

Product Name :
NATURAL CONVECTION APPARATUS

Product Code :
Heat and Mass0008



Description :

NATURAL CONVECTION APPARATUS

Technical Specification :

The consists of vertical cylinder fitted in a large enclosure, with top and bottom open to ensure undisturbed natural convection apparatus. Perspex sheet provided at the front side of enclosure for visual display. Heating element provided inside the cylinder to heat it uniformly and the heat is dissipated from other surface by natural convection to ambient air. Thermocouples cylinder surface and one more thermocouple record the ambient temperature in the duct. The heater input can be varied with the help of a dimmerstat and measured by voltmeter and an ammeter.

SPECIFICATION:-

- Diameter of the Brass Cylinder - 38 mm
- Length of the Brass Cylinder - 540 mm
- Heater - Cartridge Type.
- Temperature indicator - 0 - 300 OC
- Voltmeter - 0 - 300 V
- Ammeter - 0 - 5 A
- Dimmerstat - 1000 watt
- Thermocouple - No. 1 to 7 on the Brass Cylinder
- Thermocouple - No. 8 Duct (Room) Temperate

FEATURES:-

- Heat transfer coefficient in natural convection conditions can be calculated.

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- Variation of local heat transfer coefficient over the entire length of vertical cylinder can be studied.
 - Average value of heat transfer coefficient can be obtained from suitable correlation & can be compared with the experiments can be performed for various values of heat input.
 - Ideal for group studies demonstration.

SERVICE REQUIRED:-

- Suitable bench area.
- 15 amps, Single Phase A. C. supply with earthing connection

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