



BORGESTAD
INDUSTRIES

Smart refractory solutions
improve your profitability





Know-how and strength anchored in tradition

The Golden Rule ‘Work smarter’ is a necessity for companies to succeed in Scandinavia. Overheads are high, even though natural resources are abundant. There is a high level of innovation and automation. With a small home market, exports are vital to success and growth.

In this soil, Borgestad Industries is firmly planted. A company with roots dating to the beginning of the industrial revolution, its products improve production efficiency at the start of heavy industry’s supply chain to customers around the world.

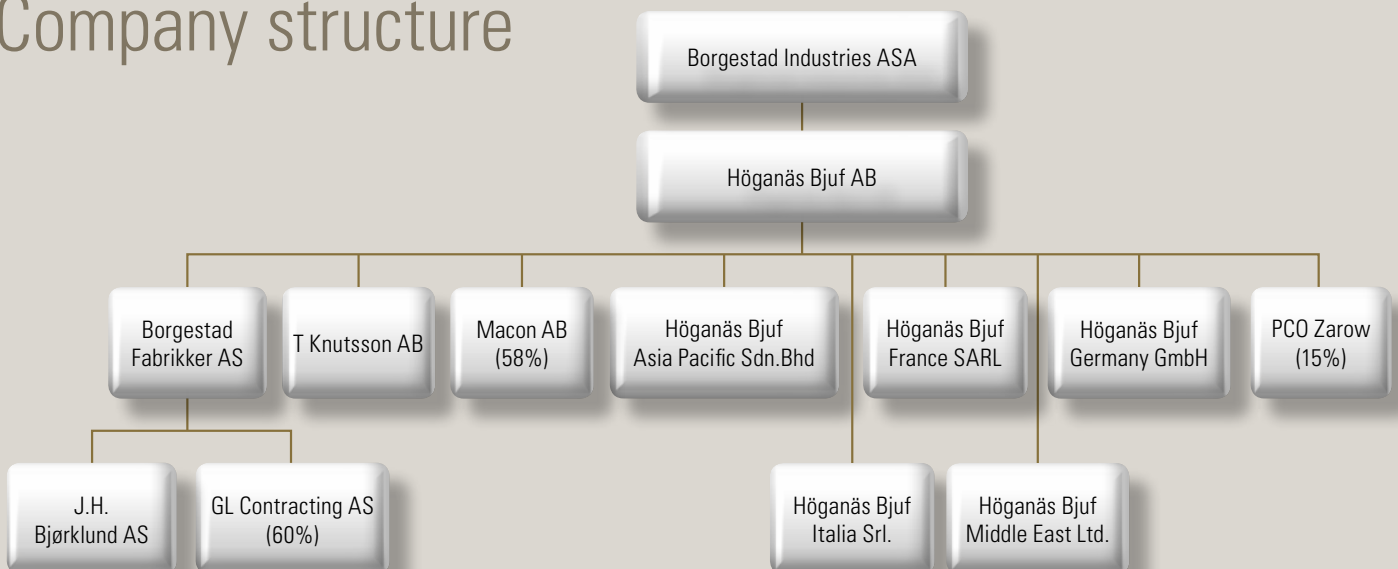
Business and mission

Borgestad Industries develops, manufactures, markets and supports refractories and refractory solutions that enhance the productivity and competitiveness of its industrial customers.

Serving demanding applications such as cement making, aluminium, ferro-alloy and steel production, Borgestad Industries focuses on delivering the products and expertise that give its customers the most cost-effective solution to generate profit.

Our goal can be expressed as follows: “We shall contribute to our customers’ increased profitability by delivering the lowest total refractory cost per ton of product produced”.

Company structure



History

As companies go, Borgestad Industries is young. We were first listed on the Oslo Stock Exchange in October 2008.

At the same time, parts of the company are nearly 200 years old, with long-standing reputations for reliability, punctuality, quality and the development of innovative refractory solutions. Höganäs Bjuf began producing refractory brick in 1825, almost at the start of the Industrial Revolution. Borgestad Fabrikker has served Norway's aluminium and ferro-alloy industries ever since these processes were invented.

We take the goodwill value of our reputation very seriously. As we work to make the next hundred years of our history as stimulating as the first, we shall always remember that the key to our own success is to contribute to our customer's success.





Production

Modern production technology is the best way to ensure uniform refractory product quality, which is why we apply it both in our own production and that of our sub-suppliers.

The plant in Bjuv is the center of production for Borgestad Industries, covering a total of 54,000 m² and handling everything from batch preparation, pressing, loading and firing to final packing for dispatch.

Yet even with every modern advantage, it's the know-how of our experienced people that really makes the difference. Our staff monitors all production and secures the quality before shipment to customers. Some of our specialty bricks and geometrically complex products are still shaped by hand by master craftsmen. Thanks to extensive experience, we can assure the outcome of our production and solutions down to the smallest details.

About half of current production, which varies between 20,000 to 30,000 tons per year, is based on our own raw material. The company has access to fireclay deposits (chamotte) from an open pit in the Bjuv area. The major customer groups for chamotte-based products are the Swedish and Finnish steel industries and the global aluminium industry. These request products such as hollow ware and refractory bricks for cathodes, respectively.

About 50 percent of production is high-alumina bricks based on imported raw materials – mainly bauxite from China and Guyana and andalusite from South Africa. High-alumina bricks, which can withstand higher temperatures than chamotte-based products, are mainly used in industries that produce cement, pulp & paper, ferro-alloy material, etc. The product range consists of about 40 different qualities with moulds for approximately 6,000 different shapes.



Raw material supply



Batch preparation



Pressing



Setting

Quality

Quality is a word that permeates our entire operation at Borgestad Industries. Our solutions should contribute to increasing the value of your business activities and therefore we continually go that extra mile.

Our Quality Assurance (QA) systems, which are fully ISO 9001:2000 accredited, leave nothing to chance. As part of our ambitious QA program, we examine everything – from regular review of our own suppliers and their QA systems to continuous sampling of raw materials.

Knowing that quality starts with raw materials, Borgestad Industries carefully selects sources in collaboration with some of the world's leading raw material producers, allowing us to produce refractory products with the exact characteristics demanded for each application.

We apply rigorous controls to ensure our customers get exactly the product they ordered. Quality Assurance is a commitment we make as a whole organization and individually to ensure the best functionality and end results of your solution.

Environment

It takes planning and foresight to successfully deal with rising energy and production costs, and increasing environmental regulation. With today's commodities prices, producers can improve both profit and environmental profile by upgrading their refractory installations. Borgestad Industries is famous for revolutionary refractory solutions that ensure improved performance and increased production uptime.

We're also committed to finding inventive ways to help the environment through our own production and business processes. For example, Höganäs Bjuf and energy company Neova have partnered to utilize waste heat from Höganäs Bjuf's manufacturing processes through a new heat exchange system. This system uses waste heat from the cooling zone in a tunnel oven to heat the water distributed in the municipal district heating network.

Of course, all our production and products meet the stringent environmental and workplace demands set by Swedish, Norwegian and European Union authorities.



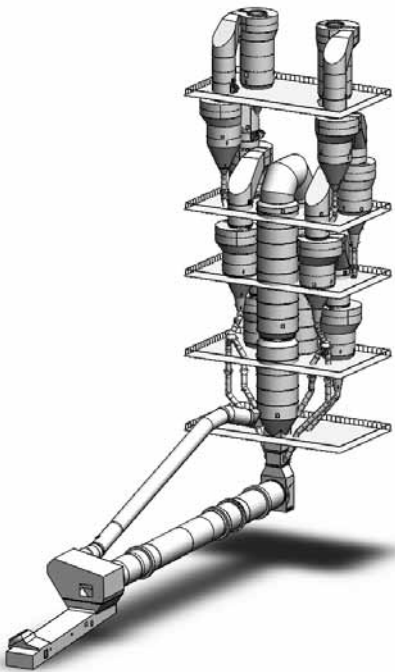
Firing



Unloading



Packaging and shipping



Höganäs Bjuf, Borgestad Industries' operational headquarters, has a well-deserved global reputation as a developer, producer and supplier of smart refractory solutions.

Höganäs Bjuf also serves as Borgestad Industries' primary brick production facility. Located in southern Sweden, the plant produces fireclay and high-alumina refractory bricks, as well as anchoring the group's R&D, Quality Assurance and logistics operations.

The industries it serves include cement manufacturing and steel production, as well as a range of other applications that require refractories capable of withstanding high temperatures and highly corrosive or abrasive operating conditions.

Business segments

Cement

Many years' service to cement makers in Europe, the Middle East, Asia and Oceania give Höganäs Bjuf deep insight into cement industry needs. This has led to many innovative refractory products and solutions – all designed to give cement makers the lowest refractory cost per ton of clinker produced.

Our comprehensive offering, and our strategic partnerships with producers of basic refractory brick and refractory monolithics, help to ensure cost-effective cement production and optimal refractory utilization, from the cyclone tower to the cooler.

Steel

Höganäs Bjuf has been a leading supplier of high-quality refractory solutions to the Nordic steel industry since 1825.

With extensive experience, we take responsibility for everything from planning to supply of consumables – our own refractory brick, as well as basic brick and other consumables from key strategic partners. The company is a major supplier of hollow ware to the steel industry, for use in ingot casting systems.

Brilliant

Brilliant Business concentrates on selling high-value refractory products for applications other than cement and steel manufacturing.

With the excellent reputation of Höganäs Bjuf products, and engineering skill, we have established a strong global presence in certain niche applications, in particular:

- FeCr sintering plants
- SiC products for sulphate furnaces
- SiC feed chutes for FeCr furnaces
- Paper & Pulp applications
- Refractory installation specialists



BORGESTAD
FABRIKKER



For many years a manufacturing company in its own right, Borgestad Fabrikker today focuses its energy on development and sales of innovative refractory solutions. Its key product supplier and parent company is Höganäs Bjuf.

Borgestad Fabrikker has always been a primary supplier to Norwegian foundries, and to the Norwegian and global aluminium and ferro-alloy industries. At the same time, it supplies a range of specialist products and services to other industries that use refractory materials – both in Norway and abroad.

Business segments

Aluminium

Borgestad Fabrikker has supplied the refractory needs of Norwegian aluminium foundries since the aluminium industry's beginnings in the early 20th century. Our range of materials is the preferred refractory solution for this industry.

Thanks to our reputation for quality, cost-effective reliability and timely delivery, our products are now sold to aluminium producers around the world, delivering the lowest refractory cost per ton of produced aluminium.

Ferro-alloy

For over 100 years, Borgestad Fabrikker has served ferro-alloy producers worldwide with a complete range of refractory materials.

Close long-term cooperation with customers keeps us in the forefront of ferro-alloy development, and our expertise and reputation for quality, reliability and timely delivery make us a preferred refractory supplier. We provide complete solutions for furnaces and ladles – applications where top-class refractories will keep your refractory costs per unit low and support your competitiveness.

Together with our contracting company, we provide turn-key refractory solutions for ferro-alloy furnaces worldwide.

Iron foundry

Borgestad Fabrikker supplies iron foundries in Norway with a unique package that includes all necessary materials as well as first-class installation.

Our extensive experience makes us the leading Norwegian supplier to the foundry industry. We continually develop products and concepts that answer our customers' needs for fast installation, prolonged refractory life, maximized production uptime and reduced energy costs. In short, we are a cost-effective refractory partner.



Focusing on quality, cost-efficiency and environmentally-friendly solutions, J.H. Bjørklund is one of the leading suppliers of high temperature insulation products to the Norwegian market. The company's key markets are the aluminium and the metallurgical industry and passive fire protection, and we have two separate departments, Industrial Insulation and Passive Fire Protection.

J.H. Bjørklund was established in 1877, and has since that time developed a variety of products and solutions for Norwegian industry. We are a distributor for the manufacturers Thermal Ceramics, Porextherm, Keramab, Klevers and 3M. One of our key concerns in selecting manufacturers is that they share our strategy of communication throughout the chain, and understand the end user's detailed needs regarding our products. This in addition to being suppliers of the highest quality products on the market.



Business segments

Passive fire protection

Firemaster fibrous insulation has for more than 20 years been the preferred solution in the offshore and maritime industries for protecting pipes, vessels, bulkhead and decks against hydrocarbon fires. Furthermore Firemaster is used by all the major fire door producers in Norway. For large projects like the 'Snøhvit LNG plant' and the 'Ormen Lange' during 2006 and 2007 a record quantity of ca 175,000 m² Firemaster was supplied.

The newly developed Firemaster Marine Plus, a product which significantly (25–30 percent) reduces installation weight, is now being supplied to the marine market in Norway.

Industry

At our Industry department, customers are mainly companies from the Metallurgical industry. We have a high focus on delivering the latest technology solutions regarding best possible cost efficiency in their production. To be able to give the customer the best-value solution, it is important to establish a collaboration about possible changes at an early phase of the customer's process – even in construction of new applications. In terms of environmental strategy, we focus on products with the best technical properties, in combination with choosing the best environmental solution that can be used for the intended purpose.

We supply insulation products to a range of important Norwegian customers, including Hydro Aluminium, Alcoa Aluminium, BIS Production Partner, Eramet and Jøtul.





Since its start in 1993, T Knutsson has established itself as a leading supplier of insulation and refractory materials primarily to the iron and steel industry in the Nordic region.

With extensive knowledge and experience in thermo engineering, the company supplies strategic necessities from its warehouses in Sweden. Additionally, T Knutsson acts as an agent for such things as furnaces, rollers and radiant tubes, rolls and spare parts for rolling mills, special electrical fittings and special refractory products for steel production from manufacturers around the world to help customers to minimize purchasing channels. Using its expertise and global network, T Knutsson works closely with customers to achieve efficiency and quality in everything they do.

Aiming to be the first choice for both existing and new customers, T Knutsson focuses on energy-saving and environmentally-friendly products together with providing complete solutions and packages.

Business segments

Iron and Steel industry

T Knutsson supplies of a wide range of consumables for the iron and steel industry, such as high-demanding refractories for special applications, insulating materials, rolls and mechanical spare parts.

Furnaces

Often in cooperation with furnace designers and refractory installers, T Knutsson supplies a complete range of refractory material for furnace linings, including Insulating Fire Bricks, Superwool, Microporous materials and castables, as well as anchoring systems.

Lagging and Building industry

To serve the lagging and building industry, the company supplies various high-efficiency insulating materials, textiles and vacuum insulation.

Automotive industry and Heat treatment shops

T Knutsson supplies furnaces and complete lines for heat treatment of various metals.



GL Contracting

Refractory Installation Specialists



In addition to providing turn-key refractory installation projects, from design and construction to finished installation, GL Contracting can take on any size of installation or repair work at short notice.

GL Contracting's highly experienced project supervisors work with carefully selected teams of highly qualified, skilled workers. This makes it possible for us to complete all assignments within agreed time schedules. Our supervisors can also manage independent repair and installation assignments around the world, in accordance with each customer's specific needs.

Business segments

Ferro-alloy

GL Contracting's ferro-alloy installation concept is a preferred choice, carried out not only in all recent installations in Norway, but also in Sweden, Iceland, Egypt, Mexico, Buthan, India, USA, China and Bahrain.

Aluminium

GL Contracting has provided installation know-how and services to Norway's aluminium producers for many decades. In recent years, we have also conducted installations as far afield as Iceland and Iran.

Cement

In addition to providing installation and maintenance services to cement manufacturers in Norway and abroad, GL Contracting also manufactures pre-cast refractory components that have proved especially effective for cement kiln coolers and tertiary air ducts.

Petrochemical

Norway has a long history of oil production and this is an important part of the country's economy. GL Contracting has successfully been delivering refractory services to the Norwegian petrochemical industry for years.

And more...

Though the majority of our installations are for customers in the aluminium, cement and ferro-alloy industries – in the Nordic region and around the world – we have also conducted installation for industries as diverse as waste incineration.



With a drive to help customers achieve a high quality fire to minimize the impact on our environment, Macon has since its inception in 2004 grown to be one of the leading companies in refractory installations in Sweden.

From its headquarters in Gävle, Sweden, Macon works together with suppliers to lead the development of new materials and methods of installation. Macon prioritizes high quality in daily work – which includes casting, bricklaying, spraying, ramming, welding, blasting, prefab, asbestos removal, dry-out and demolition – yielding results in the form of reduced greenhouse gases for its customers. And a better fire for customers means a better environment for all of us.

Business segments

Steel

Macon has been providing installation know-how and services to steel producers in Sweden for many years. Our highly-skilled experts perform various bricklaying and installation services for all types of furnaces on a daily basis, creating innovative solutions to ensure minimal disruption to operations.

Energy

With a client list including some of Sweden's largest suppliers of power and heat, Macon serves as a leading supplier of refractory solutions for biomass-fired plants. We perform both new construction and maintenance work for this segment, which also includes sawmill customers.

Waste

As a leader in the field, Macon has a deep understanding of what is vital for each plant. Using practical knowledge and experience, we ensure optimal performance and minimize maintenance for essential furnace parts.

Pulp & Paper

Macon provides complete refractory solutions for the pulp & paper (P&P) industry, delivering experience, quality, and service in everything we do. Today, Macon is one of Scandinavia's leading installation companies for refractory maintenance in limekiln, recovery boilers, bark boilers and gas heaters for P&P. Additionally, our installation department performs acid-proof bricklaying within all segments of the industry.

Prefab

For certain applications, the best alternative is to prefabricate ceramic parts for easy, on-site assembly. This helps minimize downtime during installation in facilities that need to remain in operation and also limits the amount of staff needed on-site for major installations. Macon dries and fires all prefab parts before installation, dramatically reducing the risk of injury from steam explosions arising from sudden increases in temperature, such as at the startup of a wood chip boiler.



Refractory expertise at your service

Refining raw materials is the first step in many of the world's business processes.

Borgestad Industries develops and manufactures the refractories and refractory solutions that make refining possible, thereby enhancing the productivity and competitiveness of our industrial customers. We do so by applying innovation, efficiency and professionalism in all our endeavours. Our products and services are supplied to more than 400 industrial customers in 60 countries around the world, under highly respected brand names.



BORGESTAD
INDUSTRIES

ALWAYS A SMART CHOICE

www.borgestadindustries.com