

Product Name :
Astra Scientific Orifice and Venturi Meter Demonstrator

Product Code :
Fluid Mechanics Lab0024



Description :

Astra Scientific Orifice and Venturi Meter Demonstrator

Technical Specification :

DESCRIPTIONS:

The equipment consists of a Venturi meter, variable area meter and orifice plate, installed in a series configuration to permit direct comparison. A flow control valve permits variation of the flow rate through the circuit. Pressure tappings are incorporated so that the head loss characteristics of each flow meter may be measured. These tapping's are connected to an eight-tube manometer bank incorporating a manifold with an air bleed valve.

A hand pump facilitates pressurization of the manometers. The circuit and manometer are attached to a support framework, which stands on the working top of the Hydraulics Bench. The bench is used as the source of water supply and for volumetrically calibrating each flow meter.

This enables to adjust the levels in the manometer bank to a convenient level to suit the system static pressure.

FEATURES:

- Venturi meter, variable-area meter and orifice plate with flow-control valve
- Pressure tapping's to measure head loss across each meter
- Supplied with manometer board with eight tubes
- Quick-release fitting for easy connection to Hydraulics Bench
- Directly comparing flow measurement using a Venturi meter, variable area meter and orifice plate
- Calibrating each flow meter using the volumetric measuring tank of the bench
- Comparing pressure drops across each device
- Educational software available as an option
- Determination of the Cd factor in the Venturi.
- Determination of the strangulation in the Venturi.
- Determination of the Cd factor in the orifice plate.
- Determination of the error in flow measurements using the orifice ?plate.

SPECIFICATION:

- Manometer range: 0 to 500 mm. of water column.
- Number of monomeric tubes: 8.
- Orifice plate diameter: 25 mm.
- Flow meter: 2to30 l./min.
- Venturi dimensions:

Throat diameter: 20 mm. Upstream pipe diameter: 32 mm. Downstream taper: 21°. Upstream taper: 14°.

- Orifice Plate dimensions:

Upstream pipe diameter: 35 mm. Downstream orifice diameter: 19 mm.

- Easy and quick coupling system built-in.
- Anodized aluminum structure and panel of painted steel.



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