

RTD Studies In Plug Flow Reactor (Coiled Tube Type)



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

Product Page:

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

Product Description

RTD Studies In Plug Flow Reactor (Coiled Tube Type)

Description:

Real reactors do not satisfy the idealized flow patterns, back mix flow or plug flow deviation from ideality can be due to channeling of fluid through the vessel, recycling of fluid within the vessel or due to the presence of stagnant region or pockets of fluid in the vessel. To predict the exact behaviour of a vessel as a Chemicals reactor, RTD or stimulus response technique is used. The setup consists of one feed tank through which water is fed to the reactor. The flow rate can be adjusted by operating the needle valve and measured by Rota-meter.

The compressed air is used for circulation of feed. It is a helical coil tube type plug flow reactor made up of Stainless steel pipe. Reactants enter at lower end coming out of the top of coil from where samples are collected for analysis. For understanding the R.T.D. characteristics, a special arrangement to inject tracer into the lower end of reactor, using a syringe is provided. Pressure Regulator & Pressure Gauge are fitted in the compressed air line.