

**HT-004** **CRITICAL RADIUS OF INSULATING MATERIAL****RANGE OF EXPERIMENTS TO BE CARRIED OUT :**

1. To determine thermal resistance & critical radius of insulating material.
2. The experiments can be conducted at various values of input & calculation can be made accordingly.

**TECHNICAL DESCRIPTION :**

The apparatus consists of one metal cylinder in which heater is fitted. The insulating material (asbestos belt) as lagging material is covered around the cylinder. Again the total assembly is insulated by glass wool & aluminum foil. The heat supplied to inner cylinder through heating coil by using a by a Autotransformer & is measured by Voltmeter & Ammeter.

Thermocouples are used to measure the temperatures, thermocouples 1 to 5 are fixed on metal cylinder and on the external side of insulating material.

**DIMENSIONS AND WEIGHT :**

Size : 1.5 m.(L) x 1.0 m(W) X 0.7m ( H ) , Table Top

Weight : Approx. 70 Kg

**SERVICE REQUIRED :** 230 v Ac Supply 50 Hz

**SCOPE OF DELIVERY:**

1. Experimental Setup
2. Instructional Manual

**OPTIONAL FACILITY:** Data logging Facility