



MAPEKO

MEMBER OF THE INTOCAST GROUP OF EXPERTS

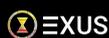
THE EXPERTS ON

INNOVATIVE PREHEATING.



INTOCAST
EXPERTS ON FIRE.

THE INTOCAST GROUP OF EXPERTS



50+ Years of Expertise in Preheating & Drying Solutions

For over five decades, MAPEKO has been redefining preheating and drying solutions for the global steel industry. Precision engineering, cutting-edge innovation, and sustainable technology — that's the MAPEKO standard.

Founded in 1973 in Neuwied, Germany, MAPEKO Feuer GmbH & Co. KG has become a global leader in innovative heating and drying technologies. As a proud member of the INTOCAST Group, we combine engineering excellence, process know-how, and customer-focused innovation to deliver solutions tailored to every plant's needs.

Innovation and development have always been at the heart of the MAPEKO philosophy. In close cooperation with leading refractory manufacturers and steelworks worldwide, we continuously develop and implement new products and solutions that set industry benchmarks. Since our founding, every fundamental improvement in heating technology for ladles and tundishes has been pioneered and brought to market by MAPEKO.

Over the last five decades, MAPEKO technologies have established themselves in almost every major steelworks worldwide. We support our customers in meeting current and future challenges with our innovative strength and expertise — from energy efficiency and process stability to sustainability.

Our portfolio includes solutions prepared for the future of steelmaking, such as systems compatible with non-fossil fuels like hydrogen, enabling significant reductions in greenhouse gas emissions. Additionally, our DETOX technology minimizes emissions of partly toxic gases during ladle drying and heating, achieving levels far below legal limits — a testament to the social responsibility we share with our customers.

Other MAPEKO innovations help reduce thermal shock in refractories, extend service life, lower maintenance costs, and stabilize steel-making processes — delivering lasting value to our customers.



Innovation That Drives Performance

At **MAPEKO**, innovation isn't optional — it's our foundation.

We work closely with refractory manufacturers and steelworks to develop solutions that maximize performance, minimize downtime, reduce emissions and reduce operating costs.



Award-Winning Solutions

— Recognised for ground breaking preheating technologies



Plug & Play

— Preconfigured systems, ready for rapid integration



Keep It Simple

— Lean designs minimize complexity and downtime



User-Friendly

— “One-button concept” ensures simple operation



Easy Maintenance

— Built for minimal intervention and fast service



High Quality

— Premium engineering ensures reliability



Vertical Ladle Heaters/Dryers

— Precision, Efficiency, Reliability

MAPEKO vertical heaters are used to heat up ladles in production.

- Ideal for excellent and fast heat transfer during the preheating process.

For newly lined ladles, **MAPEKO** vertical dryers provide homogeneous temperature distribution.

- Ideal for protecting monolithic linings during the drying process.



Key Features:

- **Advanced Burner Technology**
(Combination Burner)
- **Post-Combustion** by Additional Oxygen-System
- **Cardanic Suspended** Heat Shield
- **MAREKU** – Recuperator Technology
- **MAPEKO – System FOEHN®**
(for drying process)

*Vertical ladle heaters are also available as converter heaters.



Horizontal Ladle Heaters

— Maximum Flexibility, Optimal Efficiency

MAPEKO horizontal ladle heaters are designed to improve ladle maintenance and enable a faster, more efficient ladle management process.

- Ideal to speed up your operations and maintain process efficiency.

Key Features:

- **Advanced Burner Technology**
(Combination Burner)
- **Cardanic Suspended** Heat Shield
- **MAREKU** – Recuperator Technology
- **Multiple Heating Positions**
- **Easy Ladle Maintenance**
(access door in heat shield)



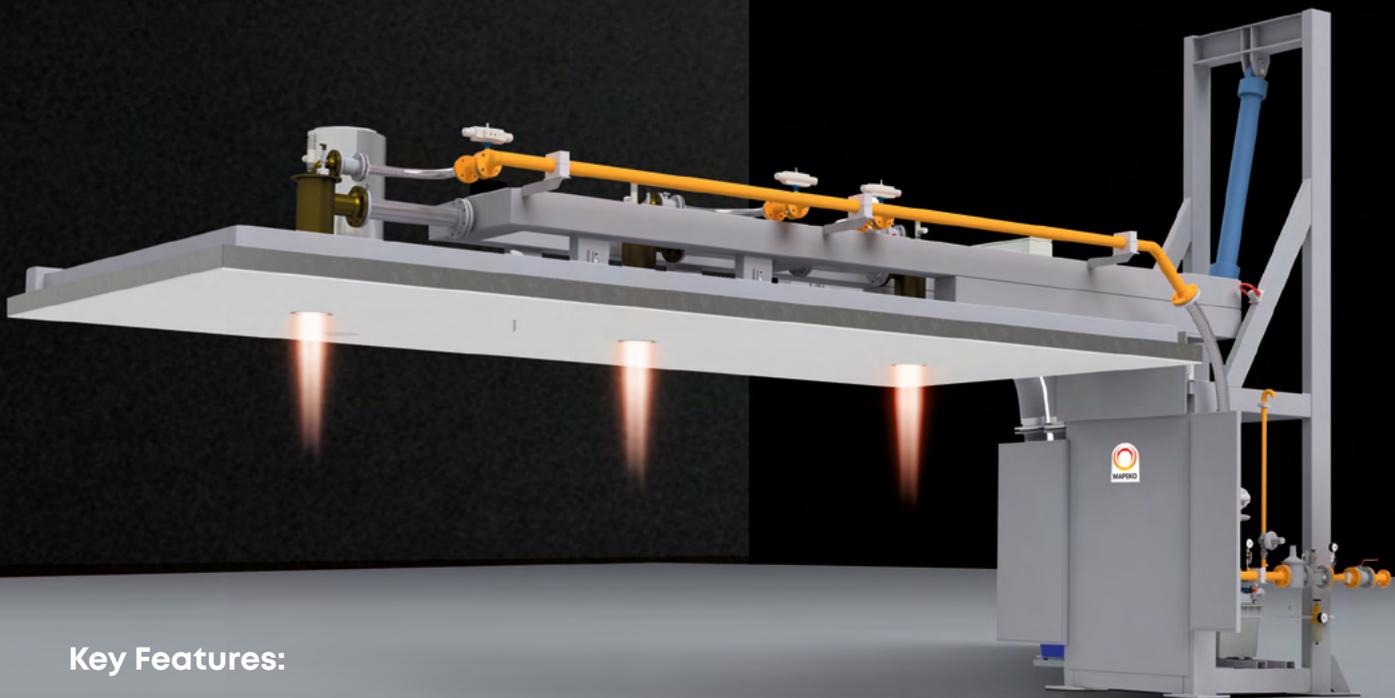


Tundish Heaters/Dryers

– Uniform Drying for Better Casting

MAPEKO tundish heaters are used to preheat tundishes in production, ensuring fast and efficient heat transfer during the preheating process. For newly lined tundishes, **MAPEKO** tundish dryers provide a homogeneous temperature distribution.

- Ideal for protecting monolithic linings during the drying process.



Key Features:

- **Advanced Burner Technology** (Combination Burner)
- **Cardanic Suspended** Heat Shield
- **MAREKU** – Recuperator Technology
- **MAPEKO** – **System FOEHN®** (for drying process)
- **Customizable Configuration** of Tundish Cover



Torpedo Ladle Heaters/Dryers

— Fast, Efficient, Controlled

MAPEKO torpedo heaters are designed for the controlled drying and heating of torpedo ladles. Using advanced **TWIN BURNER** technology, heat is applied horizontally from two sides, ensuring uniform temperature distribution and optimal energy efficiency

- Ideal to protect your lining with optimal heat distribution in both directions into the endwall of the torpedo.

Key Features:

- **Advanced Burner Technology**
(Twin-Burner)
- **Cardanic Suspended Heat Shield**
- **MAREKU** – Recuperator Technology
- **MAPEKO** – **System FOEHN®**
(for drying process)



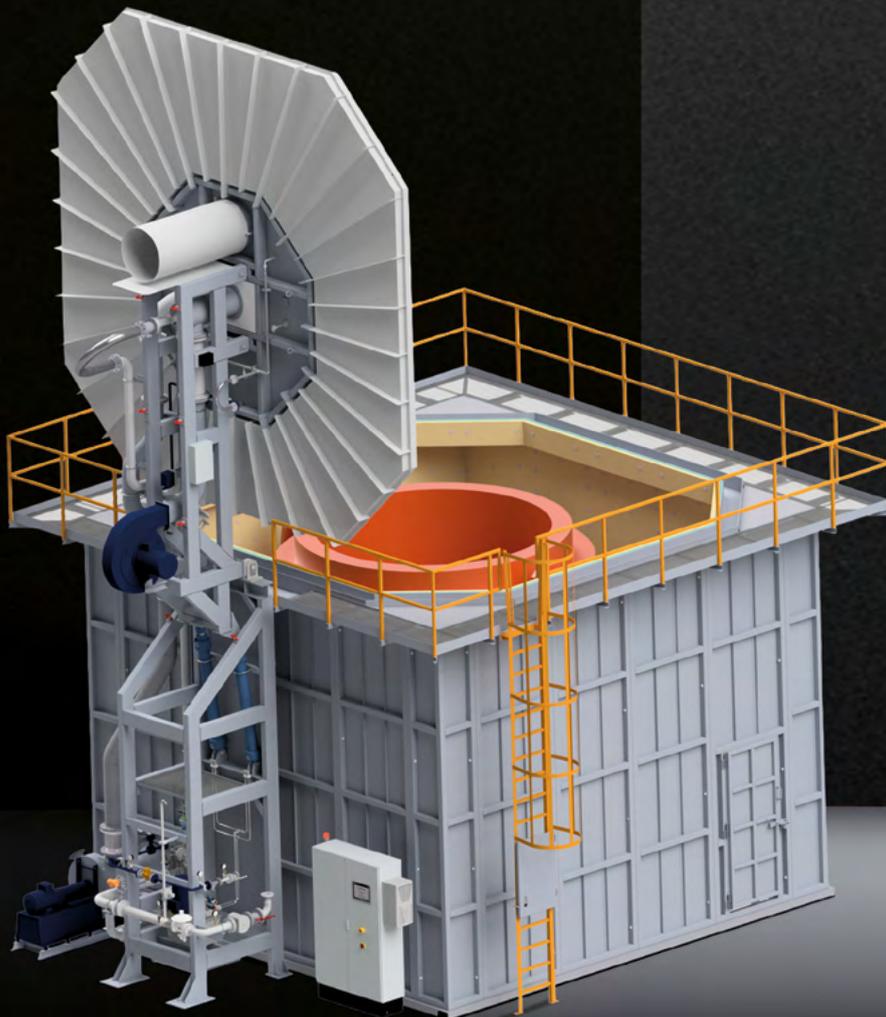


Thermal Post Combustion Heating

– Individually Manufactured and Safe

MAPEKO provides a unique thermal post-combustion system for the efficient burning of hazardous exhaust gases during the drying of refractory linings. Each burner is individually manufactured to meet the required power and installed on-site, with customized solutions including the necessary control systems for safe and reliable operation.

- Ideal to burn hazardous gases emitted during the drying process.



Key Features:

- **Advanced Burner Technology**
(Combination Burner)
- **Post-Combustion** by
Additional Oxygen System
- **Cardanic Suspended** Heat
Shield
- **MAREKU** – Recuperator
Technology
- **MAPEKO** – **System FOEHN®**
(for drying process)
- **Ladle** is Completely **Enclosed**
& **Sealed** by a Housing



SEN & SES Preheaters

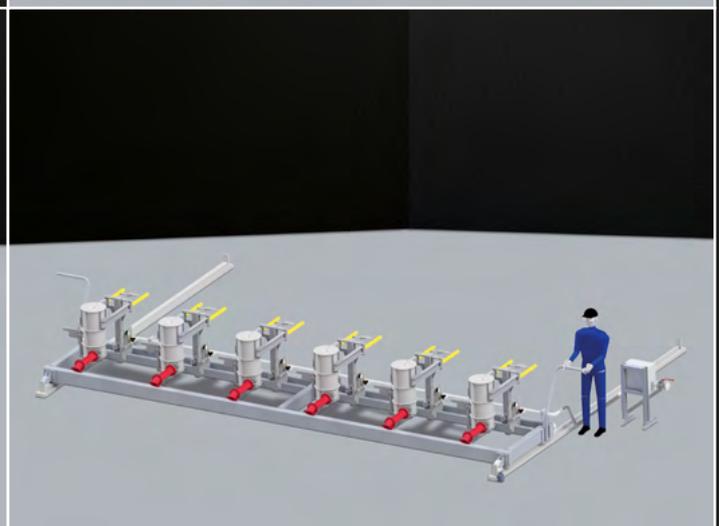
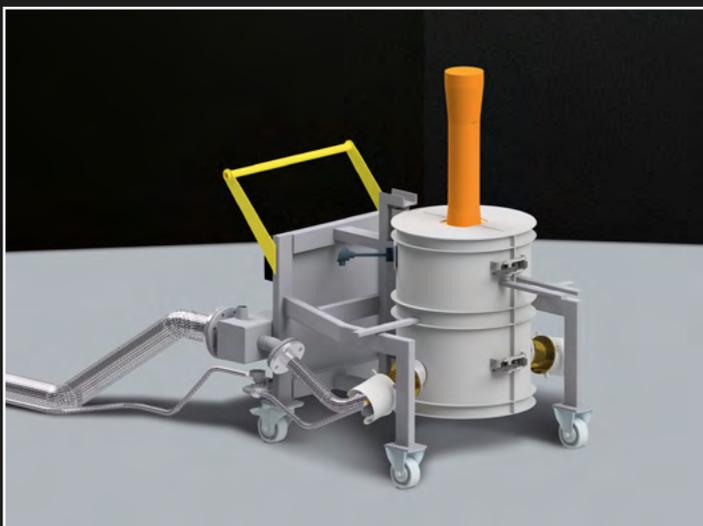
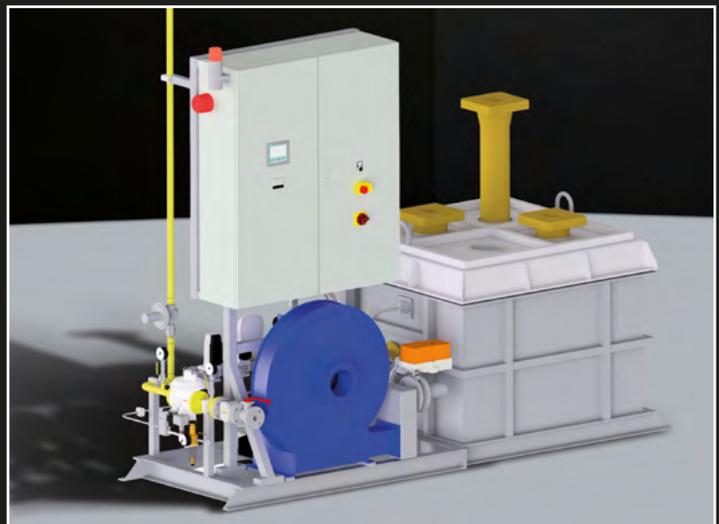
– Uniform Heating for Stable Casting

MAPEKO SEN & SES preheaters are designed for the controlled preheating of Submerged Entry Nozzles (SEN) and Submerged Entry Shrouds (SES) used in continuous casting operations. They ensure an even temperature distribution, are gentle on materials, efficient, and reliably protect refractory components from thermal shock, residual moisture and oxidation prior to casting.

- Ideal for ensuring stable casting conditions and extending the service life of flow-control components.

Key Features:

- **Dedicated Preheating Systems** for SEN & SES
- **Homogeneous Temperature Distribution** to Reduce Thermal Stress
- **Controlled Heating Design**, with optional closed configuration, to protect against moisture and oxidation.
- **Multiple Heating Concepts** adapted to casting practice and plant logistics
- **Process-Safe, In-House Tested Design** for reliable continuous casting operation



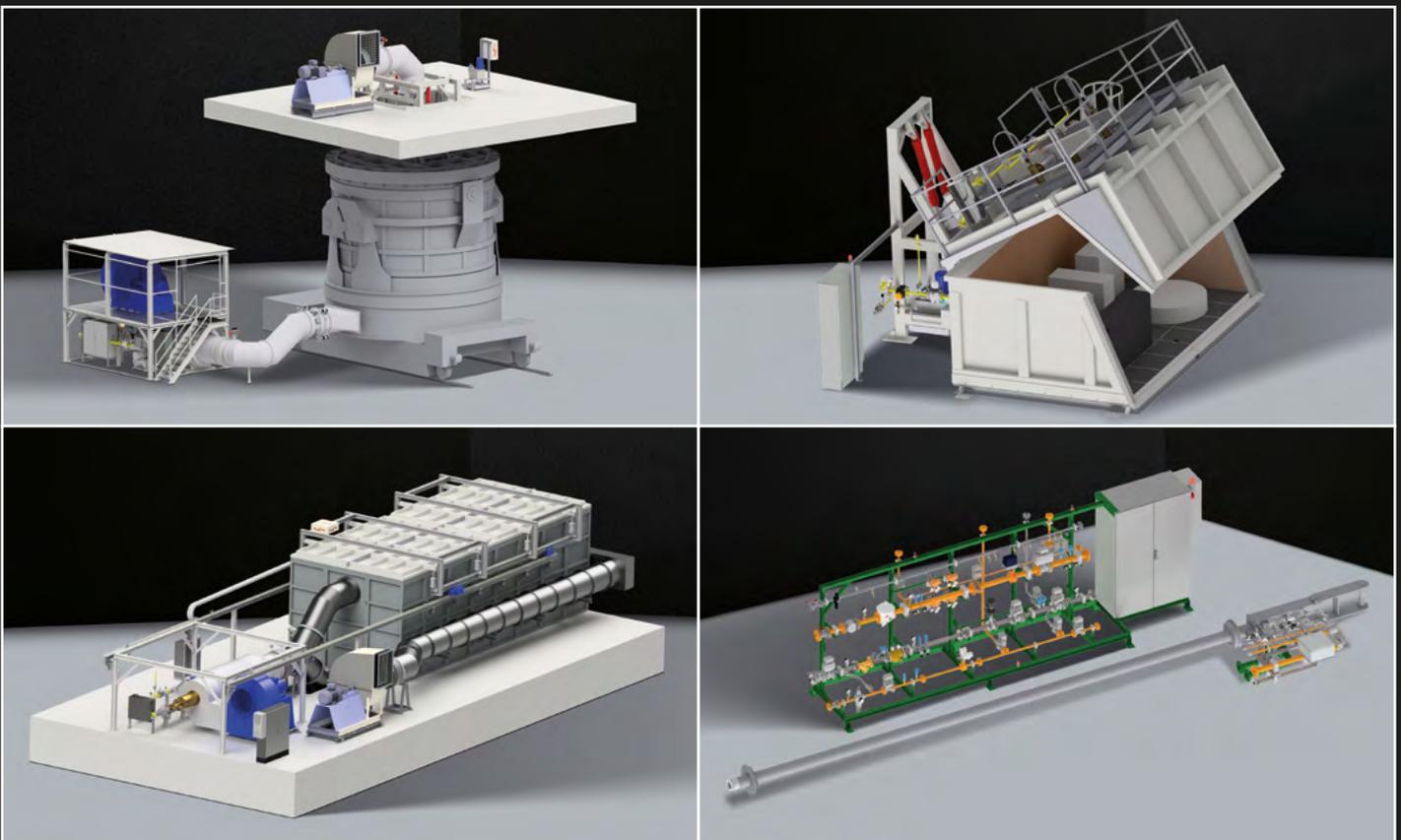
Tailored Solutions for Complex Heating Requirements

MAPEKO delivers customized heating and drying systems for converters, RH vessels, snorkel heating, and other specialized steelmaking applications. Each solution is engineered to meet specific process demands while ensuring maximum efficiency, operational safety, and process stability.

Our converter heaters are available in both vertical and horizontal configurations and can be equipped with oxygen-assisted combustion where needed. For added flexibility, **MAPEKO** also

offers mobile heating solutions designed for crane, forklift, or manual positioning, enabling seamless integration into your existing workflow.

In addition to converters, our portfolio includes specialized heating systems designed to address unique production challenges — from compact mini-furnaces for drying shrouds to fully customized heat shields, mobile snorkel heater systems, and efficient scrap dryers that improve safety and reduce tap-to-tap times.



MAPEKO ESP & GREEN Program

— Innovation That Protects the Future

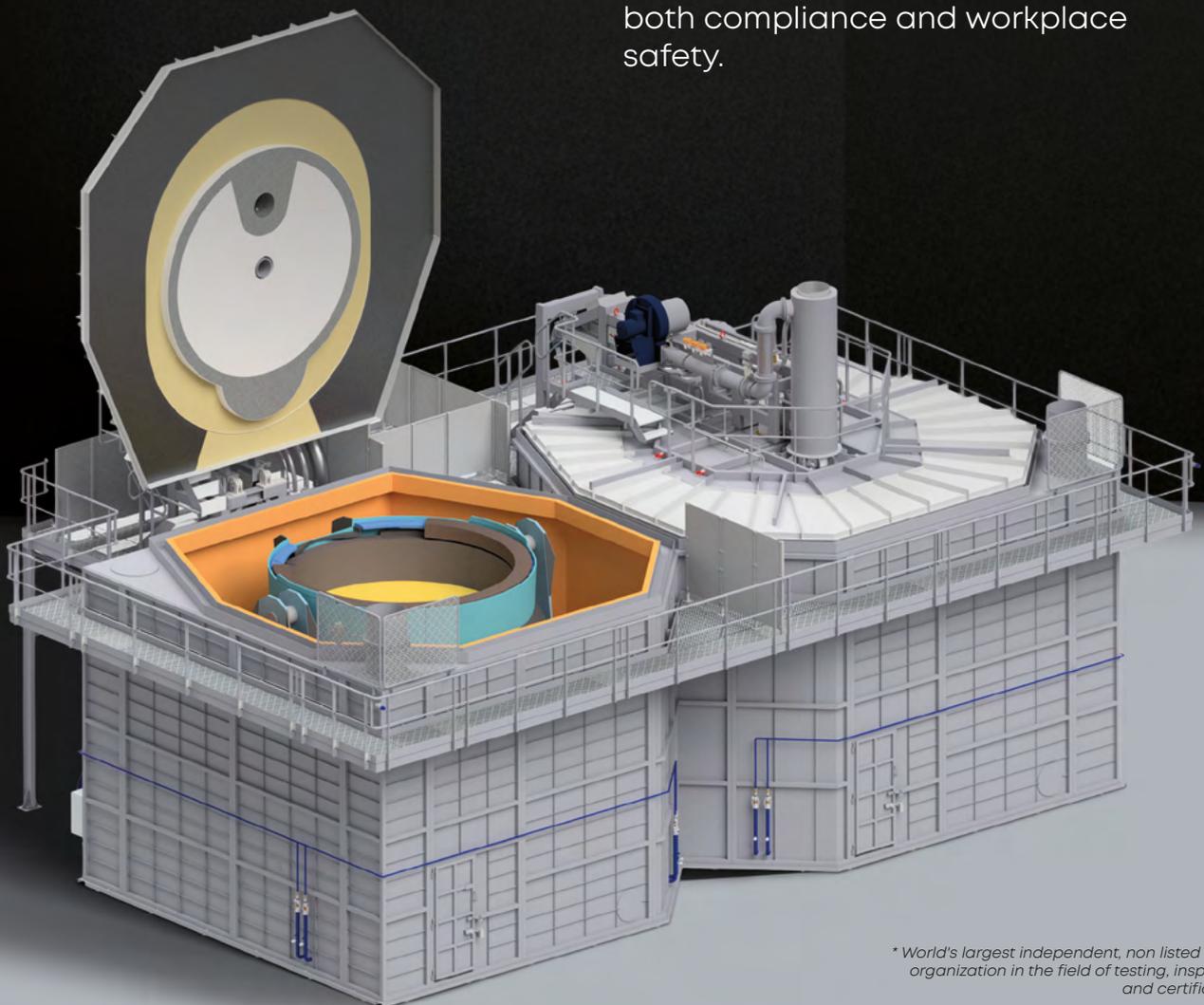
MAPEKO develops advanced heating technologies that combine efficiency, process stability, and environmental protection.

Through our **MAPEKO ESP systems**, optimized burner technology, and innovative sealing solutions, we achieve maximum energy utilization and precise temperature control across all applications.

As part of the **MAPEKO GREEN Program**, we integrate H₂-ready

combustion systems and energy recovery technologies to enable sustainable steel production with reduced emissions.

For even greater environmental protection, our **DETOX** technology and Direct Thermal Combustion systems capture and burn hazardous gases directly inside the ladle, preventing pollutants like phenol, benzene, and benzo(a)pyrene from entering the atmosphere. Independent testing by **DEKRA*** confirms emissions well below measurable limits (< 0.03 mg/h), supporting both compliance and workplace safety.



* World's largest independent, non listed expert organization in the field of testing, inspection and certification.

MAPEKO: Where Technology Meets Sustainability

Highest Efficiency

Custom combustion systems with precise temperature control, low fuel consumption, and maximum uptime.

Sustainability

Energy recovery technologies, and **DETOX & Direct Thermal Combustion** to capture and burn hazardous gases inside the ladle.

Global Expertise

Over 1,600 systems installed in 64 countries, trusted worldwide by steel and foundry industries.

Innovation

Continuous R&D ensures cutting-edge solutions that meet evolving industry needs.

Future Proof

H₂-ready for next-generation burner technology and a long-term service partner – supporting customers since 1973.

MAPEKO Principles

- **Efficiency:** Maximum energy utilization
- **Sustainability:** Reduced emissions
- **Reliability:** Stable processes, minimal downtime
- **Innovation:** Next-generation technologies
- **Future Proof:** H₂-ready systems built to meet tomorrow's demands

Our Promise

Safe, compliant, and efficient heating solutions tailored to your production needs.

INNOVATING HEAT
POWERING PERFORMANCE.



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MAPEKO Feuer GmbH & Co. KG · Dierdorfer Str. 500 · 56566 · Neuwied
Tel.: + 49 / 26 31 / 92 40 - 0 · Fax: + 49 / 26 31 / 92 40 - 20
info@mapeko.com · www.mapeko.com