

Technical Specifications for Aluminum Melting Electric Furnace:

1.	Melt Capacity	400 kg (Minimum)
2.	Maximum working Temperature	1200°C
3.	Melting rate	200kg Al/hr (Minimum)
4.	Functions	Melting/Holding with uniform temperature distribution in the melt.
5.	Tilting Mechanism	Hydraulic tilting with pouring lip at axis of tilting. Limit switches provided to prevent tilting beyond extreme positions. Self-locking at every position of tilting
6.	Structure	Heavy duty welded and reinforced structure with high quality paint as protection against corrosion.
7.	Temperature Controller	PID temperature controllers with $\pm 5^{\circ}\text{C}$ accuracy each for furnace chamber and melt temperature measurement and control.
8.	Heating Elements	Easily replaceable high performance SiC rods or strip/wire of high quality
9.	Crucible	Isostatically pressed Carbon bonded SiC crucible (Noltina) of high thermal conductivity. (Detailed specifications of the crucible should be provided). Crucible should fit perfectly in furnace with its lip matching the lip of the furnace.
10.	Thermocouples	K type
11.	Melt temperature measurement	Facility to measure temperature of the melt throughout melting
12.	Emergency Melt Drain	Emergency drain of melt from furnace in case of crucible failure
13.	Emergency Shutdown	Emergency shutdown switch should be provided
14.	Insulation	Multiple layer insulation with lightweight refractory on the hot face
15.	Control Panel	Digital with high quality electrical components
16.	Protection	<ul style="list-style-type: none"> i. Over temperature protection to avoid over heating of elements ii. Furnace shutdown Emergency switch iii. Aluminum leak alarm with auto shutdown
17.	Furnace Cover	Motorized/Hydraulic furnace cover capable of being swung and fixed aside. Sealing of cover with furnace collar should be excellent to avoid heat loss
18.	Spares	<p>Spares for five years should be provided. Spares should include:</p> <ul style="list-style-type: none"> i. Heating rods ii. Thermocouples iii. Crucibles iv. Furnace collar and spout v. Refractories prone to damage vi. Electronic components <p>*Quotations without spares will not be entertained</p>
19.	Inspection	Pre-shipment Inspection of furnace at supplier's premises
20.	Owner's Manual	Complete installation, operational and mechanical/electrical maintenance manuals be provided in English Version

Note: Complete specifications and brochure of the furnace should be provided with the quotation otherwise the quotation will not be considered for evaluation.