



The TH 03.4 equipment simulates a small-scale installation with a Kaplan turbine.

The wheel blades of the turbine allow variation of the pitch angle manually.

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

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

TH 03.4 - ELECTRIC BRAKE KAPLAN TURBINE

LEARNING OBJECTIVES

- Turbine characteristic curves:
 - Torque - speed ($M-n$).
 - Brake power - speed (P_e-n).
 - Performance - speed ($\eta-n$).
 - Torque - U ($M-U$).
 - Brake power - U (P_e-U).
 - Performance - U ($\eta-U$).
- Iso-performance curves.
- Set performance turbine electric generator.

TECHNICAL DATA

Manometer:

- Bourdon type with glycerin.

Brake Type:

- Electric brake.

Turbine:

- Type: Kaplan
- Number of runner blades: 4
- Angle of the wheel blades: Variable, with manual adjustment.
- Guide vanes

Other elements:

- DC generator 100 W.
- Electronic revolution counter
- Load cell for measuring the torque.

REQUIREMENTS

- Hydraulics Bench FL 01.7.
- Power supply: 230V / 50Hz.

NOTE

The image shown is indicative.