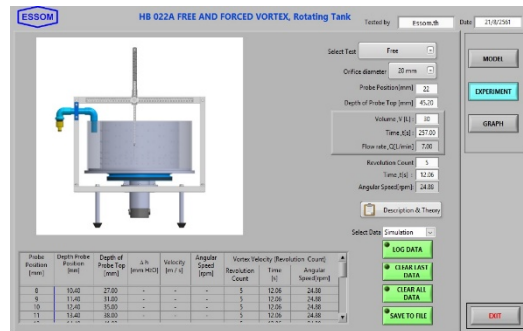


## HYDRAULICS BENCH ACCESSORIES

This apparatus is to be used with Hydraulics Bench such as HB100 or HB100N (both are separately supplied) for a water supply and flow measurement. Instruction manual is also included.

### HB 022A FREE AND FORCED VORTEX, Rotating Tank



#### GENERAL DESCRIPTION:

This equipment is designed to produce and measure free and forced vortices. It is to be used with Hydraulics Bench i.e. HB100 or HB100N (separately supplied).

The equipment consists of a clear acrylic cylindrical tank inside which is another smaller perforated clear acrylic cylinder. The tank is rotated by a small motor. A small hole is provided at the center of the bottom of the tank. A forced vortex is formed when a fixed amount of water is contained in the rotating vessel. A free vortex is formed when water is admitted at the annulus and drain through the bottom hole. A cross bar with scale and a sliding probe holder are provided above the vessel. Water surface profile is measured by a depth probe attached to the cross bar. A transparent tube with built-in pitot probe to measure total head is also attached to the cross bar.

#### EXPERIMENT CAPABILITIES:

- Determination of the surface profile of a free and forced vortices
- Determination of velocity

#### TECHNICAL DATA:

- Orifice diameters : 3 different sizes.
- Depth probe : 1 ea.
- Pitot tube : 1 ea.
- Portable tachometer : 1 ea.
- Power supply : 220 V, 1 Ph, 50 Hz or as required
- Software for data display and analysis by computer (separately supplied).

#### OPTIONAL EQUIPMENT:

- Speed sensor and indicator instead of portable tachometer.
- Other optional equipment, please contact manufacturer (essom@essom.com)

**Net (unassembled) Shipping Dimensions WxLxH** : 50 x 70 x 50 cm  
**Net Weight** : Approx. 25 kg