

## TECHNICAL SPECIFICATION FOR ELECTRICALLY OPERATED HEAT TREATMENT FURNACE

<b>Major parameter</b>	<b>1. Type</b>	Electrically Operated Heat Treatment Furnace
	<ul style="list-style-type: none"> <li>• Electrical Supply</li> <li>• Heating Element</li> <li>• Insulation</li> <li>• Thermocouple</li> <li>• Control Panel</li> <li>Outer Casing</li> </ul>	440 Volts, 3 phase, 50 Cycles, A.C. Supply, 4 Wire System. Kanthol heavy gauge Ceramic 02 No, ( K Type ) Automatic With Pid S.Steel Fabricated Fan
	<b>2. Capacity</b>	Size 1200mm depth x 800mm width x 600 mm Height
	<b>3. Power Rating</b>	48 Kw.
<b>4. Working Temp. Maximum Temp.</b>	900 °C ± 20°C 1000 °C	
	<p>Furnace outer shell : The outer shell of the furnace will be fabricated out of the thick gauge mild steel sheets suitably reinforced with rolled steel section with welding and /or screwed Joints wherever necessary. The furnace will be robust, rigid and sturdy construction.</p> <p>Lining :- The furnace will be insulated completely with ceramic fiber of suitable grade, Thickness and density on walls, roof and door so that the loss of temperature is bare minimum.</p> <p>Door Arrangement : The door will be fabricated out of structural sheets. The door will be insulated with ceramic fiber material as to maintain the designed skin temperature. it will be of vertically opening type in front. A door limit switch will also be provided to automatically shut off supply to heating elements as soon as the furnace door is lifted.</p> <p>Heating Chamber : Grooved refractories will be provided on roof and side walls of the chamber. The heating elements will be suitably for higher temperature and to ensure longer life. The heating elements will be easily accessible and detachable for repairs and maintenance.</p> <p>Temperature Control &amp; Indication: The furnace temperature will be controlled by a digital indicating controller of range 0 to 1000° at any temperature preset on the controller and also provided thermocouple safety device. One number single element thermocouple with chromel / alumel element will be provided for sensing the temperature inside the chamber along with compensating cable. Fan may be provided for uniform heating inside the chamber.</p> <p>Control Panel: The control panel will be separate unit, the panel will be sturdy construction fitted with hinged back access door and will be floor mounted type. The control panel will consist of 2 No. Digital type indication controller, Air break power contactor, HRC Fuses, 3 Nos. Ammeters with current transformers, 1 no. Voltmeter with selector switch, Rotary on-off switch for heaters, indicating Lamps etc. ready connection</p>	
<b>Minor parameter</b>	Painting: All the mild steel parts will be given a primary coat of red oxide paint. The final outer finish of the furnace will be with high temperature aluminum heat resistant paint of good quality. The control panel will also be finished with air dry hammer tone paint.	
<b>Concomitant accessories</b>	One set of thermocouple.	
<b>Optional Accessories</b>	<ol style="list-style-type: none"> <li>1. All essential accessories tools required for efficient working of furnace Working of furnace and its maintenance thereof.</li> <li>2. Two copies of printed original operation &amp; maintenance manuals.</li> </ol>	
<b>Spares</b>	Set of two years normal maintenance. Spares for Electrically Operated Heat Treatment Furnace as recommended OEM.	
<b>AMC requirement</b>	Not required	
<b>Warrantee requirement</b>	12 months from the date of commissioning	
<b>Special requirement</b>	Commissioning at the consignee site by firm free of cost.	