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Product Name :
Energy Losses in Straight Pipes

Product Code :
LBNY-0005-2030004



Description :

Utilising the service unit the experiments rapidly mount onto the multifunctional workpanel 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 Fluid Energy Losses in Straight Pipes Tray provides hands on experimentation designed to demonstrate energy losses due to the geometry of the flow path at different flow rates.

The tray includes the following Hydraulic Circuits:

Contraction and expansion 8mm 4mm 8mm diameters

Smooth and Roughened pipe 6mm diameter

Technical Specification :

Explanation of basic principles such as conservation of mass

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.

Conservation of energy

Explain energy loss and frictional loss

Calculate the frictional head loss and pressure drop using

Darcy's equation

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.



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