# MODEL NO. HMT- 14





# STEFAN BOLTZMANN'S APPARATUS

#### **Description:**

- The apparatus consists of a water-heated jacket of hemispherical shape. A copper "Test Disk" is fitted at the center of the bottom portion of the hemisphere.
- ❖ Three thermocouples numbering 2, 3 & 4 are fitted in the inner part of the hemisphere and a thermocouple (No.1) is fitted with the Test Disk.
- ❖ Hot water is obtained from the hot water tank. The hot water is then used to fill the space between outer space of the hemisphere and the vessel surrounding it.
- A water level indicator is used to ensure that the water level is sufficiently high over the top of the hemispherical dome.
- A stopwatch is used to measure the temperature of the Test Disk at uniform time interval of three to five seconds.

### **Experimental Capabilities:**

\* To determine Stefan-Boltzmann's constant.

## **Facilities required:**

- Electrical Supply (Single phase, 15 Amp)
- Water supply to fill tank

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