

Product Name :
Dropwise and Filmwise Condensation Apparatus**Product Code :**
Heat Transfer0018**Description :**

Dropwise and Filmwise Condensation Apparatus

Technical Specification :

Dropwise Condensation Apparatus Description:-

Condensation is a phase change heat transfer process occurring in many industrial applications, such as in steam power plants, refrigeration plants etc. Thus this is one of the important heat transfer processes as present in mechanical and chemical engineering applications. The condensation of vapor on a surface is of two types: 1.

Dropwise Condensation,

2. Film-wise Condensation. This setup is designed for determining heat transfer coefficient of two types of condensation and for visualization of these processes.

It consists of a vertical frame.

Condensation tubes are fitted inside a compact glass cylinder.

The steam generator is fitted at the backside of the cylinder.

Steam comes directly from the generator to the cylinder.

A Digital Temperature Controller is provided for controlling the temperature of Steam.

Water level indicator is provided in the steam generator.

Two valves are fitted to control flow rate of water in individual tubes Digital Temperature Indicator monitors the temperatures.

Condensate is measured by a measuring cylinder.

Pressure gauge and Rotameter can observe steam pressure and cold water flow rates respectively.

Specification:- Steam Generator: 8 Ltrs. (Approx.) made of Stainless steel with 1.5 kW heater.

Insulated with ceramic wool and clad by aluminum foil.

Pressure Gauge: Bourdon type Temperature Sensors: RTD PT-100 type Control valves: one each for Steam,

Cooling water & Drain Copper tubes (2 Nos.): One with natural finish and other nickel polished Diameter: 19 mm (Approx.) Digital Temp.
Indicator: 0-199.90C, with multi-channel switch Length:- 170 mm (Approx.) Water Flow measurement: Rotameter
Condensate Measurement: Measuring Cylinder & Stopwatch Digital Temp. Controller: 0-199.90C (For Steam Generator)

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