



#### Features:

- 1. Compact, comprehensive, sturdy design
- 2. Fully instrumentation for experimentation of Orifice-meter, Venturi-meter & Rota-meter.
- 3. Comprehensive teaching package as optional attachments

Tesca Orifice-meter, Venturi-meter & Rotameter set up is a self-sufficient unit to study the characteristics of Orifice meter, Venturi-meter & Rota-meter. The calibration of these meters can be studied by comparing them with actual flow measured in measuring tanks. The orifice & Venturi is made of clear acrylic material to understand its operation phenomenon. The Venturimeter & Orifice meter is mounted in such a fashion that at a time we can select one of them & conduct the experiment. Rotameter is placed in the supply line of the pump to the operating table. Pressure tappings are provided at appropriate locations for measurement of differential pressure with a Mercury U tube manometer. Variable flow can be achieved for various reading sets. For the particular flow, we can compare the reading.

Note: Specifications are subject to change.

The Test setup of the Trainer can be used along with the Hydraulic Bench (FLM001) if ordered as FLM008SU. The test setup system will be supplied with an orifice meter, venturi meter, rotameter, Base for these units, and all essential accessories.

### **List Of Experiments:**

- 1. Calibration of Flowmeters.
- Flow measurement using venturi meter, orifice meter, variable area flowmeter like Rotameter
- 3. Demonstration of use of different flow meter & its comparisons.
- 4. Determination of flow coefficient.
- 5. Comparison of pressure drops across venturi meter & Orifice meter.
- 6. Study of Coefficient of Orifice Cv, Cd, Cc

## **System Components:**

#### **Basic Module**

- Orifice meter: inlet and outlet diameter 25 mm NB, made of transparent plastic/ perspex/plexiglass.
- 2. Venturi tube: inlet and outlet diameter 25 mm NB, made of transparent plastic/perspex/plexiglass.
- 3. Rotameter: Variable area with capacity 180-1800 LPH.
- 4. Base

#### For Self sufficient System

- 1. Centrifugal Pump: ½ H.P.std.make.
- 2. Sump Tank (50Ltrs).
- 3. Measuring tank and electronic level measurement system with a digital stopwatch.
- 4. U tube manometer: having graduated screen of height 400 mm approx.
- 5. Pipe and fittings made of PVC / corrosion-resistant plastic.
- 6. M.S. Stand with FRP Top

# Tesca Technologies Pvt. Ltd.

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#### **Optional Accessories:**

- 1. Multimedia computer-based training package on Flowmeters
- 2. Cut sections of valves & pumps
- 3. Transparencies & Slides
- 4. Data Acquisition System for Fluid Mechanics Experiments

#### **Operation & Maintenance Manual:**

A self-explanatory operating & maintenance manual will be provided. This will include Theory, operating procedure, standard results, and maintenance procedures.

## **Service Required At Site:**

- 1. Electric Supply 230V 50Hz. With proper earthing.
- 2. Tap Water supply & drainage

Note: Specifications are subject to change.