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ETHER ENGINEERS
52, Industrial Estate, Ambala Cantt - 133006
Mb : 098963 33447, 098961 33557, 090340 83447
Website: www.etherengineers.com
Email: etherengineers@rediffmail.com, info@etherengineers.com

Manufacturers & Exporters of Engineering, Scientific & Laboratory Equipments

KAPLAN TURBINE TEST RIG (EE-1549A)

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 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 SS 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 belt 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:

> Water Supply & Drain. Electricity 20 kw, 440V AC, Three Phase.
> Floor Area 1.5x0.75 m.
> Tachometer (to be arranged)

TECHNICAL DETAILS:

> Output Power	:	1Hp
> Discharge	:	1200 LPM(Approx)
> Supply head	:	10-15 m
> Runner	:	with Curved Vanes.
> Dynamometer	:	Rope Brake type, Dia 200mm.
> Sump Tank	:	Capacity 150 Liters.
> Water Circulation	:	Centrifugal Pump, Capacity 5 HP, Three Phase
> Discharge Measurement	:	Venturimeter with Pressure Gauge
> Control panel Comprises of	:	Standard make Starter, Mains Indicator

> Tanks will be made of Stainless Steel.
> The whole set-up is well designed and arranged in a good quality painted structure.

Specification subject to change without period notice