



FLUID MECHANICS

OSBORNE-REYNOLD'S DEMONSTRATION APPARATUS



DL DKL142

The objective of this trainer is to recreate the experiment of Osborne Reynolds by reproducing laminar, turbulent and transition flows. Assigning the corresponding Reynolds number to each of them.

The trainer includes a water supply system for a constant feeding to the calibrated center glass tube, where the different types of flow can be displayed.

A colored liquid can be injected from the tank placed at the top of the system into the central glass tube; the color allows the observation of different phenomenon.

Either the dye deposit and the glass tube are equipped with valves to regulate respectively the amount of colorant and flow.

TRAINING OBJECTIVES

Study and determination of Reynolds number for:

- Laminar flow regime
- Transition flow regime
- Turbulent flow regime

TECHNICAL DATA

Inner diameters:

- Calibrated glass tube:
 - Inner diameter= 12mm - Length= 750mm

Dye:

- Acrylic ink

Dimension:

- 450mm x 660mm x 1,350mm

Necessary accessory:

DL DKL-014 – Hydraulic bench

The basic hydraulic bench is a simple, mobile, self-contained module that allows a supply of "hydraulic energy", i.e. an accurately controlled and measurable flow of water.

It includes two collecting tanks, a centrifugal pump, a flowmeter, a mobile frame work on wheels, a set of valves and piping.

