

Order Code : 20213501.1.1
Name : Fluid & Hydrostatic Bench



Description

The present set-up "Properties of Fluids and Hydrostatics Bench" is designed to demonstrate the properties of fluids and their behaviour under hydrostatic conditions i.e. when fluid is at rest. This allows students to develop an understanding and knowledge of a wide range of fundamental principles and techniques of fluid at rest, before studying fluids in motion. A variety of measuring devices is incorporated, either fastened to the back of the bench or free standing. Water is stored in a stainless steel tank situated at the base of the unit. The water can be transferred by means of a FHP pump, to an elevated open storage tank. This elevated tank has an overflow to avoid spillage. This elevated tank is connected to a number of glass tubes for free surface studies. The various constant head conditions can be achieved in this elevated tank. The set-up also consists of a pressure gauge and pressurized differential U tube manometer, mounted on the panel. Hydrometer with hydrometer jar, falling sphere viscometer jar, and capillary is also supplied with the apparatus.

Technical Details

- Universal Hydrometer : Range 0.70 to 2.00 sub-divided in 0.01 intervals
- Falling Sphere Viscometer : 40mm tube diameter
- Hydrostatic Pressure Apparatus : Comprises counter-balanced precision quadrant, pivoted on knife edges at its centre of arc.
- Free Surface Tubes : 3 Different types.
- Pressure Gauge : Bourdon Type.
- Manometer : Differential Pressure Manometer, U Tube Type
- Capillary : MOC BG Glass
- Thermometer : Range : -10°C to $+100^{\circ}\text{C}$
- Pump : FHP Pump.
- Tanks will be made of Stainless Steel.
- An ENGLISH instruction manual consisting of experimental procedures, block diagram etc. will be provided along with the Apparatus.
- The whole set-up is well designed and arranged on a rigid structure painted with industrial PU Paint.

Experimentation/Learning Objectives

To study the operation of :

- Universal hydrometer and hydrometer jar
- Falling sphere viscometer
- Free surface tube
- Bourdon gauge
- U-tube manometer
- Hydrostatic pressure
- Capillary tube apparatus

Utilities Required

- Electricity supply: Single Phase, 220 V AC, 50 Hz, 5-15 Amp. combined socket with earth connection. Earth voltage should be less than 5 volts.
- Water Supply: Initial Fill and Floor Drain.
- Floor Area: 1.75 m x 1 m.

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

TESCA TECHNOLOGIES PVT. LTD.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension, Jaipur-302029, Rajasthan, India.
Ph/ Fax: 91-141-2771791, 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tesca.in