

FLUID MECHANICS



PROPERTIES OF FLUIDS



DL DKL301

Equipment designed for studying the properties of fluids.

TRAINING OBJECTIVES

- Measurement of densities using gauges.
- Measurement of densities using a pycnometer.
- Study and demonstration of the capillary in tubes.
- Study and demonstration of the capillary between plates.
- Viscosity determination.
- Measure of atmospheric pressure using an anaerobic barometer.
- Archimedes' law.

TECHNICAL DATA

- Aluminum structure with phenolic resin panels.
- Density gauges:
 - Density range 0.600 0.700 with 0.01 scale
 - Density range 0.650 1.000 with 0.005 scale
 - o Density range 1.000 2.000 with 0.005 scale
- Thermometer: from -10°C to +60°C
- Electronic precision balance: 500g x 0.1g
- Gay-Lussac pycnometer: 50ml
- 600 ml glass
- 1 liter test tube (glass)
- Falling ball viscometer: inner Ø= 32mm large= 450mm (x2)
- Steel ball:
 - o Ø1.58 (1/16)
 - o Ø2
 - o Ø3
 - o Ø3.175 (3/32)
- Plastic test tube: 250ml
- Dynamometer: 1kg x 5gr