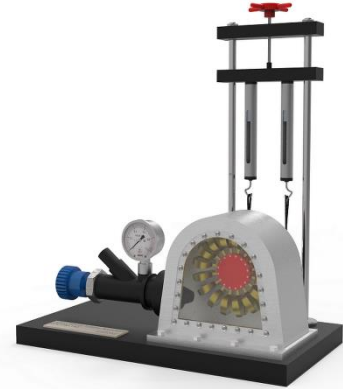


## Pelton Wheel Turbine Apparatus (EDC-FM-142)

### EXPERIMENTAL DATA:

- Design and purpose of a Pelton turbine.
- Resolution of torque, power and efficiency.
- Graphical illustration of characteristic curves for torque, power and efficiency.



### DESCRIPTION:

The Pelton turbine is a type of impulse turbine; such turbines change the pressure energy of water into kinetic energy totally. During the conversion, the water jet is augmented in a nozzle and directed onto the blades of the Pelton wheel obliquely. The water jet is redirected by approximately 180° in the blades. The impulse of the water jet is transmitted to the Pelton wheel.

### SPECIFICATIONS:

- Purpose of a Pelton turbine
- Clear front panel for witnessing the operating area.
- Loading the turbine by use of the band brake.
- Changeable nozzle needle for setting different nozzle cross-sections.
- Instruments: spring balances for defining the torque.
- Flow rate and water supply are fortitude by base module EDC-FM-100.

### TECHNICAL DATA:

- Pelton wheel:
  - 14 blades.
- Pelton turbine
  - output: 5 W at 550 min<sup>-1</sup>, approx.
  - 35 L/min, H=1.5 m.
- Needle nozzle type.

### DIMENSIONS AND WEIGHT:

- L x W x H (mm): 400 X 400X 650 approx.
- Weight: 22 kg approx.

### SCOPE OF DELIVERY:

- 1 x EDC-FM-142
- 1 x Instructional Manual

