

HT 701 MINI PELTON/FRANCIS TURBINE TEST SET



GENERAL DESCRIPTION

This is a self contained bench top set of Pelton and Francis turbines, designed for studying the turbine characteristics under various flow rates and heads.

The unit consists of a pump, a storage tank on a steel base, a Pelton and a Francis turbines connected in parallel, a dynamometer for each turbine, and measuring instruments.

TYPICAL TESTS

Each turbine can be tested on the following

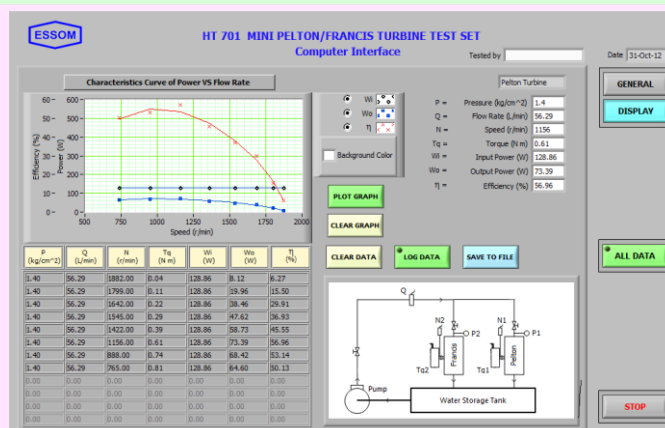
- Torque vs speed at various heads and flow rates.
- Power output vs speed for various heads and flow rates.
- Efficiency vs speed for a given head and flow rate.
- Racing characteristics.

TECHNICAL DATA

- Mini Pelton turbine :
 - Construction : Stainless steel runner, nozzle and casing with transparent window to observe hydraulic action.
 - Maximum power : 40 W of brake power.
- Mini Francis turbine :
 - Construction : Metal runner.
 - Maximum power : 25 W of brake power.
- Pump : 0.55 kW.
- Dynamometer : Mechanical brake absorber.
- Measuring instruments :
 - Torques : Spring balances.
 - Speeds : Portable tachometer.
 - Flow rate : Water meter.
 - Pressures : Pressure gauges at turbine inlets.
- Power supply : 220 V, 1 Ph, 50 Hz. Other power supply is available on request.

OPTIONAL EQUIPMENT

- HT 010 Electric generator with voltage and current digital display and lamp load.
- HT701-050 Mini Pelton/ Francis Turbine Computer Interface
This includes sensors, instead of water meter, pressure gauge, portable tachometer, and spring balances; computer interface unit, and software for data display and analysis by computer (separately supplied).
- HT 701-601 Mini Kaplan turbine unit
Capable of generating over 15 W of brake power, metal runner, adjustable guide vanes, non-corrosion metal casing with transparent window and runner section. The unit supplied with storage tank.
- HT 701-501AI Mini Axial flow impulse turbine unit
Capable of generating over 25 W of brake power, metal runner, stainless steel twin nozzles, stainless steel casing with transparent discharge window. The unit supplied with storage tank.



Net (unpacked) shipping dimensions WxLxH

: 45 x 106 x 110 cm

Net weight

: Approx. 90 kg

