

PARTICLE DRAG COEFFICIENTS

Mod. PDC/EV

DESCRIPTION

The device is designed to show the relationship between the drag coefficients of falling spheres and their Reynolds' number value.

The spheres fall through a number of different liquids contained in 2 vertical glass tubes. As the spheres have a projected area of only 1% max of the tube cross-section, wall effect is reduced to a minimum.

Timing the passage of the particle between two marks on the walls of the glass tubes allows measuring their rate of fall. Different particles covering a range of sizes and densities are supplied.

TRAINING PROGRAM:

- Measurement of drag coefficients of spheres as a function of their Reynolds' number
- Effect of particle shape on rate of fall and on drag coefficient
- Effects of boundary layer separation on motion of spheres

TECHNICAL CHARACTERISTICS:

- Wall mounted compact apparatus
- Two transparent vertical glass tubes, height 1500 mm, internal diameter 92 mm, complete with calibration marks for timing
- Fluorescent lamp on the backside to make easier the visualization of the phenomenon
- Device to insert easily the particles at the top of the tube
- Device to remove easily the particles from the bottom of the tubes
- Spheres of different sizes and materials
- Two streamlined shapes
- Stopwatch
- Glass beaker

Power supply: 230 Vac 50 Hz single-phase - 0.2 kVA
(Other voltage and frequency on request)

Dimensions: 550 x 200 x 1600 (h) mm

Weight: 70 kg approx



SUPPLIED WITH

**THEORETICAL-EXPERIMENTAL
MANUAL**

