

FLAMELESS HEATING SOLUTIONS FOR

Melting Furnaces

Die Preheating

Ladle Preheating

Dosing Furnaces

Industrial Furnaces

Casthouse Applications



About us

At promeos®, we lead the way in sustainable industrial heating. For over 20 years, our innovative, energy-efficient solutions have helped industries worldwide cut emissions, lower energy costs, and achieve their decarbonization goals.

From metal foundries to food production lines, we deliver clean, flameless heat wherever precision and reliability matter.

SUCCESSFUL
PROJECTS

780+

SATISFIED
CUSTOMERS

230

HEATING
SOLUTIONS

60+

TONS OF CO₂
SAVED

500 000+



All energy sources



NATURAL GAS



**GREEN
ELECTRICITY**



HYBRID



HYDROGEN

Industries served

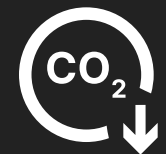


Why foundries choose promeos®

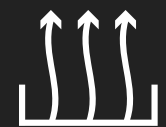
Flameless heat designed for higher efficiency, precision, lower emissions, and product quality delivering:



Up to 60 % energy savings compared to conventional heating



CO₂ and NO_x reduction thanks to flameless burner technology



Homogeneous temperature distribution for higher casting quality



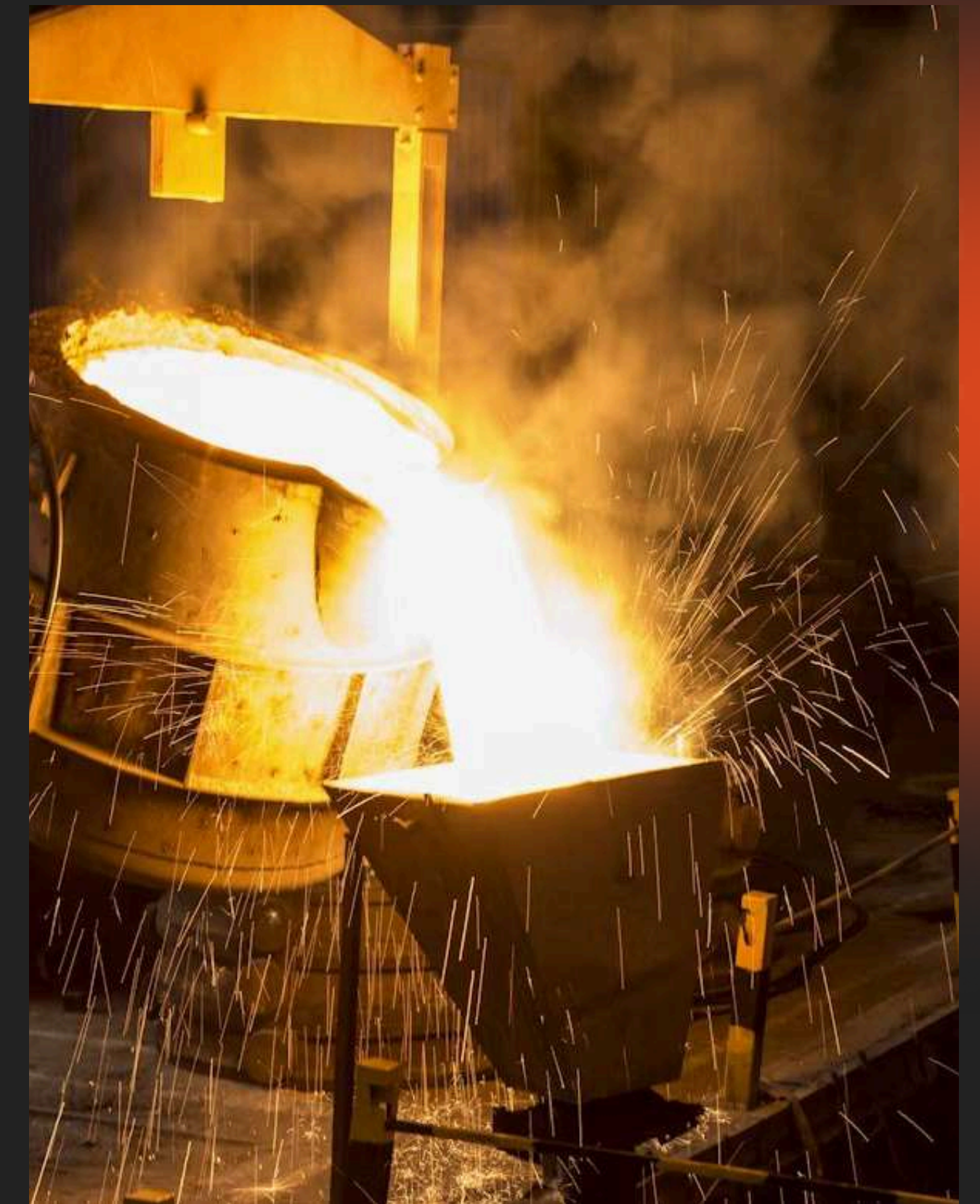
Flexible energy mix: all gases, electric and hybrid



Fast start-up and stable operation even under variable loads



Proven ROI within 12–24 months



Our solution for your process

Process Solution

Melting Tilttable crucible, transportable crucible, shaft type melting, customized melting furnaces

Holding Holding and dosing furnaces for aluminum

Preheating Ladle, tundish, launder, heating of induction furnaces

Casting Die and mold heating systems, drying of cores and moulds

Heat Treatment Industrial furnaces (boogie hearth, chamber, continuous)



Crucible melting furnaces

Melting rate up to 450 kg/h

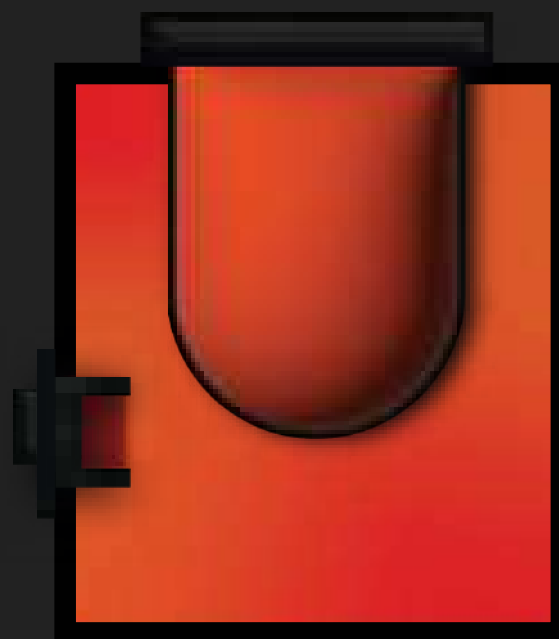
Capacity: up to 1 200 kg (Aluminum)

- Energy savings up to 35 %
- CO₂ emissions reduction up to 65 %
- Higher productivity via high power density & efficient melting
- Longer crucible service life and reduced noise/emissions

Hot spot open flame



Flameless
uniform heat



Transportable crucible melting furnace

Thermal power and temperature range can be customized to meet your specific requirements

- No refilling: melting, degassing, transfer, holding, dosing with/inside the same crucible
- Homogeneous, oxidation-free melting
- Low emissions and maintenance
- Hybrid-ready (gas + electric)
- Compact, durable design for industrial foundries
- Easy switch between alloys



Shaft type melting furnace

Melting capacity: up to 5 t/h
up to 10 t holding capability

- Homogeneous and effective heat transfer without hot spots
- High melt quality and much lower material losses, dross reduction
- Reliable operation due to robust construction



Melting and casting plant for in-house recycling of aluminum and tin alloys

Melting capacity: 400 kg/h

Maximum furnace temperature: 1000°C

Maximum production capacity: 800 kg of ingots/hour

- Integrated melting and casting process for efficient material flow
- Precise temperature control via central PLC unit
- Low emissions and quiet operation



Customized aluminium melting furnace

Thermal power and temperature range can be customized to meet your specific requirements

- Integration into customer environment
- Engineered and parameterized according to production process
- Furnace control according to customer specifications
- Possibility to integrate into existing control systems



Ladle preheating system with flameless promeos® burner technology



Thermal power and temperature range can be customized to meet your specific requirements

- For every size and type of transfer or treatment ladles
- Uniform and controlled heating of ladles
- Automatic operation with temperature feedback control
- Fast and safe handling of both crane and forklift ladles
- Compact, energy-efficient design ready for foundry integration
- Market leader in Germany
- Best available technology



Electrical ladle preheating system

Thermal power and temperature range can be customized to meet your specific requirements

- Fast heating with promeos® E-Modules
- Robust design
- Precise and reproducible refractory heating
- Silent, emission-free electric operation
- Safe and compliant with EU machinery standards
- Compact and easy integration into foundry workflows



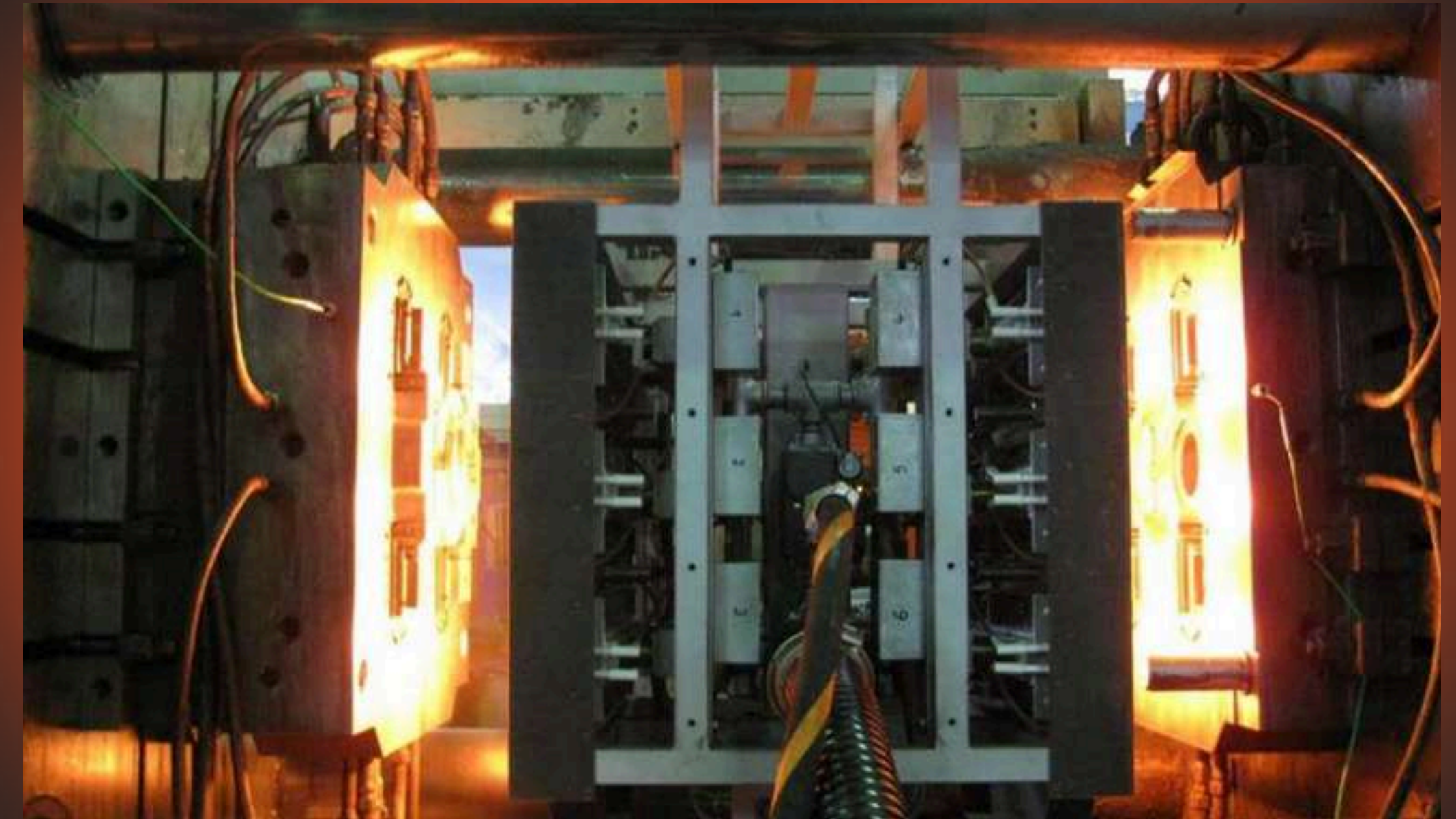
Preheating of induction furnace

Thermal power and temperature range can be customized to meet your specific requirements

- Up to 50 % increased efficiency
- Significant CO₂ reduction
- Uniform heat distribution
- Clean combustion without harmful emissions
- Low noise levels during operation
- Individually engineered furnace lid design



Mobile IR-heating system for low/high pressure die casting



Compact hot air generator Heattube

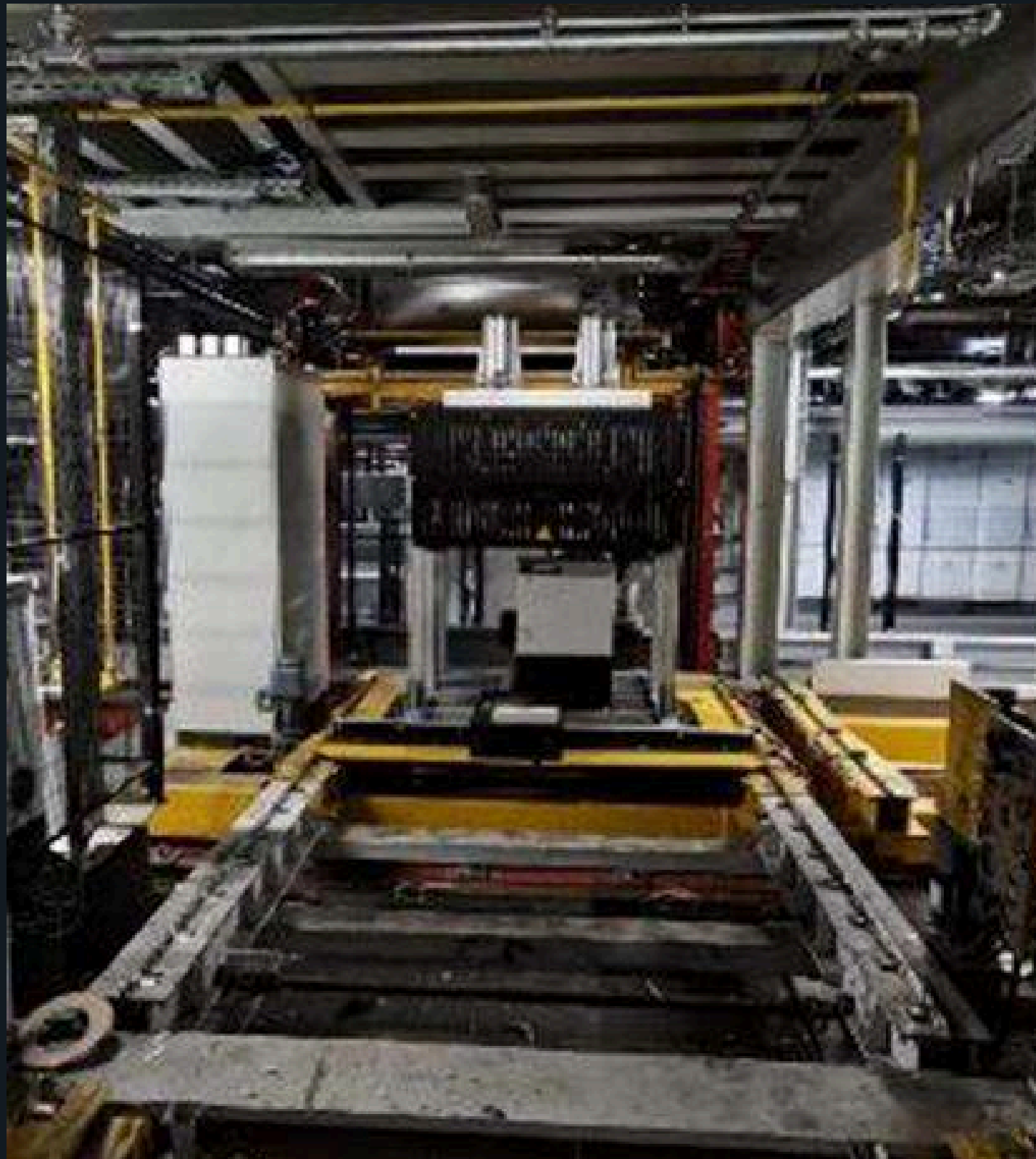
Thermal power: up to 30 kW

Temperature range: 150 – 800 °C

- Uniform and precise heating of dies, molds, , launders and various refractory material
- Compact all-in-one system with automatic and manual modes
- Low-emission flameless combustion
- Fast preheating, improved casting quality



Mobile heating system for LPDC dies



Dosing furnace for aluminum die casting

Capacity: 300 kg – 3000 kg

Temperature range: 620-780+ °C

- High precision dosing ensures consistent casting quality and minimal metal loss
- Seamless integration
- Reduced downtime
- Compatible with all die casting machines



Boogie hearth furnace for heat treatment for ferrous and non-ferrous application

Thermal power and temperature range can be customized to meet your specific requirements

- Uniform temperature distribution
- Precise temperature control
- Modular, service-friendly design for easy integration in existing production lines
- Heated blowers enable hybrid mode



Customized furnaces for heat treatment

Thermal power and temperature range can be customized to meet your specific requirements

- Customized design
- Homogeneous and stable heat treatment for aluminum and non-ferrous alloys
- Batch and continuous furnaces
- Optional with flameless thermal post-combustion unit



Laundry preheating

Thermal power and temperature range can be customized to meet your specific requirements

- Uniform and efficient preheating of launders and tundishes
- Automatic operation with start-up and flame monitoring
- Excellent insulation and low external surface temperatures
- Clean, low-emission process ready for foundry integration



Tundish preheating

Thermal power and temperature range can be customized to meet your specific requirements

- Uniform and efficient preheating of tundishes before casting
- Consistent process temperature and extended refractory lifetime
- Fast, fully automatic operation for continuous foundry workflow
- Energy-efficient and low-emission
- Available with positioning trolley



Filter box heating system

Thermal power and temperature range can be customized to meet your specific requirements

- Integrated in the lid
- Uniform preheating and warm-holding of filter boxes
- Low-emission, stable operation for aluminum recycling and casting



Drying & preheating of dies in ingot casting machines

Thermal power and temperature range can be customized to meet your specific requirements

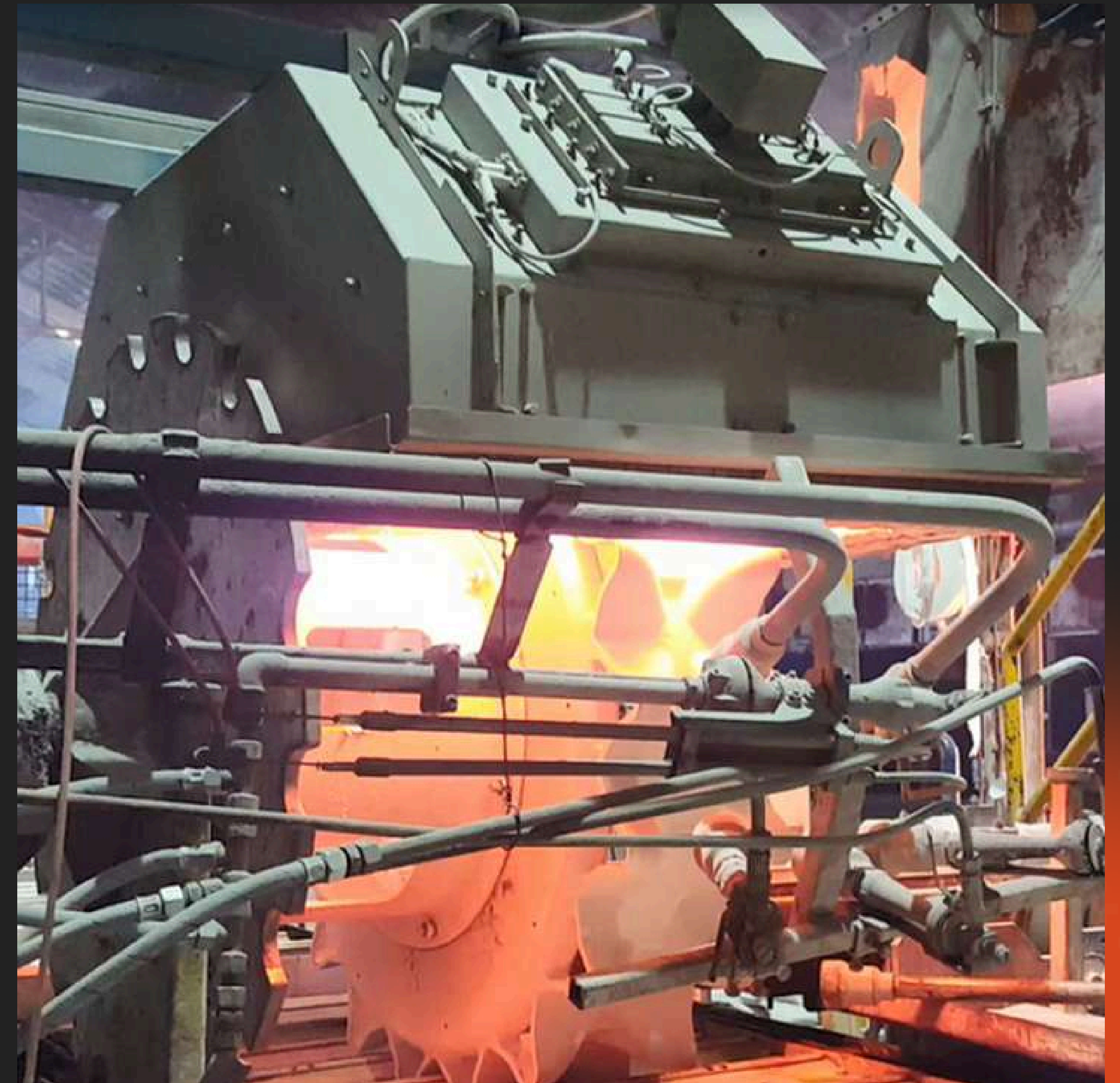
- Integrated in the lid
- Fast and uniform preheating of ingot dies and casting wheels
- High temperature stability and repeatable heating profiles
- Low-maintenance, easy filter access
- Proven in demanding aluminum foundry environments



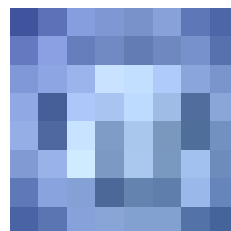
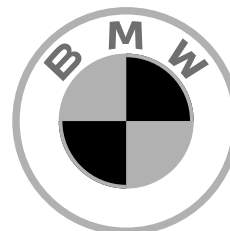
Casting wheel heating system

Max surface temperature (hood area): up to 900 °C

- Homogeneous heating for casting wheels
- Stable temperature control for continuous casting
- Compact design fitting existing handling systems
- Energy-efficient operation with fast response



Trusted by



Contact Us

Looking to reduce energy costs, optimize your heating processes, or decarbonize your production?

Contact us - we'll help you to find and implement the best solution for your thermal processes.

☎ Phone: +49 911 377 367-0

✉ Email: info@promeos.com

🌐 Website: www.promeos.com

🌐 Website: www.my-temperature.com

