



MERAJ ENGINEERING

AN ISO 9001 - 2008
CERTIFIED PRODUCT

To,
Purchase Manager

Dear Sir

100 KW/240 Kgs Induction Furnaces for Copper Melting

We hope that you will find our offer in line with your requirement. However if you require any clarification, please feel free to write to us or contact us.

Awaiting your most valued order at the earliest, which will receive utmost care & attention.

Best regard,

Abdul Qadir Khan



APPROXIMATE COST OF ITEMS REQUIRED OTHER THAN FURNACE

1. COOLING TOWER
2. RAW WATER PUMP
3. WATER SOFT PLANT
4. PIPE LINE SUITABLE TO YOUR PLANT LAYOUT WITH VALVES & FITTINGS.
5. HYDRAULIC OIL
6. SWITCHES/ SWITCH GEARS & CABLE
7. CIVIL CONSTRUCTIONS

Machine Delivery – Immediate



COMMERCIAL TERMS & CONDITIONS

INDUCTION FURNACE CONSIST OF:

- 1/ **Solid State Generator with D.M water Circulating unit, Necessary Capacitor bank & hydraulic Power Pack.**

Capacity : 100 KW

Quantity : 1 No

- 2/ **Aluminum Shell Crucible with Hyd Cylinders & water-cooled cables**

Capacity : 240 Kg (Copper)

Quantity : 2 Nos



SCOPE OF SUPPLY

STATIC INVERTER GENERATOR

- A. One static M.F Inverter of specified capacity suitable for operation with 3 phase, 50 Hz Ac source. This will be inverters of over 97 %
- B. Arrangement for isolating the panel from mains with door interlock system
- C. Four indicating instruments including KW Meter, MF Ameter, MF Vmeter'&MF Hz Meter with necessary transducers , CTs and PTs
- D. One Power Control pot to manually select the desired operating points
- E. One capacitor bank containing water-cooled MF power factor cum resonating capacitors with flow monitoring switches, valves & manifolds for water.
- F. One control module consisting of electronic control cards & protection cum trip circuits with constant voltage transformer type DC power supply for the electronic power supply for the electronic circuits.
- G. One control voltage transformer of adequate capacity to supply power to the entire control system.
- H. One set indicating light to aid the operator along with Remote control box
- I. One earth leakage detector unit
- J. Cooling water system or the generator & cap. Bank with flow switches
- K. Copper bus bars, (Flat/ square tubes) control wiring with silvered copper flexible Teflon wire



MELTING FURNACE

Aluminum Shell type Crucible with hydraulic Cylinders, Copper Coil, Syndaniya top water-cooled cables to connect the power source, water flow switches will be provided with necessary manifolds,

Crucible top with refractory cement and Syndaniya sheet
Bush bar from panel to crucible (Flat/square tube type)

HEAT EXCHANGER & D.M . WATER CIRCULATING UNIT

One water-to-water heat exchanger with de mineralized water tank, water pump, with motor and tubes.
Heat exchanger – Plate type

Hydraulic Power pack

One Hydraulic Power pack with pump, motor, tank & filters w/o hydraulic oil.



EQUIPMENT NOT COVERED IN OUR SCOPE ON SUPPLY BUT REQUIRED FOR INSTALLATION AND COMMISSIONING OF INDUCTION MELTING PLANT.

1. HT oil circuit breaker of suitable rating for power supply to the solid-state generator, transformer and auxiliary loads through suitable isolator & fuses.
2. Furnace Transformer & auxiliary transformer of adequate rating & L.T dist. Boards & contractors.
3. The LT cable for power supply of furnace transformer and aux. Transformer, Connecting cable for L.T dist. Board from transformer & from dist to other furnace auxi. Such as hyd. Pump, water pump, cooling tower fan, pf capacitors and other shop loads etc.
4. Cooling tower, Water storage tank & associated piping & accessories pumps etc.
5. all civil engineering works including foundation bolts, drains, ducting, doors windows, lighting etc.
6. Overhead cranes, pouring Ladles, Pyrometer, Charging devices, ramming tools& other foundry materials etc.
7. Earthing connection to furnace (SSG, DM, CRUCIBLE, Hyd, Power pack)
8. Lining Materials, Hydraulic Oil & D.M. water.

thanking you in anticipation & assuring our best services at all the times.

yours faithfully

for **MERAJ ENGINEERING,**

Authorised Signatory