FLUID MECHANICS

FML 15.13 FRICTION IN LAMINAR AND TURBULANT FLOW MODULE



GENERAL EXPLANATION

This training set is designed to show the velocity between the pressure loss due to fluid friction and the flow rate in the laminar and turbulent flow. In addition, the pipe friction factor can be calculated.

EXPERIMENTS

- 1. Coefficient of friction in laminar flow
- 2. Coefficient of friction in turbulent flow

PACKAGE INCLUDED

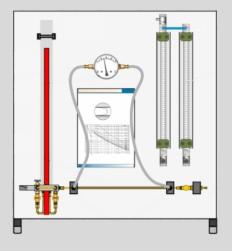
Device, device cover, 1 printed experiment report, circuit diagram and product catalog

DIMENSIONS

A x B x H : 850 x 700 x 950 mm

TECHNICAL SPECIFICATION

During flow through the pipe there is friction between the fluid and the wall, resulting in pressure losses due to friction. Pressure losses are different for laminar and turbulent flow. When calculating pressure losses, a pressure factor with a dimensionless number must be known. The friction factor is determined by the Reynolds number, which describes the ratio of inertial forces to friction forces.



TECHNICAL DETAILS

- Tube manometer
- Differential pressure with Bourdon type manometer
- Overflow tank
- Thin flow pipe
- Flow regulating valves