

HT-002. LAGGED PIPE APPARATUS



RANGE OF EXPERIMENTS TO BE CARRIED OUT :

1. To determine total thermal resistance & thermal conductivity of lagged pipe.
2. To plot temperature gradient across the lagged material.
3. The experiments can be conducted at various values of input & calculation can be made accordingly.
4. To plot Heat input (supplied) Vs thermal conductivity in lagged pipe.

TECHNICAL DESCRIPTION :

The apparatus consists of three concentric pipes mounted on suitable stand. The inside pipe consists of a heater. Between first two cylinders the insulating material with which lagging is to be done is filled compactly. Between second and third cylinders another material used for lagging is filled. The thermocouples are attached to the surface of cylinders approximately to measure the temperatures. The input to the heater is varied through an autotransformer and measured on voltmeter and ammeter. The experiments can be conducted at various values of input and calculations can be made accordingly

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