

Heat Pipe Demonstrator



Product Categories: [Engineering Equipment](#), [Heat Transfer Lab](#)

Product Page: <https://www.labappara.com/product/heat-pipe-demonstrator/>

Product Description

Heat Pipe Demonstrator

It is a super-conducting device and involves the transfer of heat by boiling and condensation of a fluid and hence transfer of heat takes place under nearly isothermal condition. In this apparatus the comparison of heat pipe with the copper pipe as good conductor of heat and with the stainless steel pipe as same material of construction is made. It consists of three identical cylindrical conductors in respect of geometry. One end of these is heated electrically while there are small capacity tanks acting as heat sinks at the other end. The unit consists of a heat pipe, a copper pipe and a stainless steel pipe. The performance of the heat pipe as a super-conducting device can be studied well in terms of the temperature distribution along the length at a given instant and can be compared with other two members. Nearly iso-thermal temperature distribution and fast rise of temperature in heat sink tank reveals the heat pipe superiority over the conventional conductors.

Technical details:

Pipes : 1st : heat pipe made of stainless steel

2nd: made of copper

3rd: made of stainless steel

Size: 32 mm dia, 350 mm length (approx.)

Heat sink: material stainless steel

Working fluid in heat pipe: distilled water

Heaters: ni-chrome wire band type

Digital voltmeter: 0-300 volts

Digital ammeter: 0-2 amp

Variac : 0-230 v, 4 amp

Digital temp. Indicator: 0-2000 c, with multi-channel switch