

# Power Transmission Products & Solutions for Copper Mining



# Choose Rexnord to help you deliver tomorrow's copper today.

From purchase and installation to field monitoring and service, Rexnord helps maximize your uptime, productivity and profit. Keep your mine producing with our high-quality, mission-critical products.





### **Mining expertise.**

Work with a true partner who understands your applications, specifies the right equipment and adds value at every step. Rexnord has kept materials moving through mining operations for more than a century. From extraction to material handling to mineral processing – mine operators, equipment manufacturers and consulting engineers turn to Rexnord for their power transmission solutions.

### **Rexnord is with you every step of the way.**

From purchase and installation to testing, monitoring, repair and overhauls, Rexnord provides outstanding lead times and customer service. Count on our superior product quality, on-the-spot field service and industry-leading technical support to prevent costly maintenance, repairs and shutdowns, maximizing your return over the product's total lifecycle. With sales and service operations in mining regions worldwide, and a vast network of distributor relationships, we deliver exactly what you need, when you need it.

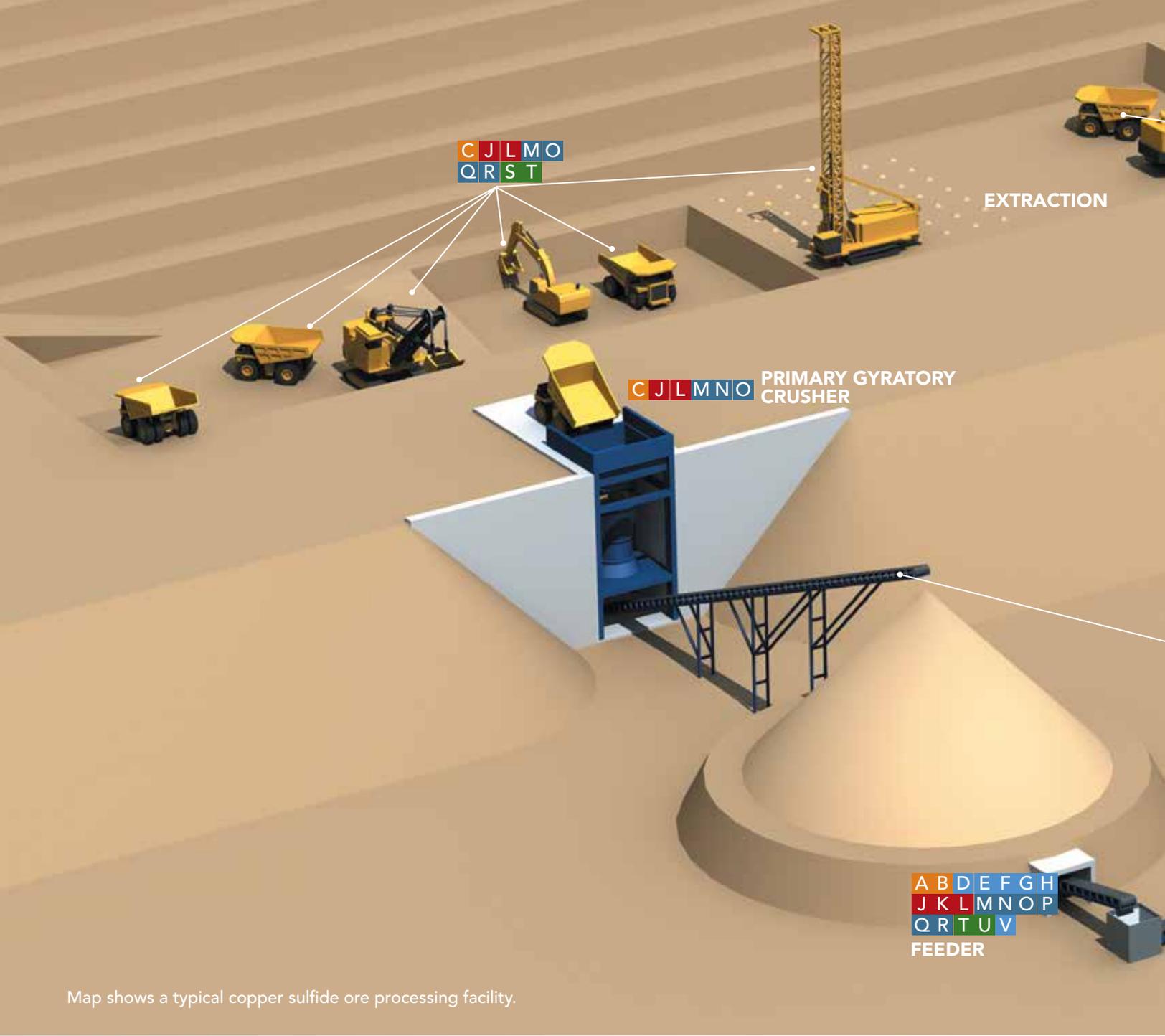
### **Rexnord products, Rexnord reliability.**

Rexnord is a leading manufacturer of critical system components that perform under the most rigorous demands in your copper mining applications, including gear drives, bearings, chain and couplings. With safety in mind, our products are engineered to meet cost and performance criteria to ensure the most efficient solution for specific applications.

### **Right where you need us.**

Find Rexnord solutions around the globe.

- Canada
- United States
- Mexico
- Brazil
- Chile
- Peru
- Europe
- Eastern Australia
- Western Australia
- China



Map shows a typical copper sulfide ore processing facility.

### Bearings

- A** Rexnord® SAF-Style Bearings
- B** Rexnord SHURLOK® Adapter Mount Spherical Roller Bearings
- C** Rexnord Cylindrical and Spherical Roller Bearings

### Gear Drives

- D** Falk V-Class™ Gear Drives
- E** Falk® Quadrive® Shaft-Mounted Gear Drives
- F** Falk A-Plus® Gear Drives
- G** Falk Ultramite® Gearmotors
- H** Rexnord Planetgear™ Speed Reducers

### PT Drive Components

- I** Stearns® Motor Mounted Brakes
- J** Autogard® Torque Limiters
- K** Falk True Hold® Low-Speed Backstops
- L** Tollok™ Keyless Locking Assemblies



C J L M O  
Q R S

AG/SAG MILL, SECONDARY  
CRUSHER AND BALL MILL

A B C D F J  
L M N O V

BELT CONVEYORS

A B D E F G H J K  
L M N O P Q R U V

E G L N S V

FLOTATION CELLS

E F J L M N O V

THICKENER

M O Q R

C D F L M N O Q V  
SLURRY PUMPS

### Couplings



**M** Falk Steelflex®  
Grid Couplings



**P** Falk True  
Torque® Fluid  
Couplings



**N** Falk Lifalign®  
Gear Couplings



**Q** Rexnord  
Omega® & Viva®  
Elastomeric  
Couplings



**O** Falk Orange  
Peel® Rotating  
Shaft Guards



**R** Falk Wrapflex®  
Elastomeric  
Couplings

### Industrial Chain & Conveying Equipment



**S** Link-Belt® &  
Rex® Roller Chain



**T** Link-Belt &  
Rex Engineered  
Steel Chain



**U** Rex Conveyor  
Idlers

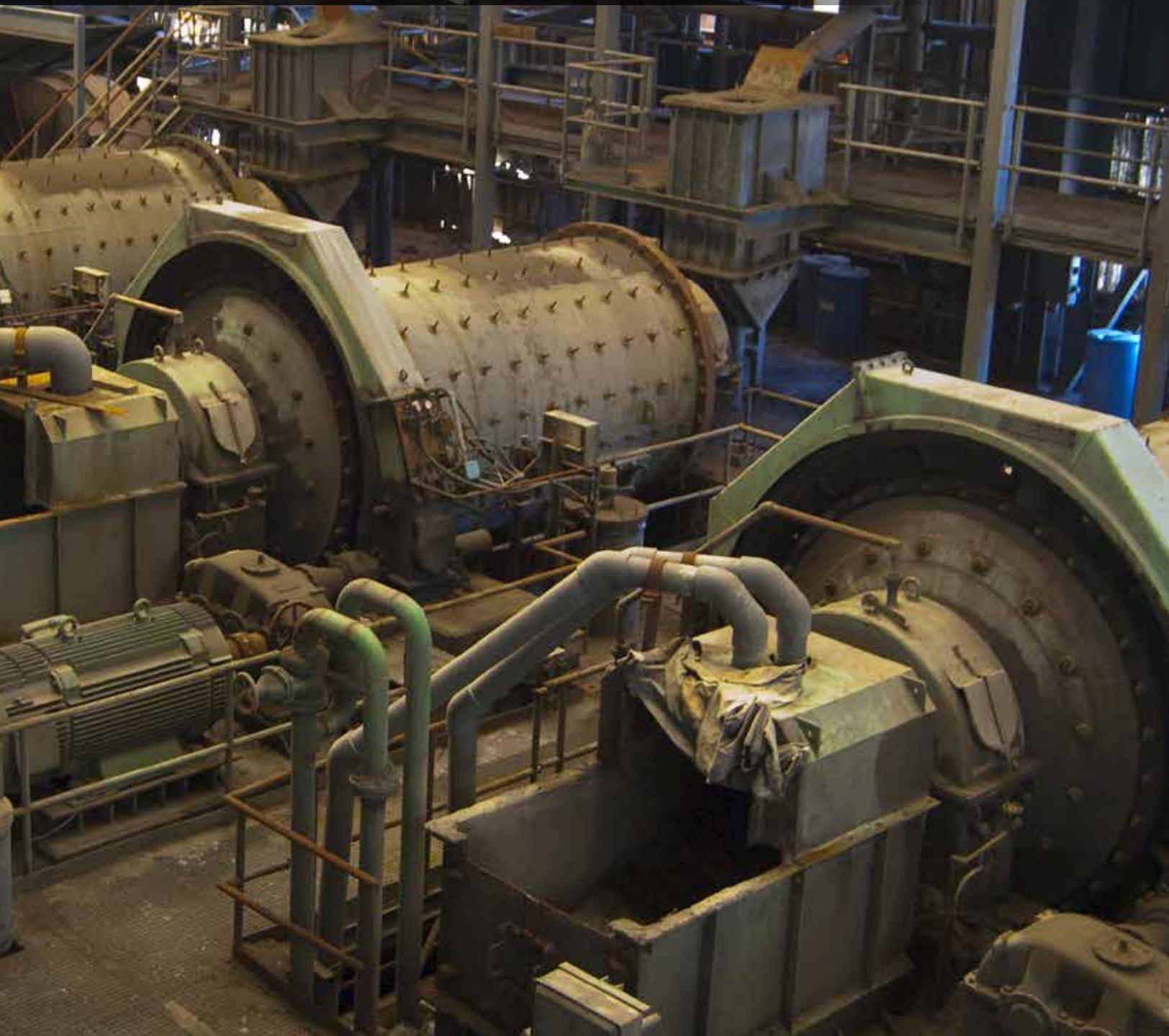
### Services



**V** Rexnord  
Industrial  
Services™  
and Falk  
Renew®

# Mineral Processing

From crushing and grinding to flotation to dewatering, Rexnord will help you determine the right power transmission products for your application. Our engineered products are designed for the rigorous demands of continuous operation, minimizing wear and maximizing efficiency throughout the process.



## Rexnord - Keeping your mills turning to keep your revenue rolling.

Every day, over 4 million tons of ore must be crushed and ground to enable extraction of copper to meet the world's growing demand. Rexnord products ensure your mines' production is there to serve that demand.

Rexnord designs quality into our industry leading Falk ring gears from the start. Our commitment to consistently employ state-of-the-art techniques for design, materials and manufacturing processes enables us to continually enhance performance, reliability and overall lifetime value for grinding mills around the world.

Rexnord is the only gear manufacturer in the world to offer the total package - from the gear casting, in-house heat treating and carburizing, to sophisticated gear cutting and precision grinding. Plus, Rexnord's comprehensive product line and project management expertise allow us to engineer complete mill power transmission solutions, which helps minimize total cost of ownership.

Here is a list of Rexnord products at work crushing and grinding to produce tomorrow's copper ore today:

### **Torque Limiting Devices**

Autogard Torque Limiters

### **Bearings**

Rexnord SAF-Style Bearings

Rexnord SHURLOK Adapter Mount Spherical  
Roller Bearings

### **Couplings**

Falk Steelflex Grid Couplings

Falk Lifelign Gear Couplings

Rexnord Omega and Viva Elastomeric Couplings

Falk Wrapflex Elastomeric Couplings

Falk Orange Peel Rotating Shaft Guards

### **Bearings – Uptime is everything.**

For 100 years Rexnord bearings have been built to survive the toughest applications in the harshest environments. Our bearings feature superior sealing and shaft mounting technology and performance surfaces precision-ground, as well as high thrust and radial load capacities.



# Bulk Material Handling— Belt Conveyors

From small feeder conveyors to large overland conveyors, belt conveyors offer limitless variations to efficiently transport your copper ore. Our product and mining application experts will help you determine the ideal configuration and component selection for your conveyor application.



## From the beginning to the end ... Rexnord will be there.

Since the first conveyor belt was used to transport copper ore, Rexnord has been there. Our company experience spans more than a century and we strive each day to make your bulk material handling applications more efficient. After more than 100,000 engineering design hours, we introduced the Falk V-Class, the most dependable gear drive ever built. This is just one example of how Rexnord continues its commitment to providing customers with the drives they need to succeed.

## We keep your copper ore moving.

Belt conveyors are used every day to transport millions of tons of copper ore around the world, and Rexnord power transmission solutions are helping move that material.

## The right solution to meet your application needs.

Belt conveyors offer limitless variations to efficiently transport your copper ore. Few organizations have the breadth of product solutions backed by industry knowledge that Rexnord supplies. Tens of thousands of those solutions are at work right now conveying copper ore. From the quiet workhorse gear drive that keeps the conveyor moving at precise speeds, to the critical link of the coupling that transfers the power from the motor to the gearbox, to our reliable bearings that keep the conveyors rolling, Rexnord has the product solution for your application.

Here is a list of Rexnord products at work conveying tomorrow's copper ore today:

### **Gear Drives**

Falk V-Class Gear Drives  
Falk A-Plus Gear Drives  
Falk Quadrive Shaft-Mounted Gear Drives  
Rexnord Planetgear Gear Drives

### **Torque Limiting Devices**

Falk True Hold Backstops

### **Industrial Chain**

Link-Belt and Rex Roller Chain

### **Idlers**

Rex Conveyor Idlers

### **Bearings**

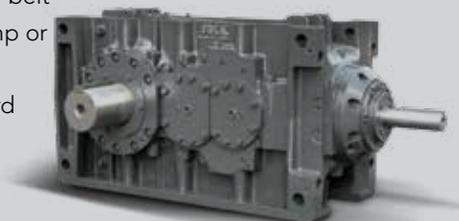
Rexnord SAF-Style Bearings  
Rexnord SHURLOK Adapter Mount Spherical Roller Bearings  
Rexnord Cylindrical and Spherical Roller Bearings

### **Couplings**

Falk Steelflex Grid Couplings  
Falk Lifelign Gear Couplings  
Rexnord Omega and Viva Elastomeric Couplings  
Falk Wrapflex Elastomeric Couplings  
Falk True Torque Fluid Couplings  
Falk Orange Peel Rotating Shaft Guards

### **Gear drives – Keep you in motion.**

The Falk and Rexnord brands of industrial mechanical power transmission solutions have been providing copper mines with high-quality, reliable and rugged products for more than 100 years. Whether your copper application requires a Falk A-Plus gear drive for an overland conveyor, a Rexnord Planetgear gear drive for an apron or belt feeder, a Falk V-Class for a slurry pump or in-plant conveyor, or a Falk Ultramite gearmotor for a flotation cell, Rexnord has the gear drive product to meet your application needs.



# Slurry Pumping

Once the conveyors deliver the ore to the concentrator, the slurry pumps take over the business of moving the material through the beneficiation process. Our product and mining application experts will help you determine the ideal selection of components to keep your process running.



## Rexnord - Ensuring pumps keep running to keep the money flowing.

Most mineral processing operations at a copper mine utilize a slurry pump to move ore, concentrate and tailings. This makes the centrifugal slurry pump the heart of the copper concentrator. As such, cost of ownership factors including longevity, capacity, efficiency and maintenance are the priority. Rexnord products are the essential power transmission solutions to keep the pumps pumping.

The Falk V-Class gear drive was developed through extensive customer needs analysis to be an industry breakthrough in gear drive technology and to be your solution to the toughest challenges. Backed by our industry-leading warranty, Falk V-Class has a longer operating life, which means increased productivity and less unscheduled downtime. The rugged design withstands the toughest environments and applications with superior thermal performance. Falk V-Class is drop-in replaceable for virtually any drive, and built-in features make it easy to service.

Falk couplings are the critical link to transfer power from the motor to the pump impeller. Our dependable, industry-leading coupling solutions will help you avoid unplanned outages. Rexnord application experts can tailor a long-life, low-maintenance, high-reliability solution to optimize your cost of ownership.

Here is a list of Rexnord products at work pumping slurry to process tomorrow's copper ore today:

### **Gear Drives**

Falk V-Class Gear Drives  
Falk A-Plus Gear Drives

### **Bearings**

Rexnord Cylindrical and Spherical Roller Bearings

### **Couplings**

Falk Steelflex Grid Couplings  
Falk Lifelign Gear Coupling  
Rexnord Omega and Viva Elastomeric Couplings  
Falk Wrapflex Elastomeric Couplings  
Falk Orange Peel Rotating Shaft Guards

### **Couplings – The critical link.**

A critical link between motor and machine in a power transmission solution is the coupling, and Rexnord understands that perfectly.

We have a history of innovation that dates back to 1919, and is built on an installed base across countless industries with worldwide reach. The broad array of Rexnord coupling designs enables a deep knowledge of end-user needs that makes us keenly in tune with application details.



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Contact Rexnord today to learn about our mining solutions that can help you increase uptime, productivity and profit.

**866-REXNORD (toll-free) or 414-643-2366**

[www.rexnord.com](http://www.rexnord.com)

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866-REXNORD/866-739-6673 (Within the US)  
+1 414-643-2366 (Outside the US)  
[www.rexnord.com](http://www.rexnord.com)

## Why Choose Rexnord?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

### Delivering Lowest Total Cost of Ownership

The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

### Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

### Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.

# REXNORD

## Rexnord Company Overview

Rexnord is a growth-oriented, multi-platform industrial company with leading market shares and highly trusted brands that serve a diverse array of global end markets.

## Process & Motion Control

The Rexnord Process & Motion Control platform designs, manufactures, markets and services specified, highly engineered mechanical components used within complex systems where our customers' reliability requirements and the cost of failure or downtime are extremely high.

## Water Management

The Rexnord Water Management platform designs, procures, manufactures and markets products that provide and enhance water quality, safety, flow control and conservation.