

## Plug Flow Reactor (Straight Tube Type)



**Product Categories:** [Chemical Reaction Engineering Lab](#), [Engineering Equipment](#)

**Product Page:**

<https://www.labappara.com/product/plug-flow-reactor-straight-tube-type/>

### Product Description

#### Plug Flow Reactor (Straight Tube Type)

In an ideal Plug Flow Reactor (PFTR) there is no mixing in the direction of flow and complete mixing perpendicular to direction of flow. Concentration of reactants varies along the length of reactor but not in radial direction. This set-up is used to study a non-catalytic homogeneous reaction under ambient condition. The set up consists of two feed tanks through which two reactants are fed to the reactor. Rota-meters are provided to measure the individual flow of Chemicals. The flow rate can be adjusted by operating the needle valves provided on respective Rota-meter. The compressed air is used for circulation of feed. A straight tube type reactor kept horizontally and inclined upward at outlet from where samples are collected for analysis. Pressure Regulator, Pressure Gauge and Safety Valve are fitted in the compressed air line.

#### Technical Detail:

Reactor: Material Borosilicate Glass, OD-32 mm, ID-25 mm, Length-1200 mm

Feed Tank (2 Nos.): Material Stainless Steel, Capacity - 20 Ltrs.

Feed Circulation: By compressed air.

Flow Measurement: Rota-meter 2 Nos. (One each for Reactants).

Piping: Stainless Steel and PVC

Pressure Regulator: 0-2 Kg/cm<sup>2</sup>.

Pressure Gauge: Bourdon type 0-2 Kg/cm<sup>2</sup>.

Stop Watch: Electronic.

The whole unit is assembled rigidly on a base plate and mounted on a stand.