

## MT-007 MASS TRANSFER WITH CHEMICAL REACTION



**DESCRIPTION:** In this reactor contents are well stirred with the catalyst and uniform throughout. Thus exit stream from this reactor has the same composition as the fluid within the reactor. We can refer also mixed type reactor

### **RANGE OF EXPERIMENTS TO BE CARRIED OUT :**

1. To study mass transfer with chemical
2. To calculate the rate constant  $k$  of given reaction

### **EXPERIMENTAL SETUP**

Reactor	:	Material Stainless steel (SS) ,
Flow Measurement	:	1 No. Pre calibrated Rota meter
Feed Tank	:	2 No. of stainless steel feed tank
Feed Circulation	:	By Compressed Air
Pressure Regulator	:	0 – 2 kgf / cm <sup>2</sup>
Pressure Gauge	:	Bourdon type 0 – 2 kgf / cm <sup>2</sup>
Water Bath	:	Material SS , Double Wall , \ Insulated with glass Wool
Heater	:	Nichrome wire heater
Stirrer	:	1 No. SS impeller and shaft coupled to FHP Motor
Digital Temp Indicator	:	0 – 200 0 C , Indicator cum Controller
Temp Sensor	:	CR/AL Type
Piping	:	SS, PVC
Setup Mounting	:	On sturdy MS stand with powder coated.

**SPACE REQUIRED :** 1.5 m. ( L) x 1.0 m (W) X 1.5 m (H).  
**SERVICE REQUIRED:** Air Supply : @ 6 CFM, at 4 Kg /cm<sup>2</sup>  
Power Supply : 230V, 50Hz, A. C.  
**CHEMICALS REQUIRED:** NaOH, Ethanol, Phenolphthalein indicator,  
Acetic acid, Distilled water.  
**WEIGHT** : @ 55 Kg