

Isothermal Batch Reactor



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

Product Page: <https://www.labappara.com/product/isothermal-batch-reactor/>

Product Description

Isothermal Batch Reactor

Description:

A batch reactor is a closed system with no input and output streams. A batch reactor can operate under conditions like Iso-thermal (Temperature of Reaction Mass remains constant), Perfectly mixed (composition of reaction mixture is uniform throughout), and constant volume (volume of the reaction mixture within the reactor remains constant, there is no appreciable change in the density of reaction mass).

This set-up is used to study a non-catalytic homogeneous reaction under iso-thermal condition. The set up consists of a Reactor fitted in a constant temperature water bath. One stirrer is fitted for mixing the reactants in reactor and other is fitted in water bath to keep the uniform temperature throughout in the bath. The temperature of bath can be maintained from ambient to 90 C with the help of Digital Temperature indicator Cum Controller. Samples can be taken out with the help of a sampling pipette.

Technical Details:

Reactor : Material Stainless Steel, Volume- 2 Ltrs. (Approx.)

Water Bath : Material Stainless Steel, Double wall, insulated with Ceramic Wool.

Heater : Nichrome wire Heater

Agitator : Material Stainless Steel Impeller and shaft coupled with FHP motor

Stirrer : Stainless Steel Impeller and shaft coupled with FHP motor.

Product Analysis : By using Electronic Sensor, Output 4-20 mA.

Temp. Measurement : Temperature transmitter-1No. RTD PT-100 type

Digital Temp. Controller : PID Controller, 0-199.9°C, (For Water Bath)