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Product Name :	**Product Code :**
Pin Fin Apparatus	NEGEMG169

Description :

Pin Fin Apparatus

The **Pin Fin Apparatus** is designed to determine heat transfer from an extended surface (Pin). It consists of a metallic pin-fin which is heated at one end by electric heater. The heat is conducted along the length & is flows out from the pin surface. Five thermocouples are embedded along the length of the pin to measure the temperature distribution, one more thermocouple is placed inside the suction duct to measure the air temperature. A blower provides forced convection of air by blowing the air at high velocity. Flow rate of blower is measured by orifice plate & U Tube Manometer. The control panel consists of a dimmers stat to control the voltage supplied to the heating element. A Voltmeter, an ammeter and a digital temperature indicator are also provided.

Specifications:

- Pin: MOC Aluminium, Pin diameter, 15 mm, Length 20mm
- Electric Heater: Capacity 200 W, Supply 230 V AC

- Air Blower: Centrifugal Blower, 230 V AC
- Orifice Plate: For Air Flow measurement
- Manometer: U tube manometer, 0-300 mm WC
- 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 – 6Nos
- Temperature Indicator: 8 Channel Indicator with Selector Switch, Range 0-199.9 °
- Frame: Made of M.S. Square Tubes & Sheets, Welded & Powder coated

Experimental Capabilities:

- To study phenomenon of Heat Transfer from extended surface (Pin)
- To compare the temperature distribution through a pin-fin experimentally & theoretically