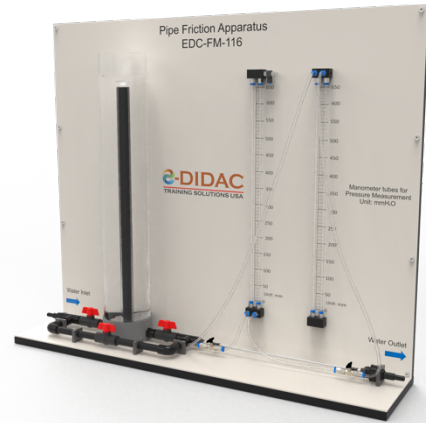


Pipe Friction for Laminar and Turbulent Flow Apparatus (EDC-FM-116)

EXPERIMENTAL DATA:

- Pressure loss measurement in laminar and turbulent flow
- Finding the critical Reynolds number
- Finding the pipe friction loss in a small-bore pipe
- Comparison of the actual pipe friction factor with the theoretical friction factor



DESCRIPTION:

Pipe Friction Apparatus allows students to study the change in the laws of resistance for laminar to turbulent flow and find the critical Reynolds number. This Unit enables the study of the relationship between pressure loss due to fluid friction and velocity in the pipe flow. Additionally, the pipe friction factor is determined. This unit includes a small diameter pipe section in which the laminar and turbulent flow is generated. The Reynolds number and the pipe friction factor are determined from the flow rate and pressure loss. In turbulent flow, the pipe is supplied directly from the water supply. The constant pressure at the water supply required for laminar flow is provided by a standpipe on the overflow. Valves can be used to adjust the flow rate. The pressures in laminar and turbulent flow are measured with twin tube manometers.

This unit can be operated by Laboratory supply or with Hydraulic Bench (EDC-FM-100).

TECHNICAL DATA:

- Pipe section:
 - Material: S.S
 - Length: 500mm.
 - Inside diameter: 3mm.
- Tank:
 - Transparent PMMA
 - Approx. 3L.
- Manometers:
 - Differential pressure: 2x 500mmWC

DIMENSIONS AND WEIGHT:

L x W x H (mm): 800 x 650 x 900

Weight: 21 kg

SCOPE OF DELIVERY:

- 1 x EDC-FM-116
- 1 x Instructional Manual

