



# COPPER MINING

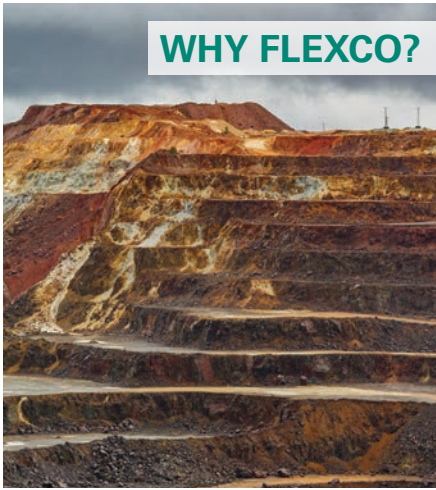
Flexco is committed to keeping your belts and your business moving



*Partners in Productivity*

# FLEXCO UNDERSTANDS COPPER MINING

## WHY FLEXCO?



For over 110 years, Flexco has focused on creating belt conveyor solutions that meet ever-changing customer needs. Flexco is committed to applying our superior knowledge and equipment to make your belt conveyor operation in the copper industry as productive as possible. Our world class customer support system focuses on your needs first to help you achieve optimal belt conveyor performance.

### Our Partnership Approach

- Where possible, our sales members will meet you on site to help understand your conveyor belt system problems and recommend the correct solutions for your application.
- Service professionals are available to install, service and train to make sure your Flexco products are operating optimally 24/7.
- Customer support is there whenever you need them to help with any queries or concerns that come your way.

## HOW FLEXCO CONTRIBUTES TO THE COPPER MINING SECTOR

### KEY PARTNERSHIPS

We cultivated deep relationships with key partners in the copper industry, gaining industry expertise and earning a reputation as a trusted partner in belt conveyor productivity.

### COPPER FOCUS

We spent countless hours working alongside copper customers to understand the nuances of your everyday challenges, and we used our hard-won knowledge to design a comprehensive line-up of belt conveyor products to address your pain points throughout the copper manufacturing process.

### INNOVATION

To serve an industry with lower ore grades and increasing demand, our focus must be on innovation. With the copper industry growing, many conveyor systems are operating at higher capacities than they are designed for, and downtime is not an option. By always searching for new ways to make belt conveying in copper more efficient, we aim to partner with you to enter a new productivity era.



# SOLUTIONS FOR EVERY ISSUE ALONG THE BELT LINE

✓ INCREASE UPTIME

✓ REDUCE BELT SLIP

✓ ELIMINATE SPILLAGE

✓ CORRECT BELT MISTRACKING

✓ PROTECT TAIL PULLEYS

✓ PROTECT THE BELT

✓ REDUCE CARRYBACK

✓ ENHANCE SAFETY



## HIGHLIGHTS IN INNOVATION



**MHP HEAVY-DUTY PRECLEANER**

The largest and most robust precleaner on the market is ready to take on the largest rocks and highest tonnage you can throw at it.



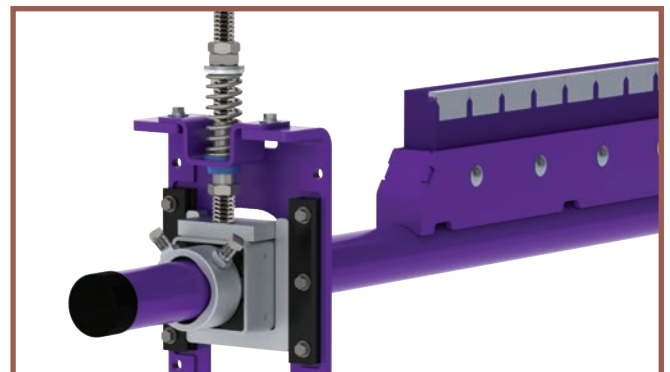
**DRX™ 4500 IMPACT BEDS**

With its industry exclusive shock relief system, the DRX 4500 is sturdy enough to handle the largest impact zones while still flexing appropriately to protect your belt.



**EXTENDED LIFE V-TIPS**

For extremely high wear areas these tips have 20mm of tungsten carbide (10mm is standard) imbedded in the tip to extend blade life and make blade changes much less frequent.



**CBS CONTINUOUS BLADE  
SECONDARY BELT CLEANER**

The CBS cleaner is an excellent option due to its efficiency for both new and worn/cupped belts.

# FLEXCO ELEVATE®

## FLEXCO ELEVATE®

Flexco is redefining the connection between people and technology in mining operations with Flexco Elevate®. This wireless solution is built on the power of predictive data insights which allow for real-time, remote monitoring of belt cleaners to increase operational efficiency and transparency.

### ASSET MANAGEMENT

Elevate can map all installed Flexco cleaners at your location and across operations, including existing assets.

### IMMEDIATE ROI

Data insights are immediately transferred to your Elevate dashboard so you can realize an increase in operational efficiency from day one.

### INCREASED PRODUCTIVITY

Elevate can tell you exactly when and where to deploy maintenance support with no guesswork needed.

### IMPROVED SAFETY

Elevate reduces, and in most cases eliminates, the need for dangerous physical inspections.

## A CHECK ENGINE LIGHT FOR YOUR BELT CONVEYOR SYSTEM

Similar to the check engine light in your car, Elevate alerts you when your belt cleaners need attention. It allows for the early detection and early resolution (EDER) of events related to the operation of your belt conveyor system.



### Employee Safety & Time Management

Managing time on inspections



### Belt Health

Maintaining optimal belt condition



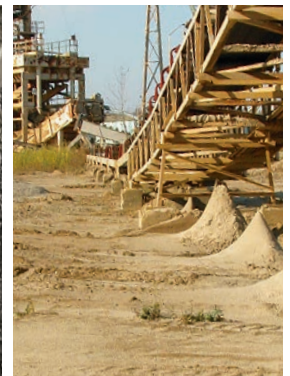
### Product Wear

Changing parts too soon or too late



### Failure Modes

Inadequate maintenance routine



### Carryback

Unnecessary maintenance and part damage

## THE ULTIMATE SMART BELT CLEANER



### Cleaner Health and Maintenance

Flexco Elevate® takes the guesswork out of cleaner maintenance and blade health by highlighting predictive insights early to help align the work to your shutdown from day one.



### Gain Insights on Your Cleaner and Belt

The i3 device and other smart components can be an additional tool to provide information to help you or any other key team members.



### Data Management and Best Practices

Service records, equipment lifecycle insights, and belting events are recorded to be shown in our dashboard or delivered to your plant systems.

# BELT CONVEYOR INTELLIGENCE™

## TURN ANY FLEXCO BELT CLEANER INTO A SMART BELT CLEANER

The Flexco Elevate IoT system combines the i3 Device, i3 Mobile App, and i3 Dashboard that integrates with Flexco belt cleaners in a few easy steps. Once the i3 device is installed in conjunction with any Flexco belt cleaner, insights are immediately transferred to the Elevate dashboard. That information, combined with maintenance information that is logged by your team on the mobile app, provides predictive data-driven insights directly to your dashboard so you can remotely monitor belt cleaner productivity and be notified when your belt cleaners need attention.



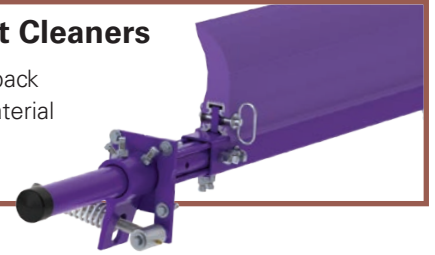
### i3 Device

A single self-contained unit comprised of sensors, communication, and power with no additional equipment



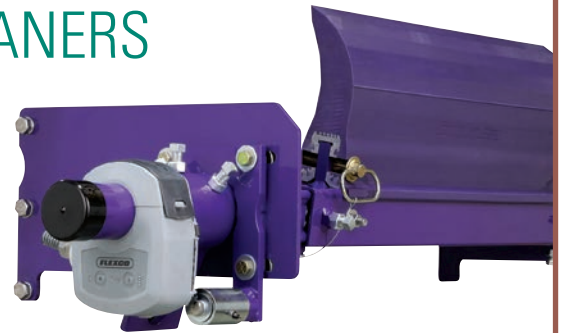
### Flexco Belt Cleaners

Remove carryback and excess material



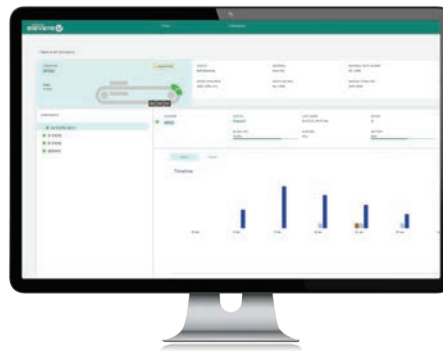
# EQUALS

## SMART BELT CLEANERS



### i3 Mobile App

Create digital service records from the field



### i3 Dashboard

Browser-based interface to access insights, service history, data, and notifications



### Notifications

Alerts from the system on insights or status changes to inform you externally from the dashboard

# PROBLEM | SOLUTION

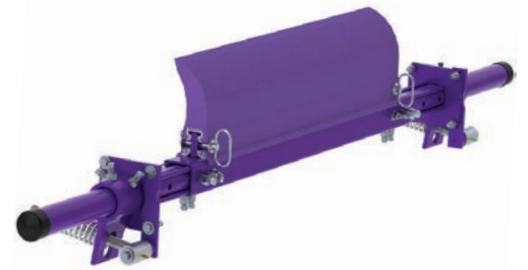
## THE PROBLEM: CARRYBACK

Carryback is the product that makes its way past the drop-off point and runs back along the underside of the conveyor belt. When carryback leaves the belt, it typically falls to the ground, creating mountains of product build up. This isn't only a significant on-site hazard, but it creates a clean-up job that can lead to unscheduled downtime.

## THE SOLUTION:

### MMP MEDIUM-DUTY PRECLEANER

The MMP Medium-Duty Precleaner tackles those tough applications where a standard-duty precleaner is not robust enough. The MMP is built tough with a heavy-duty pole and a larger, more powerful blade. The TuffShear™ is a solid, urethane blade that is designed for high abrasion resistance and boasts a lifespan that is up to 30 percent longer than conventional blades; this also includes a beefy, dual tensioning system. Installation is simple, maintenance is easy, and the cleaning results are excellent.



### H-TYPE® SEGMENTED BLADE PRECLEANER

The H-Type® Precleaner is uniquely designed to efficiently remove carryback and maintain performance – even as the blades wear. It has proven performance in the field for over 20 years and is available in several segmented blade options to match your application requirements. The blades are available in urethane and tungsten carbide, working independently to power the blade to the belt and wear evenly. While tungsten carbide cleaners such as the H-Type will offer greater cleaning efficiency, using a polyurethane cleaner such as the MMP will give you a high level of cleaning power for belts that are profiled or worn.



### MHS HEAVY-DUTY SECONDARY CLEANER

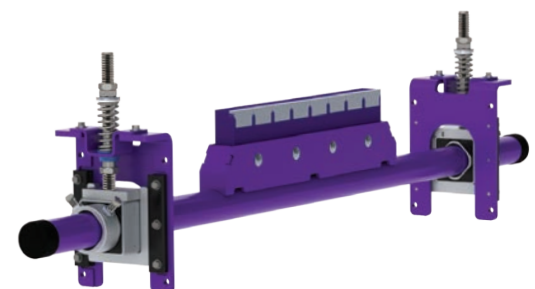
The MHS Heavy-Duty Secondary Belt Cleaner was designed to deliver and maintain superior cleaning efficiency, even on the most demanding, abusive beltlines. It delivers high-efficiency cleaning and long lasting performance, all while being low maintenance.

Available with multiple tensioning options, all of our MHS cleaners were designed with features to make regular service easy, including the visual tension check. All service can be performed from a safe position at the side of the conveyor.



### CBS CONTINUOUS BLADE SECONDARY CLEANER

The CBS Continuous Blade Secondary Belt Cleaner is designed with an unsegmented blade for excellent cleaning efficiency and low maintenance. The heavy-duty blade features a steel backbone, holding a carbide leading edge which is encapsulated in our proprietary polyurethane to provide a long-wearing solution for your belt. When paired with a spring or air tensioner, the blade maintains constant pressure on the belt for excellent cleaning efficiency.



*\*The Flexco Mineline® endorsement means the product is proven in heavy-tonnage applications that test the strength and durability of your conveyor system.*

# PROBLEM | SOLUTION

## THE PROBLEM: SPILLAGE AND THE LOAD ZONE

Heavy impact on the conveyor can cause severe damage. Offering support in the load zone is crucial to protect the belt and extend its life.

Spillage occurs when material falls off the belt conveyor in areas other than the discharge point, usually near the load zone. This can lead to sharp and potentially large pieces of material going through the tail pulley, risking damage to the belt. To prevent this, properly maintaining your load zone components and keeping the loaded material centered is essential.

## THE SOLUTION:

### IMPACT BEDS

Flexco has the right load zone solutions for high-impact applications like the load zone on your conveyor.

Flexco's DRX™ Impact Beds are designed with one simple goal: protect the belt. How we meet that goal is revolutionary. We've engineered superior belt protection into the entire structure – not just the bars. Sturdy components, robust construction and convenient maintenance make our product more durable and efficient.



### SKIRTING SYSTEMS

One of the most important jobs of the load point is to provide a seal that prevents material spillage and controls dust. Specially designed to create an effective seal at load points without damaging the top cover of your belt, Flexco skirting systems are a smart way to improve throughput.

Our versatile line of skirting solutions are all easy to install and maintain on your beltline.



### BELT PLOWS

Flexco offers advanced plows that prevent costly damage to tail pulleys and gravity take-ups, while cleaning the inside of the belt.

A "Belt Cleaner" for the Tail Pulley – keeping your conveyor beltlines clean is a problem that is not confined to the head pulley area. Many times, rocks, lumps of carryback and other debris get into the tail pulley and cause damage to the belt, lagging and mechanical splices. This can lead to belt tracking problems and other maintenance and repair expenses. The V-Plow is uniquely designed to clean the inside of the return belt and eliminate nagging problems.



# PROBLEM | SOLUTION

## THE PROBLEM: MISTRACKING

Mistracking leads to belt damage and product spillage that are expensive issues to leave unaddressed. Sometimes the cause of the mistracking is preventable, even repairable, and other times, you simply have to find a way to redirect the belt. Conveyor belt tracking devices help get a mistracking conveyor belt back on track.

## THE SOLUTION:

### PTEZ™ HEAVY-DUTY

The PTEZ™ Belt Trainer provides Flexco yet another high-performance tracking idler at an economical price point. Employing our patented “Pivot and Tilt” technology, the unit responds and compensates immediately to belt misalignment using the tapered end roller profile to engage the training action.

This ensures that the belt stays away from the structure and the material stays on the belt without the use of sensor or edge rollers.



### PT MAX™ BELT TRAINER

The PT Max™ Belt Trainer is the only true high performance belt trainer on the market. Thanks to our unique ‘pivot and tilt’ design, the unit reacts and compensates instantly to belt misalignment, ensuring that the belt stays away from the structure and the material stays on the belt.

The PT Max delivers superior training action that makes it easy to keep even the most troublesome belts on track and on the job permanently. It is available in standard, heavy-duty, and super-duty models, and top- and return-side models.





# PROBLEM | SOLUTION

## THE PROBLEM: BELT MAINTENANCE

Maintaining belt conveyor systems is the key to efficiency, but many operators have very limited time to spend on maintenance. They need easy-to-use belt maintenance tools that reduce repair time while ensuring staff safety.

## THE SOLUTION:

### **FLEX-LIFTER™ BELT LIFTER**

Lifting a tensioned conveyor belt to do maintenance work is a difficult job. It can be time-consuming and dangerous. The Flex-Lifter™ makes the job safer and easier. It takes on the toughest jobs, like lifting a belt even when it is tensioned up to the stated ratings. This tool is versatile. Adjustable wings make it easy to lift troughed or flat topside belts.



### **TUG™ HD® BELT CLAMPS**

Provide the ultimate grip strength by clamping over the belt with modular components that allow for increased versatility and portability. They can be used on multiple conveyor belting types including flat, sidewall, chevron, and other specialty profiles.

Flexco understands that worker safety is a top priority when repairing belts carrying larger loads. Flexco TUG™ HD® Belt Clamps are designed to secure the belt for belt repair meeting the most stringent safety test standards.



# PROBLEM | SOLUTION

## THE PROBLEM: BELT REPAIR AND SPLICE OPTIONS

While vulcanising is generally used when installing a new belt, for rips and repairs, having belt fastening equipment on hand is essential. For some conveyor systems, vulcanising isn't an option due to conveyor design or space constraints.

## THE SOLUTION:

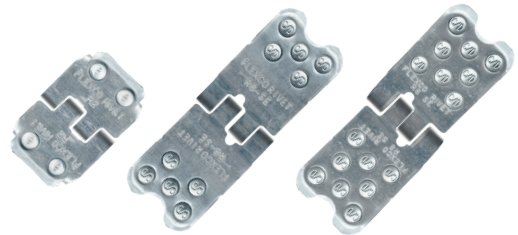
### FLEXCO® BOLT SOLID PLATE FASTENING SYSTEM

Whether you need them for a standard splice or rip repair, Flexco's bolt solid plate fasteners have been doing the job for nearly 100 years. They make a strong, sift-free connection with superior holding ability thanks to a combination of top-and-bottom plate compression and high-tensile-strength bolts.



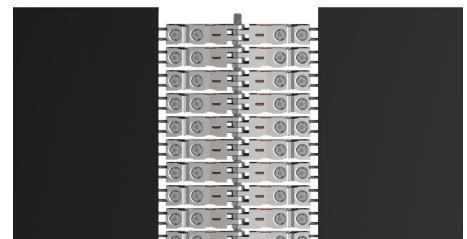
### FLEXCO® RIVET HINGED FASTENING SYSTEM

The Flexco® SR™ Rivet Hinged Fastening System has earned a reputation for quality and performance in the most demanding material handling applications on earth. Flexco SR fasteners are ideal for use on rubber-plyed belting and for worn belts unfit for vulcanised splices, delivering performance and long life.



### FXC™ STEEL CORD BELT FASTENING SYSTEM

Don't let downtime on critical steel cord belts drain valuable time and money. The FXC™ Steel Cord Belt Fastening System (FXC™) can be installed immediately when faced with significant belt damage or when pulling a belt onto the conveyor system. While waiting for a vulcanized splice to be scheduled, this mechanical fastener can be installed with minimal downtime to get the belt up and running quickly.



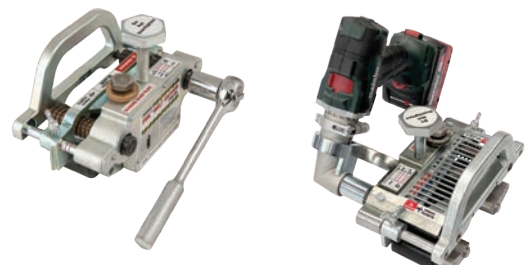
### FLEXCO BELT CUTTERS

Squared belts and belts with clean cut edges are essential to long-lasting splices and belts that track on centre. Flexco belt cutters are available in multiple sizes to accommodate various belt widths.



### FSK™ BELT SKIVER

Create lower profile splices that are less susceptible to wear and tear. The FSK™ Belt Skiver has a simple, manual operation that precisely removes top covers in a single pass. A skived belt helps extend splice life, ensure compatibility with belt cleaners with a lower profile, and creates a stronger splice.





## CONVEYOR ASSESSMENTS

Having a third party review your conveyor system can prove to be an effective way to identify performance, maintenance, and safety concerns that can be critical to minimizing downtime and maximizing your productivity. Flexco's assessment program allows you to proactively address belt conveyor concerns before they lead to costly repairs and unscheduled downtime. Focusing on issues such as spillage, carryback, belt slippage, and mistracking, Flexco specialists will record their findings and return to your operation with a complete recommendation on the system, identifying immediate needs and suggesting future fixes.

## SAFETY AND QUALITY

Flexco is committed to safety and quality. Our hands-on industry experience gives us deep insight into your productivity demands, maintenance, and safety requirements. We have continuously shown the ability to deliver exceptional customer satisfaction and retention results directly from our commitment and strong quality control processes.



## EDUCATION AND TRAINING

### ONLINE

Flexco University is your central source for information on Flexco products. Our online learning tool is a perfect beginner or refresher course for attendees to reinforce practical skills. From selecting the right productivity-boosting solution to learning proper install techniques, you'll find all you need to become an expert on our solutions. Courses cover all skill levels and can be taken as online sessions at your own pace and convenience.

### IN-CLASS

Our Johannesburg office in Gauteng, South Africa, offers well-equipped training facilities to accommodate a comprehensive training program that incorporates both classroom presentations and hands-on learning. Spanning over two days, Flexco specialists provide extensive technical information and practical demonstrations to assist you with problem solving, maintenance and on-site safety.

### ON-SITE

Flexco Field Specialists can visit you in person and conduct hands-on practical training right on the conveyor. Our specialists have a number of materials to assist them in conducting valuable training sessions at your facility, including demonstration products and samples, as well as theoretical information for attendees.



Visit [www.flexco.com](http://www.flexco.com) for other Flexco locations and products, or to find an authorised distributor.

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