

Product Name :
Bernoullis Theorem Demonstration

Product Code :
Fluid Mechanics Lab0003



Description :

Bernoullis Theorem Demonstration

Technical Specification :

DESCRIPTION

The advanced Bernoullis Theorem Demonstration module is mainly composed of a circular section conduit with shape of a truncated cone, transparent and with seven pressure taps to measure, simultaneously, the static pressure of each section.

All the pressure taps are connected to a manometer with a water collector (water might be pressurized). The ends of the conduits are removable, enabling to be placed in either convergent or divergent form with respect to the stream direction. There is also a probe (Pitot's tube) moving along the conduit or measuring the height in every section (dynamic pressure). Adjusting the control valve located at the end of the module can modify the flow rate and the pressure in the module. A flexible hose attached to the outlet pipe is directed to the volumetric measuring tank. For the operation, the module is placed on the Hydraulics bench top. It has adjustable legs for

leveling. The inlet pipe ends in a female coupling, which may be directly connected to the bench supply.

FEATURES

- Venturi section machined from clear acrylic
- Eight static pressure tapping's plus a total head measurement
- Flow control valve
- Manometer board with eight tubes
- Quick-release fitting for easy connection to Hydraulics Bench
- Educational software available as an option

- Determination of the exact section in Venturi tube.
- Demonstration of Bernoulli's Theorem. Divergent convergent Position.
- Determination of Bernoulli's Theorem equation.
- Convergent-divergent position.
- Observation of differences between convergent and Divergent position.

SPECIFICATION

- Manometer range: 0 to 300 mm of water.
- Number of manometer tubes: 8.
- Upstream diameter of the throat: 25 mm.
- Narrowing:

Downstream: 21°.

Upstream: 10°.

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

- Dimensions: 800 x 450 x 700 mm. approx.
- Weight: 15 Kg. approx. (33 pounds approx.)
- Hydraulics Bench or Basic Hydraulic Feed System.



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