

Francis Turbine Test Rig



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

Product Page: <https://www.labappara.com/product/francis-turbine-test-rig/>

Product Description

Francis Turbine Test Rig

Francis Turbine is a reaction Turbine, which was developed by English born American Engineer Sir J.B. Francis. The water enters the turbine through the outer periphery of the runner in the radial direction and leaves the runner in axial direction and hence it is called a mixed flow turbine. As the water flows to the runner, a part of pressure energy goes on changing into kinetic energy. Thus the water through the runner is under pressure. The runner is completely enclosed in an air tight casing and the casing runner is always full of water.

The present Set-up consists of a runner. The water is fed to the turbine by Means of centrifugal Pump, radially to the runner. The runner is directly mounted on one end of a central SS shaft and other end is connected to a brake arrangement. The circular window of the turbine casing is provided with a transparent. The circular window of the turbine casing is provided with a transparent acrylic sheet for observation of flow on to the runner. The runner assembly is supported by thick cast iron pedestal. Load is applied to the turbine with the help of brake arrangement so that the efficiency of the turbine can be calculated. A drought tube is fitted on the outlet of the turbine. The Set-up is complete with guide mechanism. Pressure and vacuum Gauge are fitted at the Inlet and Outlet of the turbine to measure the total supply head on the turbine.

Features:

Precise designing

Sturdy construction

Easy maintenance

Technical Details:

Output Power: 1KW or 3 KW

Discharge: 2000 LPM (Approx.)

Supply Head: 15 m (Approx.)

Speed: 1500 RPM (Approx.)

Runner: Having Curved Vanes

Dynamometer: Rope Brake type, Dia 300 mm

Sump Tank: Capacity 400 Ltrs

Water Circulation: Centrifugal Pump, Kirlosker Make, Capacity 15 HP Three Phase

Discharge Measurement: Pitot Tube with Manometer

Control Panel Comprises of:

L&T make fully automatic star/delta 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