energy Losses in Pipe Apparatus
Application	Pipe Friction and Loss Measurement
Pipe Inner Diameter	17 mm
Pipe Outer Diameter	21 mm
Enlargement Pipe Inner Diameter	26 mm
Enlargement Pipe Outer Diameter	32 mm
Contraction Diameter	17 mm
Pipe Fittings	45° elbow, 90° elbow, sharp bend, small bend
Flow Regimes	Laminar and turbulent
Pressure Measurement	12 tube water manometer bank
Manometer Range	Up to 300 mm WC
Pressure Gauges	2 units
Mounting	Bakelite base on aluminum frame
Operation Requirement	Hydraulic bench or laboratory water supply

Key Features

Key Features-

- Experimental setup for studying pipe friction losses
- Measurement of losses in laminar and turbulent flow regimes
- Investigation of pressure losses in bends, elbows, contractions, and enlargements
- Manometer bank for simultaneous pressure drop measurement
- Determination of simple valve characteristics
- Compatible with hydraulic bench or direct laboratory water connection

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Applications-

- Measurement of pressure loss in straight pipes
- Study of losses due to bends, elbows, and fittings
- Determination of losses at contraction and enlargement sections
- Evaluation of critical Reynolds number
- Fluid mechanics and hydraulics laboratory experiments

Construction & Design Details-

The apparatus is mounted on a rigid aluminum structure with a Bakelite base to ensure stability during experiments. Pipe sections and fittings are arranged on a training panel for clear visibility and ease of operation. Pressure tapings are provided at strategic locations and connected to a multi tube manometer bank for accurate pressure measurement. The layout allows individual investigation of different components without system reconfiguration.

Export & Supply Capability-

SCIENTICO manufactures the Energy Losses in Pipe Apparatus FluidoSurge-X 148 for domestic and international supply. The unit is suitable for export to engineering colleges, universities, and technical training laboratories. Standard packing, hose piping, 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 types of losses can be studied using this apparatus?
It allows study of frictional losses in pipes and local losses due to bends, fittings, contractions, enlargements, and valves.

Q2. Can both laminar and turbulent flows be investigated?
Yes, the apparatus supports experiments in both laminar and turbulent flow regimes.

Q3. How are pressure losses measured?
Pressure losses are measured using pressure tapings connected to a multi tube water manometer bank.

Q4. Is a hydraulic bench mandatory for operation?
No, the apparatus can operate with either a hydraulic bench or a laboratory water connection.

Q5. What measuring instruments are included?
A 12 tube water manometer bank and two pressure gauges are included for pressure measurement.

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