

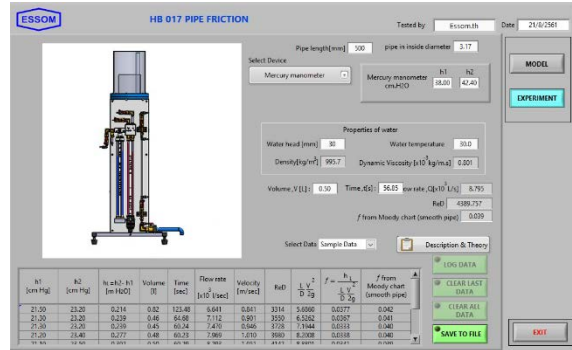
## HYDRAULICS BENCH ACCESSORIES

This apparatus is to be used with Hydraulics Bench such as HB100 or HB100N (both are separately supplied) for a water supply and flow measurement. Instruction manual is also included.

### HB 017 PIPE FRICTION



*Photograph includes optional equipment*



#### GENERAL DESCRIPTION:

This equipment measures pressure drop when water flows through a vertical pipe at various flow rates both laminar and turbulent. It is to be used with Hydraulics Bench i.e. HB100 or HB100N (separately supplied).

It consists of adjustable constant head water source of removable clear acrylic cylinder for laminar flow. Turbulent flow may be achieved by directly connecting the pipe to the Hydraulics Bench water supply. A water manometer with a vent valve, a hand air pump and a differential pressure gauge are provided for measurement of pressure drop. A valve at the outlet is used to control outlet pressure.

#### EXPERIMENT CAPABILITIES:

- Investigations of laminar and turbulent flows
- Demonstration and measurement in a change of the laws of resistance (friction factor) from laminar to turbulent flow

#### TECHNICAL DATA:

- Water manometer : 450 mm x 1 mm graduation
- Differential pressure gauge : 1 ea.
- Test section length : Over 500 mm.
- Measuring cup : 1 L.
- Software for data display and analysis by computer (separately supplied)

#### OPTIONAL EQUIPMENT:

- Horizontal test pipe instead vertical
- HF 033A Differential pressure digital display instead of differential pressure gauge
- HF 033B Mercury manometer instead of differential pressure gauge
- **Note:** Due to transport laws, mercury cannot be supplied. Buyer must source it locally.
- HF033C Portable differential pressure meter instead of differential pressure gauge
- Other optional equipment, please contact manufacturer (essom@essom.com)

**Net (unassembled) Shipping Dimensions WxLxH** : 36 x 36 x 115 cm  
**Net Weight** : Approx. 10 kg

