



The TH 03.1 equipment simulates a small-scale installation with a Pelton turbine.

The turbine housing is transparent so that can be viewed as the turbine uses the inertia that transfers a water jet which propels the recoil principle.

Through various system indicators, you can view all the variables that come into play in transforming energy.

The braking system by electric brake allows working at different speeds in a simple and effective way.

The equipment is designed for the study and display both the behavior and the characteristics of a Pelton turbine.

LEARNING OBJECTIVES

- Turbine characteristic curves:
 - Torque - speed (M-n).
 - Brake power - speed (Pe- n).
 - Performance - speed (η - n).
 - Torque - U (M-U).
 - Brake power - U (Pe- U).
 - Performance - U (η - U).
- Iso-performance curves.
- Set performance turbine electric generator.

TECHNICAL DATA**Bores:**

- Exterior diameter of the drive pipe = 32mm.
- Interior diameter of the nozzle = 10 mm.

Pressure gauges:

- Bourdon type with glycerin 0-25 m.c.a.

Features electric brake:

- DC generator
- Rated speed: 3000 rpm
- Rated power 1000 W

Turbine features:

- Number of blades: 16.
- Wheel diameter 124 mm.
- Bucket depth 14 mm.
- Jet diameter 10 mm.
- Shaft diameter 16 mm.
- Rated speed 1000 r.p.m.
- Wheel material: Poliamyde.

Other data:

- Speed sensor.
- Load cell.
- Data reading in electronic display.

REQUIREMENTS

- Hydraulics Bench FL FL 01.4 or 01.5 or 01.6 FL.
- Power supply: 230V / 50Hz.

NOTE

The image shown is indicative.