

### ▶ KFM-01 Reynolds Apparatus



**Specifications:**

- Storage tank with flow- 400 mm x 400 mm x 700 mm
- Measuring Flask - 1 ltr.
- Dye bottle tank- 170 mm x 170 x 300 mm long
- Transparent tube - 1 meter long with 25 mm I. D.
- Stand to mount glass tube
- Potassium Permanganate provided as dye.
- Sump Tank - 1000 mm x 300 mm x 400 mm

**Range of Experiments:**

- To determine the Reynolds's number and hence the type of flow either Laminar or turbulent.
- To determine upper & lower critical Reynolds's number's & velocities.

### ▶ KFM-02 Bernoulli's Theorem Apparatus

**Specifications:**

- Tanks : 2 numbers of suitable size mounted on stand of size 200mm x 200mm x 600mm height.
- Flow channel of 750 mm length made out of perspex sheets.
- Piezometer tubes equally spaced at 5 cm
- Measuring tank of size 300 mm x 300 mm x 500 mm.
- Stop clock. Sump tank of size 1000 mm x 300 mm x 400 mm.

**Range of Experiments:**

- Bernoulli's theorem for the flow of real liquid can be verified.
- Hydraulic grade line & the total energy line along the flow section can be plotted & can be studied.



### ▶ KFM-03 Metacentric Height of Ship Model



**Specifications:**

- M. S. tank or size 1000 mm x 700 mm x 300 mm with drain plug.
- A hollow ship model with balancing weight.
- Circular weight 4 in numbers.
- A graduated arc for measuring tilt angle.
- Ship size 300 mm x 300mm x 150 mm height.

**Range of Experiments:**

- Determination of Metacentric Height of a War Ship / Cargo Ship