

Product Name :
Energy Losses in Bends

Product Code :
CHINAELABC3710005



Description :

Energy Losses in Bends

Technical Specification :

The Fluid Science Energy Losses in Bends Systems Tray provides hands on experimentation designed to demonstrate energy losses due to the geometry of the flow path at different flow rates. Utilising the service unit the experiments rapidly mount onto the multifunctional work panel and is connected to the built-in water supply via quick connect couplings.

Differential pressure reading is taken using a digital manometer against varying flow rates.

The tray includes the following Hydraulic Circuits:

Energy losses in Bends

Shallow bend Radii 75mm, 6mm diameter

Tight Bend Radii 25mm, 6mm diameter

Mitre Bend, 6mm diameter.

Technical Specifications:

Explanation of basic principles such as conservation of mass

Conservation of energy

Explain energy loss and frictional loss

Types of flow steady and unsteady flow, uniform and non-uniform flow etc

Types of fluid flow regime i.e. laminar, turbulent and transitional flow

Compare measured pressure drop from 3 different pipe forms, explaining the effect of geometry on pressure drop

Using Bernoulli's equation, calculate the pressures and compare results with experimental values



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