

Product Name :
Kaplan turbine test rig capacity

Product Code :
HYDRAULIC0006



Description :

Kaplan turbine test rig capacity

Technical Specification :

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 axial 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 draft tube and the casing for observation of flow. Load is applied to the turbine with the help of rope brake arrangement so that the efficiency of the turbine can be calculated. The set-up is supplied with control panel. A draft tube is fitted on the outlet of the turbine. The set-up is complete with guide mechanism, pressure and vacuum gauges are fitted at the inlet and outlet of the turbine to measure the total supply head on the turbine.

Experiments:

- To study the operation of Kaplan turbine.
- To determine the output power of Kaplan turbine.
- To determine the turbine efficiency.

Utilities required:

- Electricity 3 kw, 220v ac, single phase.

Floor area 1.5 x 0.75 m

Tachometer

Technical Details

Output Power 3 hp 2 hp 1 hp

Discharge 4000 rpm (approx.) 4000 rpm (approx.) 2000 rpm (approx.)

Supply Head 6 m 5 m

Rope Brake Type Dynamometer Dia 300 mm Dia 200 mm Dia 200 mm

Sump Tank capacity 600 ltr. Capacity 400 ltr. Capacity 400 ltr.

Water Circulation Centrifugal Pump

capacity 10 hp three phase


capacity 10 hp three phase

capacity 7.5 hp three phase

Speed 1500 rpm (approx.)

Runner with adjustable curved vanes

Discharge Measurement Flow Tube with Manometer

 **LAB ENGINEERING**
Elab Engineering Equipments Manufacturers