

Order Code -22235597.3 **Laminar and Turbulent Flow Apparatus** 



## **TECHNICAL DESCRIPTION:**

The type of flow in which the particles move in a straight line in the form of a thin parallel sheets is known as the Laminar flow. Laminar flow denotes a steady condition where all stream lines follow parallel paths. Under this condition, the dye will remain easily identifiable as a solid

The type of flow in which the particles move in a zigzag pattern is known as the turbulent flow. Turbulent flow denotes as unsteady condition where stream lines interact causing shear plan collapse and mixing occurs. As the flow rate is increased, the transition from laminar to turbulent flow is a gradual process. This zone of change is defined as transitional flow. This will appear as a wandering dye stream prior to dispersion as turbulence occurs.

## **EXPERIMENTAL STUDY OF LAMINAR, TRANSITIONAL AND TURBULENT FLOW:**

- Osborne Reynolds apparatus.
- Osborne Reynolds apparatus includes the following parts:
- Support columns.
- Visualization pipes.
- Outlet control valve.
- Needle.
- Reservoir.
- Marble glasses (kanchi) for smoothness of flow.
- Starter.
- Overflow pipe.
- Inlet pipe.
- Dye reservoir.
- Bil mouth.
- Dye control valve.

## **SCOPE OF DELIVERY:**

- 1 Self-contained "Laminar and Turbulent Flow Appratus" Apparatus.
- 1 Instruction Manual consisting of experimental procedures, block diagram etc.

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.



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