

HF 111 PARTICLE DRAG COEFFICIENTS

GENERAL DESCRIPTION:

The apparatus is designed to study the drag of a particle in a liquid under various Reynold numbers.

This is done by dropping a particle into a vertical liquid column and timing its fall between two points. Particle cross section is no more than 1% of the tube cross section. Various sizes and density of particles are supplied including stream lined shaped objects.

A guide at the top of the tube is provided to minimize disturbance to the liquid. Valves at the bottom of the tubes provide a mean for particle removal with minimum loss of the liquid. The rear panel is translucent with back lighting. This allows clear observation of the particle fall.

Instruction manual is also included.

EXPERIMENT CAPABILITIES:

- Measurement of drag coefficients of sphere under various Reynold numbers.
- Effect of particle shape on rate of fall and drag coefficient.
- Effect of boundary layer separation on motion of sphere.
- Exploration of dynamic similarity.
- Determination of viscosity.

TECHNICAL DATA:

- Glass tubes : 2 ea.
- Ball spheres : 5 different diameters.
- Streamlined object : 2 x stainless steel
- Lamp : 2
- Stop watch : 1
- Software for data display and analysis by computer (separately supplied)
- Power supply : 220V, 1 Ph, 50 Hz. Other power supply is available on request.



Net (unpacked) shipping dimensions WxLxH : 41 x 50 x 172 cm
Net weight : Approx. 45 kg