

**Product Name :**  
Pelton Wheel Turbine Test Setup

**Product Code :**  
HML0002



**Description :**

Pelton Wheel Turbine Test Setup

**Technical Specification :**

Pelton Wheel Turbine is only impulse water turbine now in common use named in honor of Sir L.A. Pelton (1829-1908) of California, USA. It is a tangential flow impulse turbine. The water strikes the buckets along the tangent of the runner. The energy available at the Inlet of the Turbine is only kinetic energy. The Pressure at the Inlet and Outlet of the atmospheric. This turbine is used for high heads. The Present Set-up consists of a runner. The buckets are mounted on the runner. The water is fed to the turbine, through SS nozzle with a SS spear, by means of Centrifugal Pump, tangentially to the runner. Row of water into turbine is regulated by adjusting the spear position by the help of a given hand wheel 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 providing with a transparent acrylic sheet for observation of flow on to the buckets. This runner assembly is supported by rigid MS structure. Load is applied to the turbine with the help of this brake dynamometer so that the efficiency of the turbine can be calculated. Pressure Gauge is fitted at the Inlet of the turbine to measure the total supply head to the turbine.

**EXPERIMENT:-**

- 1.To study the operation of a Pelton Wheel Turbine
- 2.To determine the Output Power of Pelton Wheel Turbine
- 3.To determine the Turbine Efficiency

**UTILITIES REQUIRED:-**

- Water Supply and Drain.
- Electricity 15 kW, 440V AC, Three Phase

**MODEL**

Output / Power	15 kW (Approx.)
Supply Head	200 m
Brake Dynamometer	30 k
Capacity	1000 Liters.
Capacity	1000 Liters.
Clearance	300 mm
Phase	Three Phase
Speed	3000 RPM (approx.)
Material	Brass, Bucket type
Material	Stainless Steel/Mild Steel
Material	Stainless Steel/Mild Steel
Discharge	with Manometer
Measurement	Measurement
Control	Delta Starter, Mains
Protection	Relay, MCB for overload protection

The whole set-up is well designed and arranged in a good quality painted structure., Civil Engineering Laboratory Equipments Suppliers, Mechanical Engineering Laboratory Equipments Suppliers

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