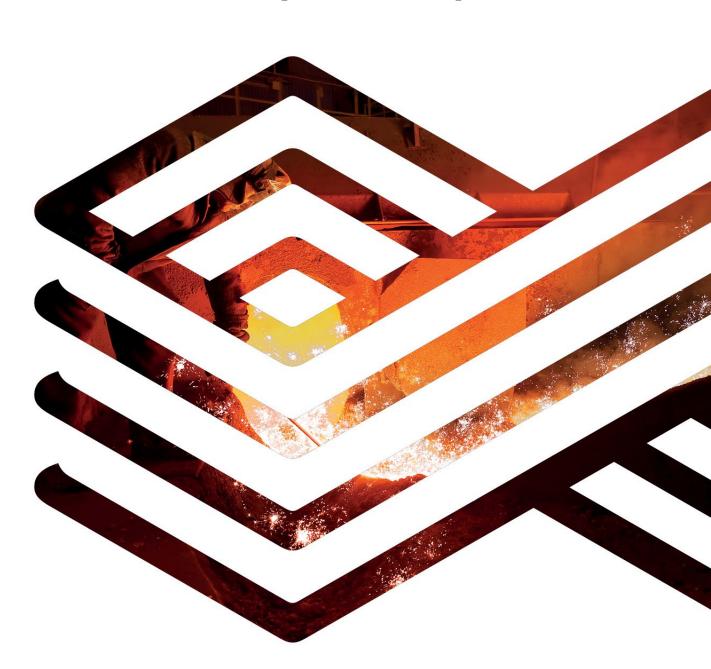


RHI Magnesita at a glance 2019

### The driving force of the refractory industry



### The global leader in refractories

### Contents

Our challenges
Leader in our field
Global reach
Extreme innovation 1
Mining solutions 1
Collaborative culture 1
Get in touch 1

As global leader we use our resources, worldwide presence and expertise to drive change in the refractory industry for the benefit of our customers who rely on us.

Stefan Borgas

Chief Executive Officer







RHI Magnesita is the global leader in refractories. We have the largest number of locations around the world and the most innovative, reliable products and services. We also provide the most robust supply and quality security, thanks to our exceptional vertical integration — from mining to production to full service solutions.



We have a vital job to do ...



Refractory products are used in all the world's high-temperature industrial processes. Without them, the steel, cement, lime, non-ferrous metals, glass, energy, environment and chemical industries couldn't exist.

Refractories defy the most hostile conditions to stay strong and stable at temperatures of 1200 °C and much, much higher. To contain materials safely while they're burned, melted, blasted, fired, fused, and shaped. And to protect equipment such as furnaces and kilns against thermal, mechanical and chemical stress.

Our job is to provide answers to these extreme challenges. To tailor the best solutions for our customers we make over 120,000 products. These range from bricks and lining mixes to flow control products such as slide gates, nozzles and plugs. Their service lives range from a few cycles within a day to as long as 10 years. The base materials we use to make them are magnesite and dolomite — remarkable materials which themselves require skilful handling: the melting point of fused magnesia is above 2800 °C.









72% Steel



28% Industrial (cement/lime, non-ferrous metals and other process industries)



There for you, wherever you need us

**\*** 

The more closely we work with our customers, the greater the difference we can make for them. So having a global network of offices, research centres and production sites is important to us, and to them. We'll go on extending our global reach, to be nearer to even more customers.

Being closer to customers doesn't just mean we can be more responsive to their needs. It also helps us to listen better — to understand their concerns, cultures and ways of working. And to be alert to new thinking and ideas that enable us to deliver ever better advice, service and solutions.

Our exceptional resources and expertise extend far beyond making and selling products. We also provide solutions to customers worldwide for cover projects, materials specification, thermal studies, numerical simulations, follow-up and technical support in application of minerals, and maintenance and electromechanical services for refractory equipment.





# Taking innovation to 1200°C and beyond

1

At RHI Magnesita, innovation takes place in extreme conditions. Holding and pouring hot liquids may seem quite simple. But when the liquid is molten metal at 1200 °C or more, it's a real challenge. We're applying advanced science and technology — in materials, robotics, sensors, big data and machine learning — to transform industrial processes at extreme temperatures. Our team of more than 250 talented R&D professionals is the industry's largest. On top of that, we have more than 370 technical engineers and experts that consult, develop and deliver innovative solutions directly to customers on site. The overall goal is to push the boundaries of what's possible in our industry, and those of our customers.

But our innovation doesn't stop there. It's a mindset that everyone at RHI Magnesita shares. "How can we do this better?" is part of the culture — in HR, finance and customer service just as much as in R&D and production.

For clients in capital-intensive, highly competitive industries, it's important that our leadership in technology is matched by a strong focus on creating customer value through innovative processes, business models and customer relationships. So all of us work as a team to make processes quicker, products more cost-effective and solutions more beneficial for our customers.

€63 m

7.000

1.700

and patent

**Global patents** 

applications held

Product grades to

meet customers' needs precisely

Investment in R&D and Technical Marketing

### Leaving nothing to chance



Our products account for only around two to five percent of a customer's production costs. But their reliability — of supply and performance — is absolutely crucial. A single missed shipment or product failure could shut down a whole plant.

We'd rather leave nothing to chance. So we've made RHI Magnesita the most vertically integrated company in the industry.

The source materials for refractory products are the naturally occurring minerals magnesite and dolomite, and magnesia processed from seawater. Our resources include the world's best reserves of dolomite. This gives us extremely high levels of supply security and quality control. In a volatile global marketplace, it also helps to stabilise costs and secure long-term price competitiveness for our customers.

Full vertical integration means we can take meaningful responsibility for end-to-end customer service and complete bespoke solutions, extending from raw materials production through to installation and management services to recycling of used materials.

Raw material sites in four continents

98.2%
Product purity in our
Pomba mine in Brazil

No. 1
Best magnesite mine in the world





has to be put to work effectively. By people.

That's why we attach so much importance to our people. To attracting and retaining the best talent. To a leadership style that encourages openness, fresh thinking and initiative. To a collaborative culture that values ideas and determination to add value for our customers. Colleagues who are down-to-earth, positive, energetic and optimistic make strong teams who get results.

Many of our people work on-site with our customers, helping to optimise their use of refractories and develop tailored solutions. We take pride in their reputation for being friendly, trustworthy partners, who are bright, responsive and easy to work with.

250 R&D specialists

80 **Nationalities** 

450

Apprentices each year from local communities

### **Respecting communities** and the environment

We've taken the lead in applying technology to make refractory products efficiently without harming people or the environment. Through digitisation, robotisation, automation and new materials we continue to make our factories cleaner and greener.

We set high targets for quality and environmental standards across our entire business. And we've established an integrated management system to ensure we consistently meet those high standards of quality, environmental protection, and occupational health and safety throughout the group.

We report regularly and transparently on our sustainability performance in our annual report. And as well as engaging positively with their local communities, many of our sites hold open days — we've found that seeing how we work significantly increases local support and respect.

As part of our end-to-end service, we also help customers use our products more sustainably. We're working with leading universities and research institutions on new natural and synthetic raw materials and recycling concepts to utilize used refractory material now and in the future.



## The driving force of the refractory industry

### Get in touch

RHI Magnesita Kranichberggasse 6 1120 Vienna Austria

E office@rhimagnesita.com rhimagnesita.com



### Imprint:

Media owner and publisher: RHI Magnesita GmbH, Kranichberggasse 6, 1120 Vienna, Austria Design: MerchantCantos, www.merchantcantos.com
Produced by: RHI Magnesita — O4 / 2019-200-EN
Place of publication and production: Vienna, Austria

### Copyright notice:

The texts, photographs and graphic design contained in this publication are protected by copyright. Unless indicated otherwise, the related rights of use, especially the rights of reproduction, dissemination, provision and editing, are held exclusively by RHI Magnesita. Usage of this publication shall only be permitted for personal information purposes. Any type of use going beyond that, especially reproduction, editing, other usage or commercial use is subject to explicit prior written approval by RHI Magnesita.



RHI Magnesita is the driving force of the refractory industry. With 14,000 highly skilled people across more than 35 countries, we are the leading global supplier of high-grade refractory products, systems and services. These enable the high-temperature production of steel, cement and glass and many more materials essential to daily life.