

LEAD INGOTS MELTING FURNACE



Structure and Insulation

The Furnace structure is made of a rugged cylindrical metallic frame, having plane bottom, upon which housing for the burners are prearranged in order that flames lap tangentially the pot.

On the upper part is allocated one opening (with air lock for draught regulation) for fumes scavenging.

The furnace upper edge is prearranged for housing the pot.

The furnace upper part is protected by a proper sheet – plate hood, provided with openings for pump introduction, for fumes scavenging and inspections (and for changing solid material, in case of the melting

furnace).

Insulation of furnace and furnace walls are obtained by means of multiple layer of insulating and refractory materials which will be installed before furnace shipment.

Pot

The containing pot for molten metal is made of welded steel plate, with supporting upper edge and crowned bottom, it is provided with a bottom drain, with piping and cock, for possible change of alloy or emergency emptying.

Heating system

The heat to be transferred to the metal contained in the pot is supplied by butane air burners, placed tangentially to the pot.

The combustion equipment is supplied with electric fan, pilot burners, a motor operated valve for regulating “zero-low-medium- high fire”, solenoid valves and all necessary

safety equipment (manual resetting solenoid valve for gas, minimum pressure switches for air and gas, devices for flame measurement etc.)

Switchboard desk and regulation

Temperature regulation is obtained by means of a regulator – indicator electronic instrument connected to a thermocouple immersed in the bath.

Another instrument connected to a thermocouple situated in the chamber, acts as security against overtemperatures.

Besides the above-mentioned instrumentation, the switchboard desk will include all the necessary electric equipments.

Siemens components will be applied where possible.

The furnace is equipped with slide to inlet the ingots.

The pot furnace is provided for melting of lead ingots. The approximate characteristic of the Melting Furnace are as follows:

- Pb capacity : 4500 Kg.
- Melting capacity: 2500/4.000 Kg.
- Thermal capacity: 250.000/400.000 kcal/hr
- Fuel : Natural gas or L.P.G.
- max temp. 550° C