

LOSSES DUE TO FRICTION IN PIPE LINES APPARATUS (EE-1525)

The setup consists of 2 pipes of different diameters, which are connected in parallel. Pressure tapings are provided on each pipe to measure the pressure losses with the help of a Differential Manometer. Control valves are fitted on each pipe, which enables to use one pipe at a time for experiment.

Present set-up is self-contained water re-circulating unit, provided with a sump tank and a centrifugal pump etc. Flow control valve and by-pass valve are fitted in water line to conduct the experiment on different flow rates. Flow rate of water is measured with the help of measuring tank and stop watch.

SCOPE OF EXPERIMENTATIONS:

- To determine the losses due to friction in pipes.

UTILITIES REQUIRED:

- Water Supply.
- Drain
- Electricity 0.5 kw, 220V AC. Single Phase.
- Floor Area 1.5 x 0.75 m.



TECHNICAL DETAILS:

- Pipes (2 Nos.) : Material GI of ½” & 1” diameter.
- Pipe Test Section : Length 1 m.
- Water Circulation : FHP Pump, Kirloskar/Standard make.
- Flow Measurement : Using Measuring Tank with Piezometer, Capacity 25 Ltrs.
- Sump Tank : Capacity 50 Ltrs.
- Stop Watch : Electronic
- Control Panel Comprises of:
Standard make On/Off Switch, Mains Indicator etc.
- Tank will be made of Stainless Steel.
- The whole set-up is well designed and arranged in a good quality painted structure.