

► KFM-18 Kaplan Turbine Test Rig.



Specifications:

- A Pressure gauge and Vacuum Gauge for head measurement. Rope brake arrangement by two circular balance methods. 300mm dia. cast iron water-cooled brake drum mounted on the main shaft with bearings for load test. The head of the turbine is 5 to 8 meters and discharge about 1500 LPM.
- 5 HP pump set suitable for supplying water to the above turbine and for operation on 400 Volts 3 phase 50 cycles AC mains.
- TPIC Switch and DOL, starter for the Pump set.
- Flow measuring unit, consisting of 150mm Orifice meter and pressure gauge.
- Piping system consisting of pipes, valves, and fittings complete set suitable for the test rig.
- Fiber glass lined MS. Sump of size 1500mm x 1000mm x 550mm height to store sufficient water for independent circulation through the unit for experimentation and arranged within the floor space of the main unit.
- Rigid M. S. framework compactly tilted with all the above items as a self-sufficient package unit suitable for operation without any foundation.

Range of Experiments:

- To find out efficiency of a Kaplan Turbine at various speeds.

► KFM-19 Francis Turbine Test Rig.



Specifications:

- Francis Turbine Horizontal type of size 75 mm, develop about 1kW output, made of cast iron spiral casing, bearing housing and Airfoil shaped gun metal guide vane and gun metal runner. Transparent outlet pedestal with stainless steel draft tube.
- The cast iron external bearing pedestal for longer bearing life. A Cast iron base plate and slotted dead weights for conducting experiments in metric units. Pressure gauge and a vacuum gauge for head measurement in meters. 300mm dia. cast iron water-cooled brake drum mounted on the main shaft with bearings for load test. The head of the turbine is 10 meters and discharge at about 1000 LPM
- 5 HP supply pump set 75mm size, 1000 LPM at 14 meters head suitable for supplying water to the above turbine and for operation on 400 Volts 3 phase 50 cycles AC mains.
- Switch and DOL Starter suitable for the above Mono block pump set, mounted on a panel board.
- Flow measuring unit, consisting of a suitable orifice meter, pressure gauges.
- Piping system consisting of pipes, valves, fittings complete with suitable for the test rig.
- Fiber glass lined M. S. Sump of size 1500mm x 1000mm x 550mm height to store sufficient water for independent circulation through the unit for experimentation and arranged within the floor space of the main unit.
- Rigid M. S. framework compactly tilted with all the above items as a self-sufficient package unit, suitable for operation without any foundation. Note: Space required 2m x 1m x 2.5m height

Range of Experiments:

- To find out efficiency of a Francis Turbine at various speeds.