

Product Name : Dropwise And Filmwise Condensation Apparatus for engineering schools	Product Code : HTL0011
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Description :

Dropwise And Filmwise Condensation Apparatus, technical teaching equipment for engineering Being pioneers in the industry, we are engaged in providing large assortment of **Dropwise And Filmwise Condensation Apparatus.**

Our Drop and Film Condensation Apparatus is widely used for determining and compare surface heat transfer coefficient for Drop wise condensation and film wise condensation. We offer product to our patrons in recommended specifications and at affordable rates.

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 process as present in mechanical and chemical engineering applications.
- The condensation of vapour on a surface is of two types: 1. Drop wise Condensation, 2. Film wise Condensation.
- This setup is designed for determining heat transfer co-efficient of two types of condensation and for visualization of these processes.
- It consists of a vertical frame. Condensation tubes are fitted inside compact glass cylinder.
- Steam generator is fitted at the backside of the cylinder. Steam comes directly from generator to the

cylinder.

- Two valves are fitted to control flow rate of water in individual tubes
- Digital Temperature Indicator monitors the temperatures.
- Pressure gauge and Rotameter can observe steam pressure and cold water flow rates respectively
- A Digital temperature Controller is provided for controlling the temperature of Steam
- Water level indicator is provided in steam generator
- Condensate is measured by a measuring cylinder

Experimentation:

- To study the Film wise & Drop wise condensation of steam on a vertical surface.
- Visualization of condensation process in drop wise as well as film wise condition.

Utilities required:

- Water supply 5 lit/min (approx.)
- Electricity Supply : 1 Phase, 220 V AC, 1.5 kW.
- Table for set-up support.

Technical Specifications:

- 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

- Copper tubes (2 Nos.): One with natural finish and other nickel polished
- Diameter: 19 mm (Approx.)
- Length: 170 mm (Approx.)
- Water Flow measurement: Rotameter
- Condensate Measurement: Measuring Cylinder & Stopwatch
- Control valves: one each for Steam, Cooling water & Drain
- Digital Temp. Controller: 0-199.90C (For Steam Generator)
- Digital Temp. Indicator: 0-199.90C, with multi-channel switch
- Temperature Sensors: RTD PT-100 type
- Instruction Manual: An ENGLISH instruction manual will be provided along with the Apparatus
- The whole set-up is well designed and arranged on a Powder Coated structure

Technical Specification :

Dropwise And Filmwise Condensation Apparatus

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