LAB ENGINEERING

Email :
purchase@elabengineeringequipments.com
Phone: +91-9811375383

Product Name :	**Product Code :**
Multi Turbine Test Rig	TOUR0010

Description :

Multi Turbine Test Rig

Technical Specification :

Designed for study of turbine characteristics under various flow rates and heads.
Includes pump, storage tanks, turbine units connected in parallel, dynamometer for each turbine, and instrumentation for measuring flow rate, speed, and torque.
For determining the turbine power, the eddy current brake is equipped with a force sensor for torque measurement.
The speed is captured by means of an inductive, non-contact position sensor at the turbine shaft.
The pressures at the inlet and outlet of the turbine, the temperature and the flow rate are recorded with sensors.
The recorded measured values are displayed digitally and processed further in a PC.
The PC is used to calculate the power output data of the examined turbine and to represent them in characteristic curves.
FEATURES:
Closed water circuit contains multistage centrifugal pump, tank, and inductive flow meter and flow control valve.
Connection to the turbines via flexible hose with quick-release coupling.
Constant torques and speeds can be adjusted.
Digital display for flow rate, pressure and temperature.
Braking torque and speed measured.
Torque vs. speed at various heads and flow rates.
Power output vs. speed for various heads and flow rates.
Efficiency vs. speed for a given head and flow rate.
Racing characteristics.

Supply unit for turbine.
SPECIFICATIONS:
Pelton turbine:
Construction: Stainless steel runner and nozzle.
Stainless steel casing with transparent window to observe hydraulic action.
Maximum power: 400 W of brake power.
Francis turbine:
Construction: Metal runner: Non-corrosion metal
Casing with adjustable guide vanes and transparent window to observe guide vane position.
Maximum power: 400 W of brake power.
Cross Flow turbine:
Construction: Stainless steel runner, and nozzle.
Stainless steel casing with transparent window.
Maximum power: 400 W of brake power.
Pump: 2.2kw.
Dynamometer: Water brake absorber.
Measuring instruments:
Torques: Spring balances absorber.
Pressures: Pressure gauges at turbine inlets.
Sensors with digital display: Flow rate and speeds.
Power supply: 220 V, 1Ph, 50 Hz.