

Product Name :

Osborne Reynolds Apparatus

Product Code :

Fluid00006

**Description :**

Osborne Reynolds Apparatus

Technical Specification :**Osborne Reynolds Apparatus**

Osborne Reynolds Apparatus **Osborne Reynolds' Apparatus** can be floor or bench mounted and is developed for the vertical flow of a liquid through a precision bore glass tube. The utilize of a vertical direction for the flow compensates for the impact of any small separations of the density of dye relative to that of the performaing fluid.

The operating fluid may be delivered from any small bore supply point via the flexible hose given. Fluid enters a cylindrical constant head tank from a ring diffuser & then through a stilling bed in order to eliminate any gross variations of fluid velocity in the head tank.

This tank therefore provides uniform, low velocity head conditions upstream of the entry to the vertically mounted pipe test section. Fluid enters this section through a profiled bellmouth, designed to uniformly accelerate the fluid without any spurious inertial effects.

The cylindrical pipe test section is mounted inside a fabricated shroud that provides an uninterrupted white background for observations of the dye trace behaviour. Dye solution is admitted to the test section through a fine diameter stainless steel tube and the rate of flow of dye is controlled by a needle valve on the outlet of the dye reservoir. The dye injection system can be readily removed for cleaning and maintenance.

The flow rate of the working fluid through the test section is regulated by a globe valve located in the base of the apparatus. The rate may be measured either volumetrically or by weighing (equipment for this purpose is not supplied) The apparatus is compatible with any means chosen to alter the kinetic viscosity of the fluid, either by using different fluids or by altering the temperature of a given fluid (the external circuit for this is not supplied).

The whole apparatus is mounted on a substantial fabricated steel support and a means is provided for leveling the apparatus to ensure the test section is vertical. The stilling bed, all necessary connecting hoses, an initial supply of dye and an instruction manual are supplied with the apparatus.

Specification:

- Fluid enters a vertically mounted test section through a carefully profiled bell mouth from a constant head tank.
- Floor standing apparatus to produce classic Osborne Reynolds' experiments.
- An easily cleaned dye injection system is incorporated.

- Fluid flow is controlled by a needle point globe valve.
- Supply comprises stilling bed, hoses & dye

Electrical and Electronics

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