

Product Name :
Kaplan Turbine Test Rig for engineering schools

Product Code :
Fluid Machinery003

Description :

Kaplan Turbine Test Rig, technical teaching equipment for engineering Our organization is regarded among the authentic manufacturers and exporters of optimum quality **Kaplan Turbine Test Rig**. Highly acknowledged for its corrosion resistance, shock proof body construction and hassle-free operation, offered equipment is extensively demanded among our huge client base.

Description:

- Kaplan Turbine is an axial flow reaction turbine named in honour of Dr. B. Kaplan, a German Engineer.
- This turbine is suitable for low head. The power produced by a turbine is proportional to QH . As the head (H) decreases the discharge (Q) must increase to produce the same power.
- The present set-up consists of a scroll casing housing a runner.
- Water enters the turbine through the stationary guide vanes and passes through the runner axially.
- The runner has a hub and airfoil vanes, which are mounted on it. The water is fed to the turbine by means of Centrifugal Pump.
- The runner is directly mounted on one end of a central shaft and other end is connected to a brake arrangement.
- A transparent hollow cylinder made of acrylic is fitted in between the draught tube and the casing for observation of flow on to the airfoil vanes.

- This runner assembly is supported by thick cast iron pedestal. Load is applied to the turbine with the help of drum brake arrangement so that the efficiency of the turbine can be calculated.
- The set-up is supplied with control panel.
- Pressure and Vacuum gauges are fitted at the inlet and outlet of the turbine to measure the total supply head on the turbine.

Experimentation:

- To study the operation of Kaplan turbine
- To determine the Output Power of Kaplan Turbine
- To determine the turbine efficiency

Utilities required:

- Electricity Supply: Three phase, 420 VAC, 50 Hz, 32 Amp. 4 Pole MCB with earth connection.
- Water supply (Initial Fill)
- Floor Drain Required.
- Floor Area required: 3.5 x 1.5 m
- Tachometer to measure RPM
- Mercury for Manometer (250gms)

Technical Specifications:

- Output Power: 1 kW
- Discharge: 1000 LPM

- Supply Head: 5-8 M
- Normal Speed: 2000 RPM
- Dynamometer: Rope Brake type
- Water Circulation: Centrifugal Pump, CRI/Standard, Make, Capacity 5 HP, 3 Phase
- Discharge Measurement: Pitot Tube with Manometer
- Sump Tank: Capacity 200 Ltrs
- Pressure Measurement: Pressure Gauge & Vacuum Gauge
- Piping & Fittings: Pipes & fittings with flow control valves of suitable size
- Control Panel Comprises of: L&T make Starter, Mains Indicator, MCB for overload protection.
- Instruction Manual: An ENGLISH instruction manual will be provided along with the Apparatus
- Tanks will be made of Stainless Steel
- The whole set-up is well designed and arranged in a good quality painted structure

Technical Specification :

Kaplan Turbine Test Rig

Naugra Export

Website: www.naugraexport.com, **Email:** sales@naugraexport.com

Address: 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India, **Phone:** +91-0171-2643080, 2601773