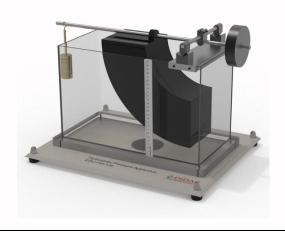


# **Centre of Pressure apparatus (EDC-FM-106)**

## **EXPERIMENTAL DATA:**

- Pressure exerted on an effective area in a liquid at rest
- Lateral force of the hydrostatic pressure
- Determination of the resulting compressive force



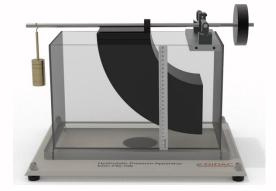
## **DESCRIPTION:**

This experimental unit offers students to study hydrostatic pressure in liquids via typical experiments. As the weight of fluids exerts a pressure, when at rest, that is called as hydrostatic pressure or gravitational pressure. This pressure is applied on any area that is in communication with the fluid, exerting a force that is proportional to the size of the area.

This equipment allows the moment caused by a fluid thrust on a wholly or partially submerged plane surface to be measured directly. A PVC quadrant is mounted on a balance arm pivoted on knife edges which coincide with the quadrant center. When the quadrant immerses in water, there are hydrostatic forces. The balance arm has an adjustable counter balance and weights with a hanger. The quadrant is mounted on top of a clear acrylic tank which allows water to be admitted and drained to a required level by a valve.

### **SCOPE OF DELIVERY:**

- 1 experimental unit
- 1 set of weights
- 1 set of tools
- 1 set of instructional materials



#### **DIMENSIONS AND WEIGHT:**

Minimum dimensions: 400 x 500 x 450 mm
(L x W x H)

Maximum weight: 12kg

# Fluid Mechanics



## **TECHNICAL DATA:**

### Water Tank:

• Inclination angle: 0° to 90°

• Capacity: 0 to 1.8L

• Scale range: 0 to 250mm

• Maximum effective area: 75 x 100mm

# **Lever Arm System:**

• Maximum length: 250mm

• Includes a set of calibrated weights:

• 1x 2.5N

• 1x 2N

• 2x 1N

• 1x 0.5N