

*Providing the World Bulk Material Handling Industry
with Productive, Safe and Reliable "Complete Conveyor Solutions."*

Primary & Secondary Belt Cleaners



**Our Mission. . .
Providing the World Material Handling
Industry with Productive, Safe and Reliable
“Complete Conveyor Solutions”.**



Engineered Conveyor Products & Services For Bulk Material Handling Systems

ASGCO® Manufacturing, Inc. headquartered in Allentown, PA is a leading manufacturer of proprietary bulk conveyor components and accessories that enhance material flow performance. Founded in 1971 by Alfred S. Gibbs and his son Todd Gibbs, ASGCO® believes in taking care of the customer with great quality products and exceptional service. This has been a successful and standard policy at ASGCO® for many years and will continue in the future.

ASGCO® is a diversified and innovative company with six major divisions that serve specific targets of the material handling industry. We market these innovative products and services through selected distributors, joint ventures, and representatives worldwide. The growth of the company, over the years, is due to recognized improvements in the productivity of our customers operations.

Every material handling system has conditions — either large or small, constant or intermittent, open or obscure — that an ASGCO® study can identify and improve. We also believe that a consulting study will provide improvements that will be a wise investment. That's because, no matter what the basic assignment, we always seek out ways to increase production and to reduce operating costs.

We typically start these services with a thorough on-site inspection to observe the operation and gather data. Next, we analyze and study the data, and often search for additional information. The end result: recommendations for new procedures and improved equipment — all aimed at providing solutions that can be pragmatically implemented.

ASGCO® will continue to serve the needs of the traditional bulk materials industry. Every client can be assured that ASGCO® bases it's reputation on quality service and products. We promise that we will not just meet, but exceed your expectations in helping our customers increase production and reduce operating costs.



www.asgco.com 800.344.4000

THE ASGCO® PROMISE - applies to every client, every time.

Always think and work in terms of solutions that are best for the customer in the long term.

Provide prompt, reliable service to every client, every time.

Develop and sell products that satisfy the practical working needs of our customers.



The Importance of Belt Cleaners

At ASGCO® we recognize that conveyors are the product lifelines to any plant. It is important that all conveyor systems run efficiently in moving your products from one production unit to the next without failure or any unscheduled downtime.

Cleaning Systems Approach:

- Cleaners work more efficiently in a system
- A system is multiple cleaners of any brand or type.
- Belt life is better with multiple lightly loaded cleaners rather than one overloaded cleaner
- A single cleaner is false economy
- Adding water to the system will improve performance up to 75%

Selecting the Proper Belt Cleaner:

- Space Available
- Vulcanized or mechanical laced belt
- Diameter of the head pulley
- Material and temperature of product being conveyed
- Belt speed
- Location available for proper installation
- Location off/if any dribble chute
- Moisture Content

Primary / Secondary Belt Cleaners

We generally recommend multiple belt cleaners be installed to provide effective cleaning on a conveyor system.

• Primary or Pre-Cleaners

Installed on the face of the head pulley at a positive angle. It should be mounted directly below the trajectory flow of the material being discharged from the belt.

• Secondary Cleaners

Is installed after the belt leaves the head (discharge) pulley and/or anywhere on the return side of the belt to effectively remove the

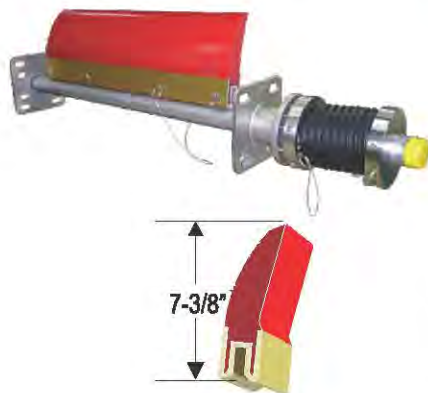
Our Guidelines for Effective Belt Cleaners Are:

- Design for optimum clean with the least amount of pressure
- Position the blade out of the main flow of the material
- If possible, install the belt cleaners in the main chute or an area that will be easily cleaned and maintained
- Primary blades should be no more than the width of the material being conveyed
- Engineered and designed to handle "worst case" conditions
- Designed for ease of maintenance
 - Quick and simple replacement blade change
 - Tensioner to maintain tension throughout the life of the blade
- Inspection/access doors are critical to safely inspect and maintain belt cleaning systems

Chute Inspection Door



Add an Inspection Door to your existing head chute for safe access to cleaners and chute clean out.



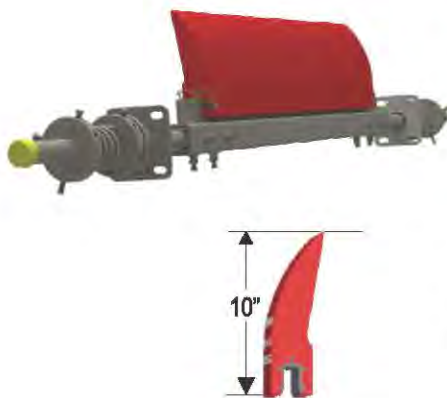
Skalper® Belt Cleaner

- Skalper® (patented) one piece blade maintains an effective cleaning edge throughout the life of the blade
- E-Z Torque™ (patented) torsion style tensioning system provides a constant consistent tension throughout the life of the blade
- Quick blade change outs and minimal maintenance

Maximum Belt Speed – 1000 fpm (5.0 m/sec)

Pulley Diameter – 16" – 36" (400 – 900mm)

Applications – Coal Fired Power Plants, Hard Rock Mining, Steel Mills, Iron Ore, Aggregate and Mineral (Phosphate, Potash, Salt) Mining



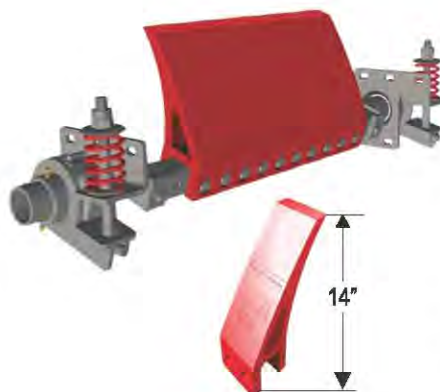
Super Skalper™ Belt Cleaner

- The mine-duty patented Super Skalper™ one piece blade maintains an effective cleaning edge throughout the life of the blade
- Heavy-duty, 3 piece designed mounting tube with dual E-Z Torque® (patented) torsion style tensioning system provides a constant consistent tension throughout the life of the blade
- Quick blade change outs and minimal maintenance

Maximum Belt Speed – 1200 fpm (6.0 m/sec)

Pulley Diameter – 20" + (400mm +)

Applications – Underground Mining, Hard Rock Mining, Metals (copper/gold) Mining, Steel Mills, Iron Ore, Bulk Shipping Terminals, Coal Fired Power Plants, Coal Preparation Plants



Skalper MDX™ Belt Cleaner

- Mine-duty Skalper MDX™ blades is one of the most rugged belt cleaners available
- Impact absorbing Torque-Cam™ action mounting system adjusts itself when large impact forces from mechanical fasteners or large lumps of carry-back hit the belt cleaner
- Engineered for the most abusive conditions and applications
- Installed as individual blade or as a cartridge

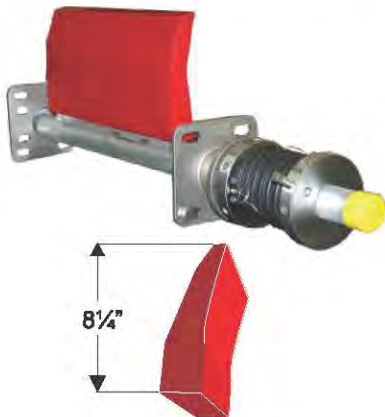
Maximum Belt Speed – 1200 fpm (6.0 m/sec)

Pulley Diameter – 24" + (600mm +)

Applications – Underground Mining, Hard Rock Mining, Oil Sands Mining, Metals (copper/gold) Mining, Steel Mills, Iron Ore, Bulk Shipping Terminals



Skalper® III Primary Belt Cleaner



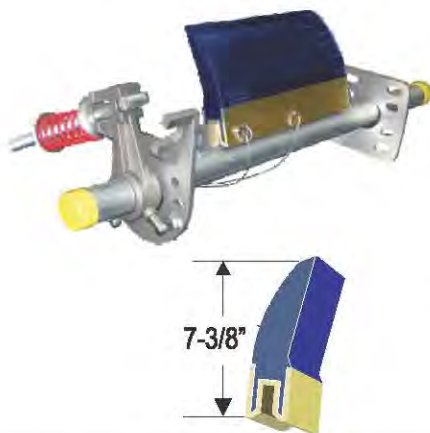
E-Z Skalper® Belt Cleaner

- E-Z Skalper® (patented) one piece blade maintains an effective cleaning edge throughout the life of the blade
- Available with either the E-Z Torque® (patented) torsion style tensioner or the Force-1™ tensioning system
- Quick blade change outs and minimal maintenance

Maximum Belt Speed – 1000 fpm (5.0 m/sec)

Pulley Diameter – 16" – 36" (400 – 900mm)

Applications – Cement, Wood Processing, Recycling, Hard Rock Mining, Steel Mills, Iron Ore, Aggregate and Mineral (Phosphate, Potash, Salt) Mining



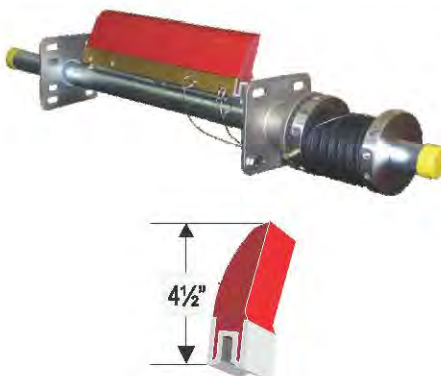
Skalper® III Belt Cleaner

- Skalper® (patented) one piece blade maintains an effective cleaning edge throughout the life of the blade
- Force-1™ Tensioning system provides constant tension
- Visual tension check
- Quick blade change outs and minimal maintenance

Maximum Belt Speed – 700 fpm (3.5 m/sec)

Pulley Diameter – 12" – 36" (300 – 900mm)

Applications – Aggregate, Sand & Gravel, Redi-Mix and Asphalt, Cement, Wood Processing Recycling



Mini-Skalper® - Great Solution for Smaller Diameter Pulleys

- Skalper® (patented) compact one piece blade maintains an effective cleaning edge throughout the life of the blade
- Force-1™ Tensioning system provides constant tension
- Visual tension check
- Quick blade change outs and minimal maintenance

Maximum Belt Speed – 500 fpm (2.5 m/sec)

Pulley Diameter – 6" – 22" (150 – 550mm)

Applications – Aggregate, Sand & Gravel, Redi-Mix and Asphalt, Cement, Wood Processing Recycling

+ All belt cleaner tensioners and mounting hardware are constructed from 304 Stainless Steel and all have a life-time guarantee for the life of the belt cleaning system.
 + Conveyor belt conditions, belt speeds, pulley diameters and general conveyor and maintenance conditions should all be considered before selecting the belt cleaner that will be most effectively utilized.
 + Underground mining mounting kits are also available.

Primary Belt Cleaners

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Are installed at the 9 o'clock position on the face of the head pulley, referred to as the primary position. It should be mounted below the trajectory flow of the material being discharged from the belt. These are the most common type of belt cleaner.


Pre-Cleaner	Mini-Skalper®	Skalper®	E-Z Skalper®	Super Skalper™	Skalper MDX™
Belt Width	18"-48" 450-1200 mm	18"-96" 450-2400 mm	18"-96" 450-2400 mm	36"-96" 900-2400 mm	36"-96" 900-2400 mm
Belt Speed	< 500 fpm 2.5m/sec.	< 1000 fpm 5.0m/sec.	< 1000 fpm 5.0m/sec.	< 1200 fpm 6.0m/sec.	< 1200 fpm 6m/sec.
Head Pulley Diameter	6-22" 150-550 mm	16"-36" 400-900 mm	16"-36" 400-900 mm	20" + 400 mm +	24" + 600 mm +
Primary Tensioners					
Force-1™	YES	YES	YES	NO	NO
E-Z Torque™	YES	YES	YES	YES	NO
Air-Shoc™ (Primary)	NA	NA	NA	YES	YES
Spring-Shoc™ (Primary)	NA	NA	NA	NA	YES
Belt Conditions					
OK on reversible belt?	YES	YES	NO	YES	YES
Blade Materials					
Skalper® IV	YES	YES	YES	YES	YES
Skalper® III	YES	YES	N/A	NO	NO
Skalper® II	YES	YES	N/A	YES	YES
Skalper® HT	YES	YES	YES	YES	YES
Skalper® UHT	YES	YES	YES	YES	YES
Skalper® XC (Ceramic)	N/A	N/A	N/A	YES	YES



Skalper® Blades

Skalper Blade Materials						
Blade Type	Skalper™IV	Skalper™III	Skalper™II	Skalper™HT	Skalper™UHT	Skalper™XC
Durometer	85	85	95	85	95	95
Belt Speed	< 1000 fpm <5m/sec	< 700 fpm < 3.5m/sec	< 1200 fpm < 6m/sec	< 1200 fpm < 6m/sec	< 1200 fpm < 6m/sec	< 1400 fpm < 7m/sec
Temperature Range	-20-180°F -28 to 82°C	-20-180°F -28 to 82°C	-20-180°F -28 to 82°C	-20-225°F -28 to 107°C	-20-300°F -28 to 148°C	-40-225°F -40 to 107°C
Use w/Mech. Fasteners	Yes	Yes	No	Yes	No	No

Primary Belt Cleaner Tensioners

E-Z Torque™	Spring-Shoc™	Air-Shoc™	Force-1™
			
<ul style="list-style-type: none"> All 304 stainless steel construction Lifetime Warranty Stainless steel torsion spring will not take a set 	<ul style="list-style-type: none"> All 304 stainless steel construction Lifetime Warranty Rubber and UHMW impact bushings 	<ul style="list-style-type: none"> All 304 stainless steel construction Lifetime Warranty Rubber and UHMW impact bushings 	<ul style="list-style-type: none"> All 304 stainless steel construction Lifetime Warranty Compact size

Secondary Belt Cleaners

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Are installed after the point where the belt leaves the head (discharge) pulley and or anywhere on the return side of the belt where it can be cleaned and maintained effectively.

Secondary Cleaners	TORO [®]	Razor-Back [®]	Razor-Back MDX [®]	Chevron [™]
Belt Width	18"-48" 450-1200 mm	18"-96" 450-2400 mm	18"-96" 450-2400 mm	36"-96" 900-2400 mm
Belt Speed	<1000 fpm 5m/sec.	< 1000 fpm 5m/sec.	< 1200 fpm 6m/sec.	< 500 fpm 2.5m/sec.
Secondary Tensioners				
Bolt-Up[™]	YES	YES	YES	NO
Duo-Spring[™]	YES	YES	YES	YES
Bolt-Up MDX	NO	NO	NO	YES
Air-Shoc[™] (Secondary)	NO	NO	NO	YES
Spring-Shoc[™] (Secondary)	NA	NA	NA	NA
Belt Conditions				
OK on reversible belt?	YES	NO	NO	YES
Blade Materials				
TORO[™] Urethane	YES	YES	N/A	N/A
TORO[™] F-Tips	YES	YES	N/A	N/A
TORO[™] C-Tips	YES	YES	N/A	N/A
F-Tips	YES	YES	N/A	N/A
C-Tips	YES	YES	N/A	N/A
V-Tips	N/A	N/A	N/A	N/A
MDX F-Tips	N/A	YES	YES	N/A
MDX C-Tips	N/A	YES	YES	N/A
MDX V-Tips	N/A	YES	YES	N/A



Secondary Blades

Blade Materials										
Blade Type	TORO [®]	TORO [®] F-Tips	TORO [®] C-Tips	F-Tips	C-Tips	V-Tips	MDX F-Tips	MDX C-Tips	MDX V-Tips	Chevron (patented)
Belt Speed	< 1000 fpm < 5 m/sec	< 1000 fpm < 5 m/sec	< 1000 fpm < 5 m/sec	< 1000 fpm < 5 m/sec	< 1000 fpm < 5 m/sec	< 1000 fpm < 5 m/sec	< 1200 fpm < 6 m/sec	< 1200 fpm < 6 m/sec	< 1200 fpm < 6 m/sec	200-500 fpm < 2.5 m/sec
Temperature Range	-20-180°F -28 to 82°C	-20-180°F -28 to 82°C	-20-180°F -28 to 82°C	-20-400°F -28 to 204°C	-20-400°F -28 to 204°C	-20-400°F -28 to 204°C	-20-400°F -28 to 204°C	-20-400°F -28 to 204°C	-20-400°F -28 to 204°C	-20-250°F -28 to 121°C
Use w/Mech. Fasteners	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes

Secondary Belt Cleaner Tensioners

Bolt-Up [™]	Duo-Spring [™]	Bolt-Up [™] MDX	Spring-Shoc [™]	Air-Shoc [™]
<ul style="list-style-type: none"> All 304 stainless steel construction Lifetime Warranty Visual tension check 	<ul style="list-style-type: none"> All 304 stainless steel construction Lifetime Warranty Push-up or Pull-up tensioning options 	<ul style="list-style-type: none"> All 304 stainless steel HD construction Lifetime Warranty Visual tension check 	<ul style="list-style-type: none"> All 304 stainless steel HD construction Lifetime Warranty Rubber and UHMW impact bushings 	<ul style="list-style-type: none"> All 304 stainless steel HD construction Lifetime Warranty Rubber and UHMW impact bushings





Razor-Back® with Spray Bar

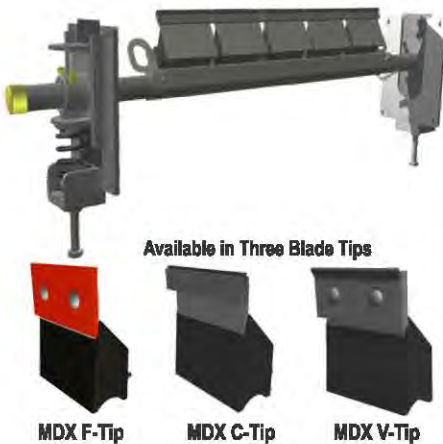


Razor-Back™ Secondary Belt Cleaner

- Impact absorbing, self-tensioning cushions allow each blade to flex individually and allow a more constant effective tension against the conveyor belt
- Available with replaceable V-Tips for vulcanized conveyor belts or C-Tips or F-Tips for conveyor belts with mechanical fasteners
- Slide-out service cartridge allows for easy service and inspection
- Available with Bolt-up, Duo-Spring™ or Air-Shoc™ Tensioning Systems
- Available with optional water spray

Maximum Belt Speed – 1000 fpm (5.0 m/sec)

Applications – Coal Fired Power Plants, Hard Rock Mining, Steel Mills, Iron Ore, Aggregate and Mineral (Phosphate, Potash, Salt) Mining



Razor-Back MDX™ Belt Cleaner

- ForceFlex™ (patent pending) impact absorbing rubber and spring-loaded tensioning cushions maintain a constant effective force between the belt cleaner and the conveyor belt
- Available with replaceable MDX™ V-Tips for vulcanized conveyor belts or MDX™ C-Tips for conveyor belts with mechanical fasteners.
- Slide-out service cartridge allows for easy service and inspection
- Available with Bolt-up, Spring-Shoc™ or Air-Shoc™ Tensioning Systems

Maximum Belt Speed – 1200 fpm (6.0 m/sec)

Applications – Underground Mining, Hard Rock Mining, Metals (copper/gold) Mining, Steel Mills, Iron Ore, Bulk Shipping Terminals, Coal Fired Power Plants



TORO™ Belt Cleaner

- Effective flexible belt cleaner that can accommodate reversing conveyor belt systems
- Available with replaceable V-Tips for vulcanized conveyor belts or C-Tips or F-Tips for conveyor belts with mechanical fasteners.
- Slide-out service cartridge allows for easy service and inspection
- Available with Bolt-up, Duo-Spring™ or Air-Shoc™ Tensioning Systems

Maximum Belt Speed – 1000 fpm (5.0 m/sec)

Applications – Aggregate, Cement, Coal Fired Power Plants, Mineral (Phosphate, Potash, Salt) Mining, Wood Processing, Recycling



ASGCO® Wash Box Belt Cleaning System

- Complete belt cleaning system that incorporates a series of spray bars, belt cleaners and pressure/deflection roll to maximize the effectiveness and virtually eliminate all carry-back
- Fully enclosed system that contains the wash waste fluid and carry-back
- Large removable service doors allow the system to be easily inspected and service.
- Can be customized to meet exact application needs

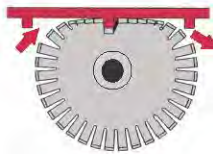
Maximum Belt Speed – 1000 fpm (5.0 m/sec)

Applications – Coal Fired Power Plants, Bulk Shipping Terminals, Coal Preparation Plants, Underground Mining, Hard Rock Mining, Steel Mills, Iron Ore, Mineral (Phosphate, Potash, Salt) Mining



Chevron Belt Cleaner

- Patented concave shaped rubber discs perform a sweeping action to clean chevron, raised top or grooved conveyor belts
- Unique rotary fingers remove the carryback and is designed to work only when the conveyor belt is running
- Easily serviced and no motors, air nozzles or other problematic equipment to maintain



Unique rotary fingers are forced against the base of the chevrons to dislodge material from the belt.

Maximum Belt Speed – 500 fpm (2.5 m/sec)

Applications – Wood Processing, Mineral (Phosphate, Potash, Salt) Mining, Recycling



V-Plow XD™

V-Plow XD™, Hinged V-Plow and Diagonal Plow Belt Cleaners

All "V" and Diagonal Plows are designed to remove material and clean the inside of the conveyor belt which protects and reduces the risk of puncture damage.

- V-Plow XD™ is a patent pending design for tough mine duty applications that can be flipped to maximize results
- Hinged V-Plow is a patented "Hinged" design for low, tight clearance applications
- Diagonal Plow discharges material from one side of the belt
- Available with rubber or urethane plow material

Maximum Belt Speed – 1000 fpm (5.0 m/sec)

Applications – Coal Fired Power Plants, Hard Rock Mining, Underground Mining, Coal Preparation Plants, Steel Mills, Iron Ore, Aggregate, Metals (copper/gold) Mining, Mineral (Phosphate, Potash, Salt) Mining, Bulk Shipping Terminals



Hinged V-Plow



Diagonal Plow



Dry Wipe Belt Cleaner

- Removes excess water to ensure a dry carry side of the belt down the belt line
- Available with Bolt-up, Duo-Spring™ or Air-Shoc™ Tensioning Systems

Maximum Belt Speed – 1000 fpm (5.0 m/sec)

Applications – Underground Mining, Coal Preparation Plants

+ All belt cleaner tensioners and mounting hardware are constructed from 304 Stainless Steel and all have a life-time guarantee for the life of the belt cleaning system.
 + Conveyor belt conditions, belt speeds, pulley diameters and general conveyor and maintenance conditions should all be considered before selecting the belt cleaner that will be most effectively utilized.
 + Underground mining mounting kits are also available.

Razor-Back Secondary Belt Cleaner



Bulk Material Characteristics and Belt Cleaning Considerations

The material to be cleaned from the belt affects the selection of the belt cleaner system so it is important to be able to define and classify the bulk material. Changes in the source and quality of the bulk material can have a dramatic effect on the ability of a cleaning system to function. It is important to classify the properties and characteristics of the bulk material. The basic elements of the classification system are Size, Flowability, Abrasiveness, Moisture, and other Miscellaneous characteristics.

Because of the position on the head pulley, the material removed is most easily discharged into the main chute. Therefore this location is considered the Primary Location for belt cleaning. The second most practical location for belt cleaners is the space between where the belt leaves the head pulley and where it contacts the first snub pulley, bend pulley or return idler.

The Effectiveness of Belt Cleaners

Generally, a primary belt cleaner will remove 90-95% of the carry-back. A secondary belt cleaner will remove up to 80-85% of the carry-back the primary was unable to.

It is important to understand that the surface of a belt is not smooth like glass it is pitted more like a carpet and cannot be cleaned 100%.

Most belt cleaning systems specified in new conveyors are not specified by application but rather by price or convenience by the engineering firm.

Factors That Effect Cleaning Ability:

- Cuts & gouges
- Changes in belt surface
- Mechanical splices with exceedingly high leading edge
- Material accumulation in the head chute
- Tensioning

ASGCO® Vibrating Dribble Chute

The ASGCO® Vibrating Dribble Chute combines a vibrator with a unique isolation mount and a low-friction UHMW chute liner to prevent build-up in dribble chutes. The rugged electric vibrator provides precise durable performance with 480 lbs of force.



Custom sizes can be made at customer's request.

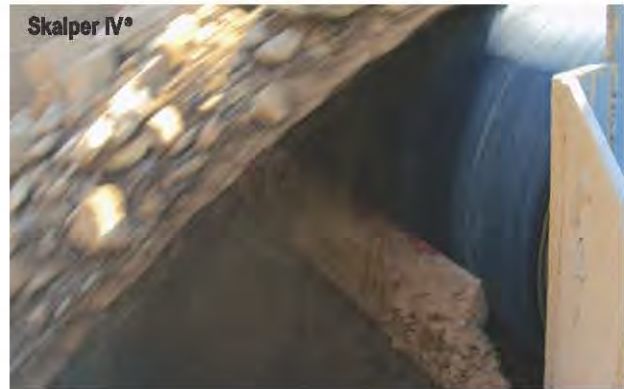
Belt cleaners are an essential part of any conveyor system, helping to remove product carry-back and prevent it from falling off at various points along the return side of the belt. Excessive build-up causes various housekeeping and maintenance problems leading to an unsafe work environment. ASGCO® has set high standards to help plants minimize problems associated with material carry-back.



Carry-Back Can Lead To:

- Excessive buildup and wear on belt idlers and pulleys
- Conveyor belt misalignment due to the artificial crown created by the carry-back
- Accumulation of material falling off idlers and structure to the ground or on buildings, vehicles or even people
- Negative and unsafe work environment

Primary Belt Cleaners



Secondary Belt Cleaners



... efficient, safe and productive

Customer Service
800-344-4000 or
610-821-0216



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