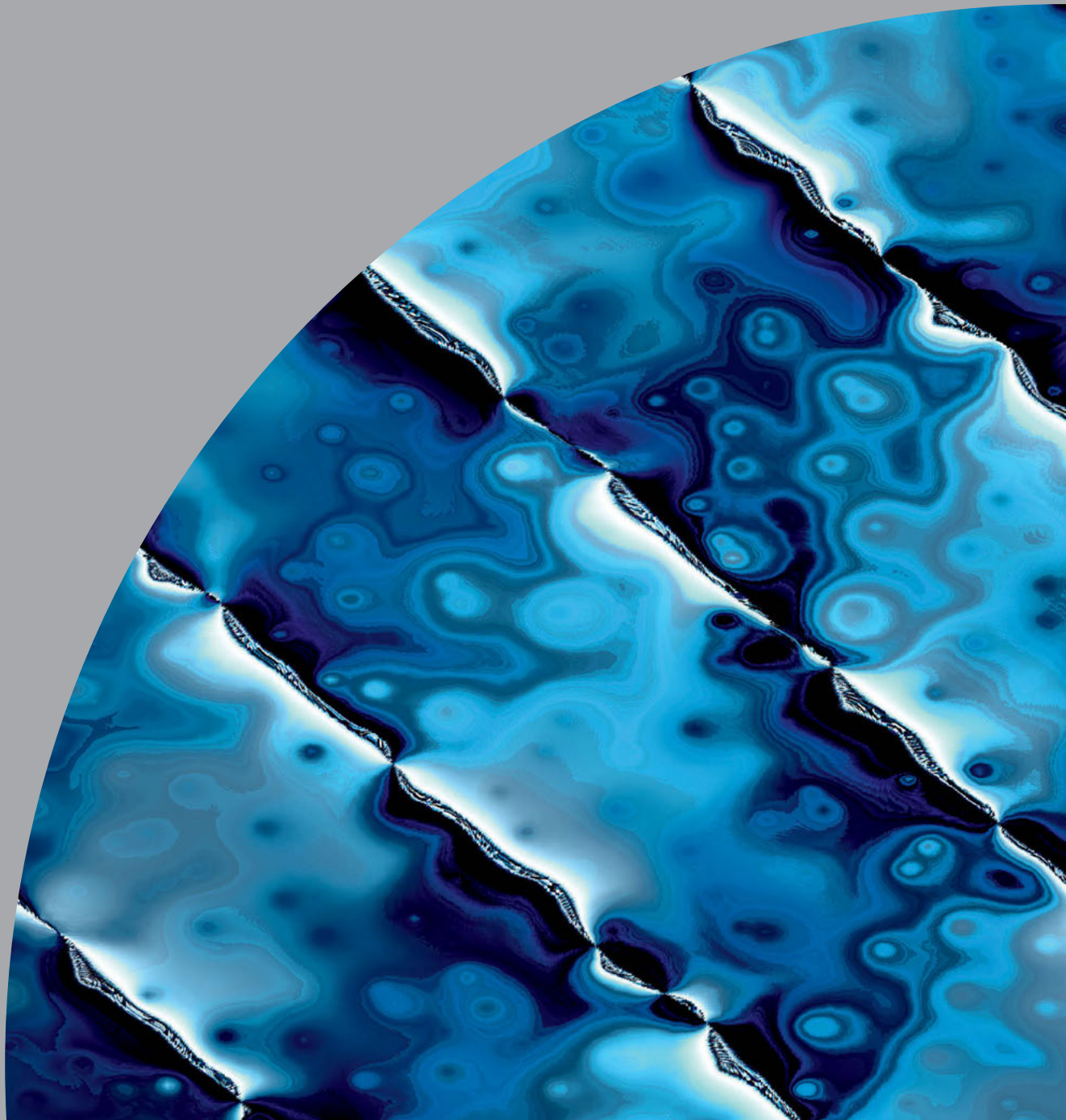


Metallurgy



The World of Metallurgical Equipment

Leading services for our members



Pioneering – Relevant – Productive

Our mission

Based on our core values, VDMA Metallurgy pools relevant know-how for metallurgical machinery and plant construction in the foundry machinery, metallurgical plants and rolling mills, as well as thermo process technology sectors.

We advise, inform, network and additionally represent the interests of our members in the following strategic areas:

- Standardisation and technical regulations
- Market information, economy, statistics
- Technology development and innovation.

We strive to boost the competitiveness and future viability of our member companies.

Our communication activities focus on the image of the sector, so too on the technological competence of member companies.





Our members industrial expertise

Foundry machinery

Lightweight design, efficiency, flexibility and the conservation of resources. These objectives set the standards by which the casting industry is measured in comparison with other production processes. Casting solutions can only succeed when they offer a user clear advantages in terms of quality, productivity, effectiveness and safety.

VDMA Metallurgy member companies supply and offer a comprehensive range of equipment, machinery and plants including:

- Melting and holding furnaces
- Casting machines and pouring equipment
- Die casting machines (low/high pressure, gravity)
- Sand preparation/reclamation machines and plants
- Moulding machines and plants
- Core making machines and plants
- Knock-out, fettling and finishing machines and plants
- Environmental protection systems.

These are used in casting processes characterised by:

- The integration of CAx- and simulation-based technology
- Seamless process automation
- Innovative tooling, moulding and casting concepts
- Material development in line with requirements
- Compliance with environmental rules.

Metallurgical plants and rolling mills

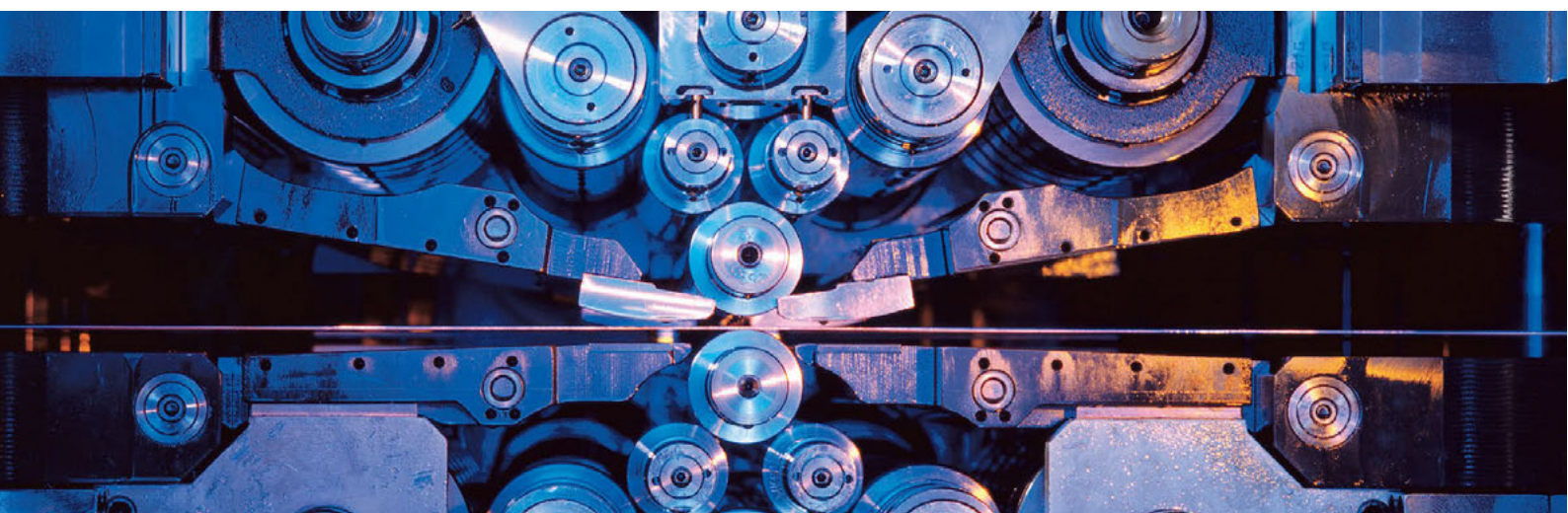
The manufacturing and processing of steel, aluminium and other non-ferrous metals is essential for a wide variety of applications both in industry and everyday life. Metallurgical processes lay the foundation for convenience, quality and safety in a multitude of areas: from structural parts in aircraft through high-span bridge construction to sustainable buildings. Likewise, from lithography plates in newspaper printing to safe car bodies and high-tech utensils for professional kitchens.

VDMA Metallurgy companies develop and produce machinery, equipment, components and plants for the following manufacturing processes:

- Prime and raw material processing
- Iron making
- Steel production
- Casting and pouring of steel and non-ferrous metals
- Shaping of steel and non-ferrous metals
- Strip processing
- Finishing processes
- Energy and environmental protection systems.

The performance and quality of modern metallurgical plants and rolling mills are thus characterised by:

- Highly automated, flexible and fast procedures
- Linked process stages
- Product quality of the highest standards
- Optimised plant control
- Environmental protection advances such as emissions reduction, filtration, regeneration and energy reprocessing.





Thermo process technology

Thermal processes play a vital role in the production and handling of a wide range of industrial and consumer goods, as well as in the recovery of raw materials. They include the controlled heating, melting and cooling of charge materials, which can then be employed in further treatment and development stages. In almost all cases, there are no alternatives to thermal processes.

The range of processes available from VDMA Metallurgy members includes:

- Heating, reheating and soaking
- Drying and cooling
- Hardening, annealing, carburising, nitriding
- Melting, holding, casting
- Firing, sintering and tempering
- Brazing and welding
- Cracking
- Coating with metallic and non-metallic materials
- Thermal recycling, pyrolysis.

Thermo process plants, machinery and components are used for just about all thermal processes. The equipment available begins with small laboratory furnaces, leading to medium-sized induction and treatment furnaces and ending in large rotary kilns and walking beam furnaces. The portfolio also includes essential accessories and components, especially for industrial gas and oil burners.

Thermo processing plants are mainly used in the following industries:

- Iron and steel
- Non-ferrous metals
- Automotive and components
- Glass
- Ceramics and cement
- Chemical and petrochemical.

We support our members in key issues

System partners for efficiency and sustainability

Throughout the world, efforts are being stepped up to conserve resources and reduce pollutant emissions. As such, these are turning into a decisive competition element.

With their specific expertise and experience in processes, equipment suppliers from all the three sectors help customers to optimise each stage of production and to achieve striking efficiency potential.

VDMA Metallurgy support at a glance:

- We monitor relevant regulatory and technological developments.
- We define best practice.
- We set international standards.

Global market competence

Our member companies from the metallurgical equipment industry are highly respected partners of their clients worldwide. They are considered technology pioneers, not only by supplying tailor-made equipment but also by being skilled consultants offering holistic solutions. This includes system partnership and full service throughout the entire plant life cycle.

VDMA Metallurgy support at a glance:

- We provide global market information.
- We process and publish relevant statistics.
- We look to the technological future.

Shaping digital transformation

Industry 4.0 – the digitalisation of production – allows for the optimisation of processes within new dimensions, thanks to improved data evaluation and networking. This particularly applies to the environments of steel and non-ferrous metal production and handling.

The digitalisation of production accelerates and optimises a wide variety of applications to improve the productivity, versatility and resource efficiency of customer processes. Metallurgical equipment suppliers support these innovative developments with their widespread, in-depth knowledge.

VDMA Metallurgy support at a glance:

- We analyse trends in data-driven service concepts and new business models.
- We set up platforms for information exchange.
- We organise match-making with key stake holders.

Imprint

VDMA

Metallurgy

Lyoner Str. 18

60528 Frankfurt am Main

Germany

Phone +49 69 6603-1414

Fax +49 69 6603-2414

E-Mail metallurgy@vdma.org

Internet www.vdma.org/metallurgy

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VDMA

Metallurgy

Lyoner Str. 18
60528 Frankfurt
Germany

Contact

Dr. Timo Würz

Phone +49 69 6603-1413

E-Mail timo.wuerz@vdma.org

Internet www.vdma.org/metallurgy

www.vdma.org/metallurgy