



## Centrifugal Pump Test Bench (Fixed Speed) (SMT-FM-23-B)

The centrifugal pump demonstration unit is designed for instructional and experiment of Centrifugal Pump. The unit is set up on a stable base plate and includes a pump, tank, all required fittings and devices for flow rate, temperature, and pump speed, intake and discharge pressure. The apparatus has the capability to perform the centrifugal pump characteristics based upon fix speed and fix head of the pump.

### TECHNICAL SPECIFICATIONS

#### Specifications:

- Demonstration model of a centrifugal pump.
- Transparent PMMA tank.
- Measurement of pressure, speed, flow rate.
- Volumetric flow measurement via measuring variable area flow meter.
- Digital display of speed and power.

#### Technical Data:

- Pump:
  - Centrifugal.
  - Power: 1/2hP, 3000 rpm
  - Qmax: 35 L/min
  - Max. Head: 30m.
- Measuring ranges:
  - Pressure Gauge -intake side: -1...+2bar.
  - Pressure sensor -delivery side: -1...+4bar.
  - Velocity sensor: 0...3000rpm.
- L\*W\*H:900\*600\*600
- Weight Approx. 40kg



#### Experiments:

- Recording of characteristic pump curves at constant Pump speed.
- Determination of pump efficiency.
- Effect of speed on discharge quantity and head.
- Power and efficiency curves
- Measuring the electrical drive power
- Determining the hydraulic power
- Calculating the efficiency