

## Features:

Tesca Apparatus for Study of Porous Beds in Venturi Tubes is formed by a circular section conduit with a truncated cone shape, transparent, and with pressure taps that allow measuring simultaneously the values of static pressure corresponding to any point of different sections. It also has three other conduits, full of sand of different diameters of grain. The conduit ends can be extracted, so they can be placed in a convergent or in a divergent way in regard to the flow direction. There is a probe (Pitot's tube) that moves along the section in order to measure the height of each section (dynamic pressure). The flow velocity in the module can be modified by adjusting the control valve and by using the Hydraulics Bench (32096).

## Technical Specifications

- Manometer range: 0-300 mm. of water.
- A number of manometric tubes: 8.
- Strangulation diameter upstream: 25 mm.
- Narrowing: upstream: 10°. downstream: 21°.
- Venturi's tube with Pitot tube: Venturi's tube with a porous bed of a grain diameter of 1.0 to 1.5 mm
- Venturi's tube with a porous bed of a grain diameter of 2.5 to 3.5 mm.
- Venturi's tube with a porous bed of a grain diameter of 5.5 to 7.0 mm
- Easy and quick coupling system built-in.
- Anodized aluminum structure and panels of painted steel.

## Experiments:

1. Demonstration of Bernoulli's theorem and its limitations in divergent - convergent position.
2. Demonstration of Bernoulli's theorem and its limitations in convergent-divergent position.
3. Direct measurement of the static height and of the total distribution of heights in Venturi's tubes.
4. Determination of the exact section in a Venturi tube.
5. Head losses in the porous bed

## Requirements:

- Water Supply & Drain
- Electricity Supply: Single Phase, 220 VAC, 0.5 kW
- Floor Area 1.5 x 0.75 m

Note: Specifications are subject to change.

## **Tesca Technologies Pvt. Ltd.**

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