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Product Name : Astra Scientific Orifice and Mouth Piece Flow Apparatus	**Product Code :** Fluid Mechanics Lab0023

Description :

Astra Scientific Orifice and Mouth Piece Flow Apparatus

Technical Specification :

DESCRIPTION

The module consists of a cylindrical methacrylate tank
that enables to maintain a constant level and the Basic Hydraulic Feed System feeds that by the Hydraulics Bench.

An orifice is an opening made in the side or bottom of tank, having a closed perimeter, through which the fluid may be discharged. A mouthpiece is short tube fitted to a same size circular opening provided in a tank so that fluid may be discharged through it. Orifice and mouthpiece are used to measure the rate of flow of liquid. The apparatus is designed to measure the co-efficient of discharge of orifice & mouthpiece.

A traverse assembly is provided, which enables a pitot tube to be positioned anywhere in the jet. Attached to this Pitot tube is a fine

wire, which can be traversed across the jet to accurately measure the jet diameter and the vena contract diameter and so determine the contraction coefficient. The pitot head and the total head across the orifice are shown on manometer tubes adjacent to the tank.

Following the position of some vertical needles placed in the annexed panel can draw the trajectory of the jet. These are adjusted by means of some command screws.

This panel includes a silk-screen scale that enables to measure the profile of the jet.

FEATURES:

- Cylindrical clear acrylic tank with orifice fitted in base
- Interchangeable orifices
- Pitot tube and wire-on micrometer to measure jet velocity and diameter
- Determination of the orifice velocity coefficient.
- Obtaining of the orifice discharge coefficient in permanent regime.
- Obtaining of the orifice discharge coefficient in variable regime.
- Obtaining of the tank discharge time.
- Anodized aluminum/ MS powder coated structure.

SPECIFICATION:

- Orifices with diameters of 3.5 and 6 mm.
- Jet trajectory Probes: 8.
- Maximum height: 500 mm.
- Easy and quick coupling system built-in.

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