

**Product Code . JL-HTL-10054**

## Thermal Conductivity of Insulating Slabs



### Description

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Thermal Conductivity of Insulating Slabs

The apparatus consists of a slab assembly.

The main Heater and a radial guard heater are sandwiched between copper plates.

The specimen in the form of slabs of equal thickness are placed on either sides of heaters and cooling plates through which water is circulated are on the other Sides of the specimen.

The radial guard heater ensures all heat of the main heater to pass axially through the specimens which is collected by cooling plates.

By knowing the temperatures and Heat input, thermal conductivity of specimen can be calculated.

The test set up is enclosed in an enclosure with insulation inside to provide undisturbed Surroundings.

The design style of the apparatus is similar to as recommended in Indian standard.

The difference is in sizes.

### Specifications:-

#### 1.Heaters:

- a)Main heater plate 110 mm dia. with mica heater Sandwiched between copper plates.

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b)Radial guard heater plate I.D. 120mm and OD 200 mm mica heater sandwiched between copper plates.

2.Water circulated cooling plates -2 nos.

3.Dimmerstat-2 A capacity – 2 nos. to independently control Inputs to the heaters.

4.Measurements:-

A voltmeter and an Ammeter with selector switches to measure inputs,Multichannel digital temperature

indicator to measure Temperatures at various points, having 0.1 °c least count.

A technical manual accompanies the unit.

**Services Required:-**

1.230 V, A.C. stabilized supply along with earthing connection.

2.Water supply of about 4-5 lit/min.

3.Bench area 1m x 1m x 0.5m height.

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