

## TYPE 63-EIH and EIMH ELECTRIC IMMERSION HOLDING AND MELTING/HOLDING FURNACES





Thermal Product Solutions

MPH

Furnace Type	KW	Melt lbs./hr	No. of Elements	Holding Capacity Lbs.
63-EIH-2800-18 (HOLDING)	18	---	4	2,800
63-EIMH-4100-27 (MELT/HOLD)	27	400	6	4,100
63-EIMH-7200-54 (MELT/HOLD)	54	800	12	7,200

**SPECIFICATIONS TYPE 63-EIH and EIMH  
ELECTRIC IMMERSION HOLDING AND MELTING/HOLDING FURNACES**

**SHELL CONSTRUCTION**

Carbon steel plate welded 100% inside and outside. The shell will be ruggedly reinforced with vertical and horizontal structural members located to give optimal strength. The furnace is supported on I-beams welded to the shell floor plate.

**REFRACTORY LINING**

Walls: The furnace side walls are lined with 6" of high strength 2800°F insulating castable, backed with 3" of insulating block. The walls are securely anchored to the steel shell with alloy anchors.

Floor: The furnace floor is cast 9" thick with 2800°F insulating castable.

**HEATING ELEMENTS**

The heating element assemblies are a specially designed, tubular-type. The elements are mounted in a ceramic block that floats on the surface of the bath. The element wiring is terminated in a box with terminal blocks. High temperature pigtailed run in steel flex tubing and terminated in either a "Twist Lock" or "Pin and Sleeve" plug (depending on KW) is supplied. A corresponding receptacle is provided in the furnace mounted terminal box. This arrangement provides for quick disconnect for customer convenience.

**CONTROL PANEL**

The furnace controls are housed in a NEMA 12 enclosure. Components supplied are: a control transformer, fused disconnect, SCR controller, power-on-and-off indicating lights, low temperature audible alarm circuit, high temperature shutdown circuit, alarm silence pushbutton, ammeter, current transformer, control relays and fuses. All components were selected for simplicity and reliability.

**AUTOMATIC RESTART**

The furnace is equipped with a Honeywell DC 230 series controller with dual operating parameters to allow for automatic restart after a prolonged power outage. The controller would restart the furnace at 20% output and begin a slow ramp-up to avoid super heating the zinc and burning out the elements. Once the zinc is molten the controller will automatically switch back to the original operating parameters for normal operation. No operator intervention is required.

#### AUTOMATIC TEMPERATURE CONTROLLER

Mounted in the control cabinet is a Honeywell DC 230 series microprocessor based temperature controller featuring digital set point, L.E.D. readout, L.E.D. deviation indicator, and up-scale burnout protection. Supplied with this unit is a type K thermocouple, supported in a stainless steel protection tube and 50 feet of chromel alumel thermocouple lead wire.

#### HIGH-LIMIT TEMPERATURE CONTROL

Mounted in the control cabinet is a Honeywell DC 230 series microprocessor based high-limit controller featuring manual reset digital set point, L.E.D. readout, and up-scale burnout protection. Supplied with this unit is a type K thermocouple, supported in a stainless steel protection tube and 50 feet of chromel alumel thermocouple lead wire.

#### SPLASH SHIELD AND STAINLESS STEEL WEIR (FOR MELTER/HOLDER FURNACE)

Lindberg/MPH will provide a ¼" carbon steel splash plate and ¼" stainless steel weir to protect the heating element unit during charging of the furnace.

#### TAPOUT

The furnace is equipped with a drain tapout to allow the furnace to be completely emptied. The tapout has a cast iron plug with a sealing cover held in place by a steel clamp.

#### COVER

A lightweight manually removable cover is furnished to reduce surface losses from the bath.

#### PAINT

The furnace exterior is finished and painted with vista green, safety blue or aluminum high temperature paint in a workmanlike manner. If other color or type of paint is specified, it may be necessary to have it (including primer and MSDS Specs.) furnished by the customer at their expense.

#### INSTRUCTION MANUALS

Two instruction manuals are furnished, complete with starting instructions, maintenance instructions, equipment bulletins, combustion drawings and wiring diagrams.

#### ASSEMBLY

The furnace is completely assembled in our plant. The electrical components are tested prior to shipment. The element assembly covers, and control panel are boxed separately to avoid damage in transit.

#### FURNISHED BY CUSTOMER

#### **Dry out of furnace and dry out equipment as per our instructions.**

Start up of furnace.

Labor and material to wire from your power source to and between the panel and furnace terminal box.

Hooding as required.

Leveling and shimming of the furnace.

Re-assembly of component parts removed for shipment.

Provide protected electrical service to the control panel disconnect.