



### GENERAL EXPLANATION

Pelton turbines are a type of turbine often used in dams where high water droplets are present. In these turbines, the speed of the impeller can be changed by adjusting the water flow with the help of the valve. In addition, the efficiency of the water beam can be changed using the deflector. This training set is designed to adopt the basic concepts of pelton turbines.

### EXPERIMENTS

1. Determination of turbine efficiency
2. Determination of turbine specific speed
3. Calculation of turbine efficiency at different speeds
4. Finding suitable flow and head height for maximum yield point
5. Determination of generator efficiency

### DIMENSIONS

A x B x H : 900 x 600 x 1500 mm

### OPTIONAL FEATURES

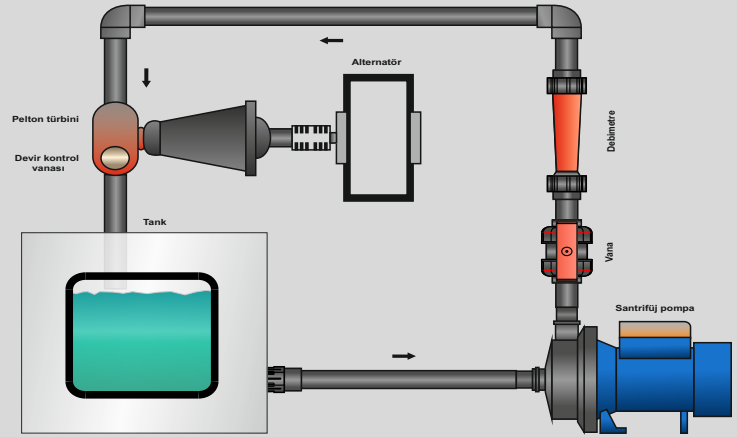
- Touch LCD Display
- USB Computer Connection
- Computer Control

### PACKAGE INCLUDED

Device, device cover, 1 printed experiment report, circuit diagram and product catalog

### TECHNICAL SPECIFICATION

The main parts of the Pelton turbines come from the spouting nozzle and the circle-shaped impeller. The nozzle delivers the water from the liquid pipe to the wheel's lobes like a fixed sprinkler. There is a needle in the nozzle that adjusts by moving in the axial direction. By moving the needle forward and backward, the flow is reduced and increased and the turbine power is adjusted according to the energy taken. At the same time, this needle can completely close the water. The needle needs to be moved slowly to avoid dangerous water bumps in the rough pipe. Water rushes out of the circular tip of your nozzle and strikes the impeller shovels. The alternator connected to the wheel generates electricity by turning the impeller.



### TECHNICAL DETAILS

- Pelton Turbine
- Pressure manometer
- Digital temperature display
- Ball valve
- Liquid tank
- Centrifugal pump
- Rotameter type water flowmeter
- Alternator
- Turbine output power 50 W
- Turbine wheel diameter 150 mm
- Electrical data is digitally measured