

ALCOCK MULTI PURPOSE MUFFLE FURNACE MF-HT



Construction : Outer shell of the Muffle Furnace is made of MS sheet fitted on angle iron frame . There is all round insulation by ceramic fiber sheets and blankets for minimum heat loss and low thermal inertia due to light weight of the insulation materials . The door is also thoroughly insulated to obviate any chance of heat leakage through the door .

Maximum Temperature attainable : Our general model is upto 1200°C with best quality Kanthal wire Heating elements in coil form housed in the refractory grooves of the side walls for uniform heating . Inside chamber and all refractory materials are suitable to withstand maximum temperature up to 1600°C. The same type of furnace can be used for 1400°C operation by changing metal Heating elements to Silicon Carbide Heating Elements. For 1400°C furnace an air cooled transformer will be provided .

Heating Element : Heating Elements (in case of operation up to 1200°C) will be made of best quality(Kanthal A1) Heating Wire in coil form and housed in refractory grooves .

In case of operation up to 1400°C operation, the SiC Heating Elements will be controlled by a tap changing transformer

Temperature Control : Control of temperature is achieved by a microprocessor based digital PID temperature controller working in conjunction with SSR for precision control of temperature .

Temperature Sensor : We use Thermocouples which can be K/R/N/B -type depending on maximum temperature of the furnace or selection by customer. In case of Furnace of maximum temperature 1200'c we use K type thermocouples.

When this type of furnace is used for Thermocouple Calibration the internal muffle is a ceramic tube closed at one end and the other end is closed with a disc with many holes depending on the number of thermocouples to be calibrated . There will be no door of such furnaces as shown in picture above . Heating Elements in coil form will be wound on the outer surface of the muffle/tube .

Control Panel : A control panel is provided near the bottom of the furnace consisting of

- Mains on/Off MCB
- Indicating Lights
- Temperature Controller
- Switches or other electrical switch gears as will be necessary .
- **Optionally Touch Screen (MHI) control panel can be provided at extra cost .**

This is a general document of our standard Muffle Furnace but actual furnace will be made exactly as per tender document with no deviation .

For further information please refer to

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Or visit our website

<http://www.wjalcock.com>