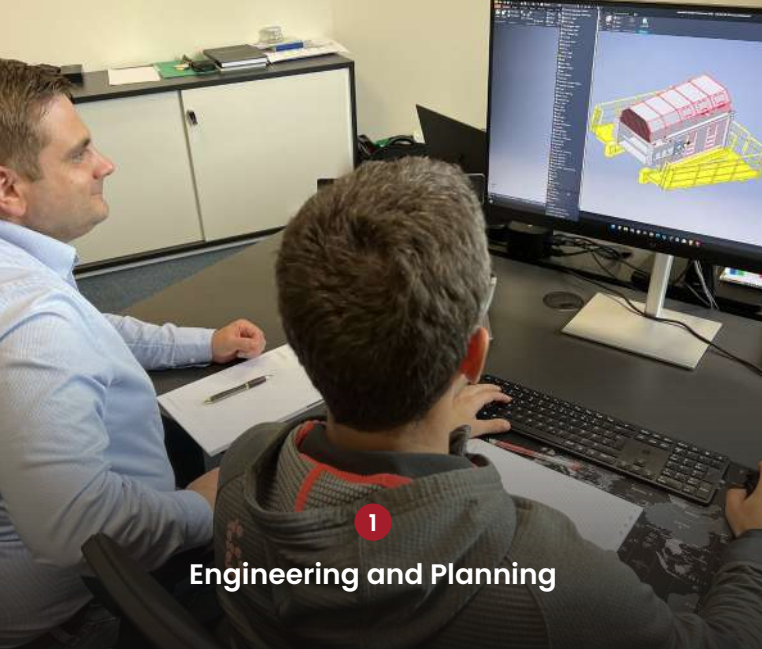




Bulk Materials Handling Systems in Surface Mining



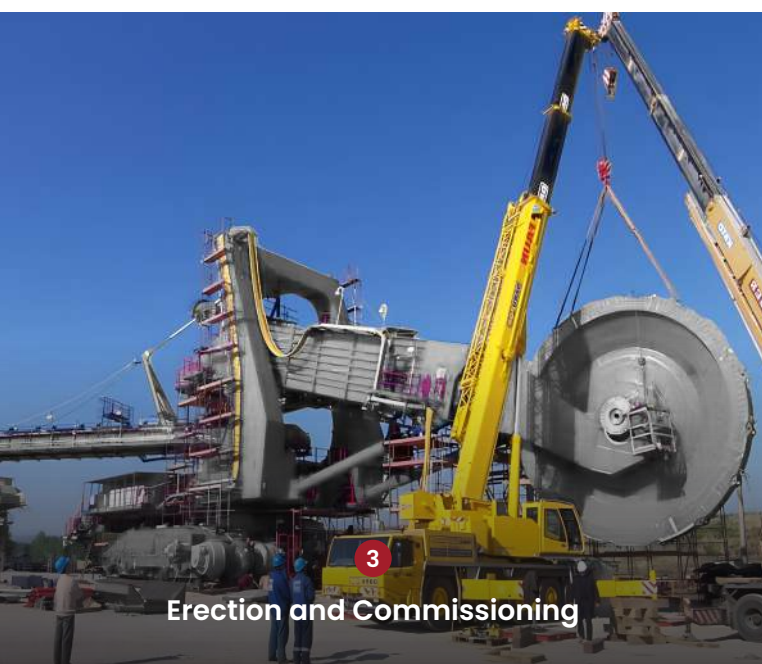
Engineering and Planning



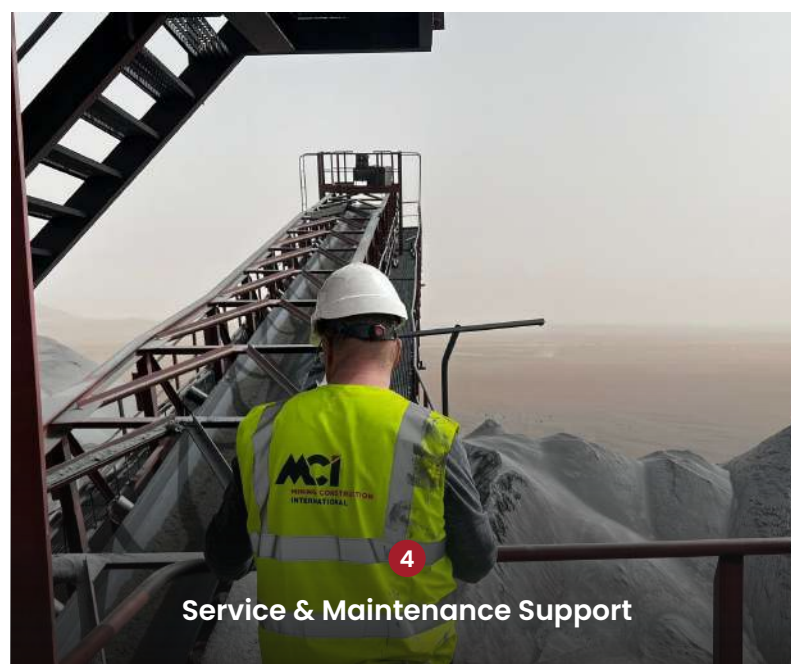
Fabrication & Inspection



YOUR
ALL-IN-ONE
SOLUTION



Erection and Commissioning



Service & Maintenance Support

Leading the Way in Mining & Bulk Materials Handling

MCI's expertise in bulk materials handling in **mining & bulk materials handling equipment** is unmatched. Wherever bulk materials are managed, MCI is there. In addition to serving the mining industry, we excel in downstream operations such as power plants, ports, and terminals, tailoring our approach to each unique application.

We support reclamation, stockyard storing, sizing, homogenization, and transportation processes. Our comprehensive services for **turn-key projects, new equipment, or upgrades and modernizations** include consulting, systems design, engineering, procurement, erection, and support. MCI's advanced materials handling and automation technologies optimize your assets. We design and manufacture the complete range of conveyor components for new systems or as replacement parts.

Our goal is to make you more successful through long-term cooperation and partnerships. Your success comes from efficient process design, innovative engineering, and a dedication to reliability. The MCI brand has always stood for productivity and quality. Through our well-developed MCI organization, we provide global **spear and wear parts** logistics and local **services** to keep your continuous materials handling processes running smoothly.

Advanced Turn-Key Solutions

When it comes to realizing ambitious projects, MCI is the trusted name. With vast experience, we address all client needs with unmatched competence and reliability. Rely on us to equip you with everything – from sophisticated equipment to spare parts – to maximize your operations.

We are your all-in-one solution: everything from a single source!

Mining Systems:

- Bucket Wheel Excavators
- Semi Mobile Crushing Systems
- Stationary Crushing Plants
- IPCC Systems
- Mobile Spreader Systems
- Cross-Pit Spreaders

Transportation Systems:

- Overland Conveyors
- Shiftbale and fixed Conveyors
- Pipe Conveyors
- Terminal Conveyors
- Special Conveyors

After Market:

- Spare & Wear Parts
- Reversed Engineering & Digitalization

Services:

- Maintenance & Field Support
- Life-Enhancement, Upgrades & Repairs
- Automation & Digitalization
- Replacement & Decommissioning



Continuous **open pit mining systems**

A continuous process starts with a bucket wheel excavator. The mined material, overburden, or other material such as lignite, is then transported from the pit via conveyors. Overburden material is typically dumped on the other side of the pit across from the mine face.

MCI has a long history as a leading supplier of soft rock mining systems. Our extensive range of different machines and capabilities facilitate the continuous process. Our engineering and mining experts design the correct system for each specific mine, using one of the two following techniques:

Around the Pit System

In this technique, the conveyor system transports the material along three sides of the pit. Because each mine operation is unique, MCI's engineering experts design the correct system for each specific operation. The bucket wheel excavator, through an installed conveyor system, transfers the material to the mobile hopper car. To minimize distance and lift heights between conveyor and material, the mobile hopper offering greater flexibility. A conveyor system around the pit, connected to a crawler-mounted spreader, transfers the material to the dumping area. MCI's systems are designed to:

- Adapt to different mining and deposit conditions
- Provide flexibility through mobile conveyors around the pit
- Accommodate long distances between mines and dump areas

Cross Pit System

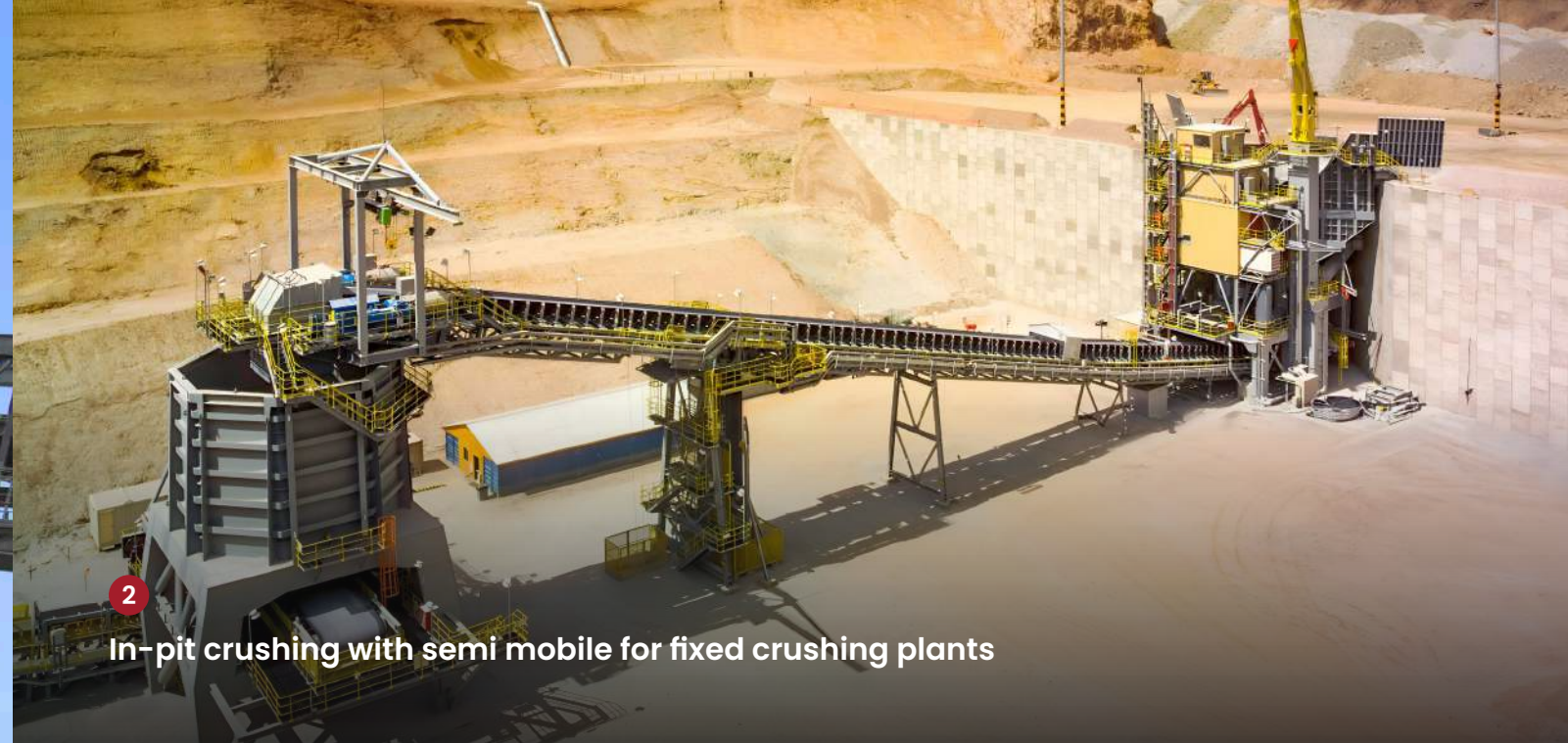
In this specialized system, to be used as an across-the-pit conveyor, the excavator extracts overburden material and feeds it via conveyors to a spreader. The spreader conveys the waste material directly across the open pit and deposits it in the dump area. MCI's cross-pit systems:

- Produce shorter distances and time for conveying material
- Mine deeper reserves economically
- Be applicable in certain geographical conditions at the dump site





1
Spreader System with tripper car for systematic dumping of overburden



2
In-pit crushing with semi mobile for fixed crushing plants



3
Fully mobile crusher for on-face mining applications

In-Pit **Crushing and Conveying** (IPCC) Systems

MCI leverages its extensive experience to design and install efficient and economical IPCC systems for hard rock mining. Unlike traditional load and haul methods, our systems ensure continuous material transport from the pit using fixed, semi-mobile, or fully-mobile crushing plants. Our solutions are tailored to your specific needs, covering all aspects of in-pit crushing and conveying.

In-Pit Crushing with Fully-Mobile Plants

MCI's fully-mobile crushing plants offer a breakthrough in mining efficiency. By eliminating the need for traditional truck haulage, these plants reduce operational costs, lower CO2 emissions, and minimize dust and noise pollution. Compact and flexible, our mobile plants are particularly effective in operations requiring rapid adaptation to changing mining conditions.

In-Pit Crushing with Fixed and Semi-Mobile Plants

For operations where trucks are still required to transport material from the mine face, MCI's fixed and semi-mobile crushing plants provide robust solutions. These plants offer flexibility to adapt to changing mining conditions and are designed to minimize environmental impact while maximizing operational efficiency.

Compared to traditional truck and shovel operations, IPCC systems deliver continuous performance with lower OPEX, improved safety, and a smaller environmental footprint. By minimizing truck haulage, IPCC reduces fuel use, CO2 emissions, and maintenance, making operations more sustainable.

MCI, a leader in advanced IPCC systems, offers full support from feasibility studies to commissioning and training. Our solutions are cost-efficient, eco-friendly, and tailored to your mining project's specific needs.



Equipment Type for Continuous Open Pit Mining

Bucket Wheel Excavators for High-Efficiency Mining Operations

MCI's Bucket Wheel Excavators (BWEs) are pivotal for high-capacity stripping of overburden and continuous extraction of soft to medium-hard materials, handling compressive strengths up to 50 MPa. These versatile machines integrate extraction, loading, and transportation into one seamless system. Designed with modular construction, they are customizable to meet specific mining conditions, whether for compact operations in narrow mines or high-output scenarios. MCI's BWEs are equipped with advanced PLC systems and ergonomic interfaces, ensuring productivity and ease of operation. Additionally, they enhance efficiency and environmental stewardship by enabling precise material handling, making them indispensable in modern mining.

Beltwagons

MCI's belt wagons, or mobile transfer conveyors, are designed to create flexible, adjustable systems that connect the bucket-wheel excavator to the bench conveyor, ensuring a continuous, uninterrupted flow of material in open pit mining operations.

Spreaders

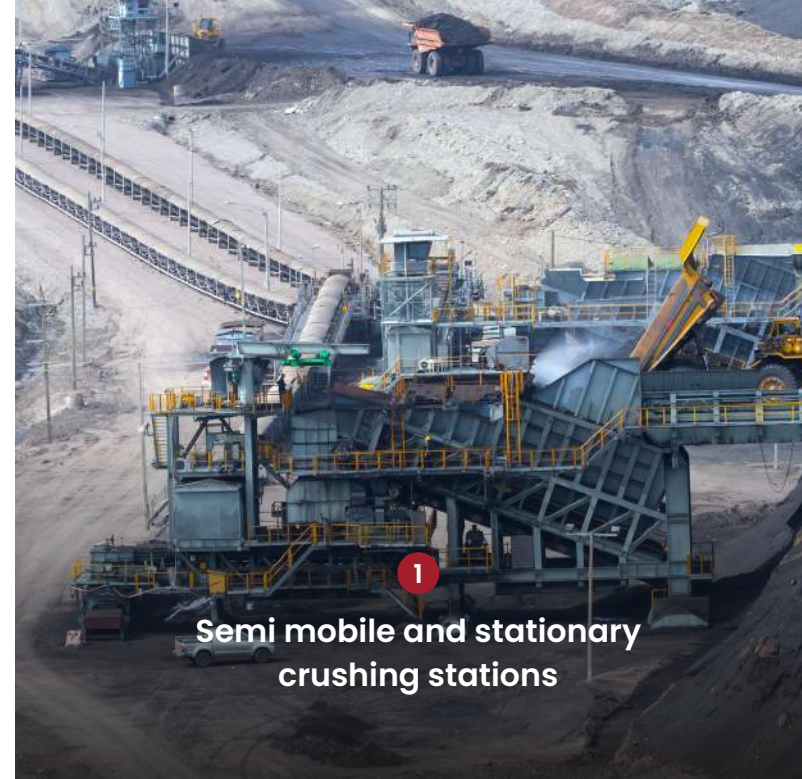
MCI's mobile spreader systems are pivotal in open-pit mining, efficiently distributing overburden and bulk materials across large areas. Capable of handling up to 110,000 cubic meters per day, these systems are essential for site management, leach pad operations, and environmental protection. Equipped with advanced GPS and automated controls, MCI's spreaders offer customizable solutions that boost operational efficiency, reduce labor costs, and ensure environmental compliance, making them a smart, long-term investment for mining operations.

Semi-Mobile Crushing Plants

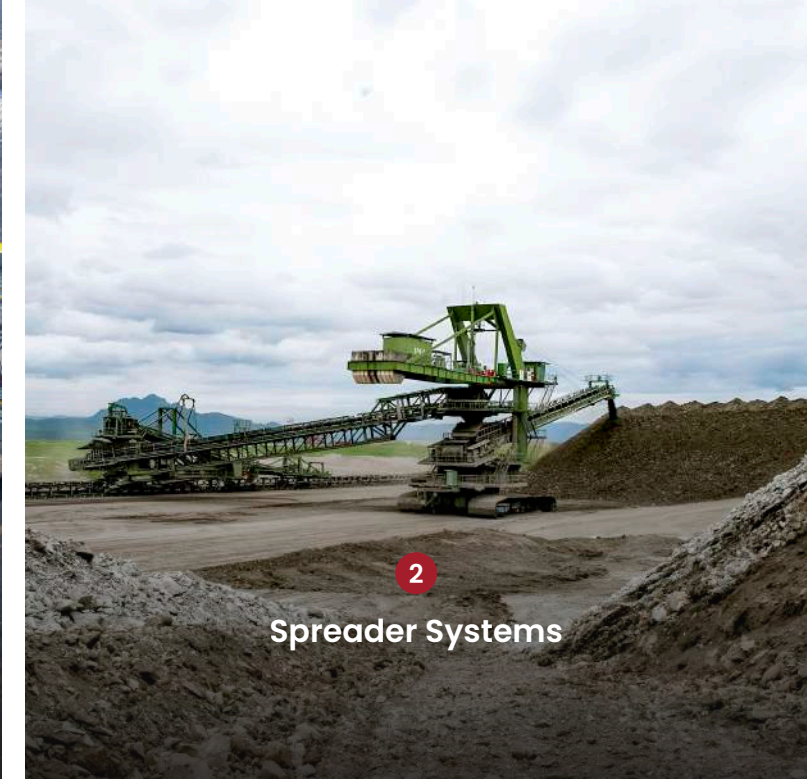
MCI's semi-mobile crushing plants are designed as movable modules that can shift to follow the expansion of surface mining operations. These plants are adaptable depending on the specific application, offering a choice of crushers, including gyratory, jaw, hybrid double-roll, and primary or secondary crushers. These plants can handle up to 11,000 short tons per hour of feed material, making them ideal for processing coal, overburden, and various ores.

Stationary Crushing Plants

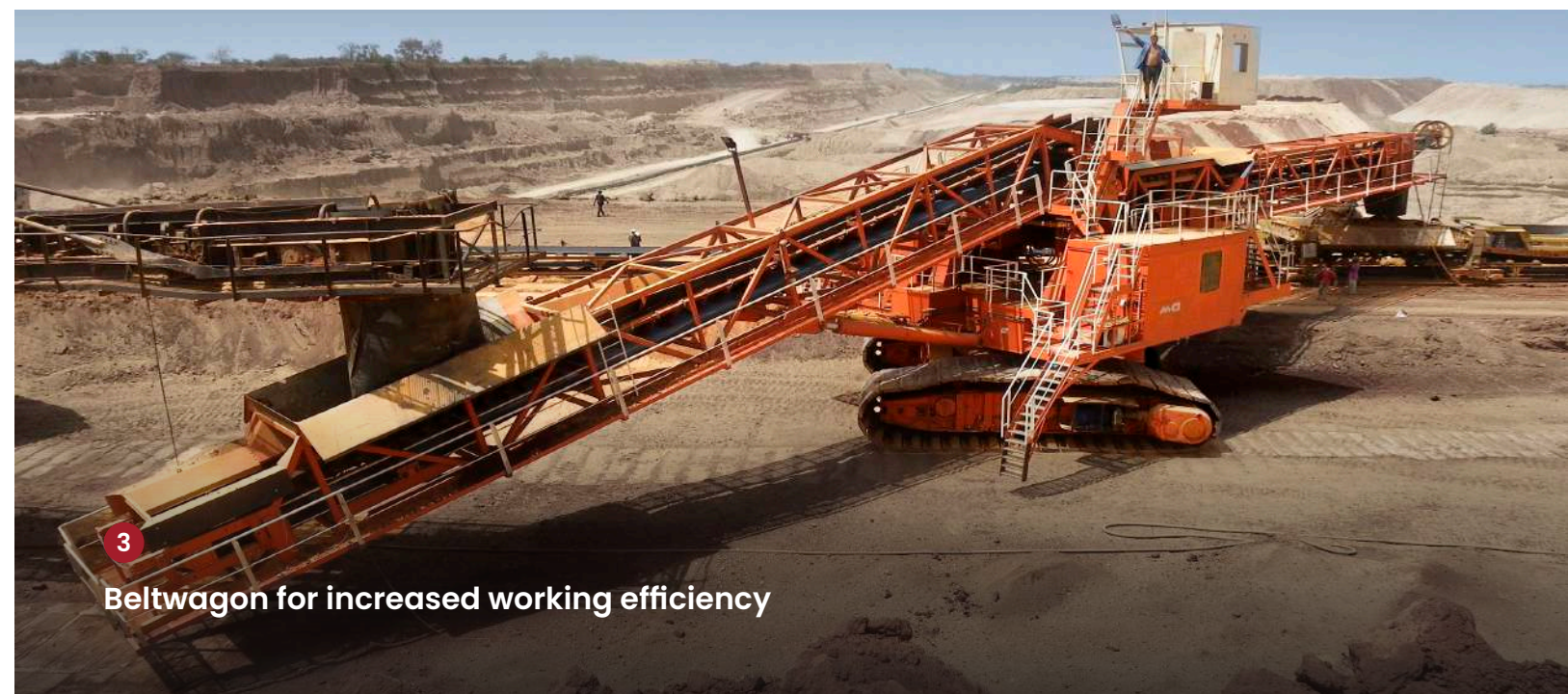
Stationary processing plants from MCI are designed and customized to meet the specific needs of a single, fixed location. Each stationary plant is engineered to accommodate local conditions, ensuring maximum efficiency and reliability for processing operations.



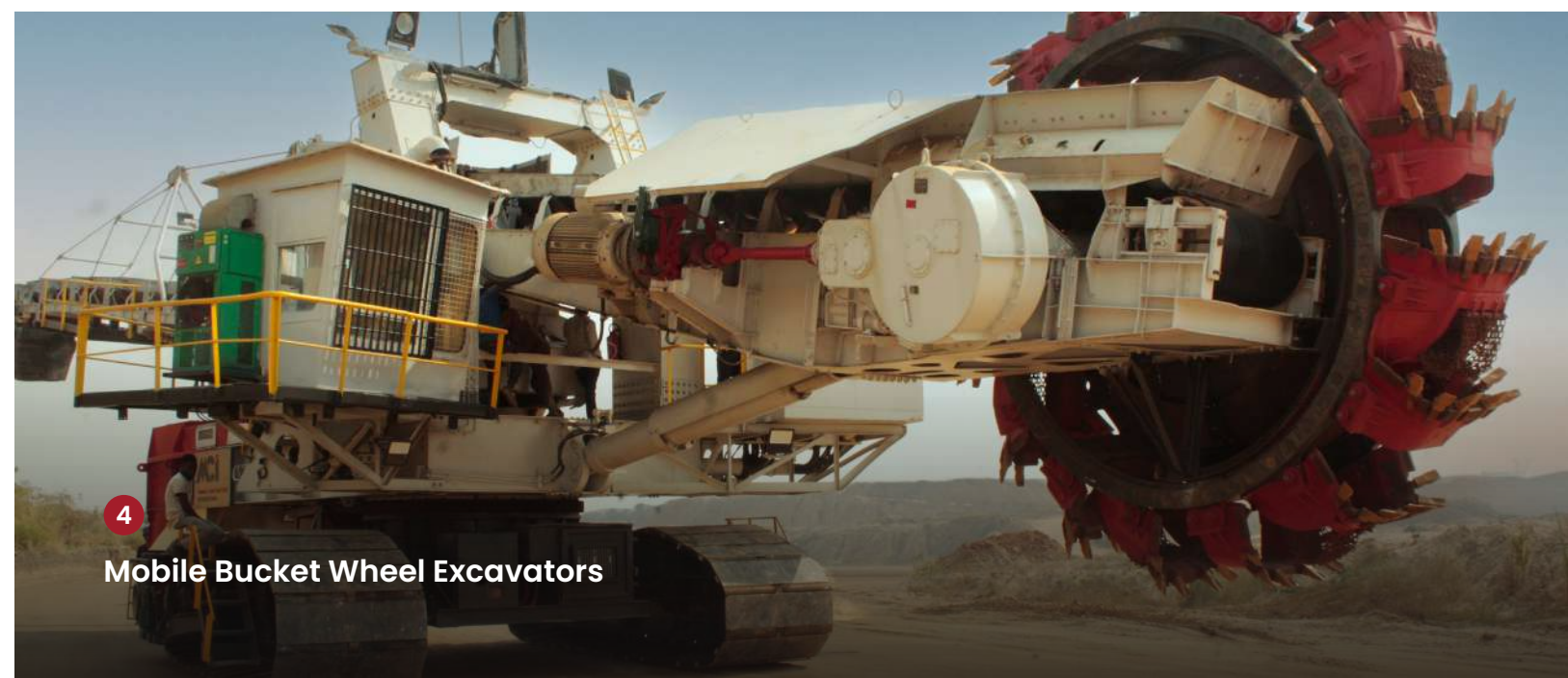
Semi mobile and stationary crushing stations



Spreader Systems



Beltwagon for increased working efficiency



Mobile Bucket Wheel Excavators

ENGINEERED PERFORMANCE CONTINUOUSLY DELIVERED

As a trusted global leader with decades of experience in mining, earthmoving, and material handling, MCI offers comprehensive, innovative, and sustainable solutions tailored to drive your projects' success. From advanced design and engineering to seamless fabrication, project management, and reliable maintenance, our full-service approach ensures your projects are executed with exceptional quality and efficiency.

With unmatched after-sales support, a focus on maximizing uptime, and cutting-edge technology, MCI is committed to exceeding your expectations. Choose MCI for customized solutions that deliver superior performance and reliability, empowering you to achieve your business goals and secure a prosperous, sustainable future.



Transportation systems

Comprehensive Conveyor Solutions by MCI

MCI has a highly skilled projects division specializing in the design, manufacture, installation, and commissioning of conveyor systems for a full range of applications. We also upgrade and modernize existing systems and supply a comprehensive range of quality components and spare parts.

Overland Conveyors

MCI is recognized worldwide for its developments in long overland conveyors with both horizontal and vertical curves. Co-operating with the natural lay of the land, our long-distance systems provide a cost-efficient and more environmentally friendly alternative to trucking for material transport. This reduces noise and dust emissions. Our overland conveyors have ranged from 1 to 13 km (0.6 to 8 miles) as a single flight, operating at belt speeds of 2.5 to 7 m/s (8 to 23 ft/s).

Mine & Incline Conveyors

Our systems for open-pit mines include fixed, shiftable, semi-mobile, and fully mobile track-mounted conveyors, always tailor-made and adaptable to the specific operational needs. On modular concepts, that greatly facilitate relocation or expansion as needed, our systems can expedite and optimize the process of material removal, redistribution, and stacking.

Pipe Conveyors: Secure and Environmentally Compliant Transport

MCI's Pipe Conveyors provide the perfect solution for transporting sensitive materials that require protection from environmental factors. These fully enclosed systems are ideal for moving granulates or raw materials, ensuring that your materials remain secure from external contamination while also meeting strict environmental regulations. By enclosing the materials, Pipe Conveyors prevent spillage and reduce dust emissions, making them an excellent choice for operations where safety and environmental responsibility are paramount.



1

Environment friendly Overland Conveyor



2

Incline Belt Conveyor System



3

Mine Conveyor System



4

Shiftable Mine Conveyor System



Feasibility Studies



Mine Planning and Design

Mine Planning & Design Services: Optimizing Your Mining Project from Pit to Port

Navigating the complexities of mining requires deep expertise and advanced tools. Our mine planning services provide comprehensive support throughout the entire mining lifecycle—from **initial site analysis to equipment selection, financial strategy, and material handling logistics**. Whether you are developing a new site or optimizing an existing one, our tailored solutions ensure the success and efficiency of your mining projects.

Key Offerings:

Strategic Mine Planning & Optimization

With extensive experience in mining engineering, we empower you to make informed decisions at every stage of your project. From feasibility studies to full system integration, we offer support for both continuous and discontinuous mining systems. **Our expertise spans the entire planning cycle, ensuring smooth execution from pit to port.**

Comprehensive Collaboration for Maximum Success

At MCI, we believe in close cooperation with your project team. Our mine planners and engineers bring years of experience in continuous mining systems and material-handling equipment, providing rapid cost estimates and effective system integration. **Leveraging our vast database of equipment designs and mining concepts**, we ensure the most efficient and cost-effective solutions for your project.

Pre-Project Planning & Feasibility Studies

We offer detailed feasibility studies and expert evaluations to assess technical and economic viability. This includes:

- **Continuous mining machinery** (e.g., Bucket Wheel Excavators, Spreaders)
- **In-pit crushing and conveying systems** (Fixed, Semi-mobile, Fully mobile)
- **3D visualizations** to support tender preparation and project progress
- **Site-specific material testing** to optimize equipment design and ensure operational efficiency

Tailored Equipment Selection & Dimensioning

Optimal equipment selection is crucial for efficient mining operations. We have developed an integrated toolkit that allows us to tailor equipment designs to your specific mining conditions, ensuring the best possible match for your project. Our services cover:

- Equipment specification and procurement

- **Detailed tendering and supply process**, allowing for seamless project transitions
- Equipment dimensioning based on mining site requirements

Innovative System Concepts & Pit Optimization

We explore a variety of **continuous mining system solutions**, focusing on conveyor-based transport systems such as in-pit mine conveyors and cross-pit conveyors. By reducing the reliance on trucks, our designs improve efficiency and reduce operational costs. **Through close collaboration, we develop customized mine layouts** that optimize performance for continuous systems, overcoming the challenges posed by their reduced flexibility compared to truck-and-shovel systems.

Financial Modeling, Sensitivity & Risk Analysis

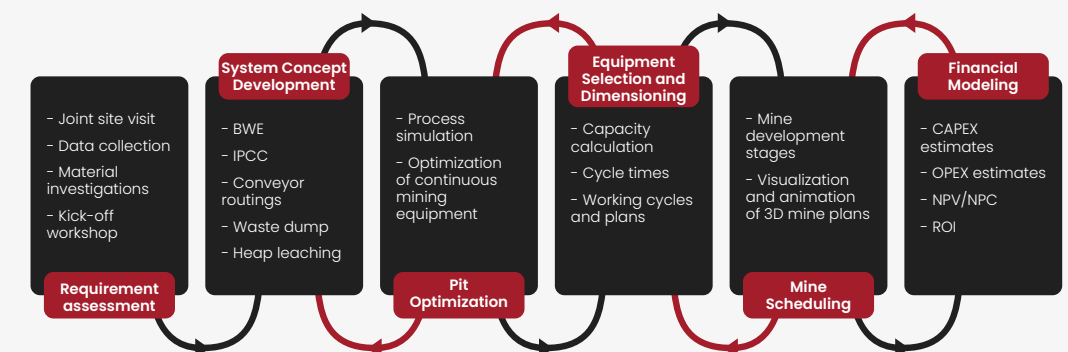
Financial planning is a critical aspect of any mining project. We provide detailed **CAPEX and OPEX estimates**, supported by **sensitivity and risk analyses**. This ensures an accurate financial picture, identifying key cost drivers and evaluating the financial impact of operational variables on your project's overall performance.

Effective Mine Scheduling

Our advanced mine scheduling solutions are designed to optimize the use of continuous systems, aligning your operations with the overall mine design. We provide:

- **Customized scheduling for continuous and discontinuous systems**
- Real-time feedback on operational adjustments and their impact on the overall project timeline

Every project is unique and requires a different level of detail that mainly depends on the work already done. For that reason, each study follows a general methodology, or parts of it, as a standalone to enable a trade-off through comparing discontinuous truck and shovel systems with various continuous mining systems.



Conclusion

MCI's **pit-to-port mine planning services** provide a full spectrum of solutions tailored to your mining project's specific needs. From feasibility studies and financial modeling to equipment dimensioning and continuous system optimization, we support your success at every step of the mining lifecycle.



After Market Solutions: Ensuring Optimal Performance and Reliability

→ WE'RE THE MISSING LINK IN YOUR CHAIN.

At MCI, we understand that maintaining the optimal performance of your equipment is critical to the success of your operations. That's why we offer comprehensive after-market solutions that encompass a full range of high-quality spare parts, components, and services tailored to keep your systems running smoothly and efficiently.

→ STRATEGIC SPARE PARTS MANAGEMENT

To ensure continuous operation and minimize downtime, having access to the right spare and wear parts is essential. MCI is your trusted partner in providing a wide range of strategic spare parts for opencast mining and port facilities. Our offerings include parts for Bucket Wheel Excavators, Stackers, Reclaimers, Conveyors, Crushers, Ship-loaders, and Ship-unloaders. We provide customer-friendly service support, ensuring short delivery times and supplying both electrical and mechanical parts of the highest European quality.

→ SPARE & WEAR PARTS SOLUTIONS

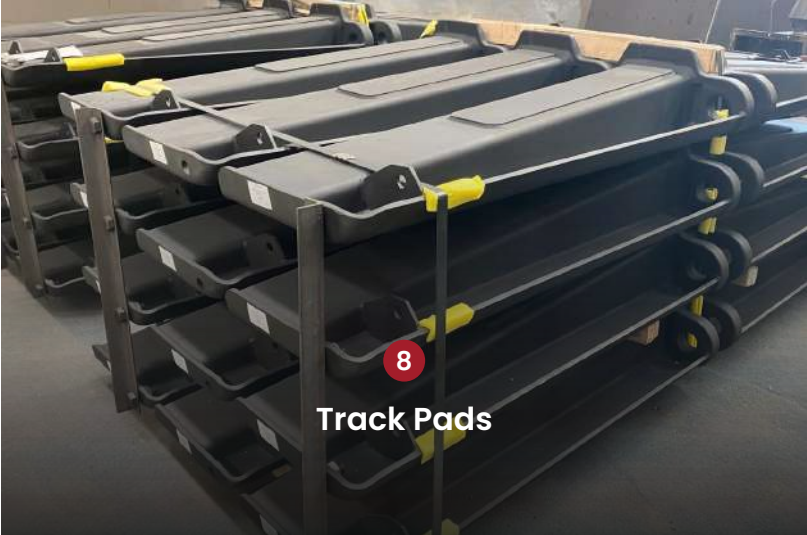
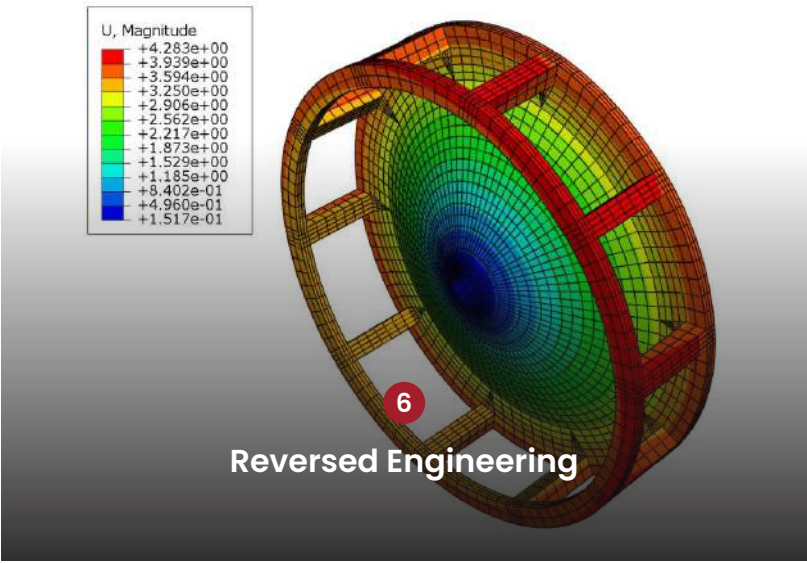
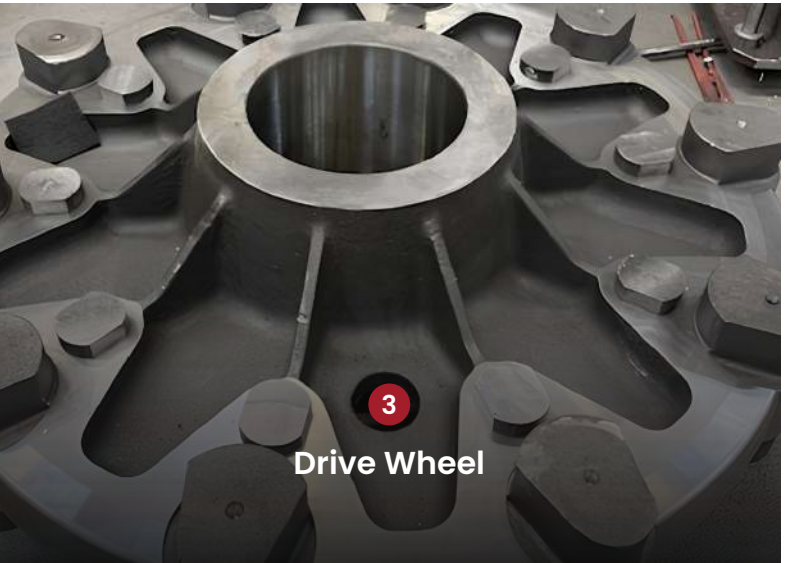
Our spare parts management concepts are designed to be customer-friendly and optimized for efficiency. We offer strategic recommendations for spare parts storage, ensuring that you are always equipped with the most essential components. From slew bearings, gearboxes, and pulleys to conveyor belts, belt-cleaners, e-motors, and automation systems, MCI provides a vendor-independent spare part service that meets the diverse needs of your operations. Our products, including rollers, pulleys, and loading points, are specifically designed for modern handling needs and can be seamlessly integrated into both new and existing systems, ensuring your equipment remains reliable and efficient.

→ REVERSED ENGINEERING & DIGITALIZATION

MCI combines reverse engineering with digitalization to enhance your equipment's longevity and efficiency. We supply spare and wear parts across all OEM brands, and when data is lacking, we can reverse engineer components to match your exact needs. This approach ensures that even older systems remain operational, efficient, and up-to-date with the latest technological standards.

→ SYSTEM SAFETY AND RELIABILITY

MCI goes beyond parts supply by enhancing the reliability and safety of your systems. We address issues like material spillage, belt damage, and dust emissions with expertly designed solutions such as advanced belt cleaners and dust suppression systems, ensuring smooth and safe material transfer.



Life cycle services: For maximum equipment availability

MCI's lifecycle services are designed with two key goals in mind: maximizing the availability and productivity of your equipment and plants throughout their intended lifespans, and extending those lifespans through strategic preventative maintenance and timely modernization investments. Our expert team offers regular inspections, condition monitoring, and maintenance, ensuring your operations run smoothly. Additionally, we provide essential spare parts and support for major replacements, overhauls, and refurbishments, keeping your equipment in peak condition.

WARRANTY When you partner with MCI, you know that we will stand behind our products, with a dedication that goes beyond a standard guarantee.

MAINTENANCE MCI offers scheduled inspections or complete maintenance contracts. We also provide complete maintenance management systems utilizing electronic on-line condition monitoring systems. The maintenance management systems can discover irregularities and consequently minimize costs resulting from unscheduled downtime and failure repairs.

SPARE & WEAR PARTS Our international market strength shows our ability to source and ship material and components anywhere. This also translates into highly effective spare parts support, which is further strengthened with the global MCI logistics organization. We can provide all wear and spare parts to keep your equipment and plant in good condition.

LIFE-ENHANCEMENT, UPGRADES & REPAIRS At MCI, we are dedicated to enhancing the durability, efficiency, and reliability of your mining and material handling equipment through comprehensive upgrades, repairs, and refurbishments. Our skilled team leverages extensive industry knowledge to rejuvenate your machinery, ensuring it operates at peak performance and enjoys an extended lifespan. We also focus on modernizing your equipment and processes, introducing new monitoring systems, improving serviceability, and upgrading training programs. By integrating the latest advancements, MCI ensures your operations remain productive and future-ready, keeping you ahead in a competitive industry.

AUTOMATION & DIGITALIZATION MCI delivers cutting-edge automation and digitalization for mining and material handling. Our offerings include equipment automation, radar systems, and advanced PLCs, alongside predictive tools for service periods and trend forecasting. Trust MCI to keep your operations efficient, intelligent, and future-ready.

FIELD SUPPORT At MCI, we understand that continuous supervision and professional support are crucial to ensure the optimum performance of Mining & Material Handling machines and equipment. Our technical experts not only provide specialised training for machine operators, but are also available for ongoing support and monitoring.

REPLACEMENT BY NEW MACHINERY At the end of a life cycle, MCI can provide recommendations for replacement with a new plant or piece of machinery, utilizing the newest technology for improved productivity and cost efficiency.

Your Benefits

- Proactive technical support
- Reduced costs
- Higher reliability and safety (fewer unscheduled stops)
- Increased availability (less downtime)
- Better service and parts forecasting
- Reduced manpower requirements
- Extended equipment lifetime





**TOGETHER WE
SHAPE
TECHNOLOGY**



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