



MINING & AGGREGATE MARKET

Product SHOWCASE



ALTRA IS COMMITTED TO THE MINING & AGGREGATE MARKET

The well-recognized global brands of Altra Motion offer a full range of reliable power transmission components to meet the most demanding challenges of mine and quarry applications.

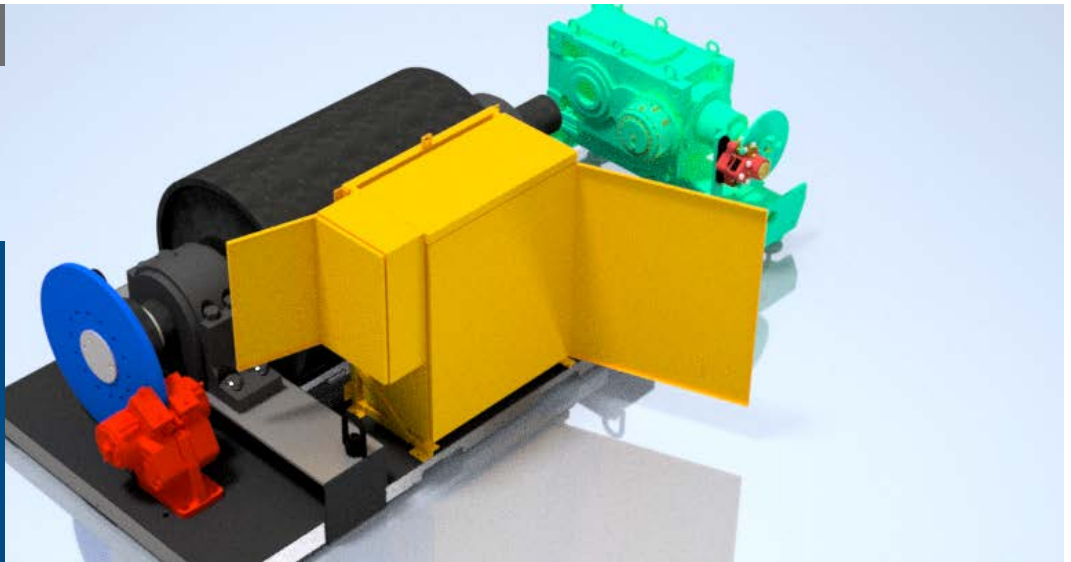
Altra heavy-duty clutches & brakes, engineered couplings, holdbacks & backstopping clutches, heavy-duty speed reducers, geared motors and belted drives provide exceptional performance on inclined, declined & overland conveyors, ball & sag mills, crushers, sizers, electric rope shovels & draglines, and winders & hoists.

Altra brands that support the mining and aggregate markets include Marland Clutch, Formsprag Clutch, Nuttall Gear, Bauer Gear Motor, Svendborg Brakes, Ameridrives, TB Wood's, Delroyd Worm Gear, Bibby Turboflex, Twiflex, Warner Electric, Industrial Clutch, Matrix, Boston Gear, Wichita Clutch and Stieber.



ALTRA PRODUCTS SHOWN ON TWO CONVEYOR PULLEY DRIVE 3D RENDERS

Altra brands continue to keep inclined, declined and overland mine and quarry conveyors running smoothly and safely around the world. These capabilities are illustrated with products shown on two 3D conveyor pulley drive renders. Specific components on the 3D pulley drives include the following products.



SOBO® iQ HPU & Controller with IIoT Interface

Svendborg Brakes

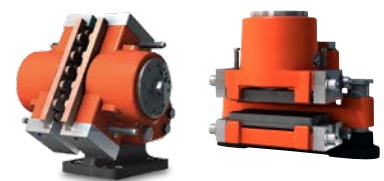
- Standard or customized in-house manufactured hydraulic power units
- HPUs are engineered and built to perform in tough mining applications
- Unique, industry-leading soft braking controller combines cutting-edge technologies to provide significant flexibility, safety and durability on mine conveyors
- Advanced controller functions include overspeed detection, rollback function and gearbox failure monitoring



RDBK Backstops

Stieber

- High-speed backstop with integrated torque limiter for load-sharing
- Specifically designed for multi-drive system
- Release function allows for unlimited reverse rotations to completely unload the conveyor (within limits of energy dissipation)



BSFI 3000 DS & BSFI 200 MS Caliper Brakes

Svendborg Brakes

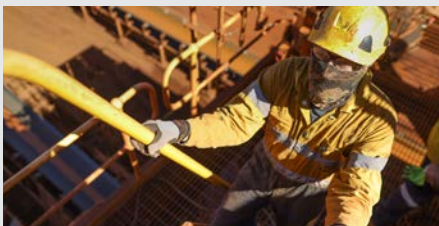
- Reliable industry-proven dual- and monospring brakes
- Failsafe low speed and high speed brakes for E-stop and power failure situations as well as parking
- Service friendly, robust design for operating in extreme and harsh mining environments



SVKL Disc Couplings

Stromag

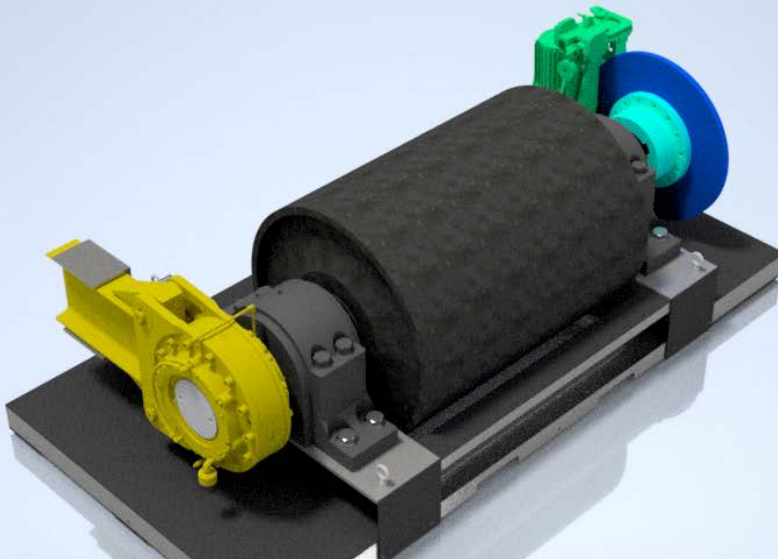
- Highly-flexible, high performance couplings offer easy installation and maintenance
- 2-parts cam ring allow easy assembly and dismantling without moving the machine back



Extensive Services to Help You Protect Your Investment and Operation

A scheduled service visit ensures:

- Complete system health check
- Certified technicians working on your equipment (warranty and safety not being compromised)
- Recalibration and adjustment of settings
- Original OEM replacement parts being utilized
- Increased productivity
- Unplanned and costly production stops are minimized
- Our global organization is always close to our customers, meaning we can quickly be on site even in the most remote locations - this keeps downtime to a minimum for our customers



OTHER PRODUCT SOLUTIONS FOR MINING APPLICATIONS INCLUDE:



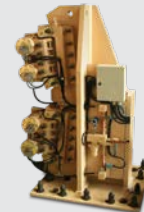
**RRC300
Retractable
Rail Clamp**
*Svendborg
Brakes*

- Electrically released, Retractable Rail Clamp eliminates mechanical guiding means at rail level



**SAB Drum
Brakes**
Stromag

- Maintenance free, self lubricated bushes at main hinges and sliding joints



**VMS-DP
Caliper
Brakes**
Twiflex

- Able to stop a full process charge in a staggering 0.5 seconds



**GMR Caliper
Brakes**
Twiflex

- Spring-applied, air-released caliper brakes
- Easy-to-replace brake pads



**Turning,
Locking
and Braking
System (TLB)**
Twiflex

- Custom disc sizes available
- Quicker & safer stopping



BCMA Backstops
Marland Clutch

- Holding torque of 975,600 Nm (720,000 lb.ft.)
- Highest reliability
- Full torque load testing performed
- Self-lubricated, sealed oil chamber
- 20-year, 24/7/365 service life



TDXB Thruster Brakes
Stromag

- Fail-safe braking by spring application
- Robust design for intensive braking cycles
- Wide range of options: control switches, automatic lining wear compensation, manual release, high temperature
- High resistance against vibrations



Amerigear® Couplings & Hubs
Ameridrives

- Fully-crowned gear teeth
- Maximum load-carrying capacity with minimum size, maximum reliability and long life
- Precision-machined identical hubs provide parking and emergency control



Brake Discs
Stromag & Svendborg Brakes

- Brake discs from Stromag and Svendborg are featured on the conveyor pulley drives
- Available in a wide range of sizes to meet specific requirements

IloT SOLUTIONS FROM ALTRA BRANDS COMBINE TO OPTIMIZE MINE UPTIME

Now, Altra Industry 4.0 technologies empower mine operators to significantly improve productivity like never before. Users can benefit from these advanced data-driven technologies for real-time remote access and condition monitoring to optimize equipment reliability and service life while reducing the cost and time associated with maintenance.



IloT Gateway

Svendborg Brakes

IloT gateway designed to monitor environments, processes, or position(s) and connections to external sensors. The unit can transfer any data from various sources and interfaces through the fastest growing LPWAN Narrowband IloT, GPRS, Wi-Fi or Ethernet. Key information on braking operations and component status is collected, including system pressure, current state of the brake and its piston, brake fluid level and temperature.



Universal Control Case (UCCase)

Svendborg Brakes

The portable case is used as a tool for remote support and data visualization during commissioning or service of brake systems, including all HPUs (2-stage, On/Off) and all SOBO® (soft braking) systems. Visualization, coupled with analytical models, facilitate the diagnosis of the brake system behavior and can foresee and advise action to prevent malfunction.



Smart Marland Monitoring System

Marland Clutch

Designed for use with its popular CECON and BCMA clutches. The system provides up-to-the-minute remote access to critical operating conditions including vibration, temperature and oil level.



SIMAN Intelligent Safety Management System

Stromag

Designed to monitor all operation parameters of braking system HPUs that control the emergency brakes. The advanced system pilots the opening and closing of the brakes and indicates and records any operation faults or inconsistencies. It can be utilized with all types of HPUs, whatever their functionality.