



Product Code . LSK-FM-10471

Flow Through an Orifice

Description

Flow through an Orifice apparatus allows students to measure:

Decrease in flow

Energy loss

Contraction of the stream

The apparatus works with Digital Hydraulic Bench and stands on the hydraulic bench worktop. The equipment has a transparent cylindrical tank, with a mounting in the base for different orifices.

Manometers measure the total head on the orifice and under the jet. A traverse assembly holds a Pitot tube which students can position anywhere in the jet.

They find these measurements as water leaves an orifice. Students can also use the apparatus to study different shapes of orifice.

A sharp blade accurately measures the jet diameter. This allows students to find the contraction coefficient.

The apparatus with a sharp-edged orifice already mounted. Water flows into the tank from the hydraulic bench through an adjustable diffuser. The flow rate and an overflow pipe set the water level. To change the level in the tank (and so the head on the orifice), students adjust the flow to the diffuser. Water leaves the tank through the orifice. The jet that leaves the orifice discharges into the

hydraulic bench measuring tank.
