

Infinity Furnace

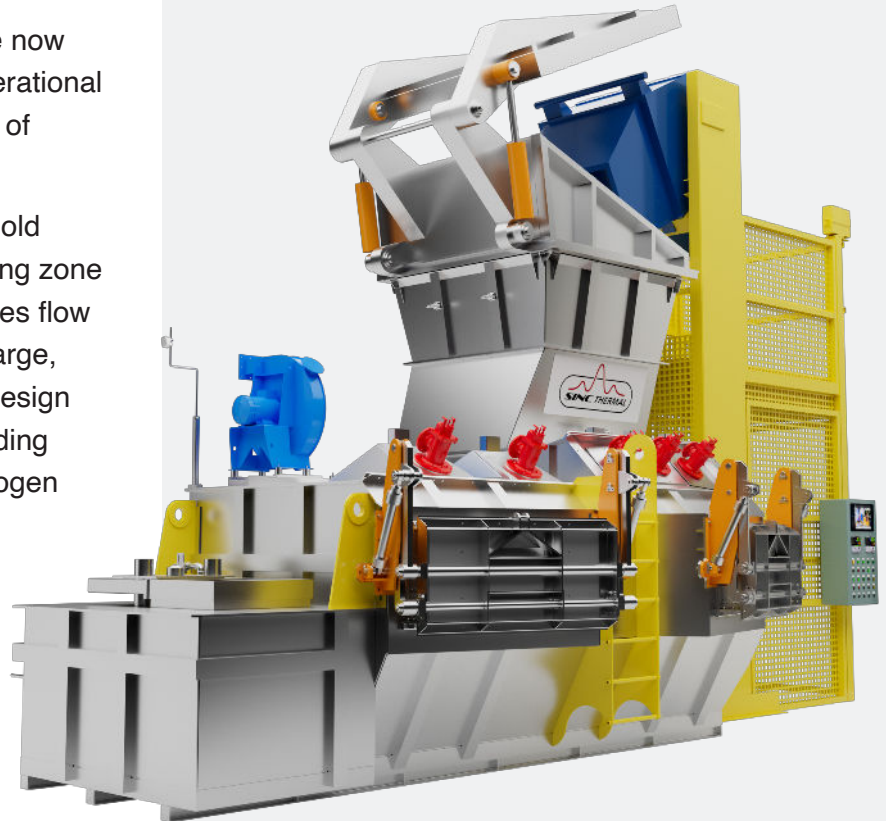
Aluminum shaft or stack melting furnaces are now widely accepted as a sound financial and operational choice offering controllable and reduced cost of ownership along with improved metal quality.

INFINITY Melters utilize a “choked” shaft to hold charge material and dispense it into the melting zone as it becomes depleted. The hot exhaust gases flow through the shaft to preheat the incoming charge, improving the energy efficiency. The hearth design allows molten alloy to flow gently into the holding chamber before superheating, reducing hydrogen pick up and dross carryover.

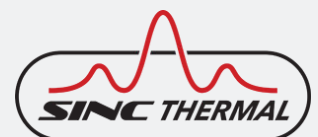
The Infinity Shaft-Melting advantage

- High-temperature uniformity of the Holding bath
- Consistent tapping temperatures
- Simple and safe operation during charging and tapping
- Accessible cleaning doors for efficient cleaning of bath and hearth
- Low maintenance requirements and long service life of the refractory lining
- Automated charging controlled by exhaust temperatures.
- Intuitive HMI control screen for activity monitoring and maintenance activities.
- Compliance with environmental and safety regulations

SINC Thermal offers a complete range of melting and holding furnaces along with accessory and peripheral equipment for all alloys and processes. All furnaces and equipment are proudly built in Missouri, USA.



- ‘Melt on demand’ operation
- Energy efficiency
- Low metal loss
- Optimum holding capacity
- Reduced molten inventory
- Energy recuperation
- Charge pre-heating
- Easier cleaning
- Low maintenance



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Options and accessories

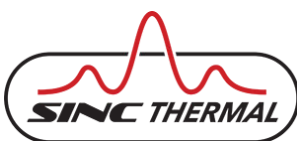
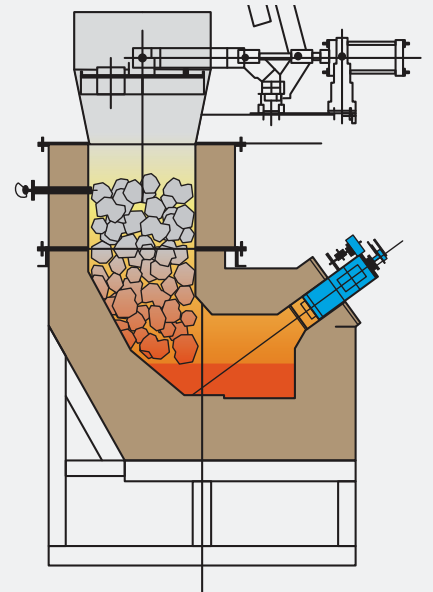
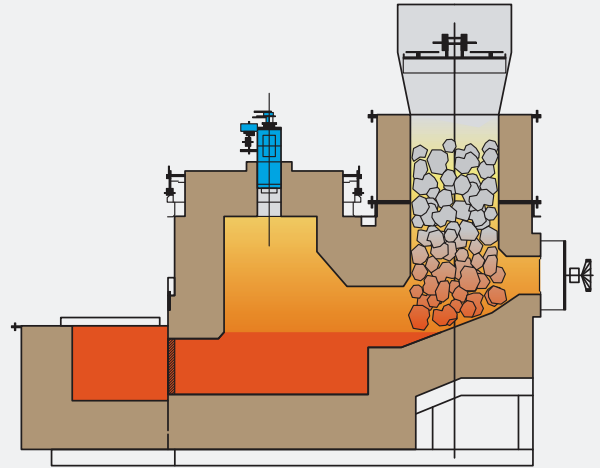
- Degassing plugs
- Laser shaft monitoring
- Shaft energy conserving baffle
- Automated charging conveyors
- Bale-out / pump pockets
- Pump transfer and circulation
- Chip Melting Options

Typical performance parameters

- Melting rates: 2,200 to 11,000 lbs/hr (~1,000 - 5,000 kg/h)
- Holding capacity 2 – 4 times melting rate
- Holding temperatures 1,275-1475°F (690 – 800°C)
- Energy consumption – typical 813 – 1007 Btuh/lb (525 – 650 kWh/ton)
- Metal loss – less than 1.5% (typically less than 1%)

Notes

- Performance numbers are for furnace operated with full charge shaft, full density charge materials and at 1,325°F (720°C) holding temperatures
- Charge materials – optimum is 50% ingot + 50% foundry returns
- Foundry returns and other materials should have a bulk density of minimum 28 to max 47 lbs/ft³ ~ (450 to max 750 kg/m³).



In Partnership with Gillespie & Powers

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