

Centrifugal Pump Test Rig (Multi Stage Variable Speed Series & parallel)



Product Categories: [Engineering Equipment](#), [Hydraulic Lab](#)

Product Page:

<https://www.labappara.com/product/centrifugal-pump-test-rig-multi-stage-variable-speed-series-parallel/>

Product Description

Centrifugal Pump Test Rig (Multi Stage Variable Speed Series & parallel)

DESCRIPTION :

The present Centrifugal Pump Test Rig is a self-contained unit operated on closed circuit basis containing a sump tank. The set-up consists of two Centrifugal pumps. Both pump are coupled with individual Motors. Speed Control facility is provided to vary the RPM of motor. RPM Indicator with Proximity sensor indicates the RPM of Pump. Pipeline and valve arrangement provided enables the user to operate the test rig either in single pump operation, parallel mode or in series mode. Flow of water is measured by using measuring tank and stopwatch. Vacuum & Pressure gauges are fitted on suction line and delivery line of each pump to measure the pressure.

The Centrifugal Pump Test Rig allows the students to understand the performance benefits of Centrifugal

Pumps in parallel & series mode as under: -

Speed vs Discharge.

Head vs - Discharge at various speeds.

Efficiency curves at various speed and heads

Electricity supply: Single phase, 220 V AC, 50 Hz, 5-15 amp combined socket with earth connection.

Earth voltage should be less than 5 volts.

Water Supply (Initial fill)

Floor Drain required.

Floor Area required: 2.0 m x 1.5 m

Technical Details :

Pump (2 Nos.) : Centrifugal Type, 2800 RPM (max.)

Medium Flow : Clear Water

Drive : Variable speed.

Sump Tank : Made of Stainless Steel, Compatible capacity

Measuring Tank : Made of Stainless Steel, Compatible capacity

Stop Watch : Electronic

Pressure Gauge : Bourdon type, Range: 0-4 kg/cm²

Vacuum Gauge : Bourdon type, Range: 0-760 mm of Hg

Compound Gauge : Bourdon type, Range: -760 mm of Hg to 2 kg/cm²

Control Panel Comprises of :

RPM measurement : RPM Indicator with Proximity sensor.

Energy measurement : L&T make electronic energy meter.

Standard make On/Off Switch, Mains Indicator, etc.

An ENGLISH instruction manual consisting of experimental procedures, block diagram etc. will be

provided along with the Apparatus

The whole set-up is well designed and arranged on a rigid structure painted with industrial PU Paint.