

Forced Convection Apparatus



Product Categories: [Engineering Equipment](#)

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Product Page: <https://www.labappara.com/product/forced-convection-apparatus/>

Product Description

Forced Convection Apparatus: Scientific Equipment

The LABAPPARA unit consists of mainly a centrifugal blower, electrically heated test section, control valve to regulate the airflow and an orifice-meter and U-tube water manometer for flow measurement.

Thermocouples are used to measure the pipe wall temperature and also the air temperature at inlet and exit.

The apparatus mainly designed to find out the value of heat transfer coefficient under the air different conditions.

Feature

Heat transfer in forced convection can be studied well.

The value of heat transfer coefficient is calculated under various fluid flow conditions.

Ideal for group studies & demonstration.

Test pipe - 32mm NB GI pipe, 500 mm. long, heated by band heater, outside.

Centrifugal blower to force air through test pipe with How control valve.

Variac 2A, capacity to force air through test pipe with flow control valve.

An orifice meter with differential water manometer.

Voltmeter and Ammeter to measure heater input.

Multichannel digital temperature indicator to measures various temperatures.

A technical manual accompanies the unit.

Specification

Temperature indicator = 0 -300 0C

Ammeter = 0 - 5 A

Voltmeter = 0 - 300 V

Dimmerstat = 1000 watt

Heater =Mica Covered Type

Delivery Pipe Diameter (di) = 0.032 m

Length of test Section (L) = 0.44 m

Orifice Meter Diameter (do) = 0.014 m

Blower = 1/3 H.P. Single Phase with Motor

Manometer = Water Manometer

Test Section Insulation = Asbestos Rope

Services Required:

Bench area of about 1m. x 0.75 m. at working height

239V, 15A, AC, supply with earthing connection