



DARCY'S LAW APPARATUS EE-1536

The set up consists of a cylindrical test section filled with porous medium. Pressure tapping are provided in the test section to measure the pressure drop with help of differential manometer. Control valves are fitted in the water line to regulate flow of water in the section. It should be 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 different flow rates. Flow rate of water is measured with the help of measuring tank and stop watch.

SCOPE OF EXPERIMENTATIONS:

- To determine the co-efficient of permeability through porous media
- To determine the friction factor for Darcy –Weisbach equation.

UTILITIES REQUIRED:

- Water Supply.
- Drain
- Electricity 220V AC, Single Phase.
- Space required: 2 x 1 m.



TECHNICAL SPECIFICATIONS:

- Cylinder : Material S.S. Dia. 120 mm (Approx)Height 500 mm (Approx)
- Water Circulation : FHP(Crompton / standard Make)
- Flow Measurement : Using Measuring Tank with piezometer
- Measuring Tank : S.S (25 liter Capacity Approx)
- Sump Tank : Capacity 50 liter Approx,made S.S
- Stop Watch : Electronic
- Control panel : Standard make On/Off switch, Mains Indicator etc

The whole set-up is well designed and arranged on a good quality painted structure.