80+ YEARS OF INNOVATION

martin® engineering

PRODUCT CATALOGUE

L4203IN

martin® engineering

80+ YEARS OF INNOVATION

Cleaner, Safer, More Productive Bulk Material Handling Since 1944

Founded in 1944, Martin Engineering has grown from a modest family-owned entrepreneurial operation in the United States to the global leader in bulk material handling solutions. With an emphasis on innovation and customer satisfaction, we've developed cutting-edge technologies that improve efficiency, safety, and productivity across various industries. Over the years, we've expanded our reach to every corner of the globe, delivering high-quality products, services, and training to sectors including mining, processing, energy, and transportation.

With over 80 years of experience and proven results, we continue to set industry standards through our ongoing commitment to research and development. Our dedication to solving complex material handling challenges has earned us a trusted reputation with operations worldwide. Whether we're providing solutions to keep conveyor belts clean and aligned, control airborne dust and material spillage, or maintain proper material flow and throughput, our solutions are known for their reliability and performance, enhancing safety and fostering long-term partnerships with our customers across the globe.

Martin Engineering products, sales, service, and training are available from factory-owned facilities worldwide, supplemented by a strategic network of partners.

- United States
- Australia
- Brazil
- Central Asia
- Chile
- China
- Colombia
- France
- Germany
- India
- Indonesia
- Italy
- Kazakhstan
- Malaysia
- Mexico
- Middle East
- North & West Africa
- Peru
- Scandinavia & Baltic States
- Spain
- South Africa
- Turkey
- United Kingdom

Primary Belt Cleaners

Secondary Belt Cleaners

Specialty Belt Cleaners

Pulley Protection Plows

Belt Alignment

Belt Sealing

Belt Support

Dust Management

Safety Accessories

Air Cannons

Services and Training

products are proudly **MADE IN INDIA** - developed, manufactured and assembled right here in India. Martin Engineering India takes pride in supporting the nation's industrial growth and global ambitions.

Support Indian manufacturing. Invest in quality, growth, and national pride.

Primary Belt Cleaners

Martin Engineering belt cleaners are the original standard in engineered belt cleaning. World class manufacturing, robust construction, and the highest-quality urethane on the market deliver unrivaled cleaning performance, durability, and reliability.

Multiple blade, tensioner, and mainframe options available to meet the unique demands of application requirements.

CleanScrape® Primary Cleaner

The CleanScrape® Belt Cleaning System introduces a revolutionary innovation in belt cleaning technology.

- Efficient & effective performance
- Lower maintenance as compared to traditional cleaners
- Safe for belts
- Reduces operating costs

CleanScrape® is installed diagonally across the discharge pulley and forms a three-dimensional curve.

The cleaner incorporates a matrix of carbide tips and is tensioned across the belt in a specified angle. Despite an extremely low contact pressure between belt and cleaner, any stuck material is removed very efficiently.

Dimensions (mm)	Pulley Diameter (mm)	Max Belt Width (mm)
CSP S	300 - 550	400 - 1000
CSP M	550 - 900	500 - 1800
CSP L	800-1250	800 - 2400
CSP H	800 - 2000	1000 - 3000

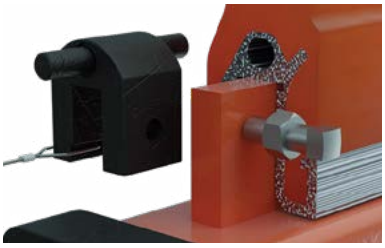
QC1+™ Primary Belt Cleaners

Patented constant angle radial pressure (CARP) blades ensure continuous and consistent cleaning performance across all stages of blade life and are available in six specialized urethane formulations to best suit the material being conveyed.

Patented blade holders allow blades to be cut to any length to perfectly match the material path.

Available with 1-piece mainframe* and Twist™ or Spring tensioner.

Model	Max Belt Width in. (mm)	Max Belt Speed fpm (m/s)	Pulley Diameter in. (mm)
QC1+™ PV	72 (2000)	500 (2.5)	12-16 (300-400)
QC1+™ HD	108 (2800)	900 (4.6)	16-22 (400-559)
QC1+™ XHD	120 (3048)	1200 (6.1)	24-30 (610-750)



Martin Engineering's patented QC1+™ blade design features a unique mounting interface that takes advantage of blade holders that allow blades to be cut to any length and mounted to the mainframe to perfectly match the material path.

Blades that match the material path of the conveyor system provide the most effective cleaning by ensuring the proper contact with the belt and reducing uneven blade wear and unnecessary wear of the belt surface, extending equipment life.

IndoClean Primary

The Martin IndoClean Primary Cleaner is a new evolution in belt cleaner technology designed to help your operation achieve a higher level of productivity while simultaneously reducing costs! It is guaranteed to provide you with the highest performance and the lowest cost of ownership of any urethane precleaner.

Max Belt Width (mm)	Max Belt Speed (m/s)	Pulley Diameter (mm)	Temperature (C)
up to 1400 mm	up to 2.5 m/s	up to 550 mm	up to 70 °C

Tensioners

Martin® Belt Cleaner Tensioners provide the most robust and rugged construction to maintain reliable and proper blade-to-belt tension to ensure unmatched belt cleaning performance while providing ease-of-service and minimal maintenance.

The patented Martin® Twist™ Tensioner uses energy from a twisted rubber coupling to supply consistent belt cleaning pressure with minimal adjustment and can be used on either primary or secondary cleaners.

The Twist™ Tensioner allows mechanical splices to pass without damage. In the event that the blade pulls through, the tensioner's coupling rolls over, releasing pressure and reducing the risk of harm to personnel or equipment.

Light aluminium housing and the fully-enclosed design keeps the tensioner mechanism clean. Simple adjustment involves twisting the tensioning gear the specified number of notches (determined by belt width). The ratchet will automatically lock in place.

Spring Tensioners maintain efficient belt cleaning with a rugged coil spring providing visibility of the tensioning mechanism. Air Tensioners utilize plant air to deliver and maintain consistent, reliable blade-to-belt pressure without a mechanical device.

Mounts and tensioners can be purchased individually or in packages with various belt cleaning systems.

Twist™ Tensioner

Air Cylinder Tensioner

Spring Tensioner

Spring Tensioner XHD

Hanger Mounts & Mount Plates

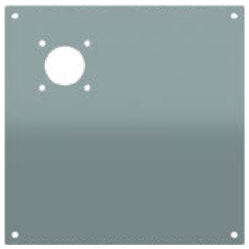
Hanger Mount for XHD Spring Tensioner

Hanger Mount for Twist™ Tensioners

Heavy Duty Hanger Mount for Secondary Cleaners

Martin® Hanger Mounts provide the framework to install a conveyor belt cleaner and tensioner assembly on open head-pulley belt conveyors without an enclosed chute, providing the necessary support to achieve and maintain proper and effective cleaning position.

Mount Plate for XHD Spring Tensioners



Mount Plate for Twist™ Tensioners

12x12 Mount Plate for Twist™ Tensioners

Mount Plates provide the necessary surface with predrilled and cut holes to mount tensioners when adequate chute wall is not available.

Genuine Martin® Belt Cleaner Replacement Blades

One of Martin Engineering's defining characteristics and core strengths is our expertise in urethane formulation and production.

Martin Engineering is the original and industry-leading manufacturer of specialty urethanes for heavy-duty, high-performance belt conveyor components, including belt cleaner blades, chute liners, and impact and support bars. We offer the highest-quality urethane products, formulated and manufactured entirely in-house at our various locations globally.

Urethane	Color	Duro-meter	Application Conditions	Temperature Range
Standard	Orange	83	Suitable for most applications, including abrasive conditions and exposure to solvents or oil. For use with materials such as coal, ore, bauxite, coke, refuse.	-20° to 160°F (-30° to 70°C)
High-Temp	Green	83	For use with high temperature materials such as clinker. Can handle intermittent temperatures of 350°F (177°C).	-40° to 300°F (-40° to 150°C)
Chemical Resistant	Brown	86	Improved resistance to chemicals and reduces water absorption for high moisture environments such as limestone. Best choice for applications exposed to chemicals with pH as high as 11 and as low as 4.	-40° to 160°F (-40° to 70°C)

Our unrivaled product quality is informed by decades of research and development and ensured by our state-of-the-art production process completed start-to-finish under one roof by the industry's foremost experts.

Martin Engineering's unique CARP blade design provides Constant Angle Radial Pressure to ensure consistent cleaning throughout the entire wear life of the blade, maximizing return on your investment and delivering unrivaled reliability without degradation in performance.

Martin® replacement blades provide more wearable urethane than competitive blades for maximum blade life.

Specially-formulated, color-coded urethanes are available to best suit any application.

Visit our **On-Demand Webinar Library** for dozens of free on-demand video recordings covering a wide variety of topics including belt conveyor optimization, carryback and belt cleaning, material flow, dust control, and safety and culture. >> foundations.martin-eng.com/webinars-on-demand

Secondary Belt Cleaners

Secondary cleaners are installed with the cleaning edge at a scraping angle with high blade-to-belt pressure behind the head pulley where the belt is at its flattest, providing an ideal surface to effectively clean.

Secondary cleaners are much better suited to scrape off the remaining smaller particles and higher-moisture carryback that primary cleaners can't remove. A properly specified, installed, and maintained multiple-cleaner system can reliably achieve 90 to 95% carryback removal from the conveyor belt.

CleanScrape® Secondary

The CleanScrape® Secondary Cleaner is an all stainless steel assembly featuring independent 6-inch wide blades with carbide tips. Each tip is supported on spring-loaded arms at both ends. The load springs allow independent blade rotation back and forward as well as up and down.

This range of motion provides equal load pressure across each blade, absorbs obstructions, conforms to ever-changing belt undulations, and arcs safely in the event of belt rollback.

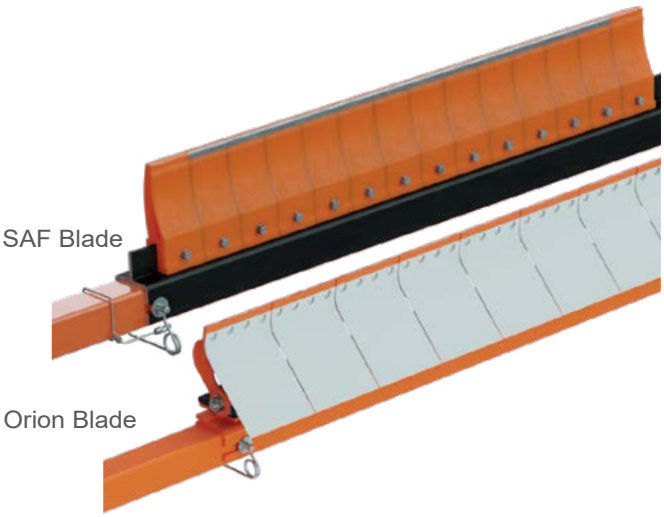
Belt Width in. (mm)	**Max Belt Speed** fpm (m/s)		**Temperature** F (C)
18-96 (500-2600)	900 (5.0) for vulcanized splices	600 (3.0) for mechanical splices	up to 600 °F (300 °C)

SQC2S™ Secondary Belt Cleaners

The most versatile and best-selling secondary cleaner on the market, SQC2S™ is a reliable and proven solution for a broad range of demanding applications across virtually every industry. Its rugged construction withstands harsh environments, high-speed belts, and high-tonnage loads.

The SQC2S™ Secondary Belt Cleaner offers five unique, easy-to-service blade cartridge options to match the needs of your application.

Available with acid-resistant blades for belts with clips and suitable for use with reversing belts.



Belt Width in. (mm)	Max Belt Speed fpm (m/s)	Temperature F (C)
18-96 (450-2400)	1500 (7.5)	-30° to 300° (-34° to 149°)

DT2SD Cleaner

Combining the best features of two successful Martin Engineering Secondary Cleaners, the Martin DT2 Cleaner features a splittrack blade catridge that allows the blades to be easily slide in and out.

This unique engineering makes for a fast and easy service procedure to reduce conveyor downtime.

Belt Width in. (mm)	Max Belt Speed fpm (m/s)	Temperature F (C)
up to 2400 mm	up to 5 m/s	up to 150ºC

DT2HD Cleaner

Martin DT2 HD Cleaner is the heavy duty version of Secondary cleaner featuring split-track blade cartridge that allows the blades to be easily slide in and out. This Cleaner comes with auto-tensioning.

Belt Width (mm)	Max Belt Speed fpm (m/s)	Temperature F (C)
up to 2400 mm	1200 (6.1)	-30° to 300° (-34° to 149°)

SQC2™ Mini Cleaner

Compact design allows installation in close quarters while the narrow profile resists material buildup.

Individually-cushioned tungsten carbide blades deliver effective and reliable cleaning performance while cushioning impact and accommodating reversing belt direction, eliminating risk to the belt, splice, or blade.

Belt Width in. (mm)	Max Belt Speed fpm (m/s)	Temperature F (C)
up to 1800	2.5	-30° to 300° (-34° to 149°)

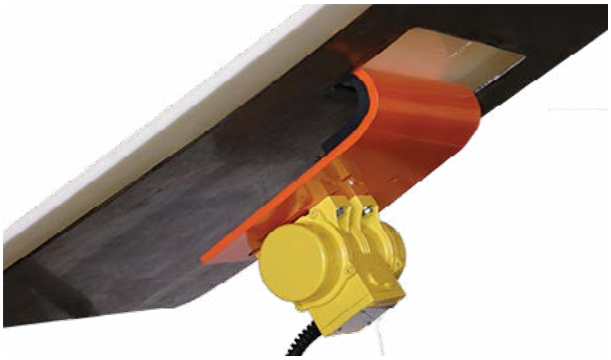
IndoClean Secondary

The Martin IndoClean Secondary Cleaner incorporates individually-cushioned tungsten carbide blades for effective cleaning without risk to belt, splice or blade. Installed in the secondary cleaner position, the Martin IndoClean secondary blade buffers cushion impact and maintains cleaning pressure.

Belt Width in. (mm)	Max Belt Speed fpm (m/s)	Temperature F (C)
up to 1400 mm	up to 2.5 m/s	up to 70°C

Vibrating Dribble Chute

The Martin® Vibrating Dribble Chute uses an electric vibrator and a low adhesion plastic liner to keep material from clogging chutes and burying belt cleaners. Low-friction plastic lining promotes material flow without accumulation while the rubber-lined bracket transfers vibration to liner without metal fatigue.



Specialty Belt Cleaners

Installed mainly as secondary belt cleaners, Martin Engineering's specialty belt cleaners include products engineered to perform under the most challenging conditions, such as extreme temperatures, as well as suited for food grade applications. Products are also available that perform with varying types of belts, including ribbed, flighted, grooved, or chevron conveyor belts.

Brush Cleaners

Effective cleaning performance on difficult applications, including belts with ribs, cleats, grooves, or chevrons, or belts carrying sticky materials or stringy fibers.

Efficient electric motor provides effective cleaning with powered rotary action without excessive power consumption. Durable angle iron and stainless steel components provide long service in tough conditions.

Strip Brush Cleaner uses 12 brush strips assembled on a series of hubs mounted on a shaft to form a 10-inch diameter brush. Strip brush design allows material to fall off the brush rather than settle into the bottom of the bristles. Design allows simple replacement of individual brush strips.

Spiral Brush Cleaner features bristles wrapped in a continuous spiral around brush shaft to deliver effective cleaning performance on dry fines clinging to belts with cleats, chevrons, or ribs.

Model	**Max Belt Width** in. (mm)	**Max Belt Speed** fpm (m/s)	**Temperature** F (C)
Strip Brush	60 (1800)	500 (2.5)	-30° to 180° (-34° to 82°)
Sprial Brush	72 (2000)	500 (2.5)	-30° to 180° (-34° to 82°)

Washbox™ Belt Cleaning System

Installed as a secondary cleaner along the conveyor's return run, the Martin® Washbox™ Cleaning System provides the ultimate in belt cleaning technology. The Washbox™ gently spray-applies water for superior belt cleaning.

Single-cleaner system consists of a powder-coated steel enclosure equipped with one roller, one spray bar, two inspection doors, and one secondary cleaner.

Dual-cleaner system consists of a powder-coated steel enclosure equipped with three rollers, four spray bars, four inspection doors, and two secondary cleaners.

Single-cleaner and stainless steel washbox options available, as well as Martin Engineering's full range of high-performance urethanes. Belt cleaners are also available with tungsten carbide, stainless steel, or urethane blades.

Belt Width in. (mm)	**Max Belt Speed** fpm (m/s)
18-84 (400-2200)	750 (3.8)

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Torsion Arm Chevron Cleaner

The Martin® Torsion Arm Chevron Cleaner features 30° offset arms with either rubber or urethane blades to effectively remove carryback while gently stepping over belts with ribs, chevrons, and cleats.

Belt Width in. (mm)	**Max Belt Speed** fpm (m/s)	**Temperature** F (C)
18-96 (400-2400)	500 (2.5)	-30° to 180° (-34° to 82°)

Food Grade Cleaner

Martin® Food Grade Belt Cleaner fits requirements of belt conveyors in food processing and packaging. Available as either a primary or secondary cleaner with high-density polyethylene or nylon blades on stainless steel mainframes with either an air, spring, or hub mount tensioner.

Belt Width in. (mm)	**Max Belt Speed** fpm (m/s)	**Temperature** F (C)
4-48 (100-1200)	350 (1.8)	-40° to 380° (-40° to 193°)

Pulley Protection Plows

Martin Engineering's tail protection products are designed to prevent material that has landed on the inside of the belt during the return from being pulled into the tail pulley. If it isn't removed, the material can cause extensive damage to the entire conveyor system, especially the tail pulley and the belt.

Our tail protection products, which are designed to plow discharge material to the side of the belt for easy control and cleanup, are available for standard and reversing belts, with self-adjusting models that rise and fall with fluctuations in belt tension. We also offer products designed for varying speeds and belt widths.

VPlow

The VPlow is an effective and economical solution for belt and pulley protection from medium- to heavy-duty applications. The VPlow floats on the inside surface of a conveyor belt to reliably remove stray material. The self-adjusting design provides effective cleaning trough all stages of blade wear.

Low-profile rugged steel frame construction bolts together for easy installation and stands up to the toughest applications.

Easily replaceable blades are available in 60 Shore A Durometer rubber or a variety of long-wearing 90 Shore A Durometer urethanes to match application and material requirements. Tough one-piece urethane bull nose provides long-lasting life and easy replacement.

Model	**Belt Width** in. (mm)	**Max Belt Speed** fpm (m/s)	**Wearable Blade** in. (mm)
Heavy Duty	18-120 (450-2800)	900 (4.6)	2 (51)
Extra Heavy Duty	42-120 (1000-2800)	1000+ (5.0)	3 (76)

Diagonal Plow

Hung from brackets on both sides of the conveyor, the Martin® Diagonal Plow's durable 60 shore A durometer rubber blade floats on the belt surface to remove material in either direction of belt travel without needing adjustment.

Easily replaceable blades are available in 60 Shore A Durometer rubber or a variety of long-wearing 90 Shore A Durometer urethanes to match application and material requirements.

Belt Width in. (mm)	**Max Belt Speed** fpm (m/s)	**Max Temp** F (C)	**Wearable Blade** in. (mm)
Up to 2400	900 (4.6)	250° (21°)	1.5 (38)

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Belt Alignment

By keeping belts tracked correctly, you can keep material in the flow stream and eliminate runaway dust. Martin Engineering's belt alignment products provide immediate, continuous precision adjustment that keeps conveyor belts perfectly aligned, even withstanding the stress caused by wider, thicker belts carrying heavier loads at high speeds.

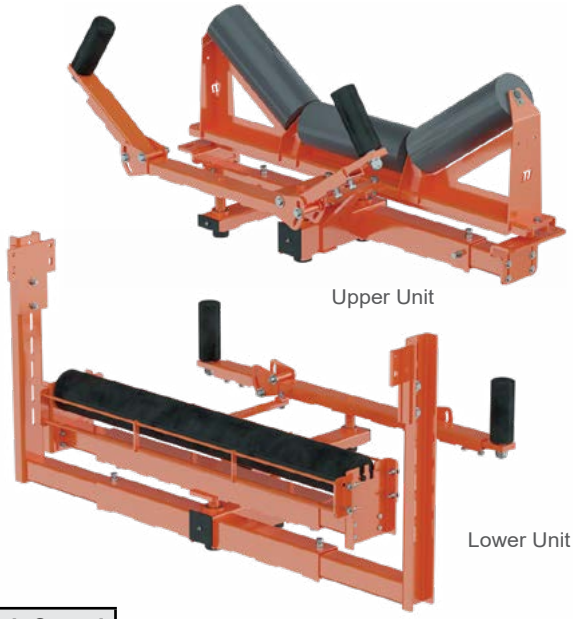
Our belt tracking products prevent edge damage, extend belt life, reduce spillage, and minimize wear and tear on equipment. Plus, we manufacture trackers that can sense the direction of the belt's movement and make the adjustments needed to keep reversing conveyors correctly centered.

Tracker™

The Martin® Tracker™ is the most reliable and effective solution to provide immediate and continuous precision adjustment for wandering conveyor belts.

Unlike other belt training devices, the Tracker™ excels in reducing edge damage, preventing spillage, and extending belt life. Its automatic, continuous adjustments keep the belt in consistent alignment, ensuring improved tracking that significantly reduces maintenance expenses.

The Tracker™ features a patented parallel steering/training system for precise, ongoing adjustment, maintaining optimal belt alignment and operational efficiency at all times. The Martin® Tracker™ is available in three models to match the requirements of any application.



Upper Unit

Lower Unit

Model	Belt Width in. (mm)	Max Belt Thickness in. (mm)	Max Belt Speed fpm (m/s)
Standard Duty	24-54 (up to 1200)	0.5625 (14.3)	700 (3.5)
Heavy Duty	36-72 (800-2000)	1.125 (28.5)	800 (4.0)
XHD	42-108 (up to 2800)	1.5 (38)	1000 (5.0)

Tracker™ Reversing

The Martin® Tracker™ Reversing is a state-of-the-art solution offering immediate and continuous precision adjustment for reversing conveyors that are challenging to track. This innovative system ensures the belt stays perfectly centered regardless of its direction of travel.

The Tracker™ Reversing is equipped with sensing rollers and lever arms at both ends and utilizes a stainless steel lamella, or paddle wheel, to accurately detect the belt's direction and activate the appropriate sensing rollers.

This advanced technology guarantees optimal belt alignment, enhancing operational efficiency and reducing maintenance needs for reversing conveyor systems.

Belt Width in. (mm)	Max Belt Thickness in. (mm)	Max Belt Speed fpm (m/s)
24-84 (600-2200)	0.5625 (14.3)	700 (3.5)

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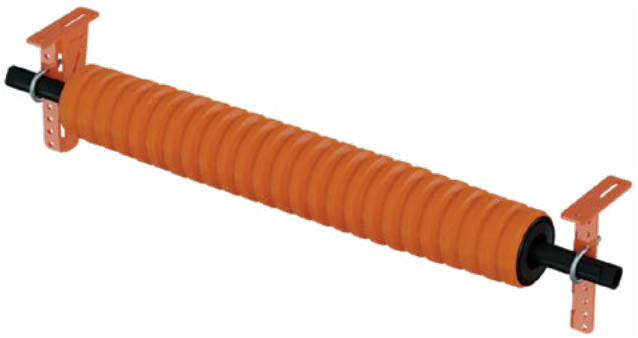
Roller Tracker™

The Martin® Roller Tracker™ is engineered to meet the rigorous demands of conveyor belt tracking with unparalleled precision and reliability.

Designed for ease of installation and minimal maintenance, it ensures a smooth, vibration-free rolling action that enhances operational efficiency. Featuring superior bearings for exceptional quality, the Roller Tracker™ guarantees reliable performance tailored to customer needs on belt widths from 20-72 inches (500-1650 mm).

Its innovative design eliminates contact with the belt edge, preventing wear and extending belt life. With polyurethane lagging enhancing durability, this tracker delivers long-lasting reliability and optimal belt alignment. Suitable for reversing belts.



Belt Sealing

Martin Engineering's ApronSeal™ Skirting products are engineered for superior performance in demanding material handling environments. Featuring an innovative dual-sealing design, ApronSeal™ effectively contains airborne dust and mitigates material spillage along conveyor belts. This innovative system requires minimal maintenance and maximizes operational efficiency, safeguarding both workers and equipment. Ideal for applications requiring stringent dust control, ApronSeal™ sets a new standard in conveyor belt skirt sealing, delivering unparalleled reliability and performance.

ApronSeal™ Skirting

Martin® ApronSeal™ Skirting provides dual-seal efficiency with a single, one-piece sealing strip for any troughing angle to prevent the escape of fines and dust. The primary seal is clamped to the chute wall with the self-adjusting secondary seal laying outward to create an effective dust seal that is out of the material flow. ApronSeal™ Skirting requires minimal service to maintain an effective seal.

ApronSeal™ Double Skirting uses a patented design that features a reversible elastomer strip to provide a second wear life. Optional quick-release clamps are available. Suitable for application temperatures from -20° to 250°F (-29° to 121°C).

Model	**Max Belt Speed** fpm (m/s)
Single	600 (3.0)
Single HD	750 (3.8)
Double HD	750 (3.8)
Self-Adjusting	600 (3.0)

Minimum Free Belt Area – in (mm)				
Trough Angle	**Single**	**Single HD**	**Double HD**	**Self-Adjusting**
0°	2.14 (54)	2.97 (76)	2.97 (76)	1.50 (38)
20°	2.58 (66)	3.74 (95)	3.74 (95)	1.50 (38)
35°	2.87 (73)	4.18 (106)	4.18 (106)	1.50 (38)
45°	3.01 (77)	4.38 (111)	4.38 (111)	1.50 (38)

Self Adjusting Skirting HD

Martin® Self Adjusting Skirting provides an effective skirtboard seal that eliminates spillage and prevents the problems caused by fugitive material.

It self-adjusts to eliminate skirtboard maintenance. Requiring only 1.25 inches (32 mm) of free belt space outside the chute, Self Adjusting Skirting is the ideal sealing system for conveyors with chutes close to the belt edge. The rubber and clamp assembly can be installed in spaces as low as six inches (150 mm) above the belt.

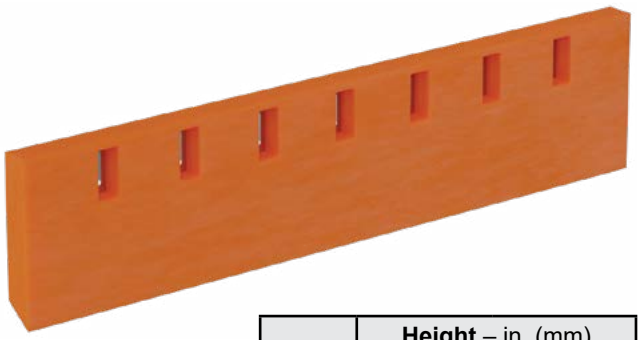
Durable sealing strip provides wear life of two inches (51 mm). Replacement of a worn sealing strip is a quick and easy operation; just remove the linchpins and replace the pre-punched rubber strip.

Max Belt Speed fpm (m/s)	**Temp Range** F (C)
600 (3.0)	-20° to 250° (-29° to 121°)

Skirtboard Liner

Installed inside conveyor transfer point skirtboards, Martin® Skirtboard Liners absorb impact and abrasion by creating a dam to shield the sealing system from the weight of the material load, prolonging the life of the seal.

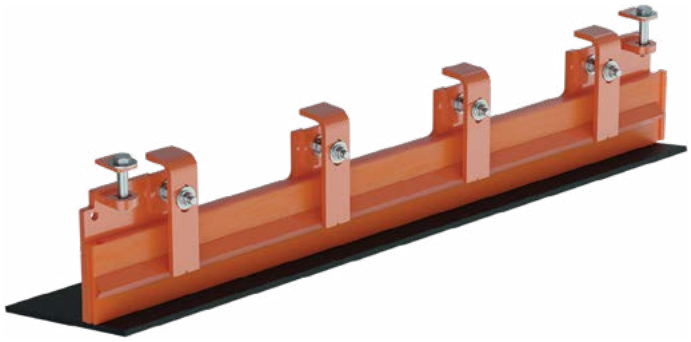
Skirtboard Liners feature a steel plate molded inside the urethane to prevent bond issues. Liners are also stackable to line higher drop chutes. Standard lengths are 48 in. (1219 mm).



Trough Angle	**Height** – in. (mm)	
	1.3 in. (33 mm) thick	2.0 in. (51 mm) thick
20°	6.75 (172)	9.88 (251)
35°	6.75 (172)	10.75 (273)
45°	6.75 (172)	11.50 (292)

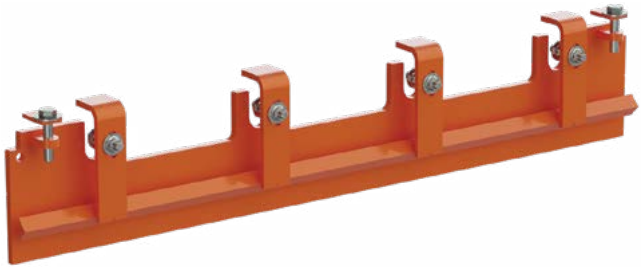
ApronSeal™ Urethane Skirting

Martin® ApronSeal™ Urethane Skirting effectively contains material fines with a single, one-piece sealing strip for 0-, 20-, 35-, and 45-degree troughing angles. Requires minimal service to maintain an effective seal. Suitable for belt speeds up to 600 fpm (3 m/s) and requires only two inches (50 mm) of free belt area.



External Wear Liner

External Wear Liner is installed on the outside of the chute wall, simplifying wear liner inspection and replacement — both without confined-space entry. Improves liner and skirtboard sealing system performance without adding additional conveyor construction cost. The chute wall can be trimmed to avoid material buildup.



Available in a variety of materials and thicknesses. Fits conveyors with trough angles from flat to 35°.

Belt Support

By providing reliable belt support, especially at transfer points, our products effectively minimize damage and extend the lifespan of your equipment. Martin Engineering's belt support solutions absorb the impact of material falling at transfer points, reducing wear on belts and structures. This proactive approach also prevents belt sag and reduces fugitive material and airborne dust, which pose significant health and safety risks.

Martin Engineering's belt support products are versatile, available for various belt widths, and can be customized to meet specific requirements as needed.

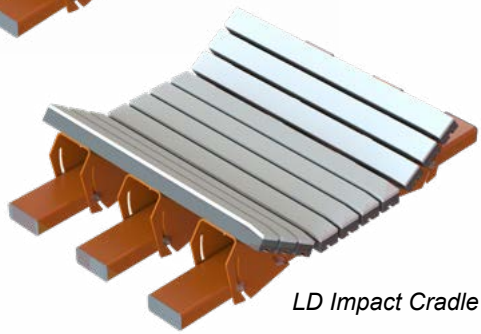
Impact Cradles

Our robust conveyor belt support cradles are engineered to safeguard your conveyor system with unparalleled durability. These cradles ensure stable belt alignment, effectively preventing damage and minimizing airborne dust and material spillage. Ideal for enhancing operational efficiency and safety, our cradles maintain a consistent belt line, reducing maintenance costs and optimizing productivity in industrial environments.

The Martin® MD Impact Cradle and Martin® LD Impact Cradle are dimensionally adapted to metric conveyor systems and can be combined with European Martin® Slider Cradles and Martin® Trac-Mount™ Idlers.

Adjustment options for height (by using shims of different sizes) width (by slotted holes on the bottom side of the cross beams) and troughing angle eliminate the need for customisation for most applications.

MD Impact Cradle



LD Impact Cradle

Belt Width (mm)	**Trough Angles**	**Max Belt Speed** (m/s)	**Temp Range** (C)	**Reversing Operation**
500-1800	10° - 45°	3,3	-30° to 80°	Yes

Trac-Mount™ Impact Cradle

Installed under the belt conveyor loading zone, Martin® Impact Cradles absorb the force of falling material to prevent damage to the belt and structure and to help eliminate spillage.

Each impact bar is reinforced with a bed of steel angles.

The troughing angle can easily be adjusted by replacing the support arm to the respected degree configuration.

Rugged bars are composed of a top layer of low friction UHMW and a lower layer of energy-absorbing rubber.

Simple bar replacement; I-beam type design for durability.

Belt Width (mm)	Trough Angles	Max Belt Speed (m/s)	Temp Range (C)
500-2400	20° - 45°	5,0	-29° to 82°

Impact Cradles HD

Martin® robust conveyor belt support cradles are engineered to safeguard your conveyor system with unparalleled durability. These cradles ensure stable belt alignment, effectively preventing damage and minimizing airborne dust and material spillage. Ideal for enhancing operational efficiency and safety, our cradles maintain a consistent belt line, reducing maintenance costs and optimizing productivity in industrial environments.

Belt Width (mm)	Trough Angles	Max Belt Speed (m/s)	Temp Range (C)	Reversing Operation
1000-2000	0° - 45°	3,8	-30° to 80°	Yes

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Idler Conversion Kit

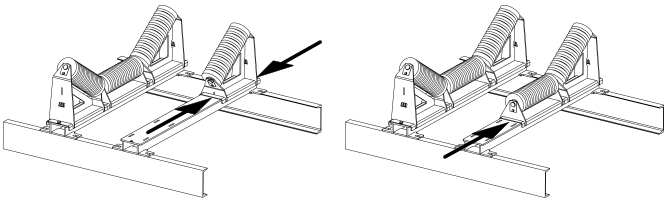
The Martin® Idler Conversion Kit is a simple retrofit that links two or more troughing idler frames, replacing the wing rollers with Martin Slider Bars. It utilizes existing idler frames and center rollers and conforms with idlers from a wide range of manufactures.

Belt Width (mm)	**Max. Service Temperature** (C)	**Installation Location**
up to 2400 mm	60°C	Settling Zone

Trac-Mount™ Idlers

Trac-Mount™ Idlers utilize sliding frames on a stationary base to provide an idler set that will fit in tight spaces between belt support cradles and allow easy installation and service. Available with standard or wide base frames and utilize either impact or steel rolls in CEMA class C, D, or E on belt widths 18-96 inches (450-2400 mm).

Slide-out/slide-in roller frames allows idler service without need to raise belt or remove adjacent idlers.



Return Roller

The Martin® Return Roller is a pivoting track-mounted return idler that allows for safe, quick, and simple one-sided serviceability and roll replacement.

Three-piece hanger frame adjusts to accommodate different belt widths from 24-72 inches (500-2000 mm). Universal bracket fits most major idler manufacturers' idlers and sizes.

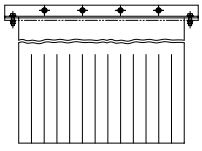
Dust Management

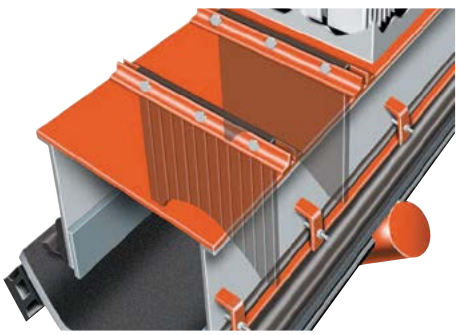
In bulk material handling operations, one of the most significant sources of dust is the belt conveyor transfer point. Dust is generated as bulk material is transferred from one belt to another. When material is in free fall, it is exposed to significant airflow. This airflow, with enough velocity, carries dust until it slows and settles.

The most effective approach to reducing dust at conveyor load zones is to eliminate dust at the source.

Dust Curtain

Installed at the exit of the loading zone, Martin® Dust Curtain Double provides effective sealing to prevent the escape of airborne fines. Mounted in the skirtboard cover, the dust curtains help create a plenum for dust suppression and dust collection. Recommended installation is one curtain without slits closest to loading zone, followed by one curtain with slits at exit of skirtboard. Additional curtains may be installed to reduce air movement and isolate dust suppression or dust collection systems.





Dust Bag

A Dust Bag is a passive dust collection system installed above the loading zone to capture dust without an energy-consuming fan. When loading stops, the bag relaxes to return material to the belt. Satin nylon construction withstands positive pressure. Both standard and static-dissipating options are available.

Bag Size in. (mm)	**Airflow** cfm (l/minute)
12 (300)	Up to 450 (12,750)
24 (600)	Greater than 450 (12,750)

Safety Accessories

Martin Engineering's area guards and roll baskets provide effective engineering controls to achieve regulatory compliance and help keep workers safe from pinch points and overhead hazards around belt conveyor systems.

Martin Engineering's broad range of inspection doors, available in a wide selection of sizes and with options to match application requirements, provide inspection and access points where needed while also effectively and safely sealing and containing airborne dust.

Inspection Doors

The Martin® Inspection Door is dust-tight and allows inspection and access in chutes and other enclosures for belt cleaner maintenance or other service requirements.

The sturdy, low-profile design features a dust-tight rubber seal and can withstand typical positive and negative pressure applications. Simple installation allows doors to either be bolted or welded to the enclosure wall. Doors are also available with an internal guard screen to restrict access and prevent workers from breaking the plane.

Doors available in painted steel, 304 or 316 stainless steel, or rubber. Optional features such as lockable latches, AR500 internal wear liners, and high-temperature seals are also available.

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Conveyor Guard

Martin Engineering's mesh panel guards conform to OSHA and MSHA standards and prevent worker exposure to conveyor nip points and pinch point hazards.

Laser cut panels don't present the opportunity for broken welds or sharp edges commonly seen with expanded metal guards while rugged steel provides greater strength, durability, and reliability than lighter-weight metals and plastic. Guards are also available in 304 stainless steel.

Single or double wedge clamps allow panels to be removed and reinstalled quickly and the modular design installs on supplied angle iron structure without attaching to conveyor equipment. Wedge bolts are also available.

Guards are available in several sizes and colors and can be used in a variety of combinations to fit almost any application. Systems can be easily expanded or relocated as needed.

Return Roller Guard

The Martin® Return Roller Guard features quick release pins which allow access to the grease fittings within the return roller without the need to remove the guard.

Lightweight metal construction bolts directly to either the side or bottom of the stringer for easy installation with no additional bolts required for assembly. Fits all major roll manufacturers' sizes.

Riveted pins are accessible from both sides and bottom and allow the guard to open quickly and safely for maintenance. Removable end plates provide access to roller bearings.

Return Roller Basket

The Martin® Return Roller Basket is designed to prevent a return roller from falling in case of mechanical failure. Solid steel construction covers all major return roller manufacturers.

Brackets are included to mount basket directly to either the side or bottom of the stringer and quick-release pins allow easy access.

Open design prevents material buildup in basket while allowing inspection. Baskets are designed to fit all major roll manufacturers' sizes (CEMA B, C, D, & E).

Urethane Chute Patch

The Urethane Chute Patch is a quick and easy way to repair a hole worn into a chute to prevent material from leaking until a permanent repair can be made. This patch can also be used inside the chute to prevent wear. High-strength embedded magnets securely hold the patch in place, eliminating the need for welding and can easily be removed or repositioned if necessary.

Available in 6x6-inch and 12x12-inch sizes.

Air Cannons

Martin Engineering's air cannons apply precisely timed bursts of compressed air to prevent material buildup on interior container walls and obstructions at discharge ports.

Ensuring proper material flow and mitigating buildup avoids unplanned downtime, lost production, and the time and hazards involved with manual cleaning while helping maximize designed production capacity.

Typhoon Air Cannon

The Typhoon Air Cannon features a hybrid valve concept that provides more force, uses less air, and simplifies maintenance in challenging applications with limited budgets.

Highly effective discharge strength from high velocity output requires half the air volume of standard air cannons, reducing operating costs.

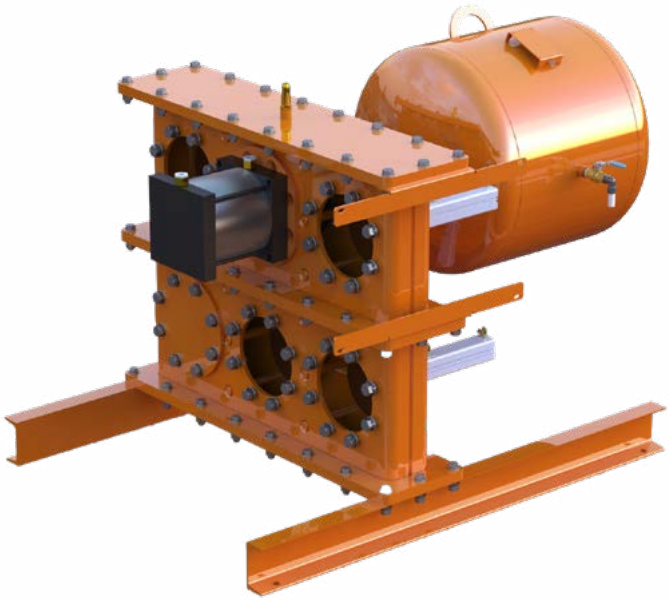
The complete valve assembly can be removed in one easy step, working from one side of the tank. It can be replaced within minutes to keep your process running. There is no need to ever remove the tank from the vessel for service.

Negative pressure firing provides effective performance in challenging applications with limited budgets. Upgrades existing older technology air cannons using normally-open solenoids without the need for replumbing the system.

Available with 35, 70, and 150L tanks.

MultiPort

The Martin® MultiPort Air Cannon uses a single air reservoir with control unit to replace up to eight traditional (tank-and-valve) air cannons. With one air tank discharging through stainless steel hoses into up to eight discharge ports in the vessel wall, the MultiPort Air Cannon improves process efficiency while it simplifies installation and maintenance chores.



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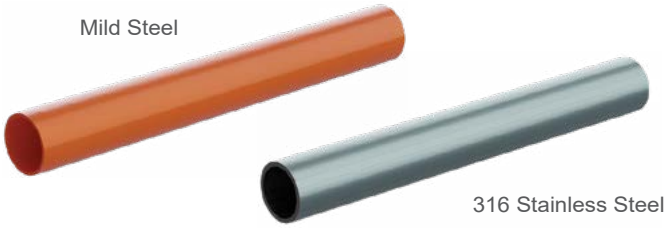
Blow Pipes

This simple pipe solution can be installed at 90 degrees or any custom angle to suit your needs. It comes in mild steel for ambient applications and stainless steel for high-temperature environments. Reliable, versatile, and designed to meet various industrial requirements.



SMART™ Series Nozzles

The innovative design of SMART™ Series Nozzles eliminates damage to refractory and makes it possible to maintain nozzles without removing air cannons.

Eliminates the time and cost of cutting holes and breaking refractory to replace worn out nozzles.

Replacement is quick and easy; no entry required into the tower or cooler and no need to remove the air cannon tank.

Eliminates improper alignment and provides a wider area of influence than a standard fan nozzle.

Available in straight or “Y” pipe arrangement.

Y pipe


Straight Nozzle


360° Jet Nozzle


180° Jet Nozzle


90° Jet Nozzle


45° Jet Nozzle

SMART™ Series Retractable Nozzle 360°

The SMART™ Series Retractable Nozzle 360° extends service life in preheater towers and high-temperature/high-dust applications by pulling the discharge inside the vessel.

The nozzle extends to fire then retracts to protect the exposed tip from extreme heat. Provides 360° of effective cleaning area, making cleaning the center of the wall possible.

The 360° nozzle weldment is serviceable from the outside of the riser duct, so nozzle assembly replacements don’t have to wait until the next scheduled outage.

Works with standard air cannons and is controlled by a single solenoid.

Thermo Safety Shield

The Thermo Safety Shield is a slide gate that bolts between an air cannon valve and mounting flange, acting as a safety barrier to allow timely and safe maintenance of air cannon systems. It protects employees from exposure to severe heat, gases, and high temperature material so that maintenance takes place safely and production stays on schedule. The sliding shield operates under tough conditions, yet can be locked out to prevent intrusion.

Available for any air cannon with 4-inch discharge.

Nozzles

This product is perfect for cleaning flat surfaces on ductwork, chutes, rock boxes, precipitators, and SCRs. It is versatile and can be used wherever material needs to be reintroduced into the process. The design ensures efficient cleaning and material flow. Ideal for maintaining operational efficiency in various industrial settings.

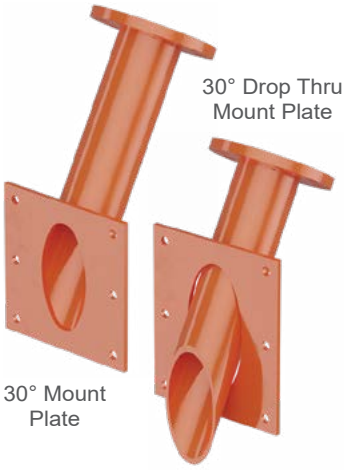
Air Cannon Controller

Energizes solenoid valves to control the automatic sequencing and discharge for a system of up to ten Martin® Air Cannons.

Firing schedule adjustable from one second to 999,9 hours. Remote dry contact allows timer to be actuated by motor control, flow switch, or manual switch. Available as single circuit and multiple circuit units.

Mount Plates

This product is ideal for use on bins, hoppers, and silos. Its 30-degree angle efficiently directs flow toward the outlet of standard vessels. The drop-through version is specifically designed to penetrate liners such as stainless steel or wear plates. This ensures smooth material flow and prevents blockages.



Services and Training

At Martin Engineering, we offer a variety of services and training to enhance the efficiency, safety, and lifespan of your bulk material handling systems. From conveyor inspections and maintenance programmes like Walk the Belt™ to addressing issues such as dust control and belt tracking, our goal is to optimize your operations. We also provide comprehensive training—whether on-site or online—to equip your team with the knowledge they need for maintaining equipment and following best practices.

Walk The Belt™

This programme offers free, customized conveyor system inspections to identify and address issues like carryback, mistracking, and dust. These inspections are conducted by highly-trained technicians, who then provide a detailed report with recommendations to improve performance and extend equipment life. This proactive maintenance approach reduces unscheduled downtime and enhances safety, allowing plant managers to focus on core operations.

Foundations™ Book

The authoritative resource for efficient bulk materials handling covering conveyors with a comprehensive, real-world approach. It provides valuable information to all industries and personnel at all levels.

Foundations™ Training

Martin Engineering's Foundations™ training programme was conceived as a way to package our accumulated knowledge and deliver it in an impactful, engaging way. Classes are based on our two highly-regarded books, *Foundations*™ and *Foundations*™ *for Conveyor Safety*. The programme addresses many key topics to improve safety and productivity.

Conveyor Safety Book

The Global Best Practices Resource for Safer Bulk Material Handling. The Foundations™ for Conveyor Safety book is the world's first collection of worldwide best practices.

N2® Position Indicator

N2® Gateway

The intuitive N2® Position Indicator allows for remote monitoring of the belt cleaner blade via Martin's proprietary mobile app and desktop dashboard, indicating remaining blade life, notifying when re-tensioning or replacement is required, and warning in the event that the blade is no longer in contact with the belt.

The N2® Position Indicator is capable of collecting data and providing insights for any belt cleaner utilizing a Martin® blade.

Insights gained from remote monitoring makes maintenance more efficient, takes the guesswork out of replacement blade ordering and inventorying, and reduces worker exposure to belt conveyor hazards.

The N2® Gateway receives information from up to 200 N2® Position Indicators and transmits information to the cloud for monitoring via the Martin® Smart Device Manager mobile application.

HD model

XHD model

HD model installed on a QC1+ Cleaner

Resources

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