

## ABSORPTION IN WETTED WALL COLUMN (EE-1632)

The set up consists of a glass column. Alkaline liquid is fed at the top of the column along the walls to create a laminar liquid flow along the walls of a wetted wall column. Flow rates of Air and Co<sub>2</sub>, are measured separately, mixed in a mixing chamber and then passed through the column vertically upward and absorbed in liquid film around the wall. All the flow rates can be independently varied to simulate different conditions. Liquid Sample can be taken out from the sampling point at the bottom of the column for analysis.

### EXPERIMENTATION

- To determine the number of transfer units, Height of transfer unit and overall mass transfer co-efficient for the given system.

### UTILITIES REQUIRED

- Compressed Air Supply at 2 Bar, 4 CFM.
- Water Supply
- Floor Drain
- CO<sub>2</sub> cylinder with control valve, pressure regulator and Pressure gauges
- Required Chemicals & Laboratory Glassware



### TECHNICAL DETAILS

- Column : Material Stainless Steel  
Dia 45mm, Height 1000mm (approx.)
- Feed Circulation : By compressed air.
- Pressure Regulator : 0-2 kg/cm<sup>2</sup>.
- Pressure Gauge : Bourdon type
- Feed Tank : Material Stainless Steel, Capacity 20 Ltrs.
- Flow Measurement : Rotameters (One each for feed, air & CO<sub>2</sub>).
- Collecting Tank : Material Stainless Steel, Capacity 10 Ltrs.
- Instruction Manual : An ENGLISH instruction manual will be provided along with the Apparatus
- The whole set-up is well designed and arranged in a good quality painted structure.