

Francis Turbine Apparatus (EDC-FM-144)

EXPERIMENTAL DATA:

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



DESCRIPTION:

The Francis turbine is a type of reaction turbine which converts the pressure energy of the water into kinetic energy in the distributor and in the rotor. The water is nursed in the distributor by means of a spiral covering. The flowing water is enhanced in the distributor by the modifiable guide vanes and engaged onto the blades. The redirection and further hastening of the water in the rotor generates an impulse which is diffused to the rotor.

SPECIFICATIONS:

- Purpose of a Francis turbine
- Clear front panel for witnessing the operating area.
- Loading the turbine by use of the band brake.
- Changeable guide vanes for setting dissimilar angles of attack.
- Flow rate and water supply are fortitude by base module EDC-FM-100.

TECHNICAL DATA:

- Turbine
 - Output: 7W at $n=1100\text{min}^{-1}$, approx. 40L/min, H=6m.
 - Rotor.
- Guide vanes:
 - Adjustable.

DIMENSIONS AND WEIGHT:

- L x W x H (mm): 400 X 400X 650 approx.
- Weight: 21 kg approx.

SCOPE OF DELIVERY:

- 1 x EDC-FM-144.
- 1 x Instructional Manual.

