

CEMENT

ASGCO® PRODUCTS FOR THE CEMENT INDUSTRY



Need Solutions...*to improve efficiency, safety and productivity?* **ask... ASGCO®**
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CONVEYOR SAFETY

ASGCO® SAFE-GUARD® LINE OF CONVEYOR SAFETY PRODUCTS ENSURE SAFETY IN THE WORK PLACE.



Our goal, to solve conveyor problems, always aware of OSHA/MSHA regulations in order to create a safer and well maintained work environment.

Conveyor Safety Products

The safety of workers is the most critical objective of any facility, and a delivering products to improve safety and reduce injury is a major focus at ASGCO®. Conveyor belts provide rapid, continuous flow of bulk material and products, but require regular maintenance to ensure maximum efficiency. Did you know that 84% of conveyor belt accidents occur during cleanup operations, due to lack of attention?

ASGCO® has developed the Safe-Guard® line of conveyor safety products to provide barriers to moving conveyor equipment and protect workers from injury. ASGCO® also has products that prevent injuries from pinch points and cages that will catch a return idler if it should fall. These products are in compliance with

MSHA Title 30, for flying or falling material, equipment guard construction and moving machine parts.

ASGCO® inspection doors are also a key addition to any conveyor system and allow operators to access primary or secondary cleaners located within head chutes, or even inspect material flow without the need to shut down the system.

Every item in ASGCO®'s Safe-Guard® line is designed for easy installation, maximum longevity and made from powder coated steel, UHMW, and stainless steel components to ensure corrosion resistance and allow for easy clean-outs. With safety and performance benefits, it's easy to see why ASGCO® Safe-Guard® products have become essential additions to so many conveyor systems worldwide.



ASGCO® SOLUTION

The objective was to protect workers from all areas of conveyor systems that create a safety hazard, yet allow for easy removal of conveyor guarding, and replacement, when maintenance on the conveyor system is required.

By using various standard sizes of the ASGCO® Safe-Guard® Modular Conveyor Flat Guards, we were able to protect the hazardous areas and still allow them access as needed by easily removing and replacing the lightweight powder coated panels.

BELT CLEANERS

BELT CLEANERS ARE DESIGNED FOR OPTIMUM CLEAN WITH THE LEAST AMOUNT OF PRESSURE.



ASGCO®'s series of conveyor belt cleaners have been installed and have solved carry-back problems and bulk material product build-up all over the world. They are simple and highly effective belt cleaning systems.

Conveyor Belt Cleaners

Primary conveyor belt cleaners or pre-cleaners are the foundation and first step in maintaining a highly productive conveyor system. Belt cleaners help remove the cement material carry-back and prevent it from falling off at various points of the conveyor along the return side of the system. Carry-back causes a multitude of major problems including premature wear on conveyor belt idlers and pulleys, belt misalignment, and an unsafe working environment.

ASGCO®'s belt cleaners are specifically designed for long lasting removal of the toughest materials on the planet. The Skalper® and Super-Skalper® primary cleaners are fabricated from a single piece urethane blade for the maximum in durability. The patented E-Z

Torque® tensioning system with stainless steel torsion tensioning spring, ensures uniform belt contact throughout the life of the blade. An exterior visual indicator will alert technicians when replacement is needed, without the need to shut down operations for inspection inside the head chute. Replacing blades is a fast and easy process that can be performed in just minutes.

Razor-Back® Secondary Cleaners can be added for additional removal of the most stubborn materials. Self-tensioning blades maintain constant belt contact and can be used on belts with or without mechanical fasteners. For the ultimate in belt cleaning performance, the ASGCO® Wash Box is the perfect addition to remove the finest particulate from the belt surface and loosen any hardened material.



ASGCO® SOLUTION

Excessive buildup of material carry-back and dust from inadequate belt cleaners, resulted in increased labor for house-keeping issues and the possibility of strict fines, adding increased emphasis for this cement plant to improve its belt cleaner systems.

The Skalper® units were installed and after months of daily use, they have provided excellent cleaning along with reduced hours on housekeeping, safety issues, and wash downs. Manpower and maintenance time have also been greatly reduced.

TRANSFER POINT DESIGN

USING ASGCO®'S 3-DEM CHUTE ANALYSIS PROGRAM TO HANDLE MATERIAL FLOW



ASGCO®'s 3-DEM™ design, fabrication and installation techniques are easily applied to both existing and new installations, for significant cost improvements and system efficiency.

Transfer Point Design and Flo-Control Chutes

ASGCO® Flo-Control™ transfer point design, fabrication and installation utilizes our proprietary 3-DEM® (Discrete Element Methods) chute analysis program and provides a revolutionary way to handle granular and particular material handling problems while increasing production capabilities. Virtual modeling technology can determine optimal chute design to maximize material flow and reduce impact in the load zone.

Improved chute design will immediately increase your production capabilities by helping to eliminate spillage, chute plugging, belt wear, dust control and noise. This will optimize life on the conveyor belt and components by minimizing impact and top cover wear by using a soft or curved chute loading design. In addition, these advanced designs minimize material spillage by center-loading the

material at a uniform rate and optimizing the material flow in the direction of travel after the belt is fully troughed. This will also reduce the need for dust control and suppression by keeping the column of material together. Since air does not become entrapped in the material flow, there is less dust forced out of the material during belt loading.

These techniques are easily applied to both existing and new installations, resulting in significant cost improvements and system efficiency. For advanced protection to existing chutes, ASGCO® Wear Liners can be added at material contact points to eliminate damage to critical surfaces. With an assortment of protection levels for even the most abusive hard-rock mining applications, ASGCO® Wear Liners are essential to shield exposed impact areas and provide the longest lasting protection in the industry,



ASGCO® SOLUTION

Due to high volume the plant was experiencing constant chute plugging, and leaking in critical areas, causing material and dust to escape containment.

After surveying the conveyor system, ASGCO® recommended a new chute design to help with the material flow plus Slide-n-Roll® Slider Beds to support the belt.

They are now operating at a much higher level of productivity. Chute plugging is no longer a problem, and the dust and debris have been adequately contained.

ASGCO® PRO-ZONE®

MODULAR, SELF-CONTAINED MATERIAL LOAD ZONE SYSTEM



ASGCO's Pro-Zone® is environmentally friendly due to significant reduction of airborne and fugitive dust and avoiding any risk of product loss in the loading area.

Pro-Zone® Modular Load Zone System

The world's first advanced containment and dust control solution for conveyed bulk material products.

The ultimate addition for maximum load zone efficiency is ASGCO's Pro-Zone® - a patented modular conveyor belt load-zone system that optimizes the sealing for air/dust tightness of the receiving conveyor belt. This self-contained system requires no additional skirting. The load zone is comprised of Slide-N-Roll™ impact beds with removable "slide-out" UHMW/steel side supports. Side guards, internal splash sealing system, dust curtains and angled hoods (aluminum or steel) completely enclose the entire system.

Pro-Zone®'s modular design can be installed in any

combination of 4' (1200mm) or 5' (1500mm) lengths to completely cover load zone area. With quickly removable dust hoods, slide-out side sections and removable center rolls, installation and maintenance are incredibly easy.

ASGCO's Pro-Zone® system has been installed in several cement plants to create a sealed belt support system, keeping the plumes of powdered dust from escaping and filling the room with thick dust and debris, eliminating waste and removal costs and improving efficiency.

Access is provided to insure proper operation and allowing serviceability of the load zone, also protecting the workers from kicking up the material and breathing the fugitive dust. Safety always pays!



ASGCO® SOLUTION

The challenge was to eliminate the fugitive dust and spillage and the additional costs. Increased material flow produces more dust and fugitive material, and requires increased maintenance. Containing the dust usually starts at the load zone.

The Pro-Zone™ was designed around the existing chute and dust collection system. It creates a sealed belt support system with quick access for monitoring and easy adjustments. The dust no longer plumes into the room. The cost of removing the wasted product was virtually eliminated by the cement facility.

BELT TRACKING IDLERS

A PATENTED DESIGN OFFERING THE MOST RELIABLE AND REACTIVE BELT TRACKING IDLER AVAILABLE



ASGCO's line of Tru-Trainer® conveyor belt trackers don't rely on contact with the belt edge in order to guide it. This means that conveyor belt edge damage is avoided.

Tru-Trainer® Conveyor Belt Tracking Idlers

There are many options available to improve belt tracking, but nothing is more effective than ASGCO's Tru-Trainer® line of tracking idlers. The Tru-Trainer® conveyor belt tracker employs a unique and highly effective tracking action, which is non-damaging to the belt and reacts immediately if the conveyor belt begins to drift off center.

Tru-Trainer® conveyor belt trackers have no edge rollers, thus eliminating a major source of belt edge damage, which is common in conventional tracking idlers. The patented design uses a proprietary center pivot, consisting of a stainless steel pin within a solid steel center shaft. Its sealed design makes it a perfect choice for highly abrasive environments in both wet or

dry conditions, above and below ground.

ASGCO'S® Tru-Trainer® series of training idlers offer the most reliable and re-active tracking available today. Any movement from center immediately and constantly actuates the pivot to steer the belt back on line. Due to the streamlined design, the Tru-Trainer® is perfect for reversing belts and is easily installed on the return side of the system.

There are Tru-Trainer® models for any application or installation. Flat Return, Dual Return, Dual V-Return, Tapered Troughing Idler, Urethane covered and more. Regardless of the material or system design, there is a Tru-Trainer® model that will immediately improve belt performance and productivity with virtually no maintenance.



ASGCO® SOLUTION

This cement facility was using conventional guide roller trackers that kept failing. Due to the design of the guide rollers they continually came in contact with the belt's edge which made them slow to react and caused premature "side wear" on the belt.

After the installation of the ASGCO® Tru-Trainer®s with unique center pivot, the customer has not had a single belt misalignment problem. And since it does not rely on contact with the belt edge to guide the belt, belt edge damage was avoided.

SKIRTING & DUST CONTROL

ELIMINATE SPILLAGE, DUST AND FINES AT TRANSFER POINTS



ASGCO®'s skirt sealing systems and dust control products eliminate spillage, dust and fines at transfer points and provide a highly reliable seal in the load zone.

Dust Control Sealing Systems

The nature of the material being moved in the cement industry naturally creates high levels of dust. This dust can become a major hazard to the safety of workers as well as the performance of the conveyor system. Heavy dust accumulation can also result in costly cleanup and is subject to major fines.

ASGCO® has many solutions for both controlling dust and eliminating spillage in the load zone. ASGCO®'s Skirt Sealing systems provide a highly reliable, positive seal in the load zone. These skirts can be installed quickly without tools, using high performance clamp-mounts. Available in a variety of materials specific to the application, this skirting material is the toughest and most cut resistant available anywhere.

Dust Curtains will further reduce the amount of dust

throughout the conveyor transfer point. These curtains are made from both ISO 284 Anti-Static / ISO 340 Flame Retardant materials to outlast and outperform standard rubber. They allow dust to settle – by slowing the air velocity down and allowing the airborne dust and particles to fall to the conveyor belt.

An additional measure of control can be added via ASGCO®'s Conveyor Chute Tail Box, which is designed to form an effective seal at the back of the loading zone to prevent material rollback to the tail section of the conveyor. With dust control being a primary concern in the cement industry, these ASGCO dust control products are proving essential to properly designed conveyor systems and can be easily added to existing systems for immediate benefit.



ASGCO® SOLUTION

Increased material flow naturally produces more dust and fugitive material due to escaping debris. The cement dust quickly accumulates creating a dangerous environment that can lead to costly repairs, downtime, injuries and fines. At this facility ill-fitting rubber skirts were causing dust and material leakage.

ASGCO® installed Slide-n-Roll® Slider Beds to support the belt, and Clamp-Mount® Skirtboard Sealing Systems with Dura-Seal® (ORG) skirting rubber to seal the dust from escaping from the skirting area. As a result dust and debris have been adequately contained allowing for a much higher level of productivity.

CONVEYOR TRAINING AND SERVICES

ON SITE AND ON TIME 24/7/365 TO KEEP YOUR CONVEYOR SYSTEM RUNNING



At ASGCO® our coordinated team has the capabilities to fabricate, implement, and service your equipment, always focusing on insuring your success.

Conveyor Training and Inspections

ASGCO®'s mission is to provide solutions to the most complex issues faced in the bulk material industries. Whether it's performing 24-hour emergency service or providing essential training for your employees, ASGCO® has you covered.

We understand that even short-term downtime means major loss of productivity. That's why ASGCO®'s locally trained Master Distributors are there to provide conveyor inspections, the first step in identifying possible problems and providing solutions before they develop into major issues. Routine scheduled maintenance programs are also available and provide major cost savings by addressing issues as they arise, instead of fixing more significant problems due to failure. Should you experience a more serious problem that needs immediate attention, experienced MSHA

certified service technicians are on call to help get your conveyor systems running like new with on-site and on-time fabrication to minimize costly shut downs.

The ASGCO® Conveyor Training School (ACT™) offers classes created to provide your team with the highest quality training to solve ongoing conveyor problems and maintain key components. Classes at ASGCO®'s world headquarters give your staff detailed examples on how to properly identify the most common conveyor issues such as mis-tracking, spillage and dust control. Students also get hands-on experience installing components on a full-size working conveyor. Our experienced staff will show your team the ease of installing and maintaining ASGCO® conveyor components. In addition, a custom curriculum can be developed to provide specific instruction on solving a particular problem for your facility with practical solutions.



ASGCO® SOLUTION

Inspection and Maintenance service providers maximize product output and overall conveyor performance. Routine conveyor inspection and maintenance will keep small problems from turning into major ones and insure maximum performance and increased productivity.

Our locally trained Master Distributor's know how to maintain your plant conveyor equipment and handle scheduled maintenance and emergency services.

