

Francis turbine

DESCRIPTION

- v The Francis turbine unit is delivered complete with instrumentation and includes a technical and instruction manual.
- v Designed and manufactured to industrial standards.
- v This unit has been designed for different levels and fields of study.



SUGGESTED APPLICATIONS

Collect data to construct various graphs related to turbomachines :

- Torque, power (hydraulic and mechanical), efficiency, and flow according to the rotation velocity for different pressures and vanes
- Iso-efficiency on flow graph according to the rotation velocity

Observe the movement of fluid through the turbine.

TVF 010

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DIMENSIONS

Length : 1460 mm

Width : 700 mm

Height : 1850 mm

UTILITIES

Electricity : 400 VAC Three-phase

Water : 150 L

- 1. Action turbine – Francis type**
Efficiency maximum : 30%
Speed maximum : 3000 RPM
- 2. Electromagnetic brake**
- 3. Tachometer**
NPN inductive sensor on rotation shaft
- 4. Torque sensor**
Force sensor 25 kg
- 5. Fan**
Dissipation of the brake's heat
- 6. Centrifugal pump**
Flow rate 33 m³/h
Power 4 kW
Speed 2900 RPM
- 7. Variable section flow meter**
0-33 m³/h
- 8. Pressure manometer**
0-4 bars (0 – 60 psi)
- 9. Polypropylene tank – 210 L**
- 10. Suction tube**
Creation of a depression at the outlet of the turbine