# Smelting **Kilns**

## **Melt Pot** Kilns

We manufacturer 2 units of Industrial Melting Furnace, either a 7kg or the larger 15kg unit. The powerhouse designed of units allows for quick and effective melting both precious and non-ferrous metals. Crafted with high-quality imported insulation bricks and elements, makes these furnaces one of the market's fastest electric heating smelting kilns available. They are fitted with a 15Amp element that is not enclosed, allowing heating efficiency and protection of the element. The Units are also fitted with a safety limit switch which automatically shuts off the element when the lid is opened.

Equipped with a standard K-Type thermocouple and managed by a digital set-point controller, our furnace offers ease of operation and precise temperature control. Operating from a standard household plug (220-240V) it is easy to transport and utilize on site if required.

Another handy service, Van Tuyl offers a service to refurbish and reline these units for a fraction of the original cost if they become damaged. We also carry a full range of spares (wearable parts like elements & thermocouples etc.).



# 7kg Melt Pot (Smelting Kiln)



## Specifications:

| | |
|---|---|
| Volume | 7L, (0.25cu ft) |
| Maximum Temperature. | 1200°C |
| Outside Dimensions | 700mm (w) x 500mm (d) x 400mm (h) |
| Inner Dimensions | 220mm x 190mm (h) |
| Power Supply | 15 Amps, 240V |
| Controller | Single Set Point |
| Weight | 25kg |
| Recommended Kiln Shelve | 210mm |
| Heating Rate | 28ºC per Minute (to 1000ºC) |

# 15kg Melt Pot (Smelting Kiln)



## Specifications:

| | |
|---|---|
| Volume | 15L, (0.54cu ft) |
| Maximum Temperature. | 1200°C |
| Outside Dimensions | 760mm (w) x 550mm (d) x 440mm (h) |
| Inner Dimensions | 260mm x 228mm (h) |
| Power Supply | 15 Amps, 240V |
| Controller | Single Set Point |
| Weight | 30kg |
| Recommended Kiln Shelve | 220mm |
| Heating Rate | 23ºC per Minute (to 1000ºC) |

## Furnace Heating Rates:

The following impressive heating speeds are achievable with our units**

| | | | |
|---|---|---|---|
| 7Kg Melt Pot | - | 28°C Per Minute to 1000°C | (1000°C in 35 Minutes) |
| 15Kg Melt Pot | - | 23°C Per Minute to 1000°C | (1000°C in 45 Minutes) |

** Claim based on the kiln being empty

# Melt Pot **Features**



*The elements are fitted into grooves in the kiln walls providing a secure fit. This prevents them from coming loose and protects them during packing and unpacking. The placement of the elements ensures even heat distribution.*



*These kilns are equipped with an Element Cut-Off switch, which automatically deactivates the electricity-carrying element when the kiln lid is open. This feature is integral to ensuring safety.*



*Our lids are fitted with a Stop Bracket that ensures the lid does not go beyond 90Deg, allowing easy access to the heat chamber but also ensuring that the kiln is stable.*




*The kilns are equipped with the TOHO Single Set-Point Controller, for easy and quick operation, with an option of an Automatic Switch off when set temperature is reached or can remain (soak) at the set temperature until switched off manually.*

# Kilns & Refurbishment

Spares i.e. elements & thermocouples etc., are easily replaceable and the units can also be fully refurbished if required. Explore our range of spares and related products to optimize your melting processes further and unlock the full potential of our 7kg Melting Furnace.

| Melting Furnace | | | | | | | |
|---|---|---|---|---|---|---|---|
| Product Code | Internal Dimensions | | | Controller Type | Amps | Power Supply | KW |
| | Size | Depth | Diameter | | | | |
| VTMP-700 | 7kg | 170mm | 210mm | Single Set Point | 15 amps | Single Phase | 3,3 kw |
| VTMP-1500 | 15kg | 190mm | 220mm | Single Set Point | 15 amps | Single Phase | 3,3 kw |

| Refurbishment Costs for 7KG & 15KG - Melting Furnace | | | | | | | |
|---|---|---|---|---|---|---|---|
| Product Code | Internal Dimensions | | | Controller Type | Amps | Power Supply | KW |
| | Size | Depth | Diameter | | | | |
| VTMP-700 | The refurbishment coss of a 7kg Furnace - included the insolation only of the kiln (excludes - controller & electrical) . | | | | | | |
| VTMP-1500 | The refurbishment coss of a 15kg Furnace - included the insolation only of the kiln (excludes - controller & electrical) . | | | | | | |

# Spares & Equipment

| Spares & Accessories | |
|---|---|
| **Product Code** | **Description** |
| VTC-7KG | 7kg Crucible - 150mm height) x 105mm (outer dia) x 85mm (inner dia) x 120mm (outter lip) |
| VTC-10KG | 15kg Crucible - 150mm height) x 130mm (outer dia) x 105mm (inner dia) x 145mm (outter lip) |

| Spares & Accessories | |
|---|---|
| **Product Code** | **Description** |
| VTMO-50 | Cast Iron Mould (Ignot mould) - 5,6kg (200 ounce) |
| VTMO-10 | Cast Iron Mould (Ignot mould) - 2,2kg (80 ounce) |
| VTSR-01 | Carbon Stirring Rods (15mm x 300mm) |
| VTFS-01 | Face Shield (standard) |
| VTLA | Leather Apron (60mm x 90mm) |
| VTSG | Heat Resistant Safety Gloves |
| VTTG-07 | Tongs (for 7kg crucible) |
| VTTG-10 | Tongs (for 10kg crucible) |

# TOHO – **Single Set-Point Kiln Controller**




The TOHO TTM-i4N is a budget-friendly and extremely adaptable single set-point temperature controller. It's perfect for users who need to set a single temperature and achieve rapid ramping (Regulators can be added to control ramp rates).

# Carbon **Crucibles**



We supply quality carbon (non-wetting) crucibles that are perfect for use with both precious and non-ferrous metals.

We have 2 versions the 7kg and the 15kg Crucibles.

# Get in **Touch**

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