martin®

PRODUCT CATALOGUE

A global company. Since 1944.

MARTIN ENGINEERING

Established in 1944, Martin Engineering is the leading international developer, manufacturer and supplier of innovations to make the handling of bulk materials cleaner, safer and more productive. Martin offers technologies that boost flow, reduce dust and spillage, extend component life and reduce downtime, resulting in improved operating environments and increased profitability.

INDUSTRY EXPERTS

Our Global Team of experts from every part of the world, work together to manufacture high quality products that have earned the right to become part of the Martin® family of products.

Our product engineers and development teams work side by side with our sales and service leaders to share innovative ideas within our corporate community around the globe to help facilitate the development of new products. Our Foundations and Certified Conveyor Technician training programs are industry-leading, comprehensive programs offered no where else.

GLOBAL LEADERS

Martin Engineering is headquartered in Neponset, IL. To reach our markets around the world, we have established a network of subsidiaries, licensees and representatives across the globe. Martin business locations include Mexico, Brazil, China, France, Germany, United Kingdom, South Africa, Turkey, Indonesia, Italy, Russia and India. Martin employs over 900 people worldwide.

OUR MISSION

To make our customer's bulk material handling cleaner, safer and more productive.

OUR VISION

To be a global team working in an environment of continuous improvement that inspires customer loyalty.

OUR CORE VALUES

- Respect
- Trust
- Integrity

OUR VALUES

"The Center for Innovation represents a major commitment to the industries we serve."

– Martin Chairman Edwin H. Peterson

To continue a proud legacy of innovation, Martin opened the Center for Bulk Materials Handling Innovation. CFI is the company's home for worldwide research and new product development.

CFI's building represent Martin's investment in innovation, here we not only produce products for today, we are looking at technologies and trends for the future. In this way, we hope to be able to pro-actively offer our customers, what they require.

According to Martin Chairman Edwin H. Peterson, "The Center for Innovation represents a major commitment to the industries we serve. Our research partners will benefit from a better understanding of the characteristics of the bulk materials they use and how they should be handled. This will lead to new technologies that make materials handling cleaner, safer and more productive."

The purpose of CFI is to facilitate the global development of products designed to improve the existing product portfolio, while combining innovative ideas with technological expertise to provide creative and insightful solutions to customer problems.

AREAS OF BUSINESS

CONVEYOR PRODUCTS

- Belt Cleaners
- V-Plows / Diagonal Plows
- Transfer Point Solutions
- Dust Management
- Conveyor Safety Solutions

FLOW AIDS

- Air Cannons
- SMART™ Series Nozzles
- Sonic Horns

VIBRATION SOLUTIONS

- Electric
- Pneumatic

SERVICES & TRAINING

- Installation Programmes
- Annual Maintenance Contracts
- Conveyor Audits
- Foundations™ Training

TOTAL SOLUTION

IS PERSONALIZED TO MATCH *YOUR* CONVEYOR, *YOUR* MATERIAL AND *YOUR* PROCESS REQUIREMENTS.

Martin can provide the assistance you require to determine the best course for your operation. Through a detailed review of your operation we can analyze system problems and performance. Our proposals match your requirements, your wishes and your budget.

Martin Engineering offers comprehensive assistance in determining how best to improve your bulk materials handling. From “outside-of-the-box” components that retrofit and upgrade existing systems, to innovative technologies custom-engineered to match your requirements, Martin has the full spectrum of answers to improve conveyor performance.

MARTIN® DUST COLLECTION SYSTEM

Air filtration—the passing of dust-carrying air through some form of filtration or separation system—is the final piece in the dust- management system.

There are both active and passive dust collection systems.

(1a) Active: Martin® Air Cleaner Filters dust-bearing air at transfer point without the ductwork or large fans of centrla “baghouse” systems

(1b) Passive: Martin® Dust Bag, A Passive filtration System Controls dust without power; self cleans by collapsing when air flow stops

PROVIDE AN EFFECTIVE, LOW- MAINTENANCE SEALING SYSTEM

(2a) Install multiple-barrier Martin® ApronSeal™ Skirting systems to keep cargo away from the belt edge and keep stray particles on the conveyor.

(2b) Use Martin® Self-Adjusting Skirting HD to provide an effective seal without maintenance.

PROTECT THE SEALING SYSTEM

(3) Shield sealing strips from the pressure of the load with Martin® Wear Liner or EVO® External Wear Liner.

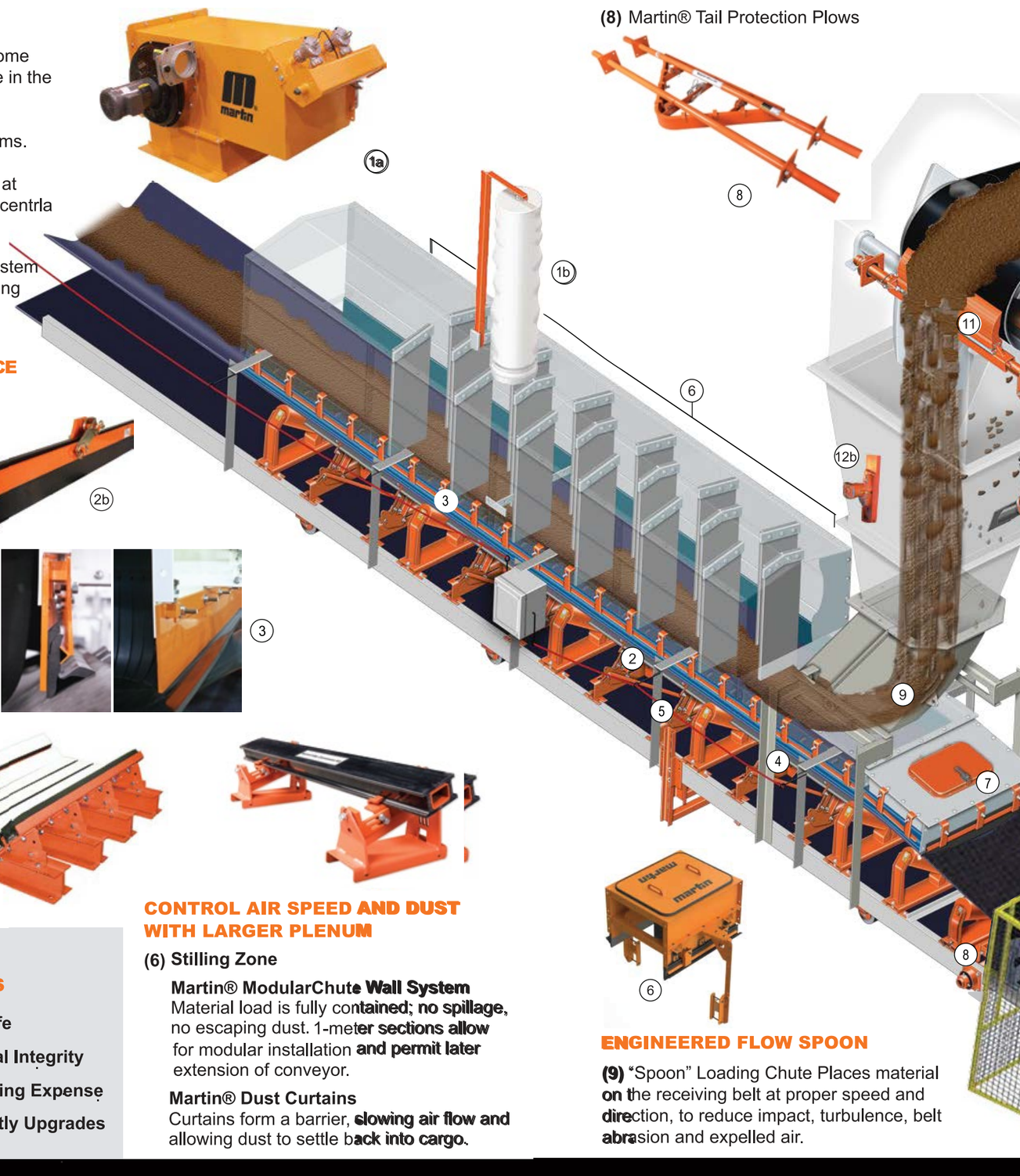
CONTROL SPILLAGE

(4) Absorb impact with Martin® Impact Cradles.

(5) Stabilize belt path with Martin® Idler conversion kit.

IMPROVING YOUR OPERATION WITH MARTIN® BELT CONVEYING TECHNOLOGIES

Achieve Regulatory Standards	Preserve Belt Life
Prevent Airborne Dust	Preserve Material Integrity
Prevent Spillage	Minimize Operating Expense
Reduce Maintenance	May Cancel Costly Upgrades



CONTROL AIR SPEED AND DUST WITH LARGER PLENUM

(6) Stilling Zone

Martin® ModularChute Wall System
Material load is fully contained; no spillage, no escaping dust. 1-meter sections allow for modular installation and permit later extension of conveyor.

Martin® Dust Curtains
Curtains form a barrier, slowing air flow and allowing dust to settle back into cargo.

IMPROVE SEALING AT ENTRY

(7) Prevent material rollback with Martin® Tail Sealing Box.

(8) Martin® Tail Protection Plows

ENGINEERED FLOW SPOON

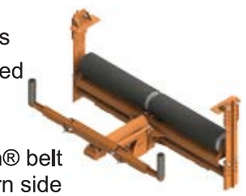
(9) “Spoon” Loading Chute Places material on the receiving belt at proper speed and direction, to reduce impact, turbulence, belt abrasion and expelled air.

CONTROL BELT SWAY

(10) Martin® Belt Tracking Systems

Belt Tracking must be controlled before the spillage can be eliminated

Control belt sway using Martin® belt trackers for carrying and return side



PREVENT CARRYBACK

(11) Martin® Belt Cleaners Martin belt cleaner blades come in a large array of shapes, sizes and materials to most effectively remove any type of material carryback while protecting the belt and its splices.

PREVENT BUILDUPS IMPROVE MATERIAL FLOW

(12a) Martin® Air Cannons Supply a quiet but powerful eruption of compressed air that dislogdes buildups and enhances the flow of bulk materials

(12b) 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.

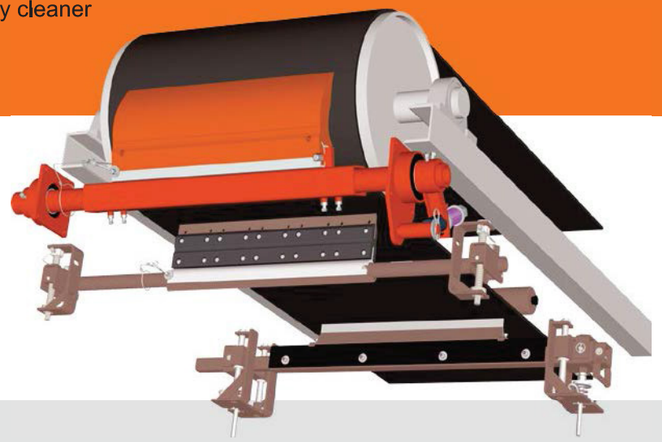
IMPROVE SAFETY

(13) Martin® Guarding

In order to better protect personnel from coming in contact with moving conveyor components, the trend is to install barrier guards

PRIMARY BELT CLEANERS

As the first stage in a multiple cleaner system, the primary cleaner removes the majority of material adhered to the belt, leaving only a thin layer of sticky fines.



Primary cleaners are generally tensioned at low pressure— roughly 2 psi (13.8 kPa)—against the belt. Low blade-to-belt pressure allows the primary cleaner to be positioned at a peeling angle against the belt. The use of higher pressure at this angle would endanger the belt, splice or cleaner itself.

Primary cleaners are typically installed on the face of the head pulley, just below the material trajectory.

MARTIN® PV CLEANER

The Martin PV Cleaner uses a one-piece urethane blade for effective belt cleaning on aggregate industry conveyor.

- One-piece blade contains approximately 20 percent more urethane than comparable primary cleaners, extending service life.
- Uses an aggressive angle of attack to the belt to increase cleaning efficiency.
- Allows “one-pin, no-tool” blade replacement. drop the sturdy blade into place on the reinforced steel mainframe and secure it with a wire lock pin.
- Economical assembly including main frame, urethane blade and tensioner.
- Engineered tensioner to ensure optimum blade life

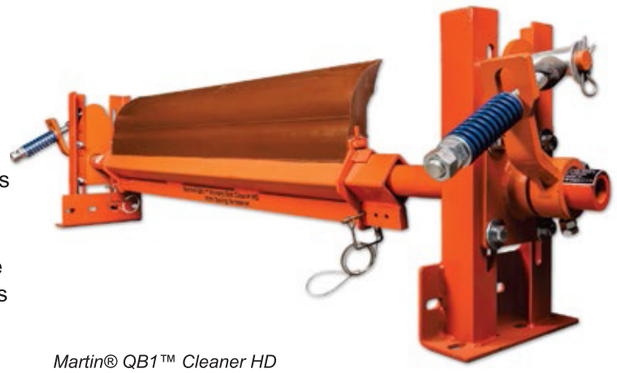
Martin® PV Cleaner with CARP Blade and Martin® Spring Tensioner

CEMA 576 Class 3

MARTIN® QB1™ CLEANER HD

The Martin QB1™ Cleaner HD is a patented 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.

- Manufactured with Martin's unique Constant Angle Radial Pressure (CARP) technology, its curved blade simply cleans the belt better, minimizing carryback.
- Martin re-engineered the manufacturing process, streamlining it to be faster and more efficient, which means your cost to purchase is lower.
- The overall cost of maintenance is much less because the blades last longer and blade replacement requires no tools and can be completed by one person in just minutes without tools.



Martin® QB1™ Cleaner HD

CEMA 576 Class 4

MARTIN QC1™ CLEANER XHD

The **Martin QC1 ™ Cleaner XHD** tackles the tough jobs. Designed for rugged conditions, this sturdy cleaner features a one-pin blade change.

- Engineered to preserve the cleaning edge from high belts speeds and multiple splices.
- Utilizes engineered tensioner to ensure optimum blade life.

Martin® QC1™ Cleaner XHD

CEMA 576 Class 5

MARTIN® QC1™ PRE-CLEANER WITH METAL TIPPED BLADE

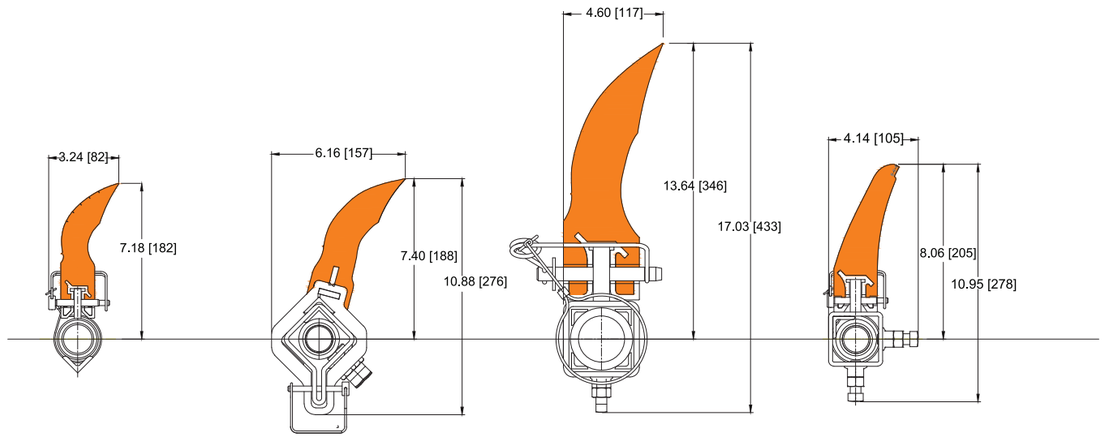
The Martin® QC1™ Pre-Cleaner with Metal Tipped Blade provides maximum durability and performance across a wide range of duties and applications. This sturdy cleaner, qualifies CEMA class 4, features a tungsten carbide tip blade that lasts 2 to 3 times longer than conventional urethane blades

- The Martin® QC1™ Pre-Cleaner with Metal Tipped Blade combines effective removal of carryback with “quick-change” one-pin replacement of a long lasting blade.
- An aluminium extrusion in the belt cleaner blade base holds the cleaner snugly to the Mainframe.
- Moulded PU provides cushioning to tungsten tipped Metal blades.
- Suitable for max belt speed up to 2.5m/s and should NOT be used on belts with mechanical fasteners and clips
- Engineered tensioner to ensure optimum blade life.

Martin® QC1™ Pre-cleaner With Metal Tipped Blade

CEMA Class 4

MARTIN® HIGH PERFORMANCE URETHANE BLADE PROFILES



PV Cleaner | *QB1™ Cleaner HD* | *QC1™ Cleaner XHD* | *QC1™ Metal Tipped*

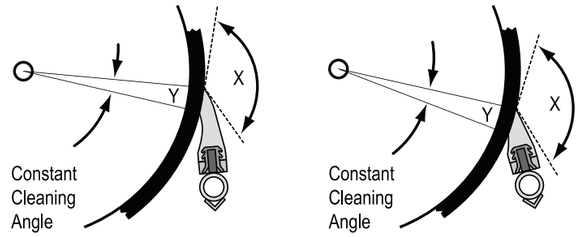
HIGH-PERFORMANCE URETHANE

Martin Engineering is the leader in the development of high-performance urethanes for specialized belt cleaner/belt scraper applications. These color-coded urethane blades can be supplied for any Martin® primary cleaner, as well as any primary cleaner supplied by another manufacturer.

Martin belt cleaner blades come in a large array of shapes, sizes and materials to most effectively remove any type of material carryback protecting the belt and its splices. Both metal and non-metal blades are available, including urethane, rubber, ceramic, mild and stainless steels and tungsten carbide.

Martin® CARP Blade Design

Patented Constant-Angle/Constant-Area Radial Pressure blade design. It maintains uniform contact area throughout the life of the blade. This allows the tensioner to maintain proper tension ensuring maximum cleaning efficiency throughout blade life.



Martin® CARP Blades are protected by U.S. Patent No. 4,917,231.

URETHANE SELECTION GUIDE

Suffix	Color	Durometer (Shore A)	Application Conditions
None	Orange	83	**Standard Martin® Urethane** Extended life in abrasive conditions. Best choice for exposure to solvents or oil. Suitable for 80% or more of all applications. Suitable for temperatures from -20° to 160°F (-30° to 70°C).
BR	Brown	86	**Chemical-Resistant Urethane** Improved resistance/reduced absorption of water and chemicals. Best choice for applications exposed to chemicals with pH as high as 11 and as low as 4. Suitable for temperatures from -40° to 160°F (-40° to 70°C).
GR	Green	83	**High-Temperature Urethane** For use in temperatures from -40° to 300°F (-40° to 150°C) continuous, or to 350°F (177°C) intermittent exposure.
CL	Clear	87	**Tan Urethane** For use on dry products, sand and gravel. Suitable for temperatures from -20° to 160°F (-30° to 70°C).
NB	Navy Blue	91	**Navy Blue Urethane** For use in pulp and paper applications and sticky or tacky products. Suitable for temperatures from -20° to 160°F (-30° to 70°C).
CY	Yellow	50	**Yellow Urethane with Ceramic Beads** For use in high wear applications. Features 1/16 in. diameter ceramic beads bonded to the urethane in the wear area. Suitable for temperatures from -20° to 160°F (-30° to 70°C).

SECONDARY BELT CLEANERS

Installed at the point where the belt is leaving the discharge pulley, secondary cleaners remove residual fines that remain on the belt past the primary cleaner. Its location is typically close enough to the materia trajectory that the cleanings will return to the main material stream. ,

MARTIN® SQC2S MINI CLEANER

- Patented rubber buffers maintain cleaning pressure while deflecting to allow splices to pass.
- Compact secondary belt cleaner design allows installation in close quarters; narrow profile resists material buildup.
- Rubber buffers allow for reversal of belt direction without damage to belt.

Martin® SQC2S Mini Cleaner

CEMA 576 Class 3

MARTIN® DT2 STANDARD DUTY CLEANER

- Slide-in/slide-out blade cartridge allows quick and easy blade service that minimizes conveyor downtime. Even when the cleaner is encrusted with material, one-half of the split frame can be removed to allow blade change.
- Lean profile minimizes space requirements, allows installation in narrow spaces.
- Blades are made up of moulded rubber with TC tipped steel backing plate

Martin® DT2 Standard Duty Cleaner

CEMA 576 Class 4

MARTIN® DT2 HEAVY DUTY SECONDARY CLEANER

Installed on a track that slides into cleaning position on a rugged steel mandrel. This unique design makes for a quick and easy service procedure that reduces conveyor downtime and improves productivity.

- Slide-in/slide-out blade cartridge allows quick and easy blade service that minimizes conveyor downtime. Even when the cleaner is encrusted with material, one-half of the split frame can be removed to allow blade change.
- Blades are made of moulded PU with TC tipped steel backing plate.
- **Automatic Tensioner** provided for more efficient cleaning and easy maintenance.

Martin® DT2 Heavy Duty Secondary Cleaner

CEMA 576 Class 5

CONVEYORS PRODUCTS

CLEANSCRAPE® BELT CLEANERS

The CleanScrape® Cleaner is an innovative, durable metal-tipped belt cleaner that provides maximum cleaning efficiency without compromising your belt.

MARTIN® CLEANSCRAPE CLEANER

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

CleanScrape is installed diagonally across the discharge pulley and forms a three dimensional curve.The cleaner incorporates a matrix of tungsten carbide scrapers and is tensioned against the belt. Despite an extremely low contact pressure between belt and cleaner, 85% to 95% of stuck material is removed.

Martin® CleanScrape Cleaner

SPECIFICATIONS

Cleaner Type	Pulley Diameter in. (mm)		Belt Width in. (mm)	Maximum Belt Speed fpm (m/sec)	
	Min.	Max.		Vulcanized Splice	Mechanical Splice
CSP-S	12 (300)	20 (508)	18–48 (457–1219)	1100 (6)	800 (4)
CSP-M	22 (550)	34 (864)	18–72 (457–1829)	1500 (8)	800 (4)
CSP-L	36 (900)	50 (1270)	36–96 (914–2438)	1500 (8)	800 (4)

BENEFITS

CleanScrape offers a broad range of advantages over traditional belt cleaning systems and provides a clear return on investment for any operation.

- Optimum cleaning results
- Simple installation • Suitable for use with reversing belts
- Lowest required space for installation
- Low wear to the belt
- Suitable for use with all types of mechanical splices
- Suitable for use in explosive atmospheres

CONVEYORS PRODUCTS

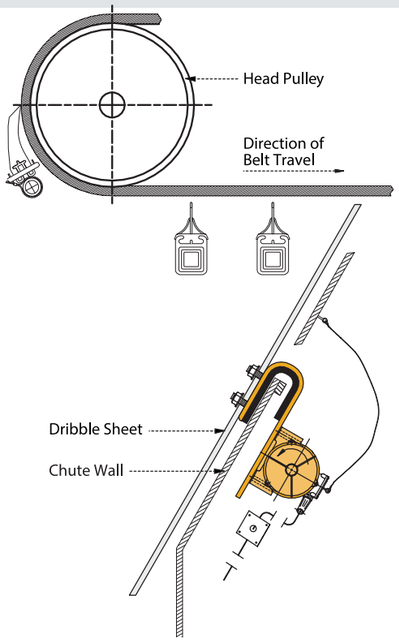
BELT CLEANER ACCESSORIES

Because conveyors are complex systems of multiple moving parts, Martin Engineering ɒ fers all the accessories you need to keep your belt cleaner systems performing at the highest possible level.

MARTIN®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.

- Keep material accumulations from clogging chute and burying cleaners
- Low-friction plastic lining promotes material flow without accumulation
- Rubber-lined bracket transfers vibration to liner without metal fatigue
- Electric vibrator provides durable performance



CONVEYOR PRODUCTS

SPECIALITY BELT CLEANERS

MARTIN® WASHBOX™ 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. Washbox™ gently spray-applies water for superior belt cleaning.

- The Martin® Washbox™ Conveyor Belt Cleaning System consists of a powder-coated steel enclosure equipped with 3 rollers, 4 spray bars, 4 inspection doors and 2 secondary cleaners.
- Rather than "blast" material from the belt, the water softens the carryback.
- Martin Engineering recommends the installation of a pre cleaner on the face of the head pulley.

Martin® Washbox™ Cleaning System

TAIL PULLEY PROTECTION

As a conveyor belt returns from the head pulley to the loading zone, it passes around the tail pulley. Occasionally, the inner side of the returning belt will carry fugitive material into the tail pulley and cause permanent damage. To guard against this possibility, tail pulley protection plows should be installed.

MARTIN® VPLOW HD

The Martin® VPlow HD is an economical solution for tail protection in medium- to heavy-duty applications. The sturdy PU blades with 90 Shore A hardness provides a 2-in. (50-mm) wear life at service temperatures to 121°C and belt speeds up to 4.6 m/sec.Mounting hardware included.

- V plows are only Applicable for uni-direction belts.
- Gravity Loaded to ensure constant contact of Blade with belt to prevent material entrapment.

Alternatively we also supply V plow with Rubber blades

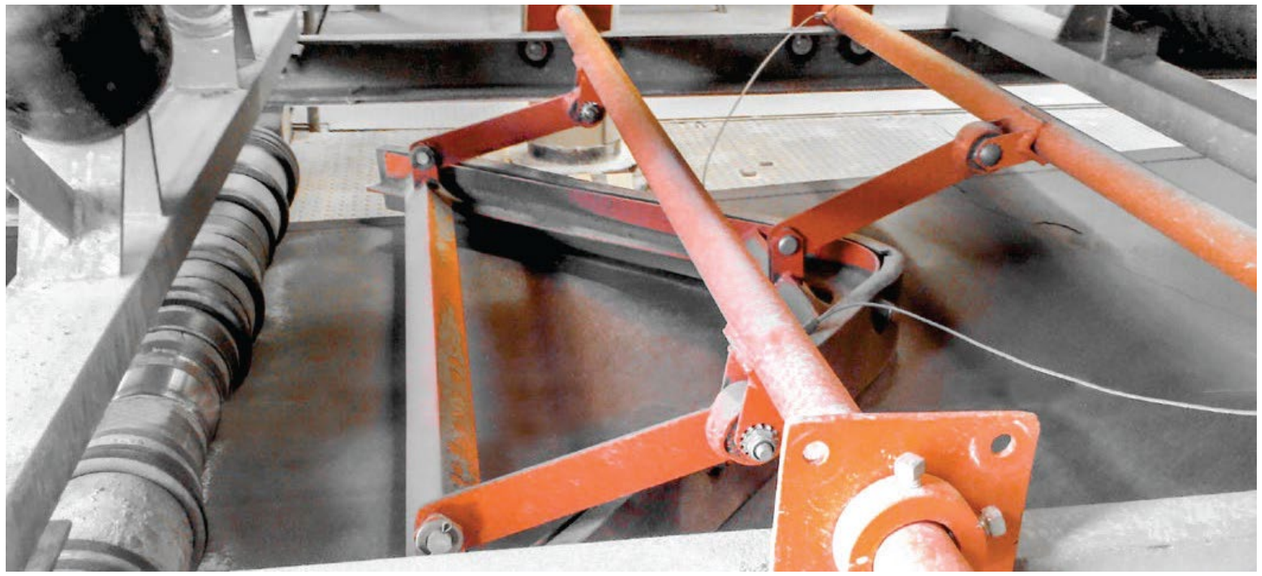
Martin® VPlow HD

MARTIN® DIAGONAL PLOW

For tail protection on reversing belts, specify the Martin® Diagonal Plow. Hung from brackets on both sides of the conveyor, the Martin® Diagonal Plow floats on the belt remove material without needing adjustment. Surface to The sturdy PU blades with 90 Shore A hardness provides 1.5-in. (38-mm) of wear in service temperatures to 121°C and belt speeds up to 4.6 m/sec.

Martin® Diagonal Plow

Mounting hardware included. **Alternatively we also supply D plow with Rubber blades**



BELT SEALING

The goal of any sealing system is to keep dust and fines from escaping. No sealing system can withstand prolonged pressure from the material load. An effective sealing system incorporates multiple components to not only prevent spillage, but also protect the system from material-load forces.

MARTIN® APRONSEAL™ SKIRTING HD

- 70 Shore D durometer rubber composite offers good chemical resistance and low-abrasion index characteristics.
- Available in continuous lengths up to 6 m.
- Applicable on 0°, 20°, 35°, and 45° Troughing Angles.

MARTIN® ApronSeal™ Double Skirting

The Martin® ApronSeal™ Double Skirting is a primary and secondary sealing strip in a dual-sided single elastomer. The self-adjusting secondary seal utilizes Martin's patented CARP technology to provide a more effective dust seal.

- Provides effective sealing for max belt speed upto 3.81m/s.
- Offers double life - can be flipped over and used.

MARTIN® SELF ADJUSTING SKIRTING

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.

- "Self-Adjusts" to Maintain Effective Barrier.
- Installs Easily in Tight Clearances.
- Simple "No-Tool" Rubber Replacement.
- Prevents Regulatory Problems from Spillage.
- Minimizes Cleanup Labor and Expense.
- Preserves Conveyor Components from Fugitive Material.
- Keeps Cargo on Belt to Improve Conveyor Efficiency.

Martin® Self Adjusting Skirting

EVO® EXTERNAL WEAR LINER

EVO® 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.

- Improves Sealing
- Simple Installation
- Easy Adjustment
- Suits Cargo and Conditions
- Improves Maintenance

EVO® External Wear Liner

Supply for high-temperature applications is also available upon request.

BELT SUPPORT

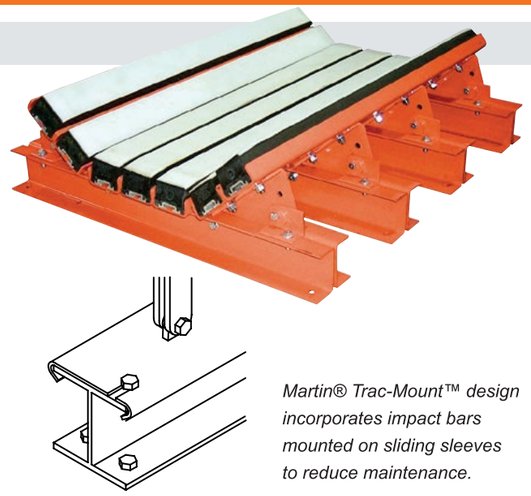
Like the construction of a building, the construction of an efficient conveyor system begins with a solid foundation. In a building it's the basement and in a conveyor system it's the belt line.

A stable belt will absorb loading-zone impact, eliminate sag and prevent material entrapment. For an effective, minimum-spillage transfer point, the belt's line of travel must be stabilized with proper belt support in the load zone.

MARTIN® IMPACT CRADLES

Installed under a belt conveyor loading zone, the Martin® Impact Cradles absorb the force of falling material to prevent damage to the belt and structure. The impact cradles stabilize the belt line to prevent material escape.

- Rugged, durable bars are composed of a top layer of low friction UHMW and a lower layer of energy-absorbing foam rubber.
- Each impact bar is reinforced with a bed of steel channels.
- Wings adjust to match any standard trough angle for easy installation.

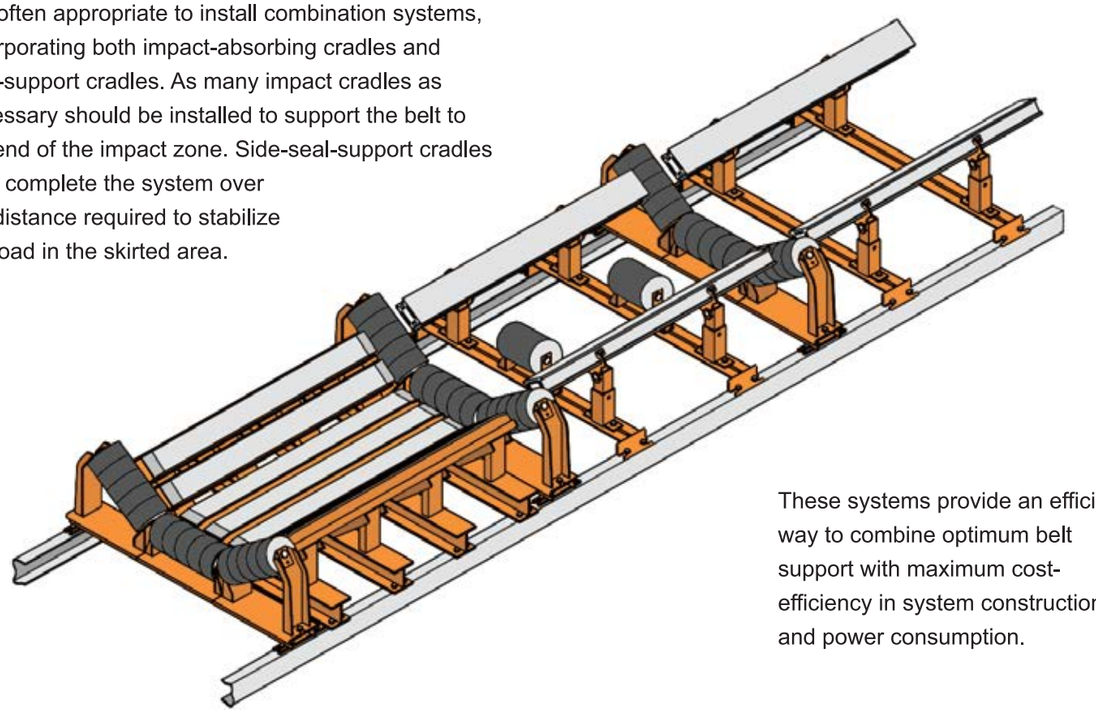


Martin® Trac-Mount™ design incorporates impact bars mounted on sliding sleeves to reduce maintenance.

CEMA 575 LIGHT / MEDIUM / HEAVY

MULTIPLE-CRADLE SYSTEMS

It is often appropriate to install combination systems, incorporating both impact-absorbing cradles and seal-support cradles. As many impact cradles as necessary should be installed to support the belt to the end of the impact zone. Side-seal-support cradles then complete the system over the distance required to stabilize the load in the skirted area.

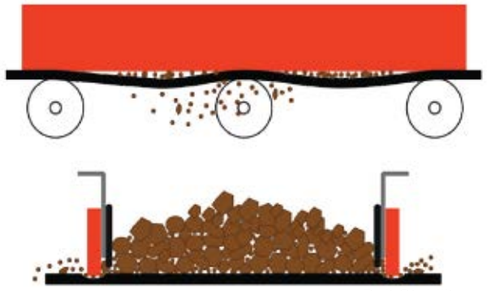


These systems provide an efficient way to combine optimum belt support with maximum cost-efficiency in system construction and power consumption.

BELT STABILITY

A flat, sag-free belt line in the skirted area is essential to successfully sealing the load zone. Ideally, the belting should be kept flat, as if it were running over a table that prevented movement in any direction except in the direction the cargo needed to travel; it would eliminate sag and be easier to seal.

If the belt sags between idlers below the loading zone or flexes under the stress of loading, fines and lumps will work their way out the sides of the conveyor, dropping onto the floor as spillage or becoming airborne as a cloud of dust.



Belt Stability

MARTIN® 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 manufacturers.

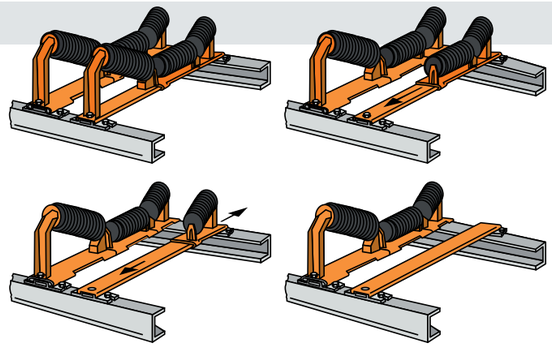
- Provides Stable belt support without belt sag, there's no risk of material becoming wedged in pinch points to gouge belt.
- Avoids belt sag and spillage. Sealing systems are more effective on stable belt line.
- Rugged bars are composed of low friction UHMW.
- Replace wing rollers easily; kit conforms to a wide range of idler manufacturers.

Martin® Idler Conversion Kit

- Dual Life bars; simply flip the bar when one surface wears.
- Retrofit kit uses existing idler frames and center rollers for an economical improvement of your conveyor.
- Protected by U.S. Patent No. 4,898,272.

MARTIN® TRAC-MOUNT™ IDLERS

Martin® 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 allows easy installation and service. Slide-out/slidein roller frames allow idler service without the need to raise the belt or remove adjacent idlers. Trac- Mount™ Idlers provides proper belt carriage while they stabilize the belt line to improve sealing.

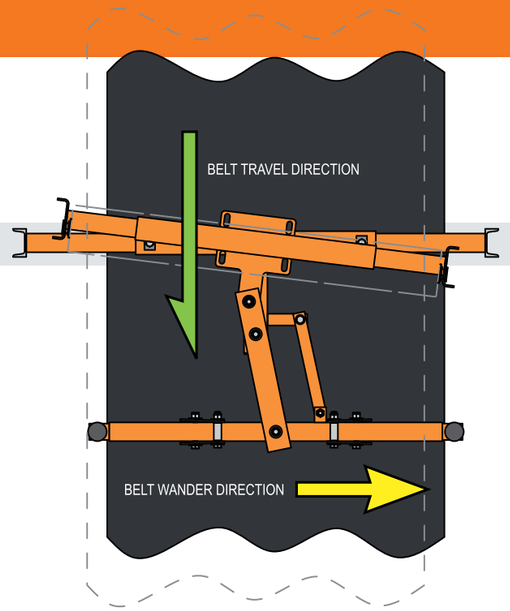


Rollers complying to CEMA standards are available on request

BELT ALIGNMENT

Before spillage can be eliminated, belt tracking must be corrected. Keeping a belt running in alignment also reduces belt edge damage and maintenance expenses. With proper belt training devices, mistracking can be controlled, or even eliminated.

Martin trackers basically fall under **Multi-Pivot Belt Trainers** category that uses the force of the wandering belt to position a steering idler and to correct the path. This device uses a multiple (three)-pivot, torque-multiplying system to supply a mechanical advantage to improve belt-path correction.



(Optional rollers not shown)

MARTIN® TRACKER

The Martin® Tracker™ provides immediate, continuous precision adjustment of wandering conveyor belts. The Martin® Tracker™ Belt Tracking System works where other belt training devices fail to reduce edge damage, prevent spillage, and extend belt life. Available in Lower Units for the conveyor's return side and Upper Units for installation on the carrying side of the conveyor.

- Keeps the belt in alignment with automatic, continuous adjustments
- Improved tracking reduces edge damage, spillage and maintenance expense
- Continuous precision adjustment of the patented parallel steering/training system keeps the belt tracking properly

The Martin® Tracker™ is available in 3 models to match the requirements of each application.

- The EVO® Tracker™ is designed for applications under typical industrial material handling conditions.
- The Tracker™ HD is designed to withstand the stress associated with wider, thicker belts moving at higher speeds and carrying heavier loads.
- The Tracker™ XHD is engineered to be effective in the most rugged of applications.

EVO® carrying side tracker

HD Carrying Side Tracker

HD Return Side Tracker

EVO® return side tracker

se contact your

DUST CONTAINMENT

Enclosing airborne dust with an effectively-designed transfer chute reduces air velocity by minimizing air drawn into the transfer point, sealing leaks that allow dust to escape and allowing particles time to settle out of the air.

Controlling dust and preventing it from becoming a problem can be accomplished using one or more of three strategies: containment, filtration or suppression. To help you contain dust, Martin Engineering manufactures products that minimize the amount of fugitive dust that becomes airborne in the first place. This prevents the hazards caused by runaway dust – such as the risk of the dust igniting and causing an explosion or the health issues that can result from dust inhalation – by stopping it at the source.

Martin manufactures a wide range of transfer point options specifically engineered to stabilize the belt and seal it at the skirtboard, preventing dust from escaping and returning it back to the material flow.

MARTIN® ECO SETTLING ZONE

The Martin® ECO settling zone is a pre-engineered, pre-fabricated modular skirt boards and components to manage air flow and control dust.

- Ease of installation and maintenance
- Lightweight design to reduce stress on existing structure
- Brackets designed to fit most channel stringers
- Cost effective application
- Contributes to Health and Safety regulation requirements by reducing the velocity of the air flow, thus allowing the dust particles to settle on the belt resulting in less airborne dust
- Options to upgrate with Sealing Systems, External Wear Liner, Dust Curtains and Dust Collectors

ECO settling zone

CONVEYORS PRODUCTS

DUST FILTRATION

Air filtration systems minimize air velocity by pulling air and dust out of the material-handlingsystem. These systems increase the particle size of airborne dust by forcing particles to agglomerate before being deposited back into the material stream.

AIR FILTRATION

Air filtration—the passing of dust-carrying air through some form of filtration or separation system—is the final piece in the dust-management system. There are both active and passive air filtration systems. A passive system merely allows air to move through the filtration system, whereas active systems work like a vacuum cleaner to pull or push air through a filtration method to remove the particles.

Mechanical air filtration systems are installed to pull dust-laden air away from a dust source, such as a conveyor loading zone; separate the dust from the air; and exhaust the cleaned air. A typical air filtration system consists of three major components:

- An integrated pickup to capture airborne dust at the source(s).
- A filter or separation device to remove dust from the air.
- A method to clean the filter and place the filtered dust back into the material stream.

MARTIN® AIR CLEANER

Filters dust-bearing air at transfer point without the ductwork or large fans of central “baghouse” systems; returns material to stream. Compact filter replacement is simple, all filter media is changed from the “clean side” and no confined space permit is required.

Application Guidelines:

- Use to replace “bag house” or central collectors
- Material is returned to material flow
- Moisture addition is not allowed
- Containment is required
- Applicable in hazardous (explosive) environments

Air Cleaner with PowerCore® filters

PowerCore® filter

MARTIN® DUST BAG

Allows positive pressure to escape while removing particles from air. Controls dust without power; self cleans by collapsing when air flow stops. Dust bag must be the easiest path for air to escape the transfer point; effective containment including curtains is a must.

Application Guidelines:

- No power consumption
- No water addition is desired
- Use when creating a passive path for air to flow
- Containment is required
- Applicable in hazardous (explosive) environments

SAFETY SOLUTIONS

CONVEYOR BELT SAFETY

No one would dispute that focusing on the safety of your employees is the right thing to do. However, it also makes good business sense from a bottom-line perspective. In fact, a safety-first attitude provides many benefits, including More productive employees, Improved employee morale, Compliance with OSHA requirements and Lower costs.

MARTIN® CONVEYOR GUARDS

Martin Conveyor Guards simplify conveyor guarding to improve plant safety and productivity. The standardized panels provide a systematic approach to conveyor guarding that is easy to use and safety compliant.

Martin Conveyor Guards are an economical way to improve safety awareness and reduce worker injuries

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

Martin® Conveyor Guards

MARTIN® RETURN ROLLER BASKET

The Martin® Return Roller Basket is designed to guard the return roller to improve plant safety and productivity. An economical way to improve safety and meet the growing demands of government regulations. Solid steel construction covers all major return roller manufacturers.

- Easy to assemble; bolts to the stringer
- Adjustable for odd size stringer
- Can be customized to fit any roller configuration
- Lightweight metal construction

Martin® Return Roller Basket

MARTIN® INSPECTION DOOR

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.

- Latch handle folds down, so door stands only 2.25 inches (57 mm) high. With handle standing, door is 4.1 inches (104 mm) high.
- Also available with integral guard screen
- Suitable for service temperatures up to 400°F (204° C) continuous or 450° F (232° C) intermittent
- Sturdy, dust-tight steel design

Martin® Inspection Door

FLOW AID PRODUCTS

AIR CANNONS

Martin pioneered and patented the air cannon and today leads the industry in the development and application of these effective, economical-to-operate systems. Since 1974, Martin® Air Cannons have been used to prevent buildups and improve material flow.

MARTIN® TYPHOON AIR CANNON

Features a hybrid valve design that provides more force, uses less air and simplifies maintenance in challenging applications with limited budgets. Delivers more force output while using onlyhalf the air volume of the standard Martin® XHV Air Cannon. Its benefits are :

- Twice force output
- Half air consumption
- One-step maintenance
- Designed for high-temperature applications

Martin® Typhoon Air Cannons

MARTIN® MULTI VALVE AIR CANNON

Using a single air tank with up to five independent valves, the Martin® Multi Valve Air Cannon improves flow at five discharge points. It Provides :

- Flexibility ideal for hard-to-reach applications and where space is limited
- Five independent valves housed within a single 60-gallon tank allow for five application points sourced from a single reservoir
- Has the ability to fire more than one valve at once

Martin® Multi Valve Air Cannon

MARTIN® THERMO SAFETY SHIELD

The Martin® Thermo Safety Shield acts as a safety barrier to allow timely and safe maintenance of air cannon systems. It protects employees from exposure to severe temperatures so that maintenance can take place safely and productions stays on schedule.

Martin® Thermo Safety Shield

FLOW AID PRODUCTS

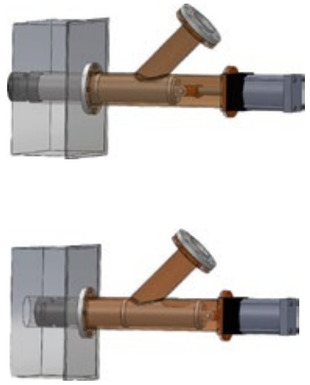
SMART ™ SERIES NOZZLE

The SMART™ Series Nozzle and its innovative design make it possible to use air cannons to achieve optimal material flow without all the headaches that typically come with maintaining them.

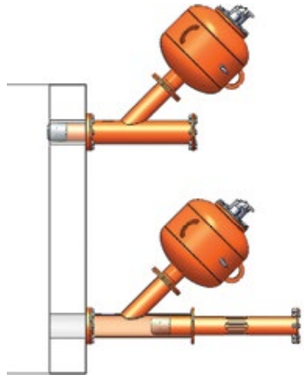
It Eliminates:

- Damage to the refractory
- Entry to the Tower
- Removal of Air Cannon
- Nozzle alignment errors
- Expensive Labour to replace Nozzles
- Shutdown costs

"And it works with Any make of Air Cannons !!!"



Smart™ Series Retractable Nozzle 360°



Smart™ Series Jet Nozzle

MARTIN® CORE GATE

The new, patent pending, Martin® Core Gate is the only technology available to safely install air cannons and nozzles without the need for a shutdown. Martin arrives on site with all the equipment necessary to eliminate problem areas and solve your buildup issues...any time of the year.

No Entry Required. No Outage. No Loss of Production
SAFELY Install Air Cannons and Nozzles While In Production!

- Safer Installation
- Install While in Production
- 8-Bolt Pattern Ensures Quick & Easy Installation
- Factory-Direct Technician Available
- Works with Martin® Smart Series Nozzles

Martin® Core Gate

SERVICES

MARTINPLUS® FIELD SERVICES

Martin Engineering offers a comprehensive selection of in-plant services, all focused on improving the handling of bulk materials. These specialized capabilities will improve the safety, reduce downtime and result in an improved operating environment.

MartinPLUS® Installation Services

New construction or retrofit, from belt cleaners to engineered transfer points, MartinPLUS® Installation Services handles the installation of material handling systems and components. Focus and experience with material handling systems makes certain project completion is on-time, on-spec and on budget.

MartinPLUS® Specialized Maintenance Services

MartinPLUS® Specialized Maintenance Team will take ownership for the maintenance of your belt conveyor and other systems, with standard packages and customization opportunities to meet your requirements.

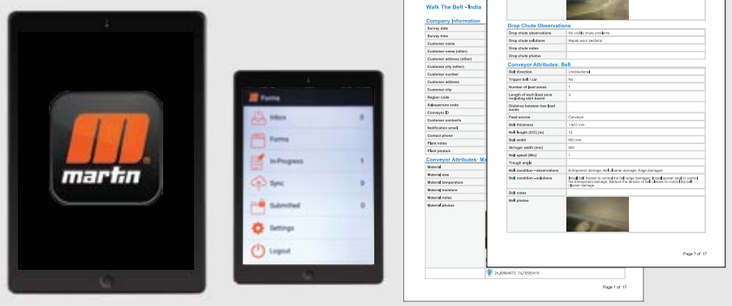
MartinPLUS® Specialized Maintenance Services include:

- Walk The Belt™ Conveyor Audit Program to identify root cause analysis (RCA) of fugitive material
- Identification and implementation of process improvements
- Different levels of preventative maintenance agreements

Why MartinPLUS® Maintenance Services

- 70 years of experience and focus in bulk materials handling
- Trained and certified conveyor technicians
- Commitment to safe work practices
- Servicing all makes of conveyor products
- Satisfaction guaranteed

martin® iQ App



SERVICES

FOUNDATIONS™ TRAINING PROGRAMS

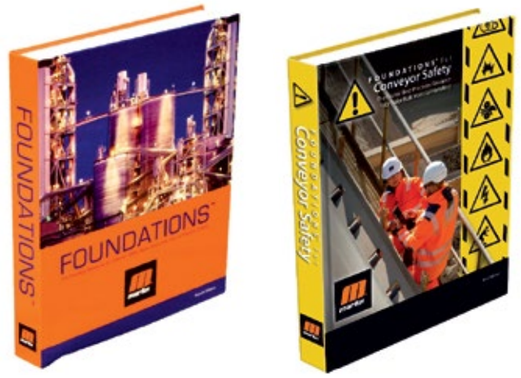
Over the past 20+ years Martin Engineering has presented over 2,000 workshops to more than 25,000 participants from bulk-materials-handling operations around the world, enabling workers to operate and maintain cleaner, safer and more productive belt conveyors.

Belt conveyors are the basic building block of bulk-materials handling. For a plant to be efficient, the conveyor systems must be clean, safe and productive. The two goals of any bulk-materials handling operation should be to improve conveyor safety and to improve conveyor efficiency. To better help your operation achieve these goals, Martin Engineering has multiple training programs to fit the needs of individuals and companies with varied levels of experience and responsibility.

These training programs reinforce messages from Martin Engineering's reference book ***Foundations 4th Edition, The Practical Resource for Cleaner, Safer, More Productive Dust & Material Control.***

Foundations™ is the authoritative book on improving belt conveyors and controlling fugitive material.

The 576-page hard-cover book includes information of value to all bulk materials handling industries and personnel at all levels.



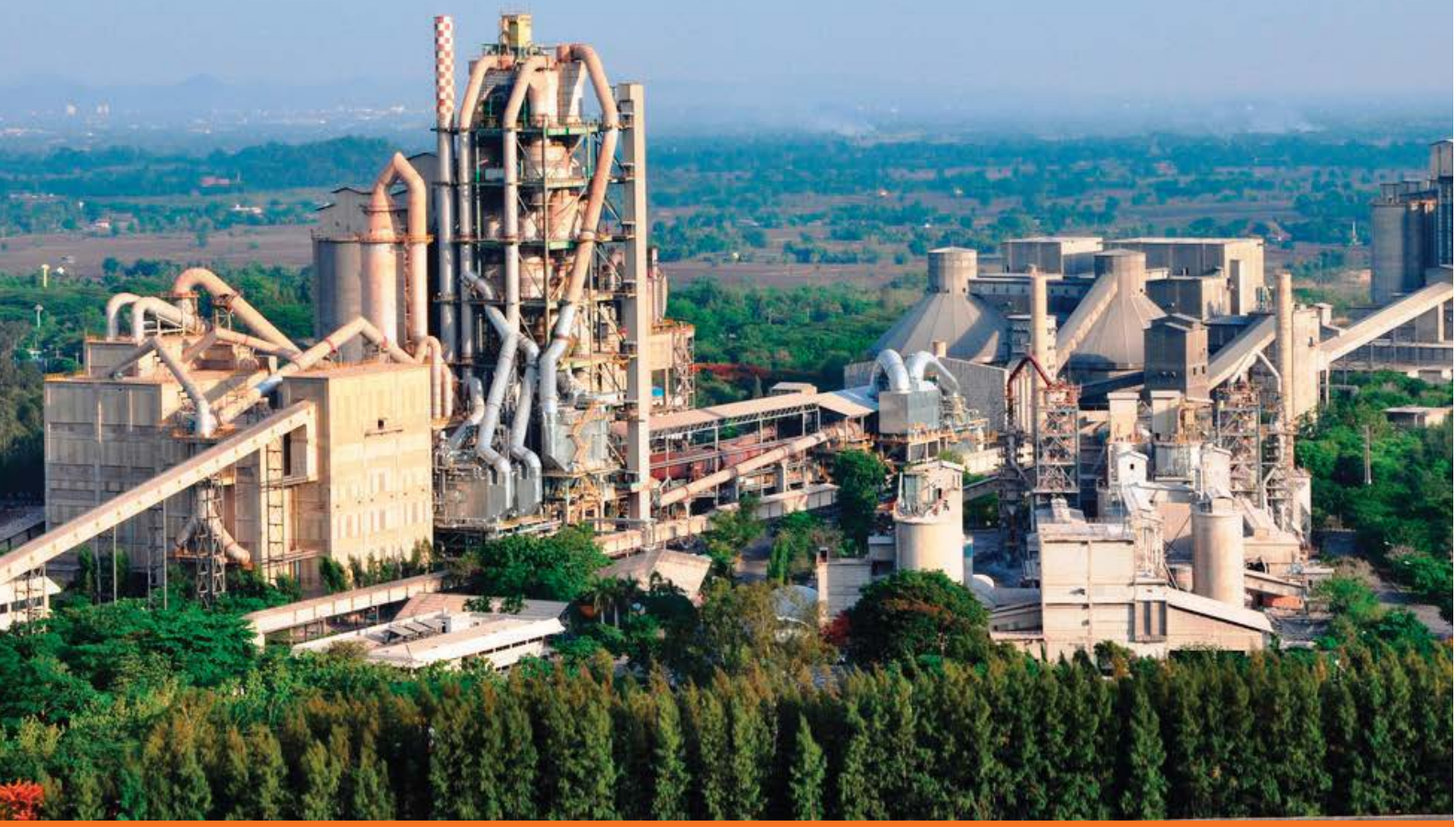
To better help your operation achieve these goals, Martin Engineering has multiple training programs to fit the needs of individuals and companies with varied levels of experience and responsibility.

1. **FOUNDATIONS™ Basic Seminar**
   -2 Hours for Beginners
2. **FOUNDATIONS™ Operations & Maintenance Seminar**
   -One day for experience personnel from Production, Design, Engineering and Management
3. **FOUNDATIONS™ Advanced Seminar**
   -Two days for Safety Management, Decision Makers, Consultants, Procurement Team, Engineering and Design Team Operation & Maintenance Team.

Now available as 9 modules - Online training program for customers!

Cost for the entire Foundations™ online training program is INR **15000** per participant

MARTIN ENGINEERING HAS ALL THE FLOW AIDS & CONVEYOR PRODUCTS TO MAKE YOUR BULK MATERIALS HANDLING CLEANER, SAFER & MORE PRODUCTIVE.



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