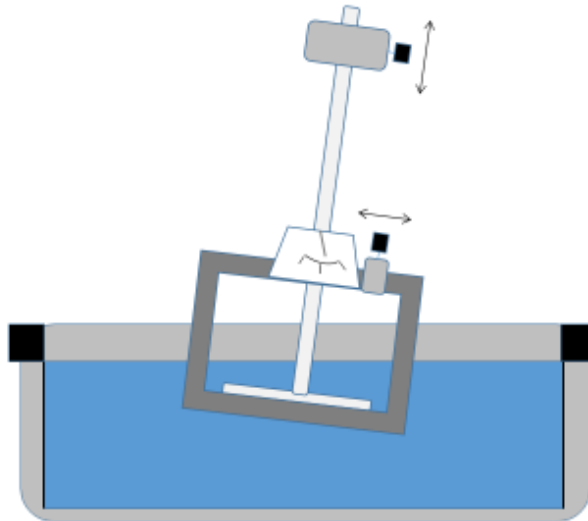


STABILITY OF FLOATING BODIES



Experimental capabilities

- The FLO010 bench can be used with the UTL015 fluid mechanics utility mode
- Study and determination of thrust and thrust center
- Study and determination of the center of buoyancy, the metacenter and the stability
- Study and determination of the heel

Operating principle

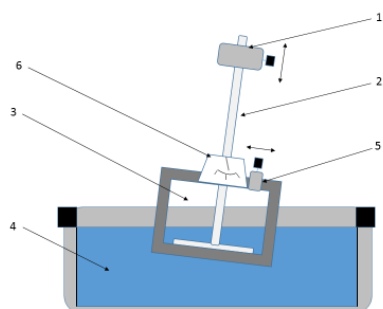
The FLO 010 unit can be used to study the stability of a floating body and to determine the metacentre graphically. In addition, the buoyancy of the floating body can also be determined. The experiment is easy to set up and is particularly suitable for practical work in small groups. The experiment is conducted in a tank filled with water. A transparent body with a rectangular frame cross-section is used as the floating body. Clamped weights that can be moved horizontally and vertically make it possible to adjust the centre of gravity and the heel.

The position of the clamped weights can be read on scales. A clinometer indicates the heel. The robust design of this device makes it suitable for use in schools.

The equipment is set up on an steel coated frame. This gives it great strength and a flexibility of integration into your laboratory.

The manufacture of this equipment complies with the European standard for machinery manufacturing.

Illustrations



Technical details

1. One vertically movable clamped weight for adjusting the centre of gravity
2. Graduated vertical axis
3. Transparent floating body with rectangular frame cross-section
4. Water tank
5. One horizontally movable clamped weight for adjusting the heel
6. Clinometer with scale (+/- 35°) for displaying the heel

Services required

Floating body

- Dimensions : (LxwxH mm) : 300 x 130 x 190
- Weight (Kg): 3 kg (without weight)
- Vertical clamped weight : 550 g
- Horizontal clamped weight : 195 g
- Mast height : 400 mm
- Vertical scale : 400 mm
- Horizontal scale : 180 mm

Tank

- Tank for water : 50 L
- Dimensions: (LxWxH mm): 660 x 450 x 620
- weight (Kg): 6

Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Certificate of conformity CE

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Options

- Floating bodies

- Ref: FLO 011

The FLO 011 accessory includes two transparent floating bodies with different frame shapes (hard chine and round bilge).

The floating bodies are used together with FLO 010 and extend this device's range of experiments.

Characteristics:

- Dimension : Hard chine frame : (L x w x H) : 300 x 200 x 140 mm, weight : 4 kg
- Dimension : Round bilge frame : (L x w x H) : 300 x 250 x 100 mm, weight : 3 kg
- Mast length : 240 mm
- Vertical scale : 240 mm
- Horizontal scale : 180 mm
- Scale for heel : +/- 35°
- Height scale of the floating body: 150 mm
- Vertical clamped weight : 550 g
- Horizontal clamped weight : 195 g

