

Product Name :

Gear Pump Test Rig for engineering schools

Product Code :

Fluid Machinery006

Description :**Gear Pump Test Rig, technical teaching equipment for engineering**

- The present Gear Pump Test Rig is a self-contained unit operated on closed circuit basis containing a sump tank. The set-up consists of a Gear Pump having a pair of meshed gears, coupled with a DC Motor. Power input to the DC Motor is varied by means of a Thyristor controlled DC Drive to vary the RPM of motor. A RPM Indicator with Proximity sensor indicates the RPM of Pump. Flow of fluid is measured by using measuring tank and stop watch. Vacuum gauge is fitted on suction line and Pressure gauge is fitted on delivery line to measure the pressure.

Experimentation:

- To determine total head, pump output, overall efficiency and pump efficiency.
- To plot Graph: Head vs Discharge Pump efficiency vs Discharge.

Utilities required:

- Electricity supply: Single Phase, 220 V AC, 50 Hz, 5-15 Amp

- Combined socket with earth connection.
- Oil: SAE 20W 40 (30 litres)
- Floor Area required: 1.5 x 0.75 m.

Technical details:

- PumpSpeed:1500 RPM (max.)
- Pressure: 5kg/cm2(max.)
- Drive: 1 HP DC motor with Thyristor controlled DC Drive for variable speed.
- Sump Tank Capacity: 35 Ltrs. (approx.)
- Flow Measurement: Using Measuring Tank (Capacity 20 Ltrs.(approx.)) and Electronic Stop Watch
- Pressure Gauge: Bourdon type
- Vacuum Gauge: Bourdon type
- RPM measurement: Digital RPM Indicator with Proximity sensor
- Energy measurement: Electronic Energy meter, L&T make.
- Instruction Manual: An ENGLISH instruction manual will be provided along with the Apparatus

Technical Specification :

Gear Pump Test Rig

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