



STUDY OF THE PROPERTIES OF FLUIDS

DESCRIPTION

The **Hydrostatics Bench** allows us to study the properties and behaviour of fluids in hydrostatic conditions.

The equipment is a **self-contained unit**, mobile and independent. It includes a watertank located in the lower part of the bench. By means of **two hand pumps**, the water can be distributed to a **methacrylate tank** located in the upper part connected via **communicating vessels** located in the front panel, or to a **plastic tank** located in the horizontal surface of the bench connected to the rest of the accessories for carrying out the practices.

The hydrostatics bench includes the following elements:

- Manually activated hand pumps.
- Falling sphere viscometers.
- Level measurer.
- Hydrometer, measuring cylinders and beakers.
- Lever balance with accessory for measuring specific gravity.
- Mercury barometer.
- Manometers: Bourdon and mercury column.
- Air pump.
- Thermometer.
- Hook and point indicator.
- Accessory for deadweight pressure gauge calibration.
- Accessory for studying hydrostatic pressure.
- Accessory for studying metacentric height.

PRACTICAL POSSIBILITIES

- Demonstration of Archimedes principle.
- Study of the hydrostatic pressure on a plane surface.
- Pressure gauge calibration.
- Capillarity effects.
- Determination of the metacentric height.
- Study of the properties of fluids: viscosity, density, gravity and specific gravity.
- Study of the position of the pressure center on a plane surface.
- Operation and comparison of results obtained with different measuring instruments:
 - Mercury barometers.
 - Bourdon manometers.
 - Differential water gauges.
 - Differential mercury gauges.
- Determination of the liquid level.
- Stability of floating bodies.

SPECIFICATIONS

The hydrostatics bench includes the following elements:

- **PVC hand pump.** Range: 2-20, 10-100, 20-200.
- **Adjustable flow hand pump.** High-precision sphere of 6.4 mm diameter.
- **Universal hydrometer:**
 - Range: 0.700 to 2.000.
 - Divisions: 0.050.
- **Jar for the transparent plastic hydrometer:** 500 ml capacity.
- **Falling sphere viscometer:**
 - Range: 0.2-2, 1-10, 2-20.
 - High-precision sphere of 6.4 mm diameter.
- **Falling sphere viscometer:**
 - **Chronometer:** 10 hours, resolution 0.01 s., digital display.
 - **Deadweight pressure gauge calibrator** with masses of 5, 2.5, 1 and 0.5 kg. Manometer of 0-4 bars.
 - **Equipment for studying the hydrostatic pressure.**
 - **Lever balance for studying Archimedes principle.**
 - **Mercury gauges:** 0-360 mm.
 - **Hook and point indicators.**

REQUIRED SERVICES

- Mains water supply for filling the tank.
- Drain.

DIMENSIONS AND WEIGHTS

Dimensions of the equipment : 1500x1900x800 mm. aprox.
Volumen of shipment approx.: 2.3 m³.
Net weight: 120 Kg.
Gross weight: 165 Kg.

*Specifications subject to change without previous notice, due to continuous improvements to the product.



TEACHING EQUIPMENT

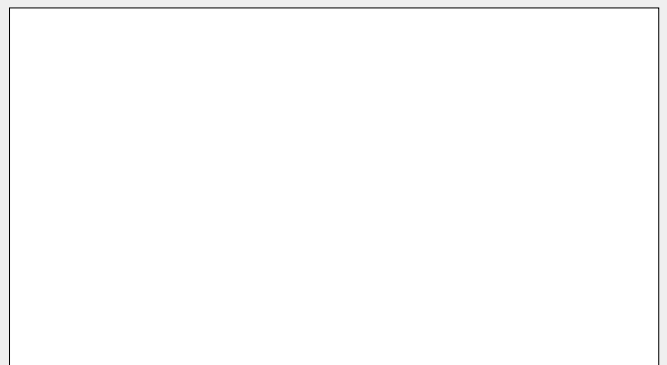
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