

**Product Name :**  
Heat Transfer in Natural Convection for engineering schools

**Product Code :**  
HTL007



**Description :**

**Heat Transfer in Natural Convection, technical teaching equipment for engineering**

**Technical Specification :**

Heat Transfer in Natural Convection - We are instrumental in the manufacturing, trading and exporting of premium quality **Heat Transfer in Natural Convection**. Our professionals manufacture this apparatus in accordance with the industry laid parameters using best quality metal and advanced machinery. The apparatus we offer is appreciated around the globe for its corrosion resistance, easy installation and longer function life.

**Description:**

- The setup consists of a brass tube fitted in a rectangular duct in a vertical position.
- The duct is open at the top and bottom, and forms an enclosure that serves the purpose of undisturbed surrounding.

- One side of the duct is fitted with a transparent acrylic window for visualization.
- An electric heating element is kept in the vertical tube that in turns heats the tube surface.
- The heat is lost from the tube to the surrounding air by natural convection.
- The temperature of the vertical tube is measure by temperature sensors and displayed by a Digital Temperature Indicator with multi channel switch.
- The heat input to the heater is measured by a Digital Ammeter and a Digital Voltmeter and is varied by a variac. The tube surface is polished to minimize the radiation losses.

#### **Experimentation:**

- To determine average heat transfer coefficient under natural convection

#### **Utilities required:**

- Electricity Supply : 1 Phase, 220 V AC, 2 Amp.
- Table for set-up support

#### **Technical Specifications:**

- Diameter: 38 mm (approx)
- Length: 500 mm (approx)
- Heater: Nichrome Wire
- Digital Voltmeter: 0-300 Volt
- Digital Ammeter: 0-2 Amp

- Variac: 0-230 V, 2 Amp
- Digital Temp.Indicator: 0-3000C, with multi-channel switch
- Temperature Sensors: RTD PT-100 type
- Instruction Manual: An english instruction manual will be provided along with the Apparatus

**Details:**

- Powder coated duct of MS to accommodate the assembly with front window of Acrylic
- The whole set-up is well designed and arranged on a powder coated structure

## **Naugra Export**

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