

Center Of Pressure Apparatus



Product Categories: [Engineering Equipment](#), [Hydraulic Lab](#)

Product Page: <https://www.labappara.com/product/center-pressure-apparatus/>

Product Description

Center Of Pressure Apparatus

Description:

The Center of Pressure Apparatus has been designed to determine the static thrust exerted by a fluid on a submerged surface and allow comparison of the measured magnitude and position of this force with simple theory. A fabricated quadrant is mounted on a balance arm, which pivots on knife-edges. The knife-edges coincide with the center of arc of the quadrant. Thus, of the hydro-static forces acting on the quadrant when immersed, only the force on the rectangular end face gives rise to a moment about the knife-edges. The balance arm incorporates a balance pan for the weights supplied and an adjustable counterbalance. This assembly is mounted on top of an acrylic tank, which may be leveled by adjusting screwed feet. An indicator attached to the side of the tank shows when the balance arm is horizontal. Water is admitted to the top of the tank by a flexible tube and may be drained through a cock in the side of the tank. The water level is indicated on a scale on the side of the quadrant.

Technical Details:

Tank capacity : 5 liters (approx).

Distance between suspended mass & fulcrum : 275 mm

Cross-sectional area of quadrant (torroid) : (100 x 100) mm²

Total depth of completely immersed quadrant : 160 mm

Height of fulcrum above quadrant : 100 mm

Instruction Manual : An ENGLISH instruction manual will be provided along with the Apparatus