

## Microlabequipment-Isothermal Continuous Stirred Tank Reactor Compressed Air Feed System manufacturer in india (MTCRE-102A)



CRE Lab- homogeneous

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Saponification Reaction study in Isothermal CSTR. To determine the Reaction Rate Constant and effect of temperature on it.

- **Electricity Supply:** Single Phase, 220 V AC, 50 Hz, 5-15 Amp combined socket with earth connection. Earth voltage should be less than 5 volts.

- **Compressed Air Supply:** 0.5 CFM@2 Bar
- Water Supply.
- Floor Drain.
- **Floor Area Required:** 1 m x 0.75 m.

Instruments, Laboratory Glassware and Chemicals required for analysis as per the system adopted.

### **Specifications :**

- **Reactor :** Material Stainless Steel, Capacity 2 Ltrs. (Approx.)
- **Water Bath :** Material Stainless Steel, Double wall, insulated with Ceramic Wool
- **Heater :** Ni-chrome wire Heater
- **Stirrer (2Nos.) :** Stainless Steel Impeller and shaft coupled with FHP Motor (One each for Water Bath and Reactor).
- **Feed Tank (2Nos.) :** Material Stainless Steel, Capacity- 20 Ltrs. (Approx.)
- **Feed Circulation :** By compressed air.
- **Flow Measurement :** Rotameter-2Nos. (One each for Reactants).
- **Piping :** Stainless Steel and PU pipe.
- **Pressure Regulator :** 0-2 Kg/cm<sup>2</sup>
- **Pressure Gauge :** Bordon type 0-2 Kg/cm<sup>2</sup>
- **Temp. Sensor :** RTD PT-100 type
- **Control panel comprises of :**
- **Digital Temp. Controller :** PID Controller, 0-199.9°C (For Hot Water Bath)

With Standard make on/off switch, Mains Indicator etc.

An ENGLISH instruction manual consisting of experimental procedures, block diagram etc. will be provided along with the Apparatus. The whole set-up is well designed and arranged on a rigid structure painted with industrial PU Paint.