



MATERIAL HANDLING
SOLUTIONS

PIONEERING THROUGH CENTURIES

Technology, management, and a passion for projects

KOCH Solutions stands on a robust foundation, integrating a rich industrial heritage into our core identity. Our journey from a family business to a worldwide acting industry leader reflects our deep-rooted origins in material handling. These origins enable us to blend centuries-old engineering traditions with the innovative spirit of a modern leader in material handling engineering.

KOCH Solutions means business: delivering convincing results in bulk material handling with impeccable planning, precise organization, and lifetime service for your equipment.

In every project we undertake, we combine our extensive experience with the thrill of new challenges and the confidence to explore new directions alongside you. Together, we can implement your vision - from the initial concept to commissioning - and navigate forward into a successful future.

together.forward



In 2023, KOCH Solutions acquired major parts of the Bulk Material Handling segment from FLSmidth. This acquisition includes FLSmidth's previous investments from **Thyssenkrupp Fördertechnik** and **Sandvik Mining Systems**, along with all the IPs, references, and patents. This strategic move enhances our capabilities and expands our portfolio, reinforcing our commitment to delivering innovative and comprehensive material handling solutions to our clients worldwide.



PERFORMANCE IS OUR COMMITMENT

The best technology, more efficient engineering and smooth implementation. That was the driving vision of Karl and Emilie KOCH when they laid the foundations for KOCH in 1945 and it remains so to this day.

Today, KOCH Solutions enjoys a worldwide reputation as a successful enterprise. We are still a tightly held company, headquartered in our place of origin. Founded and developed with a view towards long-term stability and always with the same inherent vision: performance is our commitment.

Challenges and Solutions

KOCH Solutions integrates design engineering, fabrication, and a complete range of services to ensure customized total packages, from the Stacker to a complete Turn-Key System. We handle the entire implementation process - from project management to the takeover by our client and beyond, with our KOCH Solutions` Lifecycle-Services.

Accessibility and Flexibility

With our subsidiaries, branch offices, and representatives, KOCH Solutions's global presence translates into high accessibility. Dispatched from any of our operating facilities, KOCH Solutions` teams can arrive quickly at any site to manage projects and interface with clients locally.

Competence and Focus

Having a flexible, project-oriented organization is an important pillar of KOCH Solutions success. KOCH Solutions project teams are built around the requirement of the contract, with specialists from all the relevant disciplines.

Team Spirit and Individual Responsibility

Direct interface enables fluid information flow within the team. Flat hierarchies permit rapid decision-making - KOCH Solutions project managers have the necessary authority. The assignment of a specified contact person in all project phases, as well as the integration of our clients into the project team itself are key components of the KOCH Solutions team philosophy.

Safety and Quality Assurance

Certified in accordance with the DIN EN ISO Standards, our quality management system directs the projects and defines the quality level of KOCH Solutions` services - from the initial idea through to the functional implementation, from the conceptualization through to the management of the plant in its operational phase. Environmental protection and the highest level of safety standards are also critical components - a fact fully demonstrated, for example, by our documented record of millions of accident-free hours in construction and installation.

Continuity

A reliable partnership is our corporate operation principle: our goal is to sustain a long-term cooperative spirit, both: with our clients, as well as with our joint venture partners and suppliers - in the conceptual phase, in the implementation, and at any time in the future.



WORLD-LEADING MATERIAL HANDLING SOLUTIONS

KOCH Solutions is your global partner for the design, supply, installation, operation, and servicing of all your material handling needs. With extensive experience and expertise, we meet the toughest standards by providing innovative, sustainable solutions that ensure efficiency and reliability for customers worldwide.

Our commitment to excellence begins with understanding your unique requirements. We offer tailored solutions that cater to the specific demands of your operations, ensuring optimal performance and seamless integration. Our team of experts works closely with you to develop systems that not only meet but exceed your expectations.

We set new benchmarks in material handling systems by merging optimal manufacturing and operational efficiency with the highest degree of customization in conceptual planning and design. This ensures you receive solutions

tailored to meet your exacting requirements. By combining advanced technology with innovative design principles, we deliver systems that are both robust and flexible.

KOCH Solutions offers a comprehensive range of material handling equipment designed to enhance performance, increase energy efficiency and safety, and reduce emissions as well as operating costs. Our products are engineered to perform in the most demanding environments, providing reliable and efficient service throughout their lifecycle. From conveyors and storage systems to complete turn-key solutions, we cover all aspects of material handling.

All engineering for KOCH Solutions' material handling systems is developed in Germany, where mechanical, structural, and electrical engineering expertise, along with advanced control systems, converge with the experience



of building hundreds of components and systems. Our German engineering heritage ensures precision, quality, and innovation in every project we undertake.

Our interdisciplinary teams develop innovative approaches and refine proven concepts, customizing them to meet the specific needs of our customers. We leverage cutting-edge technology and industry best practices to deliver solutions that are not only effective but also sustainable. Collaboration across different fields of expertise allows us to tackle complex challenges and deliver superior results.

Project planning is supported by extensive databases and our unique KOCH modular system concept, ensuring minimal delivery times and competitive prices. Our modular approach allows for scalable solutions that can be easily adapted to changing needs and future expansions. This flexibility is key to maintaining operational efficiency and cost-effectiveness over time.

With KOCH Solutions' manufacturing expertise from our own production facilities and certified quality management, we guarantee the implementation of KOCH Solutions' high-quality standards - anywhere in the world. Our rigorous quality control processes and commitment to continuous improvement ensure that every product we deliver meets the highest standards of excellence.

Choosing KOCH Solutions means partnering with a company dedicated to your success. We are committed to building long-term relationships with our clients, providing ongoing support and service to ensure the continued success of your operations. Trust KOCH Solutions to be your reliable partner in material handling, delivering innovative solutions that drive your business forward.

Key Material Handling Offerings

- Overland Belt Conveyors
- In-Plant Conveyors
- Mobile Stacking Conveyors
- Mobile Reclaim Conveyors
- Fixed and Shiftable Conveyors
- Portable Conveyors
- Steep Angle Conveyors
- Belt Conveyors
- Pipe Conveyors
- Bucket Chain Excavators
- Bucket Wheel Stacker-Reclaimers
- Scraper Reclaimers
- Stackers
- Mobile Bridge Boom Stacker
- Shiploaders
- Ship Unloaders
- Radial Stackers
- Train Loading Stations
- Train Unloading Stations
- Chutework
- Electrical & Automation systems
- Customer Service & Engineering

ADVANCED FABRICATION





KOCH Solutions Quality. Self-Made.

The individual development and manufacturing of special machines and special apparatus, technical production advice, and the execution of orders according to planning specifications is a broad and independent range of services offered by KOCH Solutions. We manufacture with the most modern industrial technologies exactly according to customer-specific requirements in our own fabrication workshops. With direct access to the sea, our logistics infrastructure enables us to ensure optimal delivery concepts and short lead times. This strategic advantage allows us to maintain the highest quality standards and guarantee perfect delivery times, providing our clients with reliable and efficient solutions.

700.000 SQUARE METERS.

Plenty of space suitable for the assembly and commissioning of large and heavy machinery. Our final assembly location is in close proximity to our shipping dock, effectively shortening the project cycle and ensuring your machine makes its way to you as quickly as possible - already tested for operation.



SOLUTIONS

FOR ANY CHALLENGE



Mining Technology

At the heart of the extraction process, our advanced mining technologies are designed for power, efficiency, and reliability, enabling you to tap into Earth's resources with precision and sustainability.



Stockyard Equipment

From stackers to reclaimers, our stockyard equipment is built to withstand the rigorous demands of bulk material handling, ensuring optimal inventory management and material quality.



Loading & Unloading Systems

Our sophisticated loading and unloading systems streamline the transition of materials, reducing handling time and enhancing throughput for a variety of bulk goods.



Port Facilities

We equip ports with robust and efficient machinery, crafted to enhance productivity and withstand the challenging maritime environment, ensuring seamless maritime logistics.



Conveying Technology

Our conveying solutions, marked by innovation and durability, move materials of all kinds across distances with minimal loss and maximum environmental consideration.



Turnkey Material Handling Systems

We offer comprehensive, custom-engineered turnkey solutions that cover every aspect of material handling, from design and fabrication to installation and commissioning, ensuring a seamless, start-to-finish process.

At KOCH Solutions, we cover the entire value chain for the extraction, processing, and transportation of raw materials and ores, ensuring comprehensive material handling capabilities and offering lifetime service designed to deliver unparalleled efficiency and performance to our clients.



MINING TECHNOLOGY

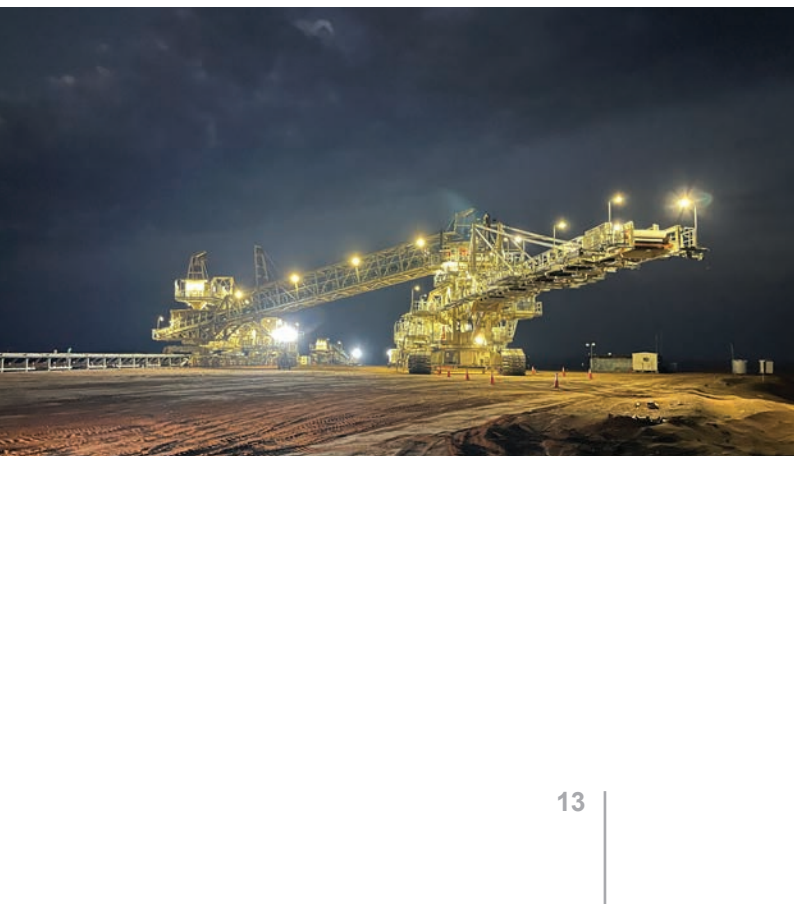
Mining plays a crucial role in the global economy, providing essential raw materials that drive industrial growth and technological advancement. At KOCH Solutions, we understand the vital importance of mining and are dedicated to supporting this critical sector with our advanced material handling systems. Our expertise in mining solutions ensures efficient, reliable, and sustainable operations, helping to secure the resources needed for industries worldwide. By partnering with KOCH Solutions, you benefit from our extensive experience and innovative technologies, designed to meet the rigorous demands of the mining industry and contribute to its continued success.





Revolutionizing Mining from the ground up

Flexibility and reliability play a decisive role in the extraction of raw materials or the handling of large quantities of bulk material. In the complex world of mining, these attributes are essential to adapt to changing conditions while maintaining continuous, efficient operations. KOCH Solutions offers tailor-made solutions, specifically designed to meet the individual needs and challenges of your project. Our mining technologies are the result of extensive experience and innovation, designed to ensure maximum efficiency and safety.



STOCKYARD TECHNOLOGY

KOCH Solutions stockyard equipment is designed and manufactured to fulfill the sophisticated needs of high-capacity plants, with stockpile volumes up to 1 million m³ and capacities reaching up to 20,000 t/h and higher. Based on an innovative modular design, KOCH systems ensure efficient material handling at low specific investment and operating costs, combining a wide variety of proven components for customized solutions according to clients' specifications.

KOCH Solutions material handling systems offer a full range of machinery and equipment for every task and challenge in stacking and reclaiming.

Our stockyard management system consists of a suite of solutions which can be applied to various stockyard layouts depending on the actual objective of the stockyard: To optimize throughput, equipment runtime, ore blending, as well as document the ore quality, while complying with the highest safety standards.

Considerable savings in initial investment are often seen when combining KOCH Solutions stockyard machines with the above mentioned stockyard management system.



Stockyard Equipment

- Bucket Chain Excavators
- Bucket Wheel Reclaimers
 - Boom-type
 - Bridge-type
- Bucket Wheel Stacker-Reclaimers
- Scraper Reclaimers
 - Portal
 - Side
 - Bridge-type
- Stackers
 - Boom-type
- Stockyard Management systems



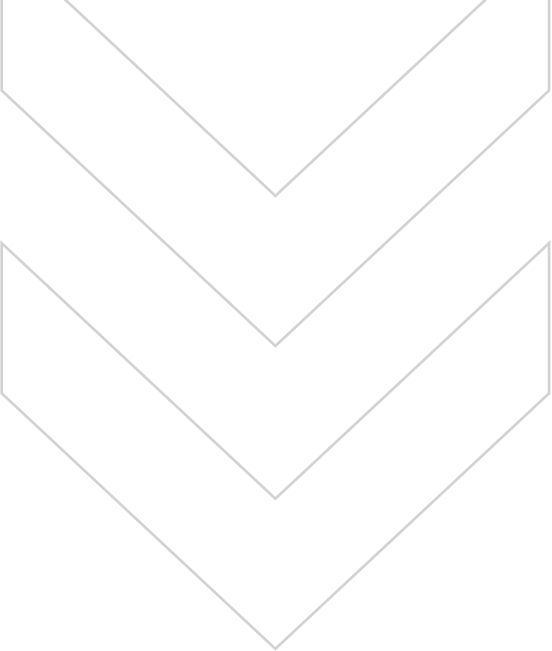
Lifting your stockpile operations to new heights

During unloading processes, highest turnover rates are required. Buffer stores are essential as a buffer between the intermittent transport and the different requirements of consumption. Stockyards, which also serve as storage warehouses, must guarantee a high level of material availability. The choice of the suitable unit combination is crucial for the economic operation of your stockyard. KOCH Solutions offers unique and economical solutions for your project.



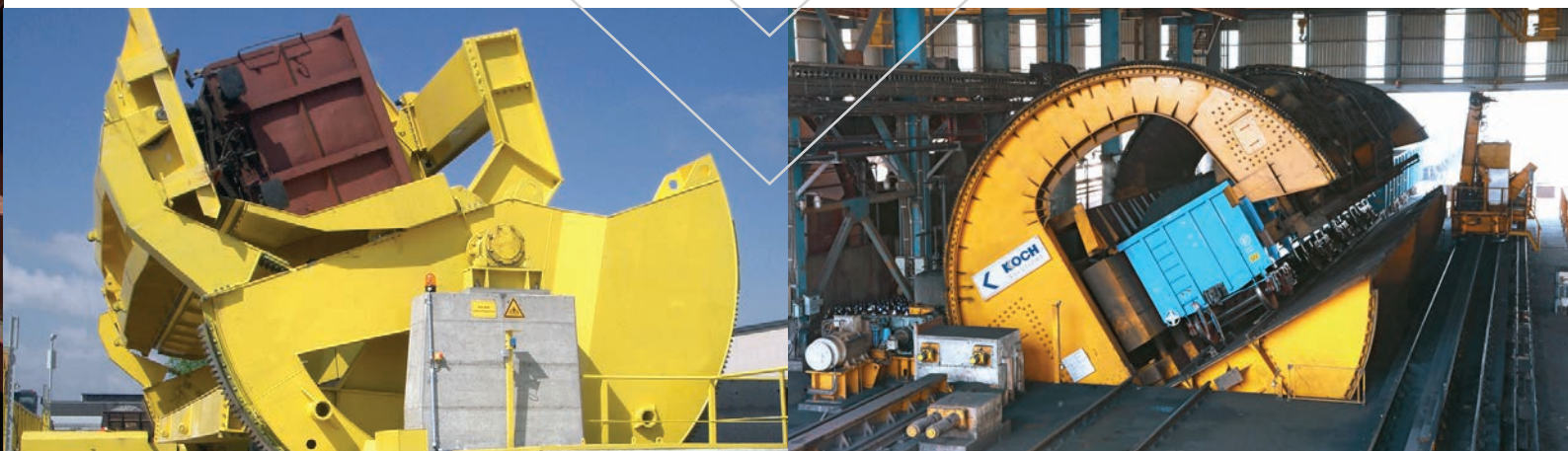
UN.LOADING TECHNOLOGY





Optimized Loading & Unloading: Efficiency Meets Precision.

For the swift loading and unloading of trucks and trains, KOCH Solutions delivers state-of-the-art continuous conveyor systems tailored to meet the high handling rates your operations demand. Our technology is customized to align with your specific needs, taking into account the type of materials, handling capacity, spatial configuration, and environmental conditions. Our individualized solutions are designed to optimize your workflow, ensuring that every load and unload cycle is a model of efficiency and accuracy.



PORT TECHNOLOGY

Lifting your port operations to the next level.

High handling rates required for loading and unloading ships are tackled by modern continuous conveyors of different designs. We offer you the appropriate technology. KOCH Solutions' loading and unloading systems are individual solutions considering the respective circumstances with regards to conveyed goods, handling capacity, arrangement and environmental conditions.

Mechanical Shiploaders and Ship Unloaders

KOCH Solutions' shiploaders and ship unloaders are versatile units that can be tailored to any task using proven components. These units move on rails, allowing faster loading and unloading of ships of all sizes.

Individual components such as telescoping loading chutes and slewing loading spouts ensure optimal loading of the cargo holds. For dust suppression, special chute designs or dust collection systems can be integrated upon request.

KOCH Solutions' barge loaders and unloaders are available especially for river ships – these are units developed by KOCH Solutions for more efficient loading and unloading of bulk materials in inner harbors.



Port Handling Equipment

- Shiploaders
 - Bulk Ship Loaders
 - Barge Loaders
 - Bag Loaders
 - Combined Machines
- Ship Unloaders
 - Grab Unloaders
 - Bucket Chain Unloaders
 - Screw Unloaders
 - Combined Machines
 - Barge Unloaders



BELT CONVEYING TECHNOLOGY



Belt Conveying Equipment

- Overland Belt Conveyors
- In-Plant Conveyors
- Mobile Stacking Conveyors
- Mobile Reclaim Conveyors
- Fixed and Shiftable Conveyors
- Portable Conveyors
- Steep Angle Conveyors
- Belt Conveyors
- Pipe Conveyors

Moving Efficiency Forward.

Belt conveyor systems are the central nerve of modern bulk cargo handling. They must prove themselves as reliable material flow systems. Simple construction, low operating costs, long service life, and high turnover rates justify the cost-effectiveness of continuous conveyor systems. Large-scale belt conveyor systems bridge up to 100 kilometers and handle capacities of up to 25,000 tons per hour. During in-house transport, conveyor systems connect the various production stages and form a reliable material flow system. High flexibility in the arrangement, high availability of the conveying capacity, low maintenance, simple charge and discharge procedures are advantages; giving belt conveyors a permanent place in all material handling equipment. KOCH Solutions supplies conveyor systems for all areas of application. They provide proof of the high performance and profitability of this universal material handling system worldwide.



KOCH Solutions' extensive experience combined with dynamic analysis software, horizontal and vertical curve analysis software, higher belt tension ratings, and higher idler load ratings have allowed our engineers to successfully design and build belt conveying systems that would have been unachievable just a few years ago.

Using sophisticated modeling techniques, we can predict how solid particles move and interact in space. Mathematical equations consider the shape, position, cohesiveness, velocity, and force of each particle and calculate how they flow as they pass through a predefined space to provide new solutions and minimize existing problems of material flow through transfer points.



IBEX

STEEP ANGLE CONVEYOR



IBEX FACTS

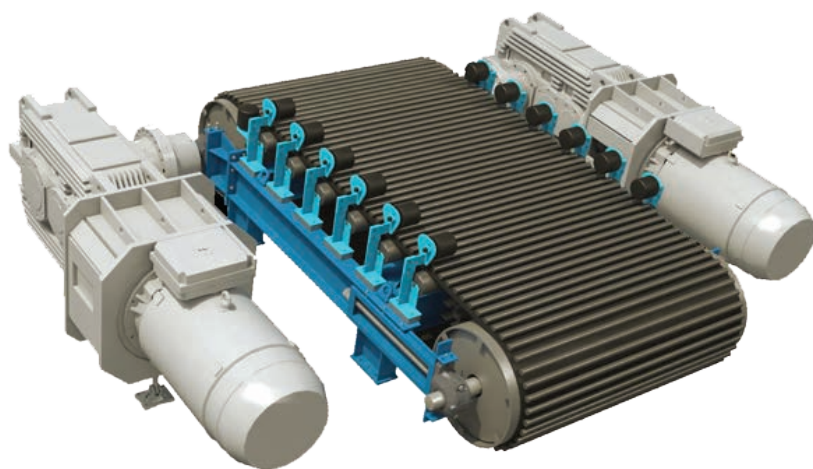
- Nearly unlimited elevation
- Flexible extensions
- Modular design
- Standard belt design
- Standard electric drives
- Redundant drive concept
- High automation potencial
- Safe operation

Elevate Beyond Limits.

The IBEX enables In-Pit Crushing, conveying for deep mines and difficult steep conditions.

Step into a new era of material handling efficiency with our revolutionary IBEX. Engineered for the formidable tasks presented by open-pit mining, the IBEX transcends traditional boundaries with its groundbreaking design and patented drive technology.

With the power to render conventional truck fleets obsolete, the IBEX paves the way for unparalleled operational advancements. It doesn't just move materials; it moves your entire operation into a future where efficiency soars and limitations are left far behind. Welcome to a world where the summit of innovation meets the bedrock of reliability.



» The IBEX is capable of handling extreme vertical inclines and offers a compact and efficient layout. Thanks to its patented drive technology, it is able to reach heights that are beyond the reach of conventional steep conveyors.



ECO-FRIENDLY EXCELLENCE

Our innovative IBEX steep angle conveyor system eliminates the need for truck fleets, significantly reducing emissions and environmental impact while enhancing operational efficiency.

Advantages:

- » Safe operation
- » High capacities
- » Low operating costs (OPEX Saving)
- » Low CO2 footprint
- » Fewer operating personnel required
- » High automation potential

» Annual diesel saving

44.600.000 l

» Annual CO2 reduction

119.600 to

» Saving of used tires

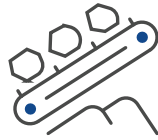
1.310 to

*during IBEX Belt life cycle.



IBEX

Reduce your operating expenses

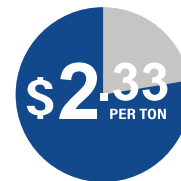
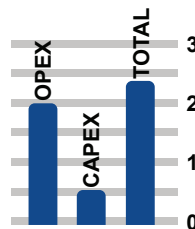
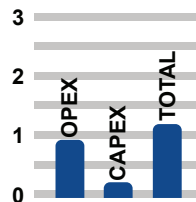
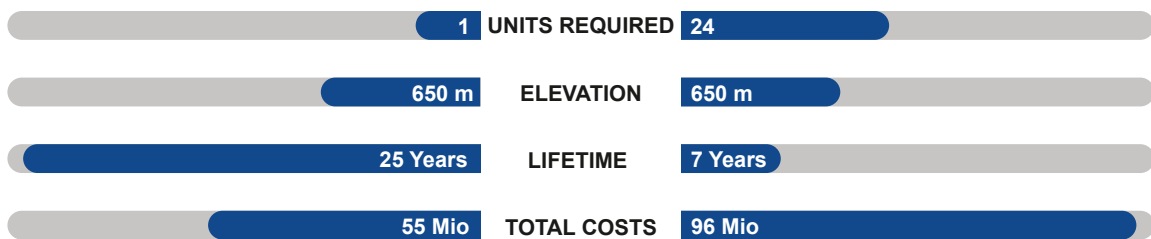


IBEX 2000x680

VS.



TRUCK 290 t



TRUCK

TURNKEY

MATERIAL HANDLING SOLUTIONS





**Perfected to the Finest Detail:
All-In-One Solutions for your
business.**

Material Handling within industrial plants around the world, sophisticated material flow concepts within different technical and economic conditions. These are tasks we are faced with and which we have always successfully solved. Whether it is a stacker; bucket wheel reclaimer; bridge, semi-portal or portal scraper, ship loaders and unloaders – whatever it is, KOCH Solutions is a leader in the construction of complete systems. We develop and realize handling facilities and stockyards, mixed bed systems, and belt conveyor systems. Tailor-made solutions to the different requirements in the cement industry, in power plant coal systems, in mines or port terminals - wherever bulk goods are moved!



KOCH SERVICES

PLANT & CUSTOMER SERVICE



**Through our A to Z service, we offer fast, efficient, and individual solutions.
From Development through Construction to Production: One Source.**

Faster, more efficient, more productive, more economical:

With the modernization and automation of existing plants and machines, we significantly contribute to maintaining and increasing their performance.



WE
MOVE
ON-
M-
ALL-
A

Range of Services

Spare Parts: Everything from One Source

- » Complete range of spare parts
- » Highest quality and reliability
- » Custom-tailored spare parts packages

Inspections: More Safety for Your Plants

- » Identification of deficiencies and risks along with suitable solutions
- » Increase in plant safety and efficiency

Repairs: Maintaining the Value of Your Plants

- » Safe and economical solutions
- » Maintenance and restoration of the functionality and performance of existing plants
- » Professional repair work carried out by qualified personnel

Modernization: Increasing Value

- » Economical enhancement of existing plants to increase capacity and productivity

Your Competent Contact Partner

- » Training of your employees
- » Ongoing support for your equipment

Technical Service

- » Installation and commissioning
- » Operation and maintenance
- » Expert reports
- » Technical support
- » Training

Products and Parts

- » Original spare parts
- » Product analysis and improvement
- » Lifecycle analyses
- » Repairs
- » Conversion, renovation, and retrofitting
- » Engineering services
- » Equipment and plant inspections (audit)
- » Process evaluation
- » Test runs and trials
- » Monitoring
- » Documentation

AUTOMATION SOLUTIONS

- » Automation systems for plants & mobile machines

SUSTAINABILITY

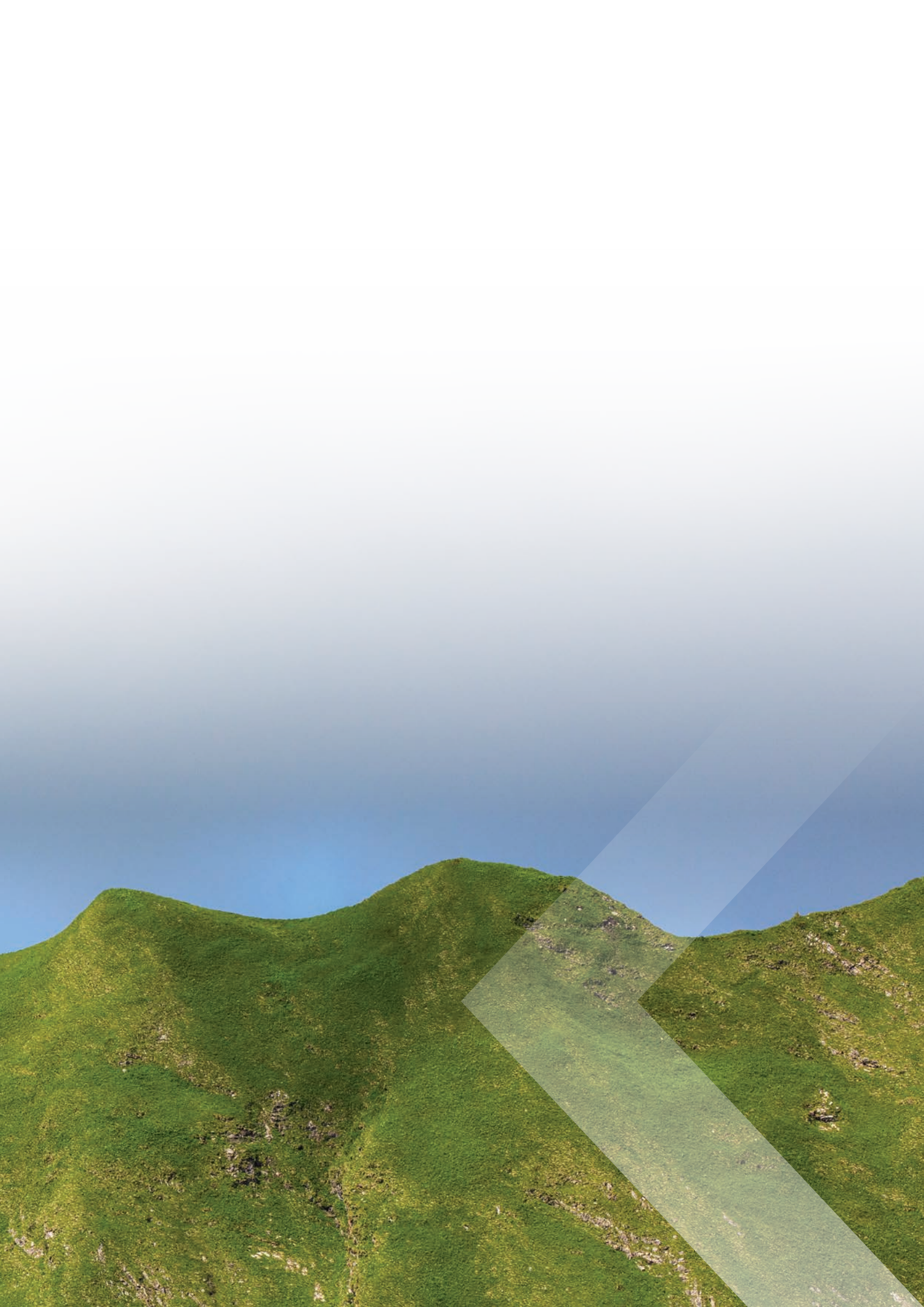
STRATEGY AND GOALS

Sustainability has always been deeply rooted in the culture of KOCH Solutions. Our vision or aim is to provide globally pioneering products, technologies, and services that ensure the long-term satisfaction of our customers. By pursuing efficiency, innovation and pro-activity, we proudly contribute to the most pressing challenge of our time: the protection and preservation of our environment and its natural resources on which our lives are based.

Our vast experience and technical know-how at KOCH Solutions give us the edge in mastering this mission. Together with our customers and partners we therefore focus on the future and include not only economic aspects but also environmental and social issues in our decision-making, to achieve a holistic approach to our value creation and production processes. By constantly improving and optimizing technical systems and processes, we ensure the long-term competitiveness of our company.

together.forward







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www.koch-solutions.com