

Product Name :
Composite Wall Apparatus

Product Code :
NEGEMG164



Description :

Composite Wall Apparatus

The **Composite Wall Apparatus** is designed for study of Heat transfer through composite slab made up of different materials. Since each material has different thermal conductivity, heat transferred through each of them is different. Using different Heat transfer correlations we can determine the thermal conductivity of entire slab as a single wall. The equipment consists of slab made up of different materials with heater sandwiched at its centre. The slab materials are Cast iron, Bakelite and press wood. The slabs are circular in cross section. Heating element is also circular in shape. In order to ensure equal rate of heat flow from both sides of heating element, the heating element is sandwiched between two identical sets of composite slabs. In order to remove the air gaps between the plates, the composite slab is kept pressed in between two pressure plates (M.S. plates) with the help of a screw arrangement. Instruments provided include sensors for measuring temperatures at different points, indicators to measure power supplied to the heater.

Specifications:

- Composite Slab: Slab of three different materials Steel, Pressed Wood & Bakelite with embedded Electric heater
- Wooden Cabinet: Cabinet with glass door on front side for housing the slab
- Electric Heater: Disk Type Heater, Capacity 300 W, Supply 230 V AC
- Dimmer: Range 0-250 V AC, 2 A
- Digital Voltmeter: Range 0-500 V AC
- Digital Ammeter: Range 0-2 A AC
- Temperature Sensors: Type 'K' Thermocouples – 7 Nos
- Temperature Indicator: 8 Channel Indicator with Selector Switch, Range 0-400 °
- Frame: Made of M.S. Square Tubes & Sheets, Welded & Powder coated

Experimental Capabilities:

- Determination of thermal conductivity of slab of composite material
- Comparison of calculated value of thermal conductivity with actual value

Naugra Export

Website: www.naugraexport.com, **Email:** sales@naugraexport.com

Address: 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India, **Phone:** +91-0171-2643080, 2601773