

Product Name :
Astra Scientific Flow Meter Demonstration Unit

Product Code :
Fluid Mechanics Lab0012



Description :

Astra Scientific Flow Meter Demonstration Unit

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 tapping's 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.

Flow Meter Demonstration Apparatus contains different flow rate measurement devices that are clearly laid out with the associated pipework on a metal sheet. So that the function can be observed, the measuring devices are made of transparent plastic.

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 is included in the form of a multiple tube manometer so that the pressure curve along the venturi flow meter can also be displayed. The apparatus is placed on the Hydraulics Bench; this provides the water supply to the unit.

FEATURES:

- 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
- 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
- Educational software available as an option

SPECIFICATION:

- Manometer range: 0-400mm
- Number of manometer tubes: 8
- Orifice plate diameter: 20mm
- Variable area meter: 2-20 l/min
- Venturi dimensions:

Throat diameter: 15mm

Upstream pipe diameter: 31.75mm

Upstream taper: 21° inclusive

Downstream taper: 14° inclusive



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