

# **MINERAL PROCESSING SOLUTIONS**



# PROCESSING TECHNOLOGY RELIABLE AND CUSTOMISED SOLUTIONS

FAM, a member of BEUMER Group, brings decades of expertise and innovation to the mining industry. With a commitment to efficiency, sustainability, and reliability, our advanced mineral processing solutions are designed to address the evolving demands of material handling, crushing, and screening. From reducing energy consumption to maximising throughput, our technologies are tailored to enhance operational efficiency. Whether your mining operation focuses on ore, limestone, coal, or overburden, FAM's state-of-the-art solutions ensure seamless integration with existing systems, precise particle sizing, and optimised resource recovery, keeping your processes productive and cost-effective.

## CHOOSING THE RIGHT PARTNER MATTERS

When it comes to long-term sustainability and operational excellence, your choice of partner is vital. FAM and BEUMER Group focus on delivering solutions that span the full value chain, from extraction and processing to material transport. With our emphasis on quality, safety, and sustainability, we're a partner you can rely on when it matters most.

## YOUR PARTNER OF CHOICE IN MINERALS & MINING

- › Deep expert knowledge and experience to provide innovative and reliable solutions for your operations
- › A customer-centric approach tailored to your unique operational needs
- › Cutting-edge digitalisation tools that ensure operational excellence and sustainability
- › Robust global service and support network

# ADVANCED TECHNOLOGIES FOR EVERY NEED

## CRUSHING EXCELLENCE



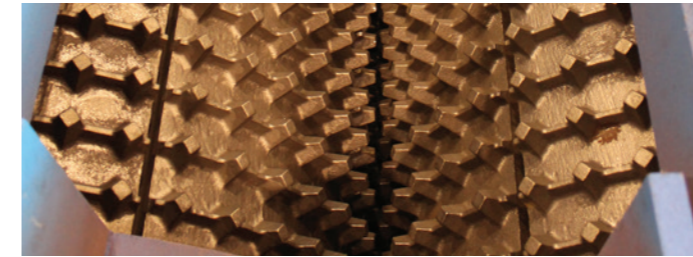
In-pit crushing system FPB1314-20/13.5, on crawlers, apron feeder AFs1600x8,5, impact crusher PB1314, belt conveyor stationary GF1600x13,9, overburden, chalk 1700 t/h



Double roller crusher ZWB1004MSH, rotor diameter 1000 mm, rotor width 400 mm, scrap anodes 22 t/h



Sizer SWB0740, rotor diameter 700 mm, rotor width 4000 mm, coal 2500 t/h



### CRUSHING EXCELLENCE

Optimise your processing operations with FAM's advanced crushing technology, expertly designed for efficiency, durability, and reliability. Built from high-quality materials, our crushers withstand harsh conditions while minimising maintenance and downtime. Engineered to handle various minerals and raw materials, FAM crushers ensure efficient processing with advanced features that enhance throughput and energy savings, making them both cost-effective and eco-friendly.

Our product range includes a variety of models and configurations, including double roller crushers and sizers. They are tailored to meet specific operational needs, from primary crushers to mobile units, offering unparalleled versatility. Unlike traditional mills, FAM crushers process feed materials into grain sizes ranging from coarse to medium granulation, making them ideal for crushing a wide range of minerals, raw materials, and other bulk commodities.

### MINERAL TYPES & RAW MATERIALS

- > Iron Ore
- > Copper Ore
- > Gold Ore
- > Lithium
- > Nickel
- > Limestone
- > Coal

### DOUBLE ROLLER CRUSHERS:

Ideal for primary, secondary, and tertiary crushing of medium-hard materials like coal or limestone, these crushers feature adjustable gaps and low energy consumption to optimise performance.

### SIZERS:

Offering highly precise size reduction, adjustable product output, and minimal wear for high throughput rates, they suit materials of various properties and capacities.

### KEY BENEFITS OF FAM CRUSHING TECHNOLOGY

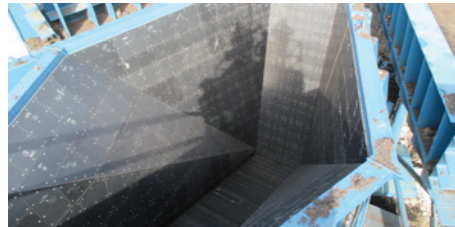
- > **Durability:** Built with premium materials to withstand extreme conditions, reducing wear and tear, maintenance, and unplanned downtime.
- > **Efficiency:** Advanced features enhance throughput and energy savings, delivering an eco-friendly and cost-effective solution.
- > **Versatility:** A wide array of models and configurations ensures we meet your exact requirements, from stationary to mobile crushers.
- > **Safety:** Equipped with built-in safety measures and easy maintenance access, our crushers provide a secure working environment for your team.
- > **Global Support:** Benefit from our extensive network of service centres, offering expert installation, training, and ongoing technical assistance.
- > **Proven Performance:** Trusted by leading companies worldwide, FAM crushers deliver reliable, long-lasting solutions for all your processing needs.

# ADVANCED TECHNOLOGIES FOR EVERY NEED

## MATERIAL FEEDING & IN-PIT CRUSHING TECHNOLOGY



Apron feeder



Feeding hopper



Double roller crusher



Crushing plant, 2x apron feeder AF3900x21, oil sand 11000 t/h



In-pit crushing system FZWB2025, on crawlers, double roller crusher ZWB2025, apron feeder AF2600x21, belt conveyor stationary GF2000x24, overburden 5250 t/h

### KEY BENEFITS

- > Heavy-duty application
- > Customisable design
- > High efficiency
- > Low maintenance requirements
- > Reliable performance
- > Robust construction
- > Smooth material flow
- > Adaptable to various materials and capacities

### RELIABLE MATERIAL FEEDING

FAM heavy-duty Apron Feeders are integral to material handling, particularly for removing material from under steel or concrete hoppers in challenging environments. Designed with a conveying component that includes pan strands made up of individual pan links, the system is pulled by two parallel chain strings. These chains are exceptionally break- and wear-resistant. Thanks to the deep hardening of the chain links and targeted heat treatment of the pins and bushings, our systems continue to ensure durability and reliability over time.

Engineered to endure the most rigorous conditions in the mining industry, FAM Apron Feeders are constructed with high-strength steel for long-lasting performance. They are capable of handling a wide range of materials, from coarse rock and heavy minerals to recycled products, delivering both consistent and dependable operations. Features such as automatic tensioning, adjustable speed, and impact rails ensure reliable material flow, reduce wear and spillage, and enhance operational stability and efficiency.

By combining these cutting-edge features, FAM Apron Feeders provide a robust and efficient solution for material handling in even the most demanding environments.

### IN-PIT CRUSHING TECHNOLOGY

Experience the game-changing benefits of FAM's innovative In-Pit Crushing Technology, designed to revolutionise material processing in mining operations. In-Pit Crushing involves reducing the size of hard materials directly within the mining site and preparing them for transport via conveyors. FAM's In-Pit Crushing Plants achieve this by delivering crushed overburden onto a belt conveyor through the crusher's discharge boom, which then transfers the material to the mobile conveyor bridge for further handling.

This cutting-edge solution offers several advantages:

- > **Increased Efficiency and Cost Savings:** In-Pit Crushing eliminates the need for costly haulage trucks, reducing fuel consumption, maintenance costs, and environmental impact. The continuous material flow enables higher productivity and shorter cycle times.
- > **Enhanced Safety:** With reduced truck traffic and improved site logistics, In-Pit Crushing technology enhances overall operational safety. It minimises the risks associated with truck haulage, such as accidents, collisions, and exposure to hazardous conditions.
- > **Flexibility and Adaptability:** FAM's In-Pit Crushing Technology is highly adaptable to various types of mines and materials. It efficiently handles a wide range of minerals, rocks, and ores, providing a flexible solution that aligns with different mining requirements.
- > **Optimised Material Handling:** By crushing the material in situ, In-Pit Crushing ensures a consistent and controlled feed to downstream processes. This eliminates the need for additional material handling equipment, reduces material fragmentation, and enhances operational stability and efficiency.

FAM's In-Pit Crushing Technology represents a significant step forward in mining operations, delivering improved efficiency, safety, and cost-effectiveness. It's a powerful way to transform and optimise your mining operations.

# UNLOCKING EFFICIENCY THROUGH DIGITALISATION



## FLOW MINERALS - MATERIAL TRACKING SYSTEM

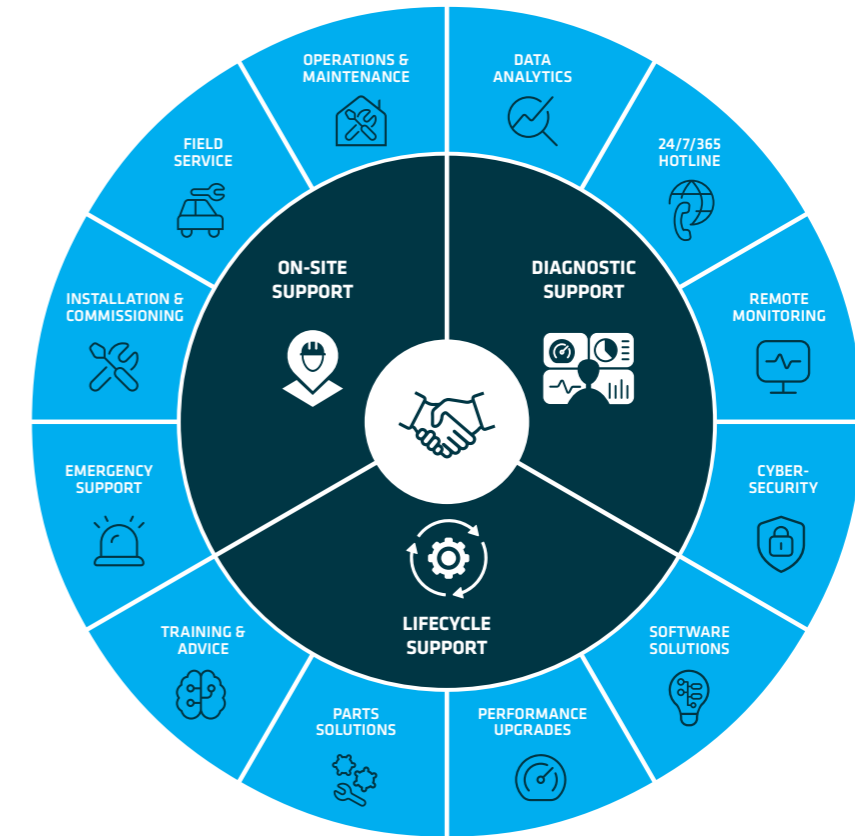
Digitalisation isn't just a trend - it's a critical driver for safer, more efficient mining operations. In bulk material handling, digital tools play a crucial role in optimising every stage of the workflow. Collecting, understanding, and interpreting this data can offer significant improvements in availability, efficiency, and capacity. Additionally, digitalisation helps optimise energy and water use - critical resources in mineral processing - while ensuring compliance with strict environmental regulations. With our expertise in digitalised material handling and automation, we provide the right technologies to ensure your plant meets every demand efficiently and reliably.

- **Remote Support Solutions** allow us to quickly and securely connect to the PLC system when needed, enabling fast and effective troubleshooting to support our customers' operations remotely.
- Advanced **Condition Monitoring Systems (CMS)** enhance workforce safety by reducing the need for on-site presence in hazardous areas. At the same time data analytics minimise unplanned downtime by identifying potential equipment failures before they occur.
- **Material Tracking Systems (MTS)**, based on digital solutions, enable real-time observation, measurement, administration, calculation, and prediction of material transport processes. By using data from various sensors - including laser scanners, belt scales, radar measurement, ultrasonic sensors, and cameras - a digital MTS provides insights into material distribution and merging, supports intelligent routing, and prevents overloading and chute plugging.
- Stockyard Management benefits significantly from digitalisation through **Stockyard Management Systems (SMS)**, which streamline, automate, and simplify the scheduling, control, monitoring, and documentation of material handling and storage. SMS integrates automatic process control at the PLC/DCS level with a higher-level management system at the IT level.
- The same digitalisation principles apply to other critical bulk material handling processes, such as our **Train Loading Systems (TLS)**, ensuring greater efficiency and accuracy.

With FAM's robust digital solutions, your mineral processing operations can achieve greater precision, reduced costs, and improved sustainability.



# CUSTOMER SUPPORT YOUR PARTNER OF CHOICE



Our Customer Support services are designed with you in mind, offering more than just traditional support. We're committed to building a life-long and sustainable partnership, staying by your side throughout the entire lifecycle of your systems and assets. We focus on being a reliable partner, dedicated to understanding your strategy, business model and operational needs.



## DIAGNOSTIC SUPPORT

Enhance your production and system availability with our Customer Diagnostic Center (CDC). We provide you with digital and data-driven diagnostic support tailored to your needs. Our focus is on optimising your site performance, whether on-site or remotely, by collecting, analysing, and leveraging equipment and production data.



## LIFECYCLE SUPPORT

Maximise the value and efficiency of your business with comprehensive system lifecycle support. Ensure your equipment performs optimally and lasts longer with our Lifecycle Support service. We deliver tailored solutions that leave you safe and maximise your return on investment.



## ON-SITE SUPPORT

Our comprehensive and flexible On-Site Support program is designed with your business in mind, ensuring that we are always available when you need us. Tailored to meet your specific requirements, our global network of experts delivers fast, reliable assistance to maximise your operational performance.

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BEUMER reserves the right to make modifications  
that serve technical progress.