

# FLAMELESS HEATING SOLUTIONS FOR

Melting Furnaces

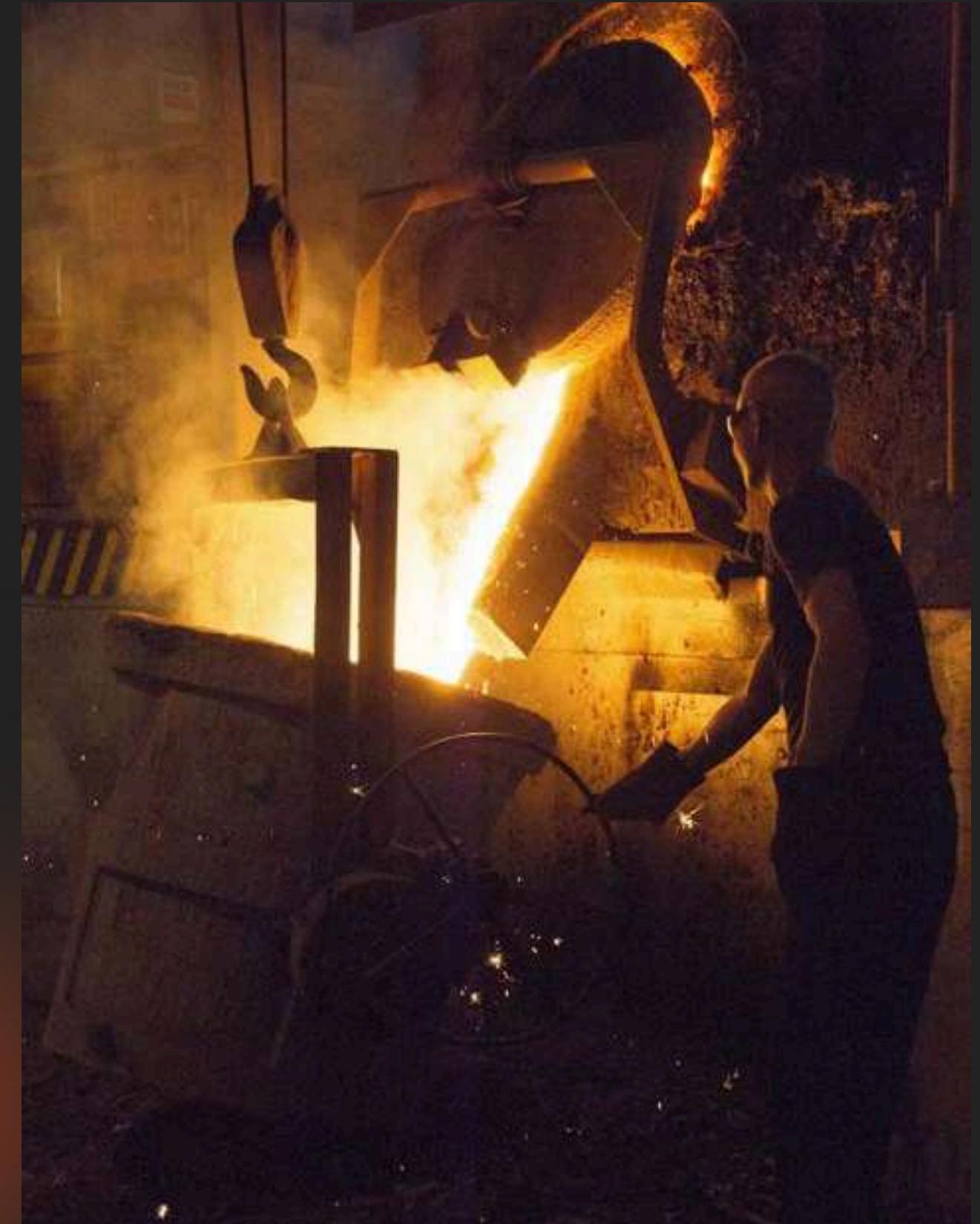
Die Preheating

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+**

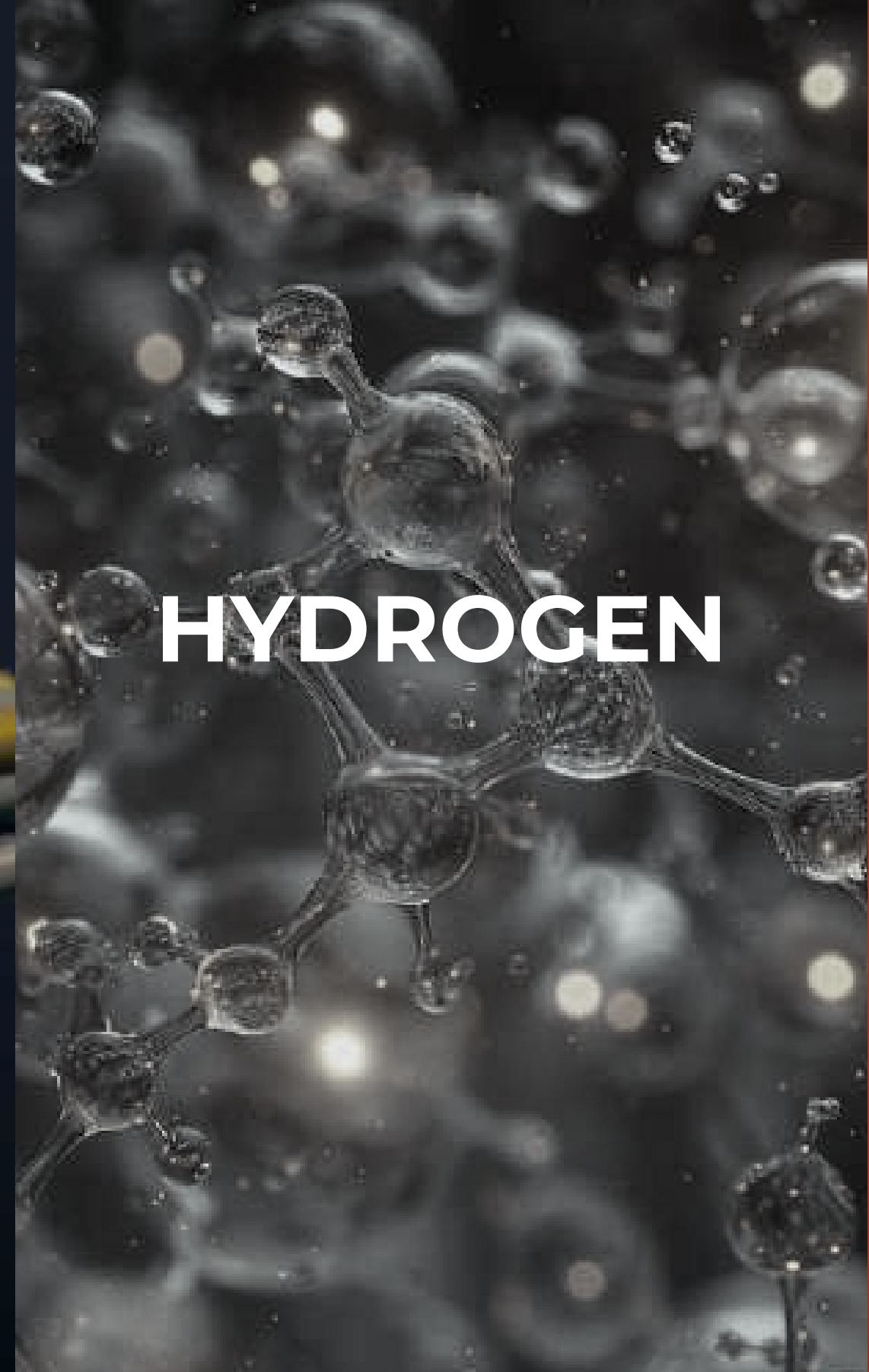
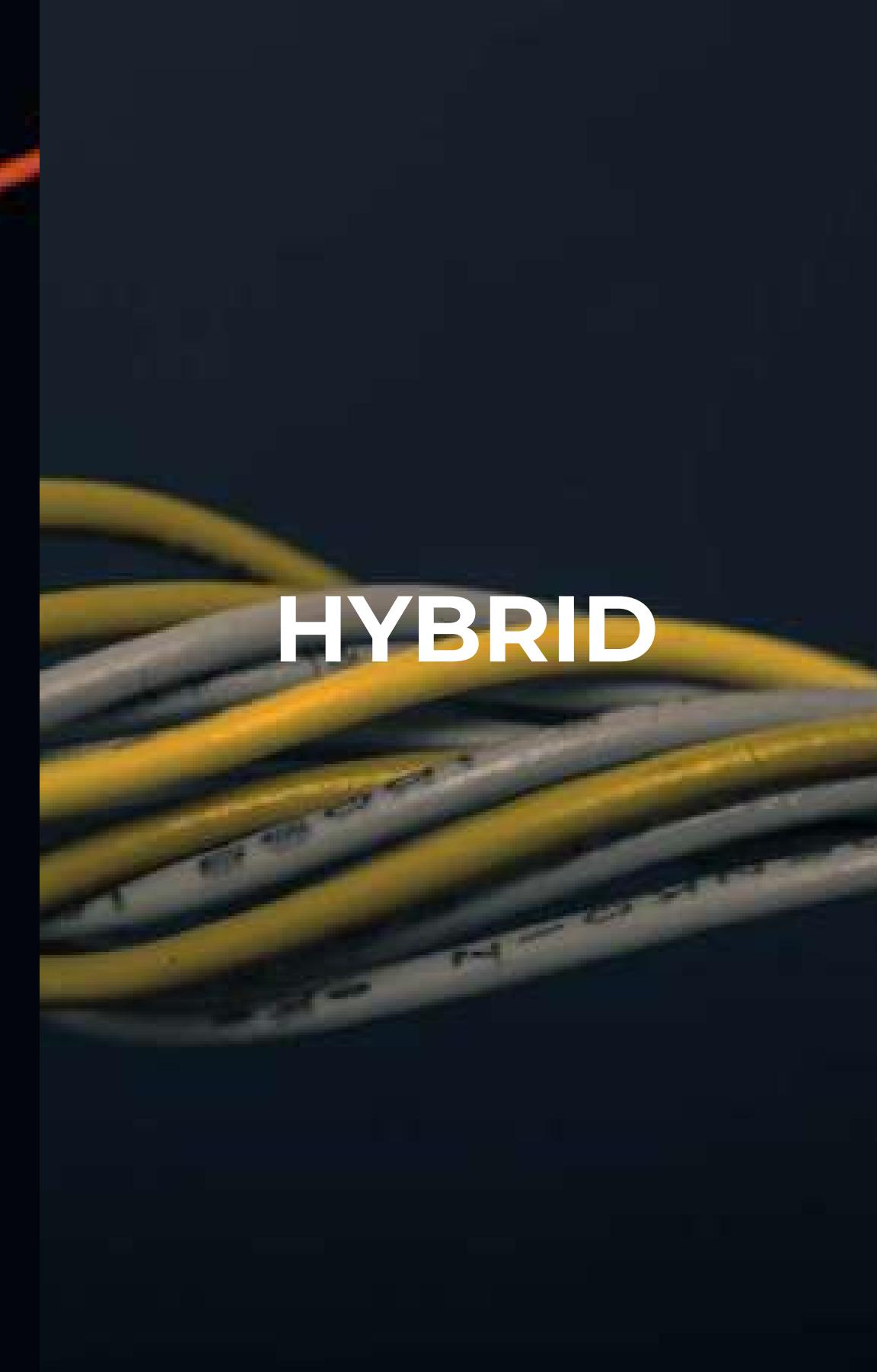
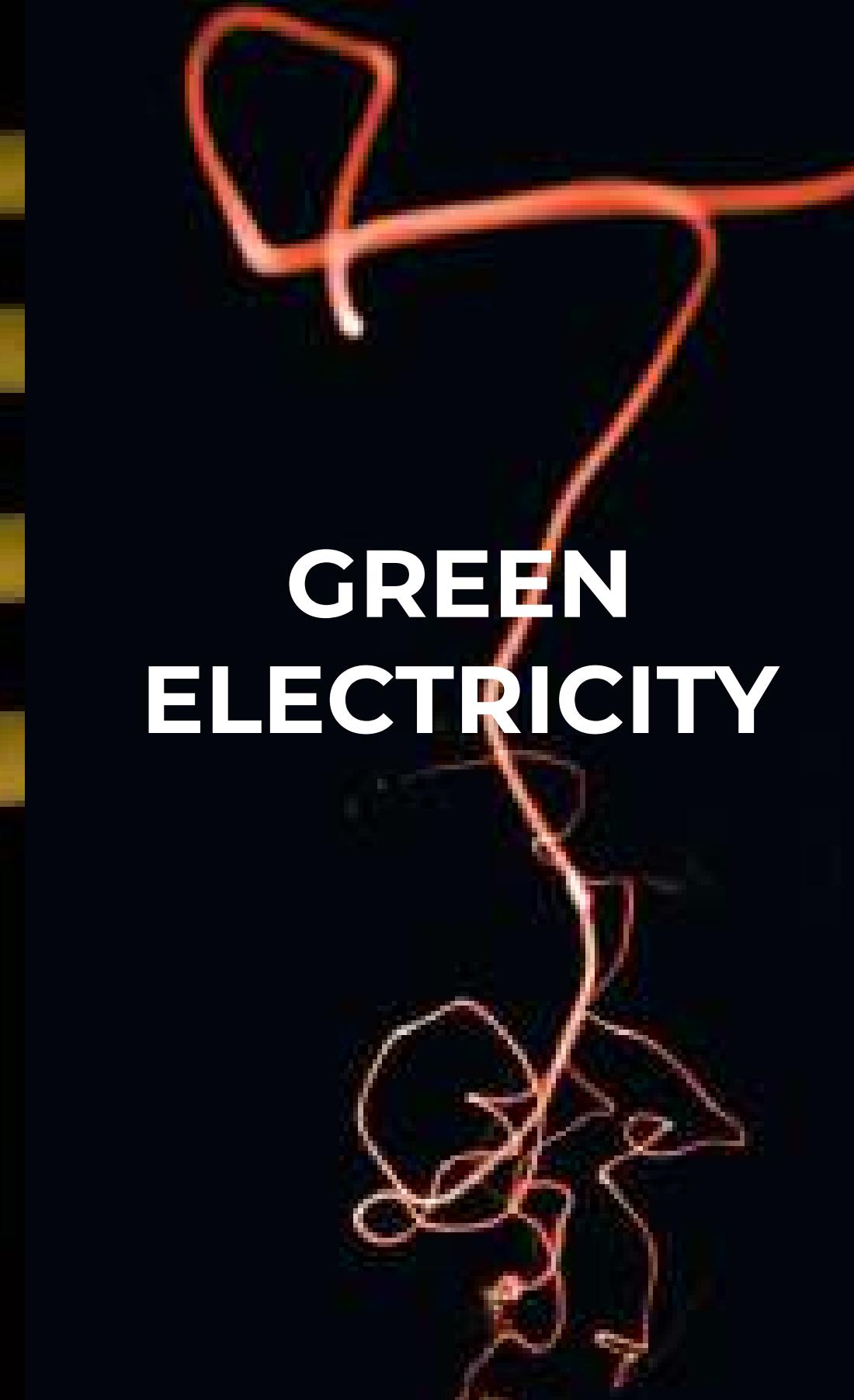
SATISFIED  
CUSTOMERS  
**230**

HEATING  
SOLUTIONS  
**60+**

TONS OF CO<sub>2</sub>  
SAVED  
**500 000+**



# All energy sources

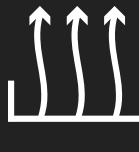


# Industries served



# 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
-  CO<sub>2</sub> and NO<sub>x</sub> 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



## 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

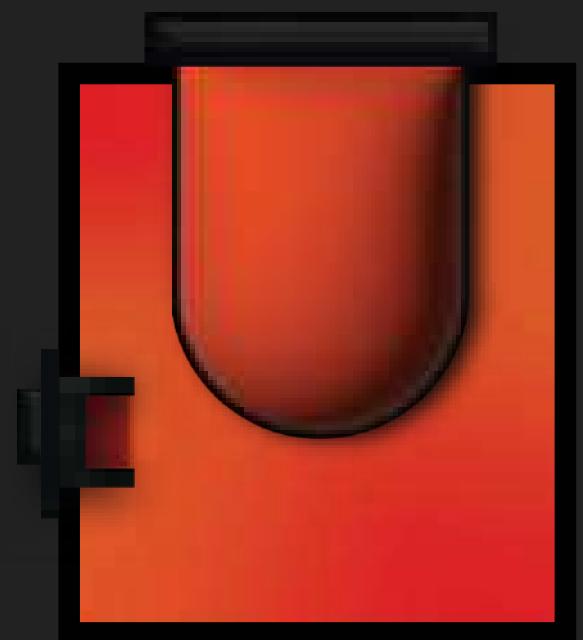
Capacity: up to 1 200 kg (Aluminum)

- Energy savings up to 35 %
- CO<sub>2</sub> 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



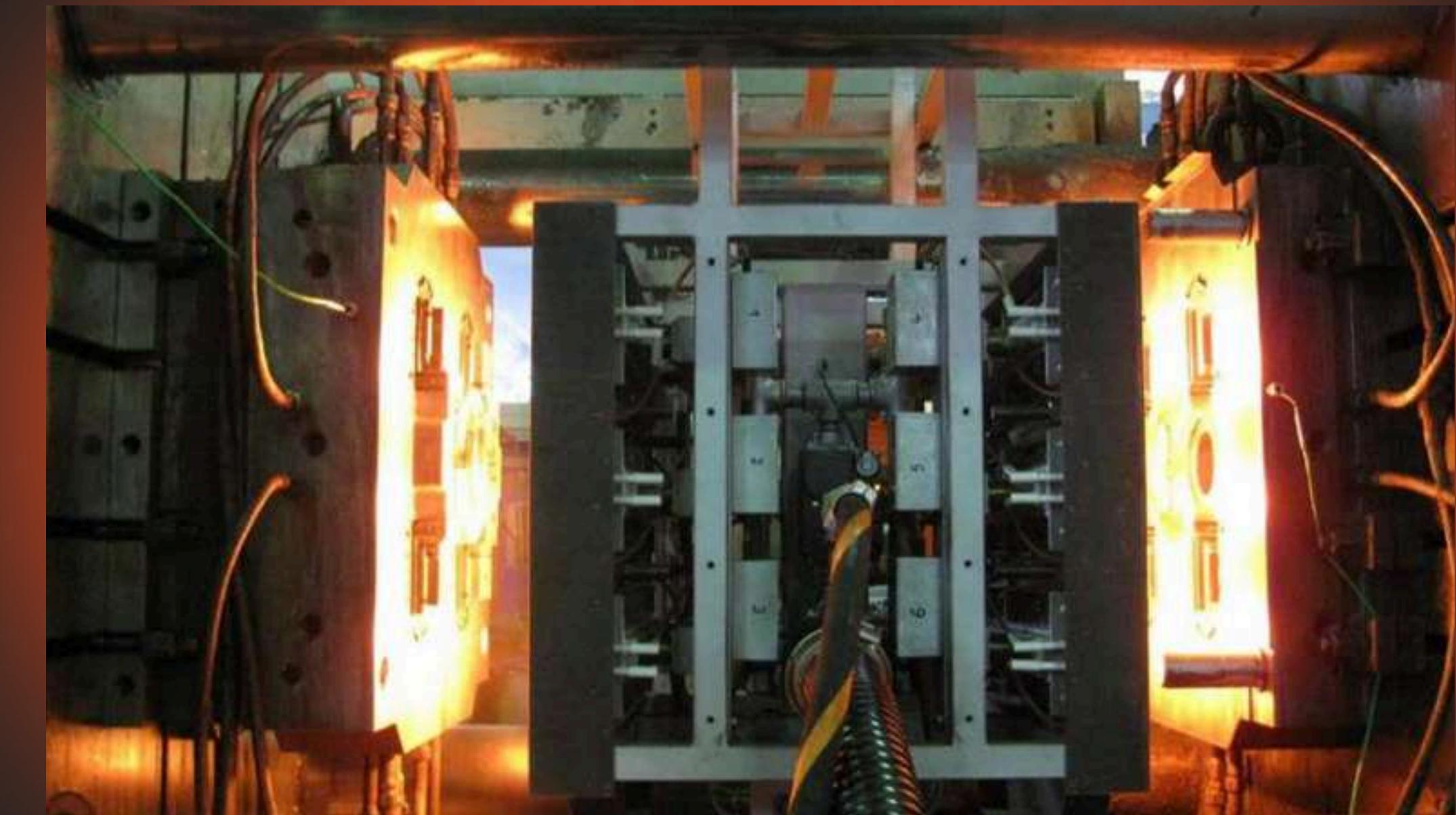
# Preheating of induction furnace

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

- Up to 50 % increased efficiency
- Significant CO<sub>2</sub> 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

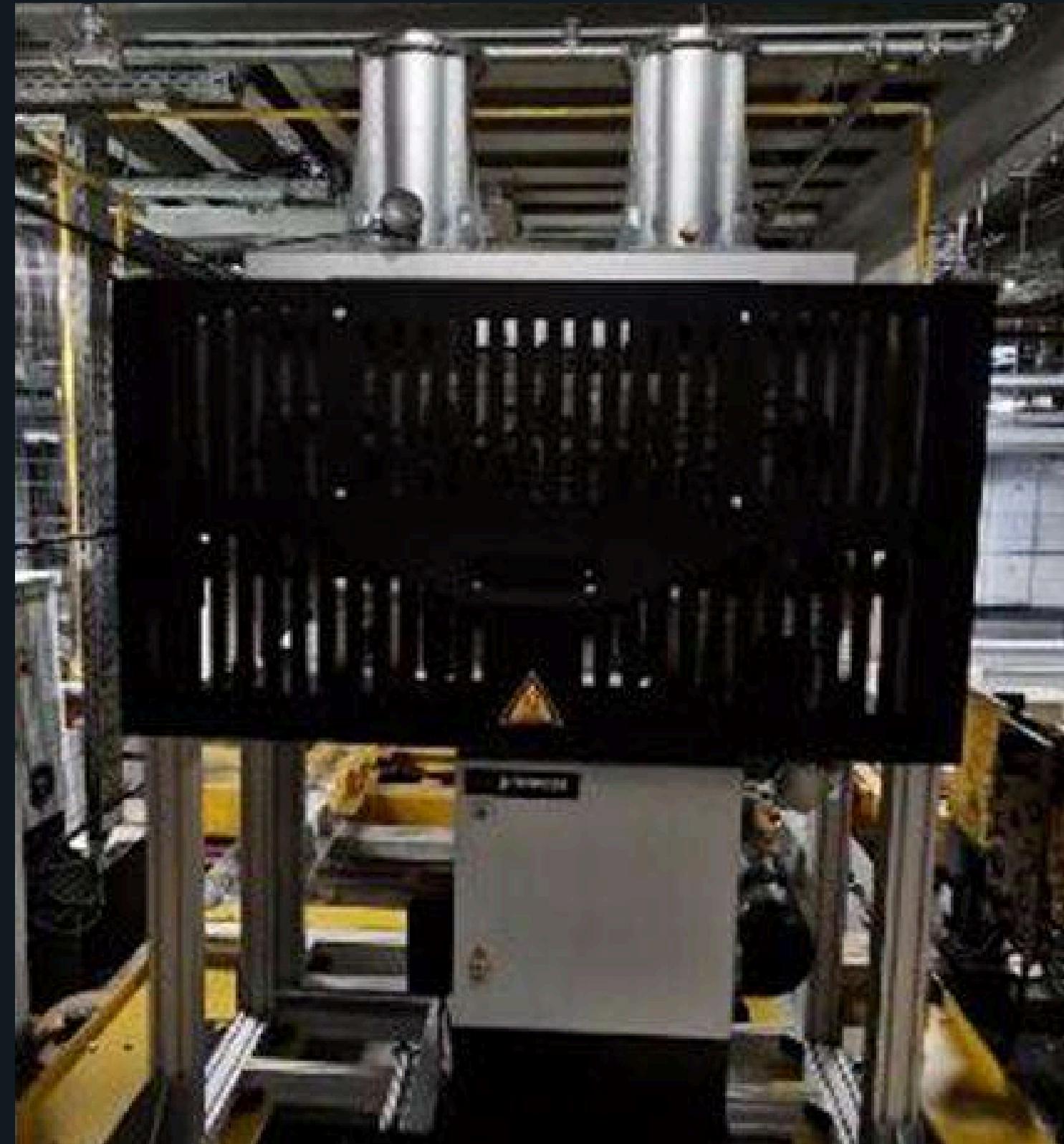
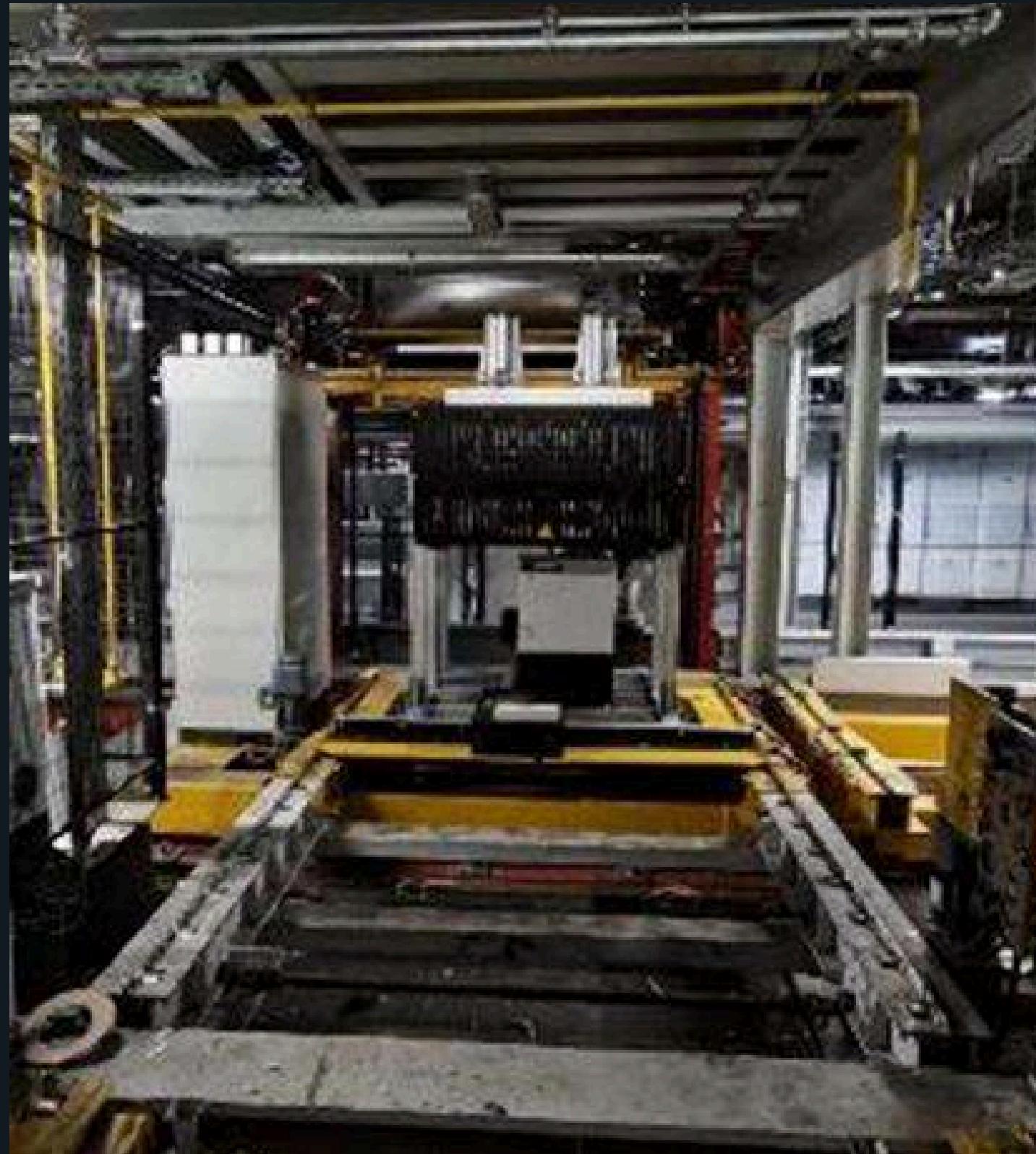
Temperature range: 150 – 800 °C

- 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

 **promeos**  
HEATELLIGENCE®



# 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



# Launder 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



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HEATELLIGENCE



 CleanTec Solutions  
for Green Energy



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**LIKORA**

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 **trímet +GF+**

 **WIEGEL**  
GRUPPE

 **SCHOTT**  
glass made of ideas

 **FEDERAL**  
MOGUL

 **HERBORNER**  
PUMPEN

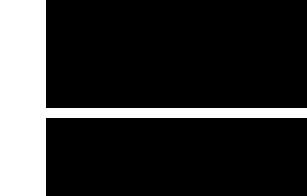
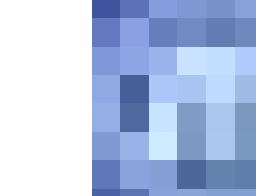
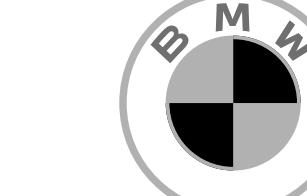
 **Eickhoff**

 **BOSCH**

 **AKIM METAL**

 **TENNECO**

 **FRANKENGUSS**



# 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.

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- 🌐 Website: [www.my-temperature.com](http://www.my-temperature.com)

