

**AUMUND**GROUP



**SCHADE**  
AUMUNDGROUP

**SAMSON**  
AUMUNDGROUP

**TILEMANN**  
AUMUNDGROUP

**FIELD SERVICE**  
AUMUNDGROUP

**LOGISTIC**  
AUMUNDGROUP

AUMUND USA | AUMUND CANADA | AUMUND MEXICO | AUMUND BRAZIL | SCHADE UK | AUMUND FRANCE  
AUMUND POLAND | AUMUND MEA | AUMUND INDIA | AUMUND INDONESIA | AUMUND ASIA | AUMUND CHINA | SCHADE AUSTRALIA



**AUMUND** GROUP  
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**AUMUND**GROUP



**AUMUND**  
COMPANY PROFILE

WE CONVEY  
**QUALITY**

For more than one hundred years the AUMUND Group has been active all over the world.

During this time, expectations in terms of quality of performance and strength in innovation have changed, as has the sheer scale of everything in terms of time, costs and size. We have grown with these challenges.

AUMUND Group is ISO 9001 certified and all companies are meeting highest level of quantity standards. according to specific EN Norms and individual local standards to satisfy all Client’s requirements.

A global network companies with expertise in their local markets has developed gradually and continuously in more than 150 locations. This network performs rapidly and professionally. Warehouses located around the world ensure that parts are available where they are required. International site supervisors, sales personnel and service specialists are on hand to provide customers and operators with advice, inspections, maintenance, servicing, repairs and modernisations of machines and equipment on site. Our advanced digital solutions for preventive and predictive maintenance setting standards.

Proximity to customers around the globe was important to Franz-Walter Aumund, who was the influential personality behind our international development, and who sadly passed away in 2023. We continue to live and work by his values. Focus on customers, on our team, on our name the Aumund Foundation has inherited his sole shareholding in the AUMUND Group. This ensures a large portion of social commitment behind everything AUMUND achieves, fully in keeping with our former owner’s philosophy, that our long-term sustainability and independence in all aspects of business decision making are guaranteed.

A strong management team of skilled experts is leading the group of companies with dedicated care to the daily business activities. Today AUMUND Group is providing the most comprehensive and innovative technology and state-of-the-art product portfolio for bulk material handling equipment and solutions.



# RELIABLE QUALITY ALL OVER THE WORLD

<b>AUMUND Fördertechnik</b> Rheinberg / Germany	<b>AUMUND Holding</b> Venlo / The Netherlands	<b>SCHADE Lagertechnik</b> Gelsenkirchen / Germany	<b>SAMSON Material Handling</b> Ely / UK	<b>AUMUND Group Field Service</b> Rheinberg / Germany	<b>AUMUND Logistik</b> Rheinberg / Germany	<b>TILEMANN</b> Essen / Germany
<b>AUMUND USA</b> Atlanta	<b>AUMUND Brazil</b> São Paulo	<b>AUMUND France</b> Paris	<b>AUMUND China</b> Beijing	<b>AUMUND Asia</b> Hong Kong	<b>AUMUND India</b> Chennai	<b>AUMUND MEA</b> Dubai / UAE
<b>SCHADE Lagertechnik</b> Bristol / UK	<b>AUMUND Fördertechnik</b> Wrocław / Poland	<b>AUMUND Indonesia</b> Jakarta	<b>SCHADE Lagertechnik</b> Brisbane / Australia	<b>AUMUND Canada</b> Halifax Nova Scotia	<b>AUMUND Mexico</b> Mexico City, Monterrey	<b>PREMAS AG</b> Zug / Switzerland



# DEVELOPMENT DRIVER: DEMANDS ON EFFICIENCY AND SUSTAINABILITY



Hand in hand with our customers we are expanding our portfolio and continuously improving technology. The satisfaction of our customers is the standard by which we measure ourselves. We have adhered to our aspirations for the reliable quality of our products and services in a fully sustainable model.

PARTNERING  
INDUSTRY  
SECTORS

## THE AUMUND GROUP OF COMPANIES

We support our customers with process solutions which aim for sustainability and economy of resources. Efficient and highly performing products guarantee a long equipment lifespan and low operating costs. Many of our machines are still today carrying out their functions reliably after more than 50 years.

Ecological sustainability is also practised at our own locations. Back in 2010 AUMUND invested in the installation of solar panels on the workshop roofs. The 3,358 panels produce on average 700,000 kWh per year which is such a large amount of electricity that most of it can be also delivered to the local energy provider.

Sustainability and efficiency are two pillars in the portfolio of the AUMUND Group, supported by several top performers. All business fields comprise a combination of production and service, and complement each other to create optimised solutions tailored to the customers' needs.

Experts  
in Bulk  
Handling  
Worldwide

**Conveying**  
AUMUND Fördertechnik

**Loading and Unloading**  
SAMSON Materials Handling

**Chains and Components**  
TILEMANN

**Logistics Services**  
AUMUND Logistic

**Maintenance**  
PREMAS

**Storage and Reclaiming**  
SCHADE Lagertechnik

**Conversion**  
AUMUND Group

**Field Service**  
AUMUND Group

**After Sales**  
AUMUND Group

SERVICE  
FOR PLANT  
AVAILABILITY



Projects start with different pre-requisites. Equipment planning for a greenfield project starts in the early stages and is adapted to the site requirements.

Extensive process knowledge is the key to early recognition of possible shortcomings, development of solutions to problems, and therefore to considerable reduction in costs.

The expectations of the customer in terms of what is technically possible, and also what is economically and environmental viable, become the benchmark for project implementation. Before and during the planning stages the AUMUND team experts provide support with its knowledge of safe and long term solutions, and in a short space of time comes up with machinery and equipment which is ready to use.

In a brownfield project new equipment is inserted to complement the existing plant. For such projects our 300+ years of pooled group expertise is implemented to optimise the plant design, use the available space efficiently, and minimise the cost of construction. For every different bulk material in each technological process step, a specific solution is necessary to ensure its problem-free transportation and safe storage.

The extensive portfolio of products with international references makes it clear that the choice of AUMUND solutions has proven to be reliable and cost effective in many industrial processes. Our global presence helps us to develop such solutions in the greatest possible proximity to the customer.

Customer satisfaction and customer loyalty have been closely linked to the quality and innovation of our products since the company was established. Quality remains the basis for the equipment and services provided for customers by the AUMUND Group in greenfield and brownfield projects. The competencies of the AUMUND Group can be selected from a range which covers everything from consulting to maintenance and servicing.



NEW EQUIPMENT:  
CONVINCING QUALITY IN  
GREENFIELD AND BROWNFIELD





## EQUIPMENT CONVERSION: COMMITMENT TO GREATER CUSTOMER BENEFIT



A positive cost balance usually speaks in favour of the conversion. The steelwork and other elements of the plant infrastructure can often remain and be reused. The parts of the equipment which are prone to wear are refurbished. Reasons for conversions are in the elimination of safety concerns or environmental factors, or to keep the plant competitive. A conversion follows the principle of a second lease of life for the equipment, associated with a higher level of performance individual machines and components and energy consumption.

A successful conversion is not only dependent on the knowledge of different types of machines but also on the international experience gained in the process of seamlessly combining old and new. The updated interface is the guarantee for reliable, long-term plant operation. The AUMUND team keeps the conversion timeframes as short as possible. At the request of the operating company, many conversion projects include preventive maintenance measures so that future service requirements are minimised and downtimes can be avoided.

The AUMUND Group team consolidates its international expertise to offer a sustainable solution for the industrial process. For the plant operator, this means better performance, enhanced safety and greater reliability in the next generation of plant operation. The range of services includes planning, engineering, delivery, dismantling, full assembly and erection.

These energy saving solutions of AUMUND service concentrate on equipment which is partly refurbished. A decision in favour of an equipment conversion is always of great significance for an operating company.

It represents an investment in the future and allows a very fast return on investment due to improved efficiency, reduced wearing and energy consumption.





The customer oriented focus in after sales services provided by AUMUND Fördertechnik, SCHADE Lagertechnik, SAMSON Materials Handling and the AUMUND subsidiaries is being systematically expanded. The top priorities are preservation and performance of the equipment and machines for the operating company, all over the world and independent of the manufacturer. The services are as individual as each of the plants themselves and cover the whole life cycle of the machines.



service with local inspection. With PREMAS 360°, maintenance packages are individually structured for the operator's plant.

The expansion of the after sales portfolio at AUMUND is being achieved systematically by our own efforts as well as by meaningful strategic mergers. Examples of the latter are the integration into the portfolio of the AUMUND Group of the product ranges, patents, engineering, production and spare parts of Maschinenfabrik Louise and WTW Engineering, and Maschinenfabrik BESTA & MEYER. A particular boost to after sales was achieved in 2021 by the take-overs of KoWey GmbH and KCT Engineering. The machines, components and spare parts of the previous company B&W are now the basis of a successful international business for SAMSON Materials Handling.

Over 25,000 References in more than 150 countries evidence the expertise in all process stages, from raw material transportation to conveying within the plant, and bulk materials processing. In five strategic warehouses around the world spare parts and components are promptly available, and with our own logistics they reach the customer on time. Our own supervisors of the AUMUND Group Field Service carry out installations on request. Maintenance and servicing systems ensure trouble-free operation of the equipment.

The after sales division benefits from an international strategic spare parts management network. It is organised across several hubs, and available 24/7, efficiently supporting new equipment and conversion projects as well as repairs and spare parts supply for maintenance cycles.



The PREMAS suite of preventive and predictive service and maintenance programmes monitors ongoing operation and fulfils its purpose of preventing downtimes and malfunctions. At an early stage it signals anomalies or requirements for action, in particular at critical points such as the clamping connection on a Belt Bucket Elevator or on the drive strand of a machine. The PREMAS 4.0 Predictive Maintenance Solution combines the latest sensor technology with data collection and provides online information about the conveying equipment. PREMAS Inspection provides reliable customer



# AFTER SALES SERVICE

FROM SPARE PARTS TO PREDICTIVE MAINTENANCE



# AUMUND GROUP

## BACK TO THE ROOTS



Six companies form the AUMUND Group and have been shaping the world's markets with their products and services, from as far back as the end of the 19th century. They are AUMUND Fördertechnik, SCHADE Lagertechnik, SAMSON Materials Handling, TILEMANN, AUMUND Field Service and AUMUND Logistic.

**1879 TO 1950: THE ERA OF PIONEER SPIRIT IN THE EARLY YEARS OF THE COMPANIES**

- 1879** Establishment of forging and fitting workshop Gustav Schade, Dortmund
- 1900** Establishment of TILEMANN Gelenkketten- und Räderfabrik, Essen
- 1906** AUMUND first Wagon Tippler and Conveyors in mining
- 1922** Establishment of AUMUND Fördertechnik | AUMUND Fördererbau by Prof. Dr.-Ing. H. Aumund (formerly AUMUND-Patente MB.H.)
- 1929** Patent for AUMUND Wagon Tippler
- 1948** Patent for the Curved Short Plate Conveyor by AUMUND

**1950 TO 1970: THE ERA OF FOUNDER GENERATIONS FOR GROWTH BY INNOVATION**

- 1952** First Salt Reclaimer by SCHADE
- 1957** AUMUND Cranes up to 1994
- 1959** Günter-Claus Aumund, assures continuity of AUMUND  
(modernisation of production facilities and expansion to 17,000 m² in 15 years)
- 1962** First Short and Arched Plate Conveyor by AUMUND
- 1966** Franz-W. Aumund joins AUMUND as the third generation
- 1966** Establishment of B&W by Tom Brown and Raymond Woodbine
- 1969** First Pan Conveyor by AUMUND
- 1970s** Development of the Stormatic System by B&W (Material Feeder, Link Conveyor and Stormajor)

**1971 TO 1990: THE ERA OF INCREASED INTERNATIONALISM AND BROADENING OF PRODUCT RANGE**

- 1973** First SCHADE Combined Machine for Zollverein Colliery, today a UNESCO World Heritage Site
- 1975** First Bridge-Type Reclaimer by SCHADE
- 1975** Subsidiaries AUMUND Brazil and AUMUND Canada established
- 1977** Belt Bucket Elevator by AUMUND
- 1978** Largest SCHADE Bridge-Type Reclaimer in the world with a capacity of 1,150 tph, and largest Portal Reclaimer
- 1980** Subsidiary AUMUND USA established
- 1980s** Development of the Loadmaster Series by B&W
- 1983** First Mobile Shiploader and Material Feeder by B&W

**1990 TO 2010: THE ERA OF STRENGTHENING WITH ACQUISITIONS AND MARKET LEADERSHIP**

- 1991** Subsidiary AUMUND France established
- 1996** Subsidiary AUMUND India established
- 1996** Largest Circular Storage by SCHADE (diameter 120 m, storage capacity of approx. 230,000 m³) Taiwan
- 2001** Establishment of AUMUND Holding in Venlo, The Netherlands
- 2001** SCHADE becomes a member of the AUMUND Group



Gustav Schade 1856-1929 Heinrich Aumund 1873-1959



Günter-C. Aumund 1912-1984 Franz-W. Aumund 1944-2023





The companies have repeatedly renewed their range of services, continuously developed their products, and from time to time decided upon strategic fusions which have provided the portfolio with a new and dynamic angle. In all these years their commitment to quality has remained the most important pillar of business activity.



# AUMUND GROUP

## BACK TO THE ROOTS



- 2002** B&W Mechanical Handling Ltd. (SAMSON since 2013) becomes a member of the AUMUND Group
- 2002** Hot Material Conveyor for DRI (1,100°C) by AUMUND
- 2005** Subsidiary AUMUND Asia (Hong Kong) established
- 2006** Subsidiary AUMUND China established
- 2006** Establishment of AUMUND Logistic
- 2006** AUMUND Cooling Conveyor for HBI in DRI plants patented
- 2006** Establishment of the Franz-W. Aumund-Stiftung
- 2008** Rep Office AUMUND Russia opened
- 2010** Rep Office AUMUND UAE opened. Opening of the SCHADE office in Bristol, UK
- 2011 TO 2020: THE ERA OF THE NETWORK OF COMPANIES AS THE KEY TO SUCCESS**
- 2013** Renaming of B&W to SAMSON Materials Handling
- 2014** Conversion of the tallest Bucket Elevator in the world at 175.3 m (taller than Cologne Cathedral) by AUMUND in India
- 2016** TILEMANN in the AUMUND Group
- 2017** Establishment of AUMUND Group Field Service
- 2018** Patenting of the AUMUND Push Chain Bucket Elevator
- 2019** Subsidiary AUMUND Poland established
- 2019** Establishment of the Aumund Foundation
- 2020** Commissioning of the largest Wagon Unloading Unit at the Port of Taman (60 wagons per hour)
- 2020** Development of the new generation Stormajor by SAMSON, subsidiary of AUMUND China in Tianjin opened
- 2021 TO TODAY: A FUTURE BUILT ON THE PILLARS OF QUALITY AND SUSTAINABILITY**
- 2021** PREMAS as the digital monitoring and maintenance system of the AUMUND Group
- 2022** AUMUND AU-Mill for alternative fuels
- 2023** Rep Office AUMUND Indonesia opened
- 2023** Death of owner Franz-W. Aumund
- 2023** Aumund Foundation becomes the sole shareholder of the AUMUND Group
- 2023** AUMUND Fuel Reclaimer for alternative fuels
- 2023** Metallurgy projects for green steel by AUMUND
- 2023** Calcined Clay Conveyor by AUMUND
- 2023** Telescopic Shiploader by SAMSON
- 2023** Rail Mounted Shiploader by SCHADE
- 2024** Subsidiaries SCHADE Australia and AUMUND Mexico established
- 2024** AUMUND Canada re-established



# TAILOR-MADE, PROVEN TECHNOLOGY IN INDUSTRIAL PROCESSES



The AUMUND Group consolidates extensive experience in different industries. Our portfolio can be integrated into all stages of an industrial process for reliable plant operation.

AUMUND products and services range from the loading and unloading of bulk materials, through storage and reclaiming, to the conveying of material within various process stages of a plant. Our products are an important connective link in many industrial processes.

The AUMUND Group pools its international capabilities in minerals quarrying, loading and unloading systems, materials handling in ports and terminals, stockyard equipment and conveying technology. This is the basis for every individual, cost-effective customer solution. Our plant competencies cover key industrial market drivers, offering the most complete and integrated machinery portfolio with innovative and digitalized solutions.

The necessity for a smooth integration into existing infrastructure or the adaptation of plant operation to new circumstances, demand extensive process knowledge. The AUMUND Group OEM products and services are tailor-made both for new and existing equipment, always with the aim of improving machinery performance and maximising equipment lifespan.



CEMENT, LIME, GYPSUM



FERTILIZER & CHEMICALS



MINING & MINERALS



METALLURGY



FOUNDRIES



ALTERNATIVE FUELS



POWER INDUSTRY



PORTS AND TERMINALS



The handling of the various raw materials, additives and combustibles like alternative fuels through the cement plant plays a major role in the production process. Beginning in the quarry with reception and conveying of crushed limestone, progressing to supply, storage and homogenisation of the additives, vertical conveying to silos and heat exchangers, and culminating in transportation and storage of clinker and cement.

AUMUND supplies the appropriate technology for each process step. Conveying hot, abrasive and sticky bulk materials at the greatest capacities over the longest distances and heights is the speciality of the AUMUND Group. AUMUND Pan Conveyors for clinker have proved themselves in so many processes that they have become the generic name, "The Aumund".

Production of cement is not only technically sophisticated but also energy intensive, and it produces a high level of emissions. We provide technology for our customers which meets these challenges. It lowers dust and noise pollution, supports the use of alternative fuels, reduces CO<sub>2</sub>, saves energy in operation and keeps equipment working for longer. With modernisation the equipment not only receives a performance boost but also often a longer lifespan, whilst saving costs by using existing infrastructure. Conveying systems can also be digitally monitored to prevent them overloading.

## REFERENCES

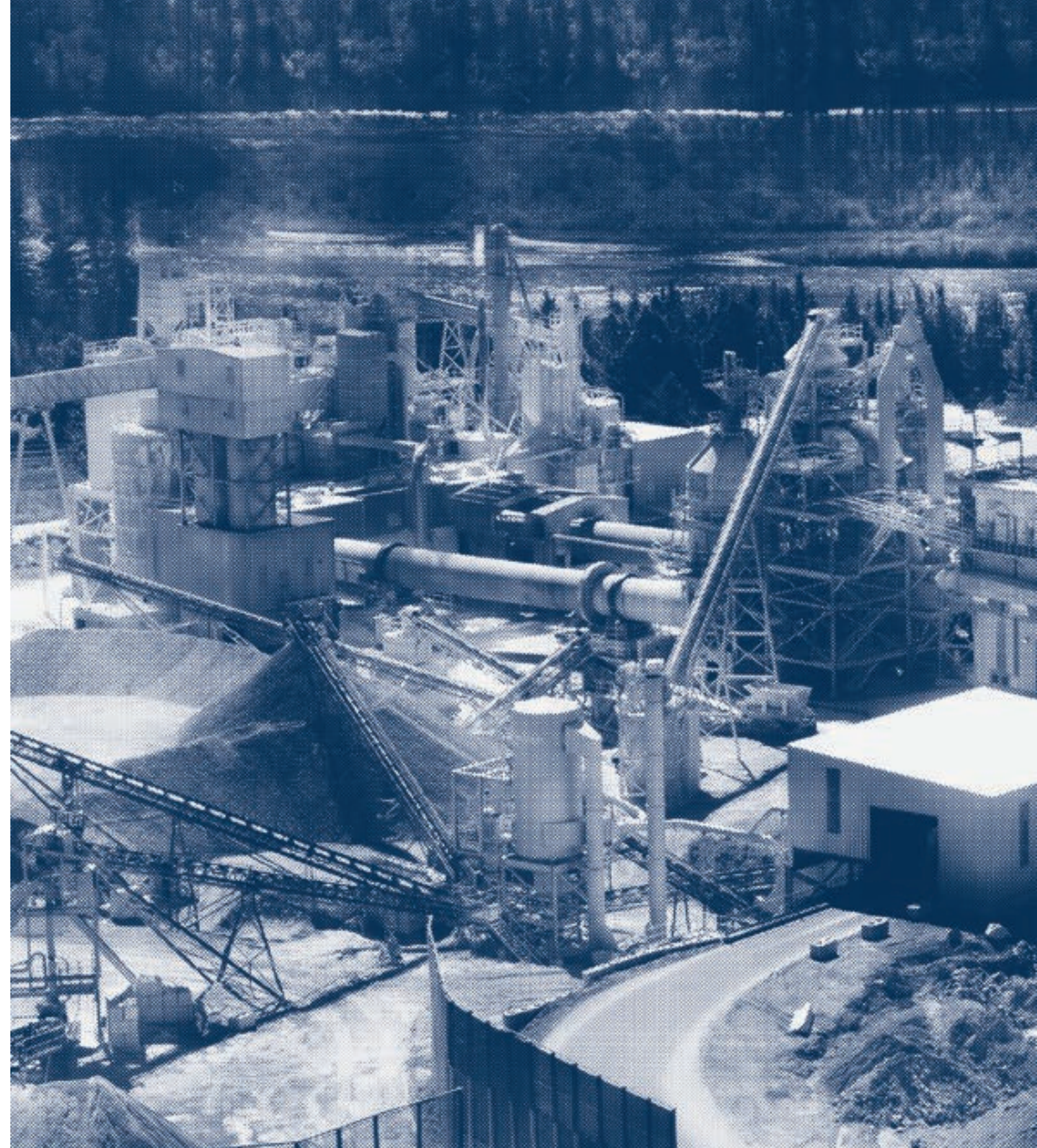
**HIGHER:** The tallest Belt Bucket Elevator for a cement plant stands at over 175,3 m – even higher than the Cologne Dom. This conveyor achieves a capacity of 600 tph to feed the raw meal pre-heater in a cement complex in India.

**DIGITAL:** 26 machines from AUMUND Förder-technik support the cement process in a plant in Turkey from raw materials treatment to clinker grinding. The digital PREMAS system monitors the conveying technology in operation 24/7. The company is striving to become one of the most modern "green" cement producers, so it sets high standards for its equipment and for new technology to reduce emissions and lower energy consumption.



### PRODUCTS FOR THE CEMENT INDUSTRY:

Bucket Elevator, Pan Conveyor, Chain Conveyor, AU-Mill, Calcination Conveyor, Fuel Reclaimer, Silo Discharge Systems, Rotary Discharge Machine, Stationary and Mobile Feeder, Circular and Longitudinal Storage equipped with Stacker or Tripper Car, Portal, Semi-Portal, Bridge-Type and/or Cantilever Reclaimer, Combined Machine, Wagon Unloading System, Eco Hopper, Mobile Shiploader, Stormajor



# CEMENT, LIME AND GYPSUM INDUSTRY





## CHEMICALS AND FERTILIZER INDUSTRY



When conveying the end product, particular attention is paid to protecting the material from damage as this could jeopardise future use of the product. AUMUND solutions have proved their value over and over again in this respect, because they are designed to carefully handle the materials under harsh conditions.

The largest tonnages in fertilizers, salts, sulphur and other chemicals are handled in port facilities. With SCHADE Stockyards, AUMUND Bucket Elevators and SAMSON Shiploaders, customers find the machines to fulfil even extreme material and site requirements.

**REFERENCE:** In Thailand the AUMUND Group built six fertilizer silos and supplied the related conveying technology. The plant belongs to one of the largest sugar and bioenergy companies in the country. Two Bucket Elevators type BW-GL feed the silos. At the base of the silos six CENTREX® Discharge Systems ensure uniform lowering and onward transportation of the highly corrosive, sticky materials (such as urea, ammonium sulphate, nitrate and kali fertilizers). The Bucket Elevators have a centre distance of 70 m which makes them some of the tallest in fertilizer production.



### PRODUCTS:

Bucket Elevator, Pan Conveyor, Chain Conveyor, Silo Discharge Systems, Rotary Discharge Machine, Stationary and Mobile Feeder, Circular and Longitudinal Storage equipped with Stacker or Tripper Car, Bridge-Type, Portal, Semi-Portal, and/or Cantilever Reclaimer, Wagon Unloading System, Mobile and Stationary Shiploader, Eco Hopper, Stormajor



Every year billions of tonnes of rock are moved in open cast or underground quarrying. Conveying capacities of up to 10,000 tph and particle sizes of several tonnes in combination with the extreme abrasiveness of the materials requires exceptionally robust, reliable and low-maintenance machines.



The AUMUND Group supplies heavy-duty Arched Plate Conveyors with widths of over three metres, which have been operating successfully in such applications for decades. SCHADE Stockyards and Wagon Unloading Systems and SAMSON Boomfeeders and Stormajors complete the conveying technology and facilitate trouble-free and eco-friendly handling of large tonnages.

Mining of raw materials often takes place in very remote parts of the world. This makes proximity to customers and the ability to guarantee reliable service on site and fast supply of the required components vitally important. International presence is a key to success in these applications.

**REFERENCE:** The conveyors in Uzbekistan are part of one of the largest copper processing lines in the world for copper cathodes, copper wire and copper pipe.

54 AUMUND Arched Plate Conveyors in reinforced heavy-duty design operate in the first of the three such processing lines to be commissioned. The conveyors are equipped with forged chains and wear-resistant components, and guarantee a controlled flow of material, even with high loads. The conveying capacities vary between 720 and 6,000 tph according to the area of application.

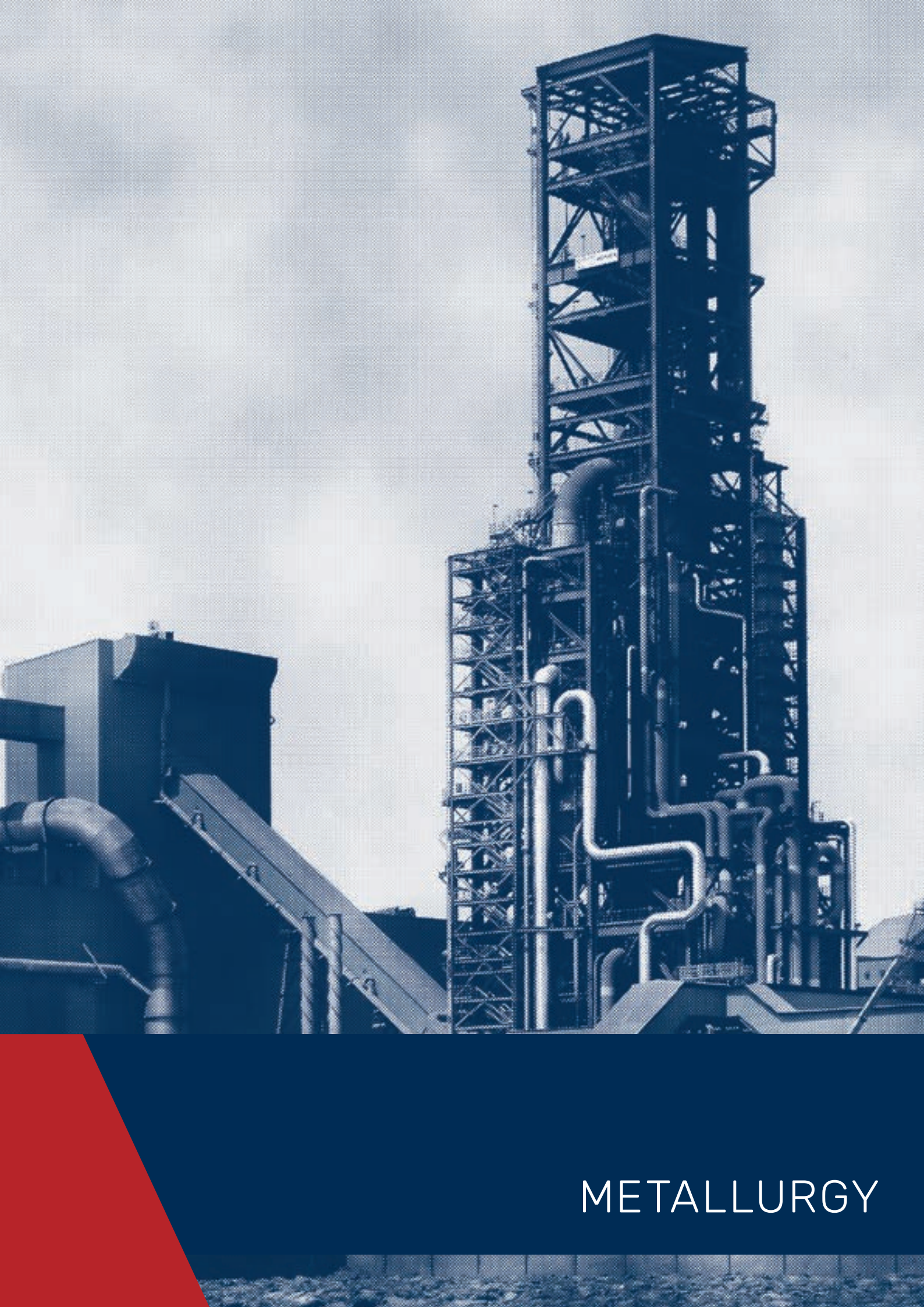


**PRODUCTS:**  
Bucket Elevator, Pan Conveyor, Apron Feeder, Chain Conveyor, Silo Discharge Systems, Rotary Discharge Machine, Stationary and Mobile Feeder, Circular and Longitudinal Storage equipped with Stacker or Tripper Car, Bridge-Type, Portal, Semi-Portal, and/or Cantilever Reclaimer, Wagon Unloading System, Eco Hopper, Mobile and Stationary Shiploader, Stormajor



# MINING AND MINERALS PROCESSING





## METALLURGY

Equipment with conveying capacities up to 480 tph, temperatures of more than 1,000 °C, conveying heights up to approx. 100m and lengths of over 200m have been commissioned in recent years, and there is potential for increases in these parameters.

If the DRI (sponge iron) produced is not directly used in the neighbouring steel plant, the hot HBI (porous sponge iron pressed into briquettes) can be cooled with the patented AUMUND cooling process on a Cooling Conveyor. The controlled, slow cooling of the briquettes reduces thermal stress in the HBI, and the quality of the product is significantly better than achieved with alternative cooling methods. Compared with cooling in a quench tank, water consumption is far lower, and the water can also be reused in the cycle.

AUMUND conveying equipment for abrasive and hot bulk materials up to temperatures of approximately 1,000 °C operate in various areas of a smelter or steelworks, such as for transporting red-hot sinter or hot iron pellets. It has been proven in certain cases that by using AUMUND conveyors the operating life of the existing cooler was able to be extended.

**REFERENCES:** For around 25 years AUMUND Conveying equipment has been part of direct reduction processes, in shaft furnaces, rotary hearth/rotary kiln or in fluidised bed technologies. AUMUND created the first direct connection of the direct reduction plant with the EAF (Electro Arc Furnace) at a steel works in the Middle East. Using this new type of conveyor increased the productivity of the plant by 30%. At the same time energy consumption was significantly reduced by the innovation of hot charging of solid DRI.

AUMUND Fördertechnik is enjoying continued success with its participation in DRI plants. At the end of 2024 alongside companies such as Midrex, AUMUND will supply two Hot Material Conveyors to ThyssenKrupp Steel for its site in Duisburg, Germany for “green steel” production. The hydrogen-based steel works of H<sub>2</sub> Green Steel, near the Arctic Circle in Sweden, will also be equipped with Hot Material Conveyor technology, in this case complemented by AUMUND Cooling Conveyor technology.

The Hot Material Conveyor uses a heat-insulated Bucket Apron Conveyor which transports DRI in an inert atmosphere. Hot DRI is transported in a mechanical conveying system without pressure and without relative movement between material and conveyor, in combination with an inert system. The iron is prevented from coming into contact with air, which has the advantage over alternative conveying systems of not producing fines.



### PRODUCTS:

Hot Material Conveyor, HBI Cooling Conveyor, Bucket Elevator, Pan Conveyor, Drag Chain Conveyor, Apron Feeder, Discharge System, Stacker, Wagon Unloading System, Mobile and Stationary Material Feeder, Mobile Shiploader, Stormajor, Eco Hopper



AUMUND conveyors for cleaning and sorting lines in foundries have been designed and developed in close consultation with operators. The working height is set ergonomically at a comfortable level with no additional platforms necessary.



The completely level work surface is constructed of flat plates which overlap like scales. The flat plates are the same width as the conveyor. There are neither gaps at the edge nor lateral rims. This enables castings to be transferred either from the side or from the end to the ongoing boxes or other conveyors. The plates are mechanically stable and withstand pressure shock, for example from falling castings or accidental contact with manipulators. All modules are easily accessible and low maintenance.



**REFERENCE:** Deburring, sorting, and cleaning of castings are the jobs of the new 11.5m long Cleaning and Sorting Conveyor which has been developed by AUMUND. It replaces a vibratory conveyor, and not only reduces the nuisance from noise and vibration almost completely, but drastically lowers energy consumption.

The design of the conveyor plates has been optimised. With their great strength they withstand impact loads of up to around 2.5 t with no trace of plastic deformation. All of the major design and structural elements have been integrated internally in the Conveyor. It is installed in the plant of a manufacturer of gas and water distribution systems who is delighted with the reliable and cost-effective solution provided.

**PRODUCTS:**  
Drag Chain Conveyor, Bucket Elevator, Pan Conveyor, Stormajor, SAMSON Feeders



# FOUNDRY



Fuels for alternative energy are available in large quantities, often at low prices, and when processed can be introduced into a second life cycle. The AUMUND alternative fuel division offers solutions for various source materials and applications.

Refuse from livestock farming, food production, wood chips, chopped plastic rubbish, sewage sludge and shredded car tyres can be introduced into the onward processing steps with the aid of machines from the AUMUND Group. For the CO<sub>2</sub>-free cement production the using of alternative fuel is an important factor.

The materials are very different, not only in their flow properties but also in their storage characteristics. Similarly to fossil fuels, pellets for example require interim storage in many cases as a necessary step before processing.

The AUMUND conveying and silo technology, trailer stations and conveyors are combined with proven products such as Walking Floor and/or Fuel Reclaimer to create an optimised tailor-made customer solution for a specific application. In such cases it is important to develop a complete system solution, working closely with the customer. This not only eliminates the risks associated with interfaces in implementation but also ensures responsibility for functionality and availability.



## ALTERNATIVE FUELS

**REFERENCE:** Two Samson Feeders in Spain handle material for a customer in the power industry 24/7. The particular challenge is the wide range of materials with varying characteristics which are used as fuel in the power plant. Each material has its own level height, so the design height of the Samson Feeders was increased for this application. An additional filter system ensures the sustainable reduction of dust pollution.

### PRODUCTS:

Arched Plate Conveyor, Scraper Chain Conveyor, Trailer Docking Station, Rotating Discharge Screw Conveyor, Fuel Reclaimer, Discharge Systems, Mobile Material Loader, Circular and Longitudinal Storage equipped with Stacker or Tripper Car, Bridge-Type, Portal, Semi-Portal, and/or Cantilever Reclaimer, Wagon Unloading System, AU-Mill for shredding, drying and separating calorific plastic refuse, Walking Floor, Screw Conveyor, Breeches Chute, Automatic Sampling, RDF Processing, Chain Belt, Fuel Belt



Various types of firing and the demand for cost-effective material storage in explosion proof certified areas determine the design of the conveying and transportation equipment. Biomass or fossil fuels are used nowadays for power generation.

The largest SCHADE Portal Reclaimer with double boom for coal reclaiming from a stockpile can achieve a conveying capacity of up to 7,000 tph.



Many power plants operate strategic raw material stockpiles where coal from various sources and with differing qualities is stored and blended. For strategic stockpiling SCHADE Blending Beds are used to homogenise the different coal qualities to achieve the required fuel characteristics for the boiler. The objective of this is to achieve an optimum combustion or energy exploitation of the coal. FD gypsum storage and reclaiming systems for desulphurization plants complement the product range.

Alternative fuels and biomass are increasingly conquering the energy generation market, which means that the equipment used needs to be flexible in terms of its operation and its potential for adaptation. With the technology of the AUMUND Group fuels for alternative energy generation can be stored, separated, weighed, dosed and transported efficiently and ecologically. The expertise of the group of companies also extends to loading and unloading bulk materials, and the import of material is carried out with Eco Hoppers and Mobile Shiploaders. SCHADE Wagon Unloading Systems are available in various designs and can unload up to 60 wagons per hour. The Unloading Systems are flexible and adaptable to different operation sites, wagon types and tonnages handled.

**REFERENCE:** Four Semi-Portal Reclaimers with a reclaiming capacity of 1,500 tph handle coal in Korea's largest power plant with optimised emissions. Two power plant units supply the region with 1,050 MW each. The coal stockpiles are completely enclosed in buildings constructed in a former limestone quarry. They are an important aspect of the intended dust-free production. The 700,000 tonnes of coal which can be stored there ensure a continuous supply of fuel.



#### PRODUCTS:

Belt Bucket Elevator, Chain Bucket Elevator, Arched Plate Conveyor, Chain Conveyor, Discharge System, Stationary Material Loader, Circular and Longitudinal Storage equipped with Stacker or Tripper Car, Bridge-Type, Portal, Semi-Portal, and/or Cantilever Reclaimer, Wagon Unloading System, Stormajor, Mobile Shiploader, Eco Hopper



## POWER PLANTS AND ENERGY GENERATION



Sea freight logistics for international trade is one of the cheapest and safest means of transportation in terms of route assessment. So it is not surprising that almost 90 percent of all goods in large quantities are forwarded by ship.

The AUMUND Group machines which can be found in ports and terminals are generally made by SAMSON Materials Handling. 100% dust free solutions to protect the environment is the target. The technical solutions offered are flexible in terms of operating site and bulk material handled.

SAMSON has developed a range of ship loading and unloading systems which are designed to handle dry bulk goods. Mobile Shiploaders, Feeders and also the Stormajor® can be used independently of each other on any quay, or be parked out of the way until needed for their next job. Innovations, such as the telescopic boom of the Shiploader which can be extended up to 50 metres, have been developed to meet customer requirements for flexible solutions.

AUMUND Group places particular emphasis on adherence to the highest environmental standards and associated regular emissions checks for all of its solutions. A zero emissions limit for the Eco Hopper allows it to work close to passenger vessels for example. Mobile solutions from SAMSON can be complemented with conveying options for bulk materials such as SCHADE Longitudinal and Circular Storage with Stack, Bridge-Type, Portal, and/or Cantilever Reclaimer, and Wagon Unloading Systems. The service package of the AUMUND Group speeds up logistics processes at terminals, on ships and in the entire port area.

**REFERENCE:** In some ports in the Philippines, in a country of high humidity and temperatures up to 40 with huge storms during typhoon seasons, Samson ECO Hoppers ensure the dust free solution import of coal.

The Eco Hoppers are mobile units and are equipped with a crane grab function to support the accurate positioning of the Hoppers next to the ship. The handling capacity of each of the Eco Hoppers is designed up to 1,000 tph.



#### PRODUCTS:

Mobile and Rail Mounted Shiploader, Eco Hopper, Telescopic Chute, Stormajor, Longitudinal and Circular Storage equipped with Stack or Tripper Car, Bridge-Type, Portal, Semi-Portal, and/or Cantilever Reclaimer, Combined Machine, Wagon Unloading System

## PORTS & TERMINALS



SUSTAIN  
ERHALTEN  
SOUTENIR  
SER SUSTENTÁVE  
可持續性

TRANSFORM  
TRANSFORMIEREN  
TRANSFORMER  
TRANSFORMAR

GROW  
WACHSEN  
DEVELOPPER  
CRESCER  
增长

**MAINTAIN  
FORTFÜHRE  
CONTINUER  
MANTER  
维持**

FĂRĂ GARANȚII

NR 35775



AUMUND Fördertechnik with its century of experience in sophisticated industrial processes is an expert in innovative, cost-effective conveying solutions.

Since establishment in 1922, the company based in Rheinberg has offered tailor-made technology for the most varied of bulk materials.

A comprehensive product range fits into many key industry requirements, such as cement, fertilizer & chemicals, mining & minerals, foundry, iron & steel, alternative fuel handling and power plants. AUMUND connects every process step in industrial application with a reliable technological solution:

Capacities of pan, apron or chain conveyors, as well as bucket elevators and silo or storage discharge machines can vary from a few tons per hour to very high tonnages of more than 2,000 tph, proven by thousands of references in all kinds of industries worldwide.

#### 1. BUCKET ELEVATOR (BELT, CHAIN)

- Conveying capacities of 2,400 m<sup>3</sup>/h (Belt Bucket Elevator)
- Bucket Elevator with Central Chain (also available as Double Bucket Elevator) suitable for large grain sizes and bulk materials
- Push Chain Elevator saves energy and emissions (up to 78 t CO<sub>2</sub> per year)

#### 2. PAN CONVEYOR

- Angle of inclination up to 60° and capacities up to 1,300 m<sup>3</sup>/h
- Low maintenance and long life span thanks to stable plate system
- Broad range of application for the most varied of bulk materials

#### 3. HOT MATERIAL CONVEYOR

- Principally in DRI plants to transport hot bulk materials with temperatures up to 1,100°C
- Inert gas protects the material from re-oxidisation
- Low emissions, low energy operation, heat recirculation

#### 4. COOLING CONVEYOR

- Flat Plate Conveyor cools HBI from 850°C down to 100°C
- Closed system, patented technology

#### 5. CHAIN CONVEYOR

- Range of application covers powdery to sticky and abrasive bulk materials
- Capacity up to 1,800 m<sup>3</sup>/h
- Closed system for controlled throughput and low emissions

#### 6. ARCHED PLATE CONVEYOR

- Capacities up to 10,000 tph and lengths of up to 50 m
- Transportation of moist and sticky bulk materials possible
- Heavy-duty version available

#### 7. FUEL RECLAIMER

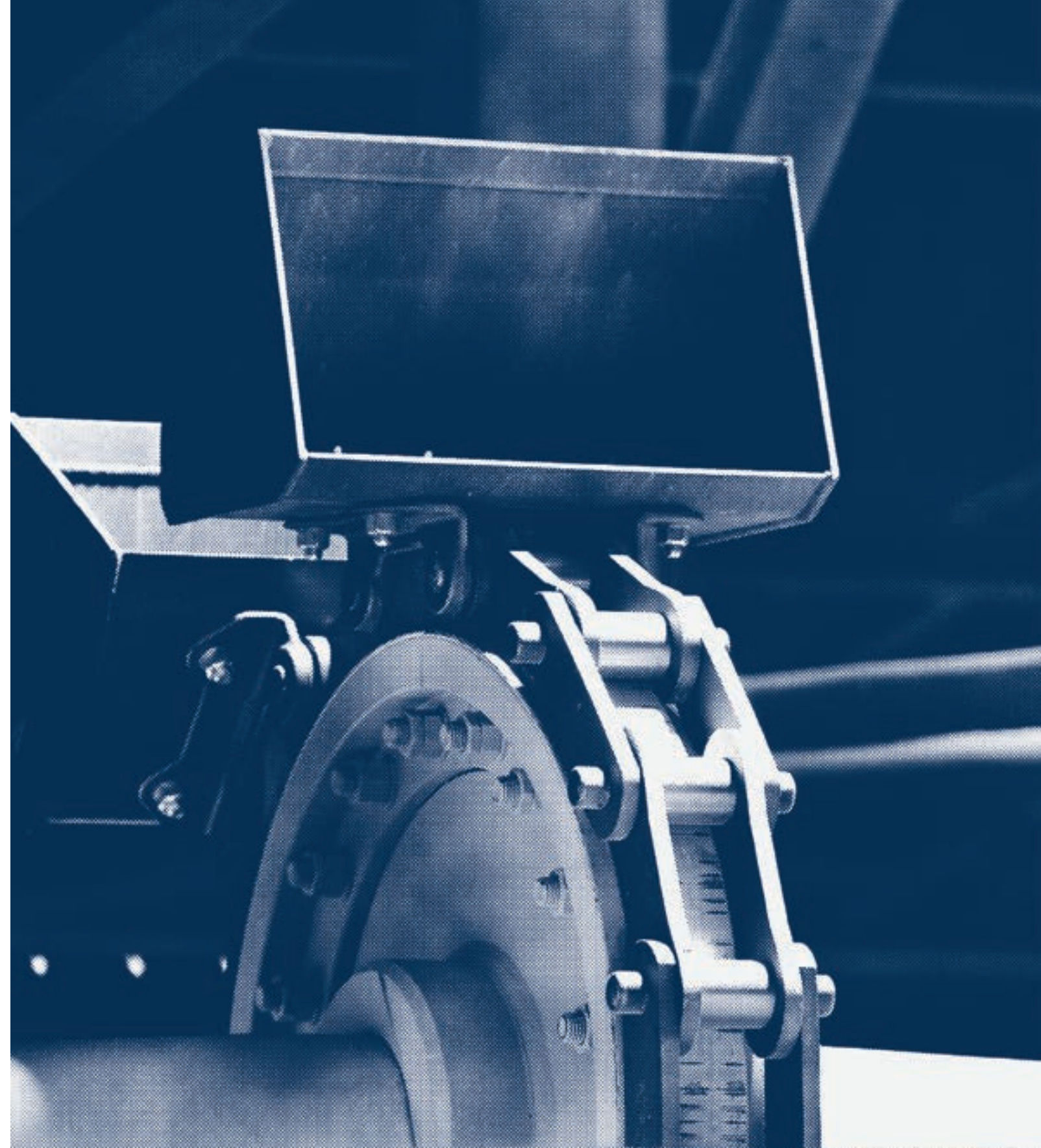
- For stacking, stockpiling, blending and reclaiming material
- Applicable for alternative fuel handling systems
- Simultaneous depositing and withdrawal of materials

#### 8. DISCHARGE SYSTEM

- For warehouses, stockpiles, hoppers and silos with reduced levels of emissions, used for simultaneous homogenisation
- MOLEX for round silos, CENTREX® for material with challenging flow properties, rotary discharge machine type LOUISE for high capacities

#### 9. STATIONARY MATERIAL FEEDER

- Flexible, controlled throughput regulation, suitable for dry, heavy, moist and cohesive bulk materials, low dust pollution



AUMUND FÖRDERTECHNIK  
CONVEYING EQUIPMENT AND STATIONARY FEEDERS



SCHADE Lagertechnik GmbH was established in 1879 and is an internationally renowned specialist in designing and equipping of bulk material stockyards and blending beds for all sectors.

The company is based in Gelsenkirchen and has been a member of the AUMUND Group since 2001.

With its own sales personnel and an internationally active network of partners, SCHADE provides new equipment and after sales service for stockyard equipment and stationary unloading of bulk materials.

SCHADE plans, designs and supplies machines for longitudinal and circular storage, Stackers, Reclaimers and Combined Machines for stockyards and blending beds. Every machine is tailor-made to the requirement and supports the desire for quality and long-term operation of the plant, indoors and outdoors.

SCHADE machines convince by a long-term trouble-free operation. Its own spare parts depots and supervisors around the world support modernisations of equipment.



#### 1. STACKERS AND TRIPPER CARS, LONGITUDINAL STORAGE

- Stacking of bulk materials (rail mounted)
- Capacity up to 10,000 tph with lifting and/or slewing function

#### 2. BRIDGE-TYPE RECLAIMER, LONGITUDINAL STORAGE

- Homogenisation of material, proven in blending beds
- Reduced stockyard space requirements
- Capacity up to 3,500 tph
- For moist and sticky material active harrow available

#### 3. PORTAL RECLAIMER, LONGITUDINAL STORAGE

- Capacities up to 7,000 tph
- Largest heavy-duty machine of its kind in the world
- Drag trough or ramp machine available
- Reclaimer boom quantity between 1 to 4 booms available

#### 4. SEMI-PORTAL RECLAIMER, LONGITUDINAL STORAGE

- Capacities up to 3,500 tph
- Flexible, indoor eco-friendly friendly solution
- Space saving solution for different bulk materials

#### 5. COMBINED MACHINE, LONGITUDINAL STORAGE

- Capacity for stacking up to 5,000 tph and reclaiming up to 10,000 tph
- Suitable for stacking and reclaiming at the same time
- Reclaimer boom quantity between 1 to 4 booms available

#### 6. CANTILEVER RECLAIMER, LONGITUDINAL STORAGE

- Cost-effective solution for small stockyards
- Capacities up to 2,000 tph
- Solution for efficient stockyard management

#### 7. CIRCULAR STORAGE WITH PORTAL, SEMI-PORTAL, CANTILEVER OR BRIDGE-TYPE RECLAIMER

- 360° rotation for simultaneous stacking and reclaiming
- Compact and covered solution for reduction of emissions
- Capacity up to 450,000 m³ and 150 m diameter

#### 8. LONGITUDINAL STORAGE

- For stockpile construction, dismantling and reclaiming for large quantities of bulk materials
- Often used for homogenisation or blending of material
- Storage capacity up to 5,000 tph
- Indoor systems up to a capacity of 800,000 tonnes

#### 9. WAGON UNLOADING SYSTEM

- The whole wagon is turned and tipped
- Suitable for different throughput capacities with C, Pivot or O frame
- Complete solution with indexer available

#### 10. RAIL-MOUNTED SHIPLOADER

- Capacity up to 5,000 tph
- Solution for driving, rocking, slewing
- Eco-friendly concept

**SCHADE LAGERTECHNIK**  
STOCKYARD TECHNOLOGY,  
WAGON UNLOADING, STATIONARY SHIP LOADING



SAMSON Materials Handling Ltd (formerly B&W Mechanical Handling) has been established as a specialist for mobile solutions for handling mass bulk materials since the middle of the 1960s.

The company is based in Ely in the UK and has been enhancing the product range of the AUMUND Group since 2002.



SAMSON is internationally active, particularly in ports and terminals, but also in the cement and metalworking industries, in quarries, raw materials processing and alternative fuels handling.

SAMSON has developed a broad spectrum of Mobile Material Feeders for reliable operation in reception, buffer storage and loading of various bulk materials. Flexibility, reliability, quality, safety and performance are the key to every product concept. The range extends from bulk materials reception from truck, rail or ship to bulk materials feeding onto existing belt conveyor equipment in quarries.

#### 1. MOBILE SHIPLOADING (CAMBERED BOOM SHIPLOADER)

- Flexibility weather and dust protection options
- Flexibility of multiple trimming options to optimise ship loading
- Capacities up to 2,000 tph handling a variety of materials

#### 2. MOBILE SHIPLOADING (TELESCOPIC BOOM SHIPLOADER)

- Flexible discharge position via the telescopic boom
- Flexibility of trimming options to optimise ship loading
- Capacities up to 1,600 tph – materials up to 1.6 t/m<sup>3</sup> bulk density

#### 3. DUST REDUCTION RECEPTION HOPPER (ECO HOPPER)

- Flexibility weather and dust protection options
- Can be supplied with a variety of travel options
- For unloading vessels at rates of up to 5,000 tph
- Dust free and low noise operation, compact and flexible design
- Reduced material degradation caused by multiple handling

#### 4. MOBILE STACKER (STORMAJOR)

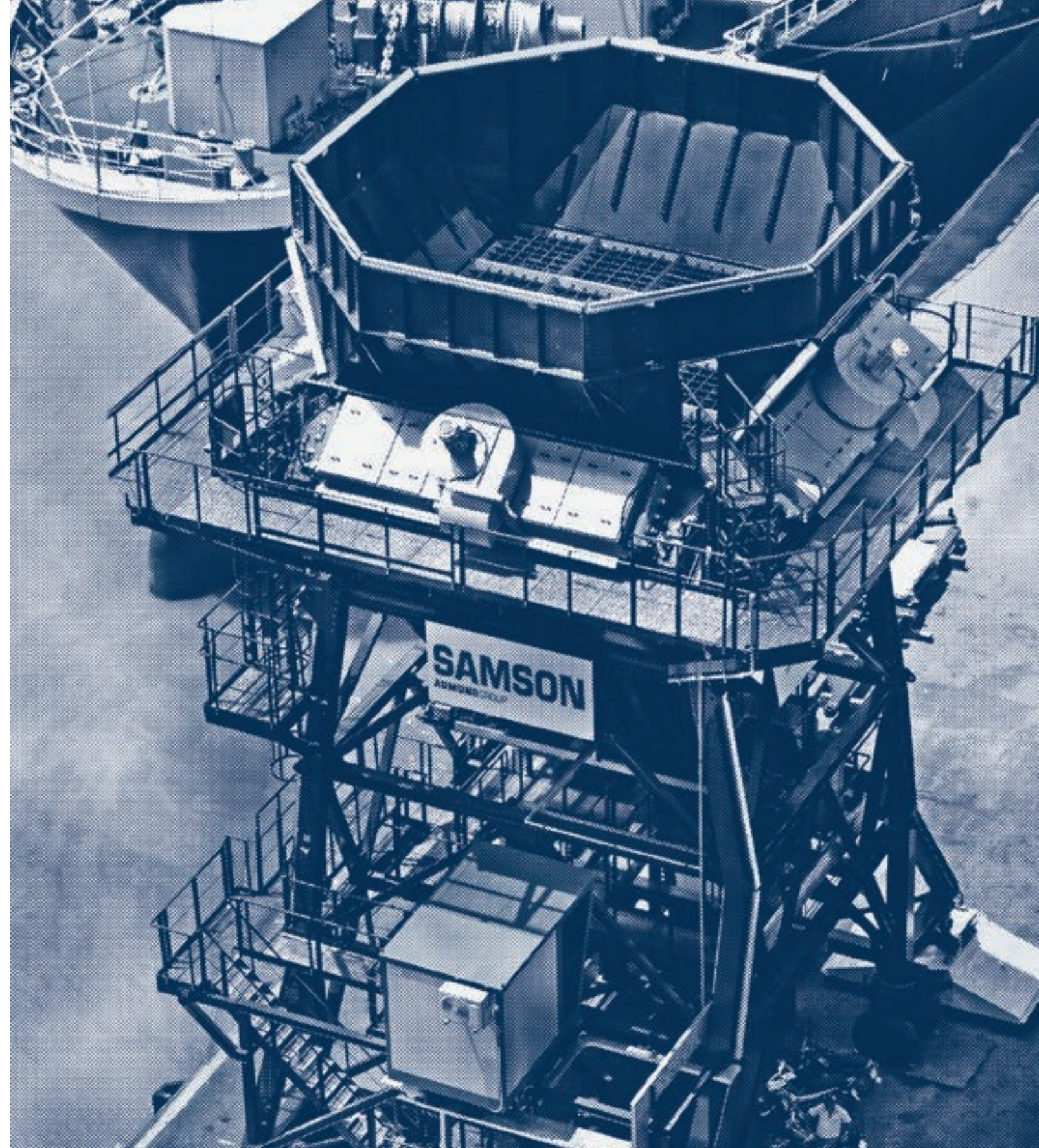
- Mobile solution for stockpiling, inland waterway vessel loading and wagon loading
- Can be supplied with a variety of travel options
- Capacities up to 1,500 tph handling a variety of materials
- Flexibility weather and dust protection options
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#### 5. MOBILE STACKER (BOOM FEEDER)

- Mobile solution for stockpiling and wagon loading
- Capacities up to 1,000 tph – materials up to 1.6 t/m<sup>3</sup> bulk density
- Flexibility weather and dust protection options
- Transportable by road on trailer within minimal setup on site

#### 6. MOBILE TRUCK RECEPTION (MATERIAL FEEDER)

- Suitable for controlled truck unloading to minimise ramp height
- Capacities up to 1,500 tph handling a variety of materials
- Flexibility weather and dust protection options



**SAMSON MATERIALS HANDLING**  
MOBILE LOADING AND UNLOADING TECHNOLOGY



The TILEMANN company develops and fabricates chains for different applications in conveying and stockpiling technology for the AUMUND Group and other customers around the world.

TILEMANN chains are respected for their resistance to corrosion, ability to withstand extreme temperatures, wear resistance and resulting low maintenance requirements.



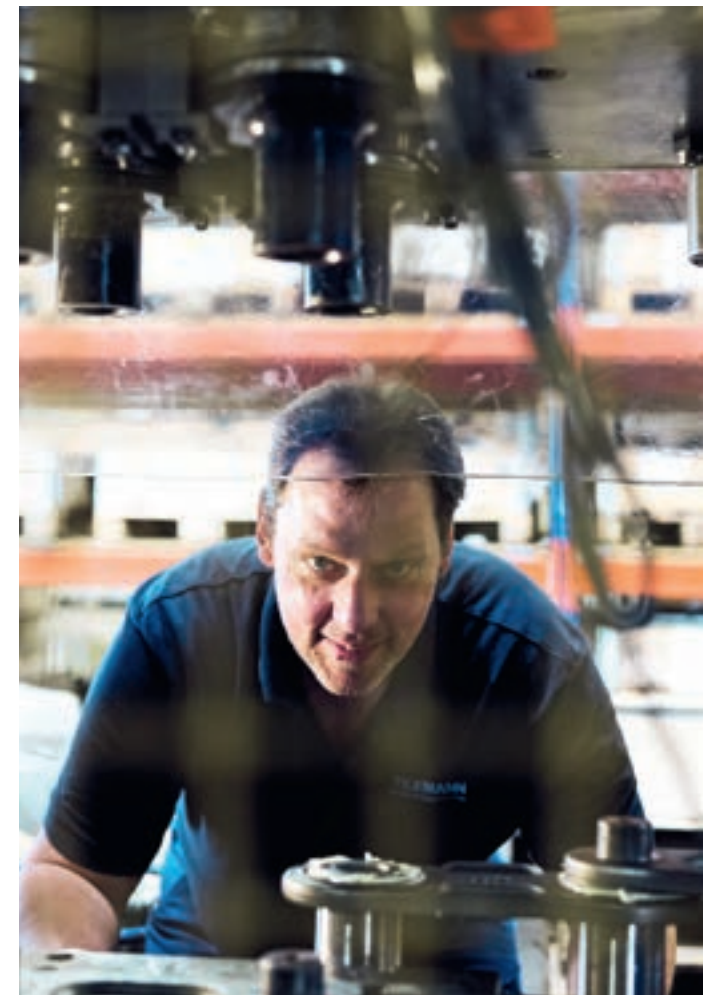
In consultation with customers, chains can be designed for special breaking loads. More than 25,000 international references evidence the quality and reliability of the products.

The company offers its services to different industrial customers. In the AUMUND Group TILEMANN is the exclusive manufacturer of forged Bucket Elevator chains. All services, consulting, development, design, production, heat treatment, packing and dispatch, are consolidated within the company, or carried out with partners.

Individual parts, series parts and entire assemblies are processed in an energy-efficient and precise manner on a high-technology horizontal machining centre weighing 1,200 kg and with a workspace of 1.5 m height and 1 m diameter. The comprehensive manufacturing machinery is performance optimised and facilitates response to customer requirements with short lead times.

The TILEMANN portfolio includes:

- Chains with breaking loads of up to 3,000 kN
- Forged chains
- Galvanised chains
- Sheet metal chains
- Special solutions in particular for the steel and fertilizer industries



TILEMANN  
KETTEN UND KOMPONENTEN  
EXPERIENCE AND MANUFACTURING EXPERTISE



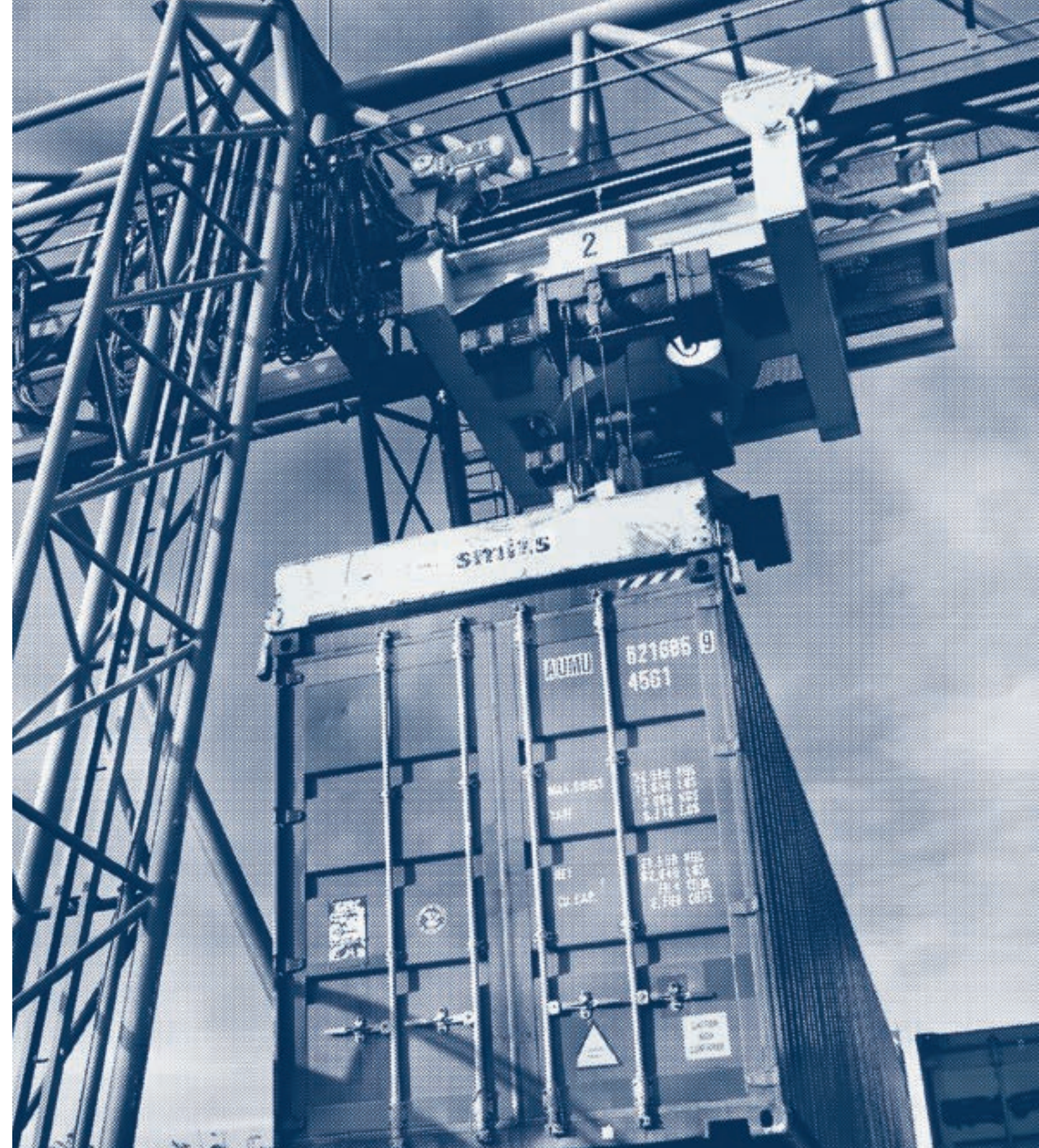
AUMUND Logistic is a licenced freight forwarder and terminal operator based in the Duisburg area of Germany, which offers the full range of logistics services. It advises customers professionally and provides the link in the supply chain from engineering and production to site delivery to customers.



AUMUND Logistic is an expert in international freight forwarding, from a single spare part to a complete machine. Two decades of experience and contracts with reliable globally active carriers guarantee tailor-made supply chain and trouble-free goods processing around the globe by land, sea and air. Experience as an international logistics service provider includes:

- Container (LCL/FCL), piece goods and RO-RO loading
- Packing
- Storage
- Stuffing
- Trucking
- Customs processing, etc.

Services are offered individually or as full service packages. Even after handover of the goods, personal contacts are available to respond to customer queries.



# LOGISTICS

SYNERGIES FROM EXPERIENCE AND EXPERTISE



The Field Service company of the AUMUND Group is specialised in installation, dismantling and commissioning of machines for quarrying, conveying and storage technology around the world.



The team of experts, with its many years of experience gained from sophisticated technical solutions in different industrial sectors, accompanies and supports companies in the implementation of their installation, dismantling and commissioning projects.

With its comprehensive spectrum of experience, the Field Service team does not only work for the companies of the AUMUND Group. Its other customers come from sectors such as construction, cement, minerals, fertilizer, chemicals, mining, power, etc.

Thanks to the international focus of the AUMUND Group, the Field Service team benefits from a worldwide network of installation and commissioning specialists in close proximity to its customers.

- Full and partial installations
- Dismantling
- Conversions
- Commissioning
- Overhauls
- Supply and replacement of spare parts
- Inspections
- Training

AFS is SCC certified (Safety Certificate Contractors) with requirements for occupational safety, health and environmental protection audited on yearly basis.



**FIELD SERVICE**  
EXPERTS IN INSTALLATION AND COMMISSIONING