

# PROGRAMMABLE HORIZONTAL MUFFLE FURNACE(3 ZONE)



**Experiment** : To check the effect of Temperature on sample.

**Year of Purchase** : 2010

**Cost** : 3.71 Lac

## Construction

The furnace is foot mounted. The tubular furnace is opened at both ends, suitable to accommodate a tube of 65 mm dia. The furnace is made of KANTHAL A1 modules with elements embedded in to the periphery and are virtually free radiating.

## Technical Specification

The 3-Zone tube furnace offers excellent temperature uniformity as the heated as the heated length is divided in to 3 Zone each with its own temperature controller and Thermocouple.

The system provides the longer uniform zone temperature than that achieved by using a single zone furnace.

## Hot Zone

The furnace has three zones. All zones are of length  $\varnothing 225$ mm. at the ends, the diameter of the opening is  $\varnothing 65$  mm to accommodate the quartz /Alumina Tube. Overall length of furnace is 950mm (Approx.).

## Temperature Controller

Each zone temperature is controlled by separate programmable temperature controller. (1 program 16 steps).

## Power

9kW, 3Phase 50 Hz AC Supply.

## Size

Overall length 950mm, dia 65mm with quartz /Alumina tube size (size: OD 65mm / length 1200mm & Stainless steel high vacuum flanges for maintaining vacuum of  $10^{-2}$  torr at room temperature in tube & for gas purging.