

FLAMELESS HEAT SOLUTIONS FOR **FOUNDRIES**

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

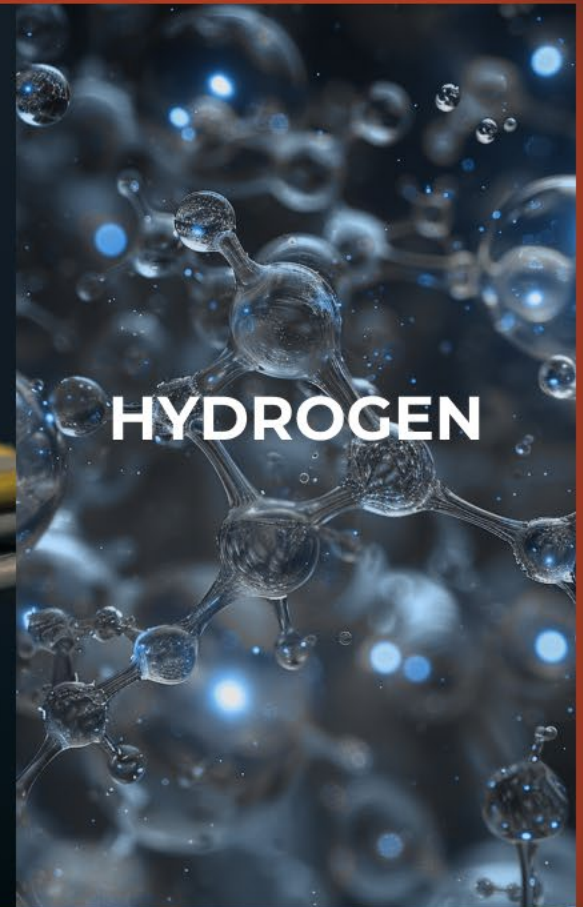
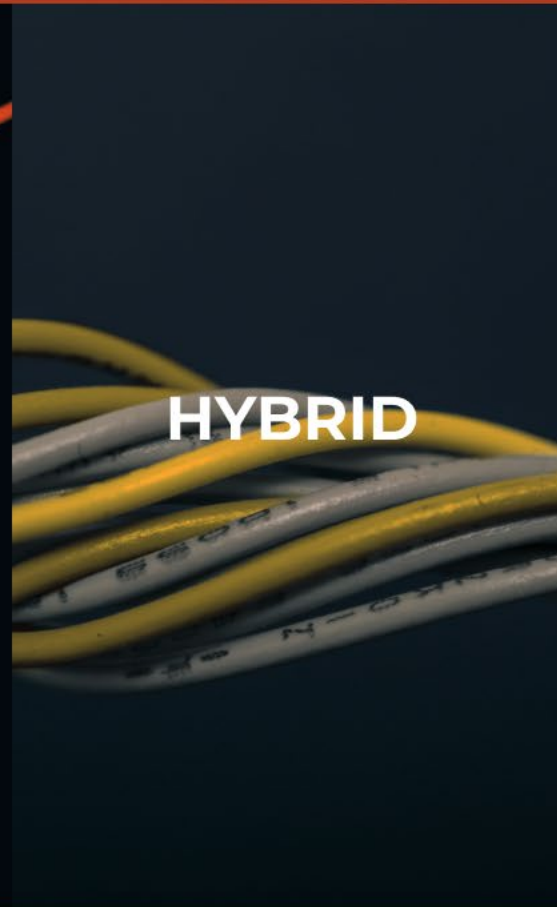
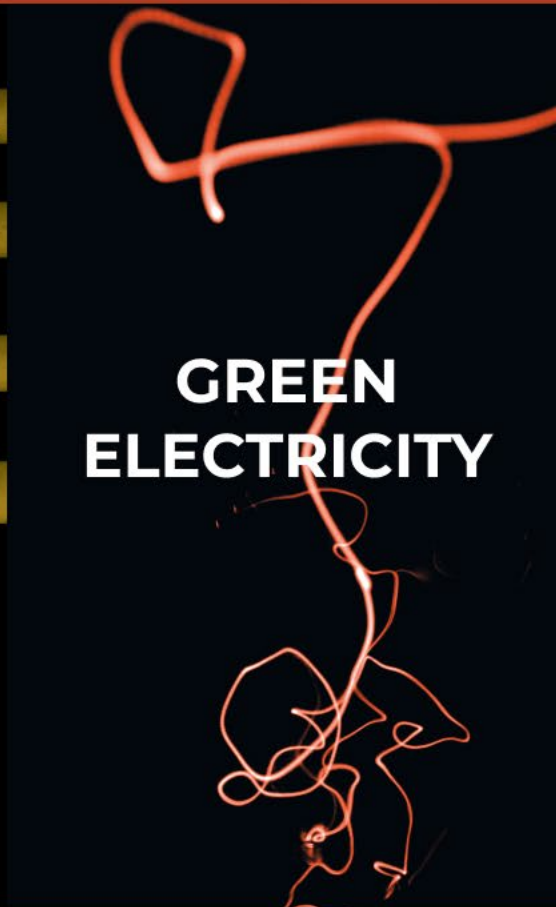
60+

TONS OF CO2
SAVED

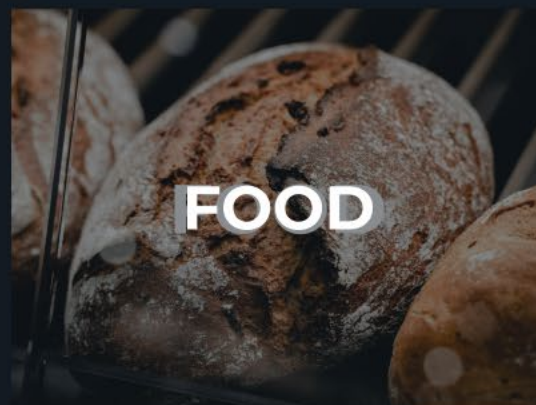
500 000+



All energy sources



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 Tiltable 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 (Aluminium)

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



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 Alloy Change



Hot spot open flame



Flameless
uniform heat



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



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



Aluminium recycling plant

Melting capacity: 400 kg/h

Maximum furnace temperature: 1000°C

Integrated melting and casting process
for efficient material flow

Precise temperature control via central
PLC unit

Low emissions and quiet operation



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



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



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

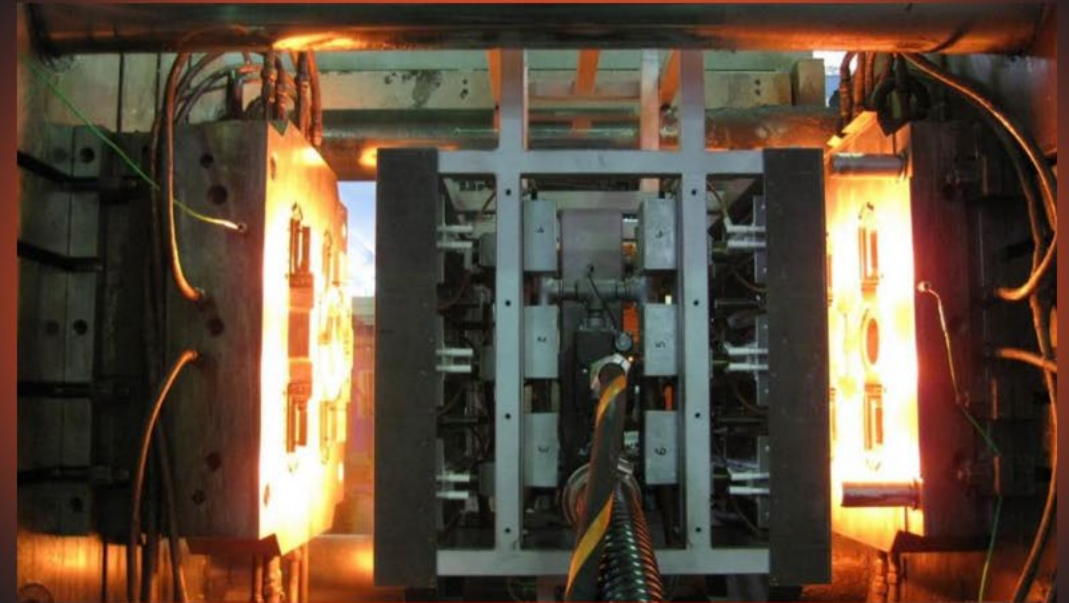
Silent, emission-free electric operation

Safe and compliant with EU machinery standards

Compact and easy integration into foundry workflows



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



Compact hotair generator

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

Available with air circulation fans



Customized furnace 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 After Burner 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, flame monitoring

Excellent insulation and low external surface temperatures

Clean, low-emission process ready for foundry integration



Station for 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

Heatelligence® technology with positioning cart



Burner system for filter box

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

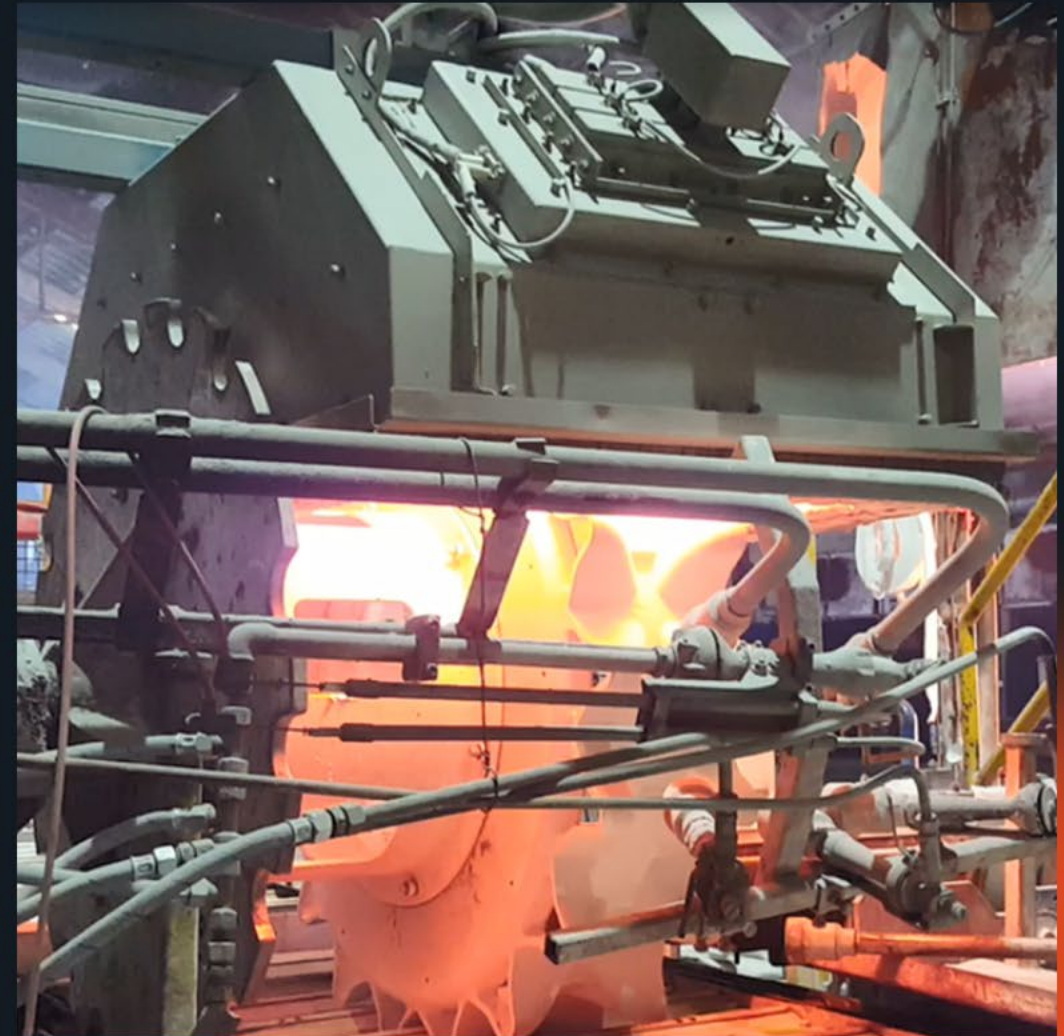
Max surface temperature (hood area): up to 900 °C

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 design the right heat.

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