ETHER
Engineering Educational Equipments
An ISO 9001 : 2015 Certified Co.

PFR COILED TYPE (REACTION & RTD)
Make : ETHER
Model No : EE-1663 A

DESCRIPTION

The set up should consists of two feed tanks through which two reactants are fed to the reactor. It is a helical coil tube type reactor. Rotameters are to be provided to measure the individual flow of Chemicals. The flow rate can be adjusted by operating the needle valves provided on respective Rotameter. The compressed air is used for circulation of feed. Samples are collected for analysis from the outlet of reactor. Pressure Regulator, Pressure Gauge and Safety Valve are fitted in the compressed air line. For understanding the R.T.D. characteristics, a special arrangement should be provided to inject tracer into the lower end of reactor, using a syringe.

EXPERIMENTATION:

- To perform kinetic studies and RTD studies.

UTILITIES REQUIRED:

- Compressed air supply at 2 bar, 0.5 CFM
- Water Supply.
- Drain.
- Floor Area Required: 1 m x 0.75 m.
- Instruments, Laboratory Glassware and Chemicals required for analysis as per the system adopted

TECHNICAL DETAILS:

- Reactor : Material Stainless Steel, Volume (0.6-0.7) ltrs (approx.) (Helical Coiled Tube Type)
- Feed Tank (2Nos.) : Material Stainless Steel, Capacity - 20 Ltrs (approx.)
- Feed Circulation : By compressed air.
- Flow Measurement : Rotameter 2 Nos. (One each for Reactants),
- Piping : Stainless Steel and PU pipe
- Pressure Regulator : 0-2 Kg/cm^2
- Pressure Gauge : Bourdon type 0-2 Kg/cm^2
- Stop Watch : Electronic
- Arrangement should be done to inject tracer into the lower end of reactor.
- An ENGLISH instruction manual consisting of experimental procedure, block diagrams etc. will be provided along with the Apparatus.
- The whole set-up must be well-designed and arranged on a rigid structure painted with good quality paint