



COMPANY PROFILE

L3644



GLOBAL LEADERS

Since 1944, Martin Engineering has been and continues to be the worldwide leader in the bulk materials handling industry. We are the premier international developer, manufacturer, and supplier of products and technologies to boost material flow, reduce dust and spillage, decrease downtime, and extend component life resulting in improved operation and greater profitability.





Martin Engineering is headquartered in the United States with products, sales, service, and training available from 19 factory-owned facilities worldwide. With business units, subsidiaries, licensees, and representatives in Argentina, Australia, Brazil, Chile, China, Colombia, France, Germany, India, Indonesia, Italy, Japan, Mexico, Peru, Russia, Spain, South Africa, Turkey, the United States, and the United Kingdom, Martin has established a network of global excellence.

Our global resources and standardized processes, combined with more than 75 years of real-world experience, uniquely position us to provide trusted and reliable solutions to common problems faced in the industries of bulk material handling.

A man with a beard and safety glasses, wearing an orange hoodie, is working on a metal flange in a factory setting. He is using a tool to adjust the flange. Several other metal flanges are visible on the workbench. The background shows industrial equipment and a warehouse-like environment.

MARTIN

THE BEST RESULTS BEGIN WITH THE BEST PEOPLE

Martin Engineering's focus is a strong dedication to our people. Great emphasis is placed on providing a positive and productive company culture for those who make our business possible and treating them like family.

We are committed to operating in a smart, sustainable, and compassionate way to better improve how we serve our employees, customers, and communities around the globe. Living according to our purpose statement results in both personal and professional success for each Martin employee and the customers and communities we serve.

FAMILY

A man wearing safety glasses and an orange safety vest is working on a large industrial valve in a factory setting. He is leaning over the valve, which is mounted on a workbench. Several other similar valves are visible in the background. The scene is industrial and well-lit.

"To Ignite Excellence So That Families Thrive and Communities Flourish"

PROVEN SOLUTIONS

Martin Engineering has the solutions and expertise to make your operation cleaner, safer, and more productive. We offer conveyor and flow aid products to optimize material handling. Martin Service Technicians offer field services to optimize your operation's performance and profitability for both new construction and established systems. Our experts educate plant personnel, helping them recognize safety hazards and risks in the field.



BELT CLEANERS

Martin® Belt Cleaning Systems minimize carryback, reduce emergency outages and maintenance expenses, and maximize equipment life, resulting in cleaner, safer, and more productive conveyor systems. Our patented CARP blades maintain consistent cleaning through all stages of blade wear, cleaning better, lasting longer, and costing less.

TRANSFER POINT PRODUCTS

Proper design of Transfer Point Solutions improve material handling by preventing spillage and airborne dust, reducing equipment damage and cleanup, controlling maintenance expenses, and improving plant safety and productivity.

VIBRATION

Martin® Vibration Technologies energize material, reducing friction against container walls as well as internal particle-to-particle cohesion. Material moves more freely, feeds more effectively, sorts more consistently, compacts more efficiently, and handles more easily.

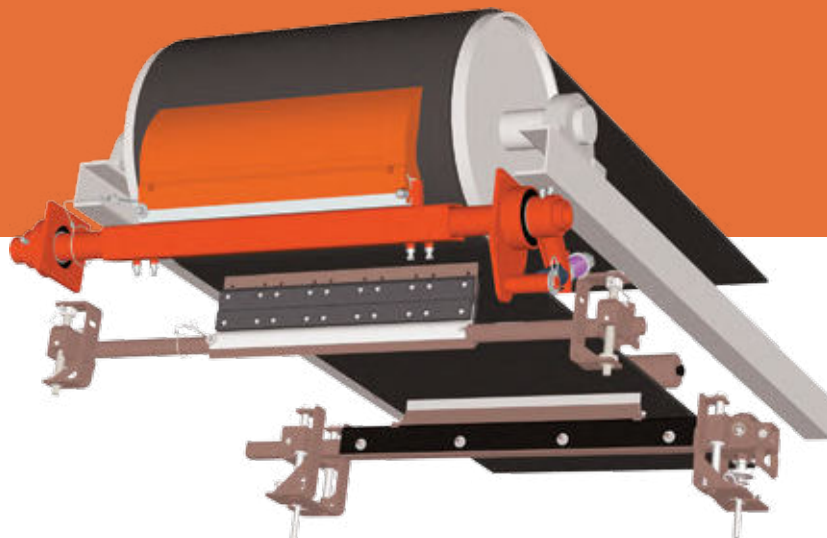
AIR CANNONS

Martin® Air Cannons provide a quiet, yet powerful release of compressed air to dislodge buildups and enhance material flow, improving efficiency and maintaining profitability. With a variety of cannons and accessories, Martin has models specifically suited to benefit your application.



CONVEYOR PRODUCTS

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. The cleaner should be constructed to avoid material buildup and installed so that it is out of the material stream.

PRIMARY CLEANER SIZING CHART

Belt Width in. (mm)	Head Pulley Diameter—in. (mm)						
	7-10 (180-250)	12-16 (300-400)	18-22 (450-560)	24-30 (600-760)	32-38 (810-970)	40-46 (1010-1170)	48+ (1220+)
12 (300-400)		1	N/A	N/A	N/A	N/A	N/A
18 (400-500)		1	2, 3 or 4	5 or 6	N/A	N/A	N/A
24 (500-650)		1	2, 3 or 4	5 or 6	N/A	N/A	N/A
30 (650-800)		1	2, 3 or 4	5 or 6	N/A	N/A	N/A
36 (800-1000)		1	2, 3 or 4	5 or 6	N/A	N/A	N/A
42 (1000-1200)	1	1	2, 3 or 4	5 or 6	7	N/A	N/A
48 (1200-1400)	1	1	2, 3 or 4	5 or 6	7	7	8
54 (1400-1600)	1	1	2, 3 or 4	5 or 6	7	7	8
60 (1600-1800)	1	1	2, 3 or 4	5 or 6	7	7	8
72 (1800-2000)	1	1	2, 3 or 4	5 or 6	7	7	8
84 (2000-2200)	N/A	2, 3 or 4	2, 3 or 4	5 or 6	7	7	8
96 (2200-2400)	N/A	2, 3 or 4	2, 3 or 4	5 or 6	7	7	8
108 (2600-2800)	N/A	4	4	N/A	7	7	8
120 (2800-3000)	N/A	N/A	N/A	N/A	7	7	8

1 = PV Cleaner

2 = QC1™ Cleaner HD

3 = QC1™ Cleaner PD

4 = QC1+™ Cleaner HD

5 = QC1™ Cleaner HD Max

6 = QC1™ Cleaner XHD

7 = SHD 600 Series Cleaner

8 = SHD 1200 Series Cleaner

Please note: Stainless steel mainframes and tensioners are available for corrosive environments
"Safe to Service" cleaners available for primary or secondary

MAINFRAMES

Belt cleaner mainframes are the backbones that support the blades and must be designed to handle the forces and burdens of the conveyor system and its material load.

TENSIONERS

Belt cleaner tensioners provide pressure to keep the blades against the surface of the belt to ensure consistent contact and cleaning performance.

SELECTION GUIDE

Required Data

- Belt width
- Head pulley diameter
- Belt speed
- Material characteristics
- Application temperature

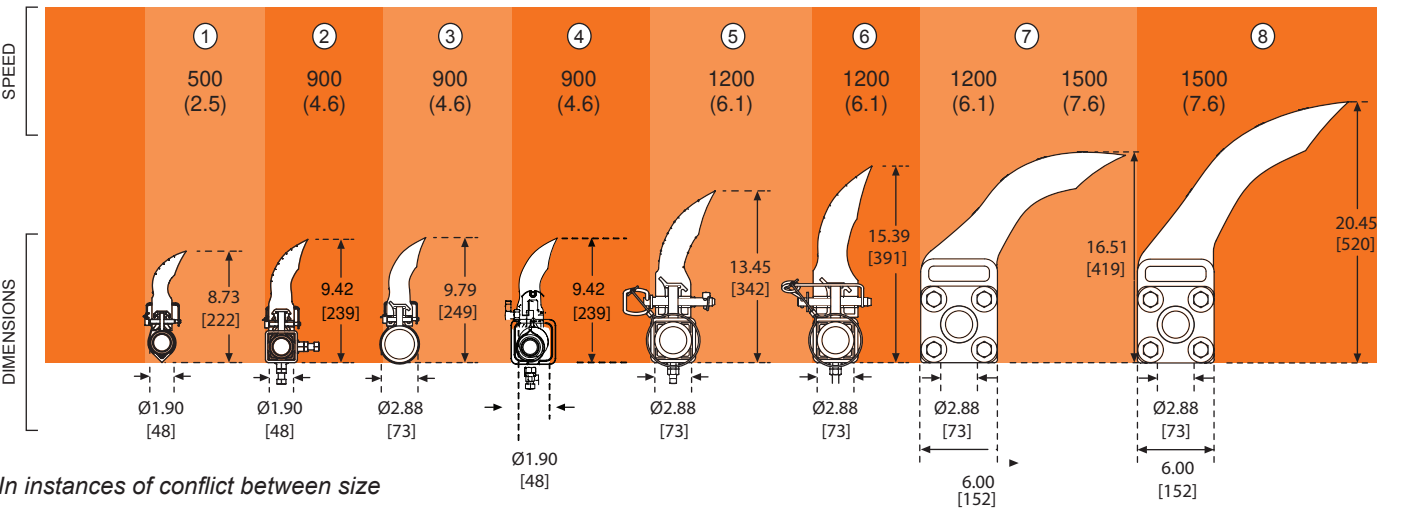
Selection Process

1. Identify the specifications for your conveyor.


- 2. Use your conveyor’s specifications for **belt width** and **pulley diameter** to select a primary cleaner in the Primary Cleaner Sizing Chart on the opposite page.
- 3. Check your selection against the recommended **maximum belt speeds** in the Primary Cleaner Scale Chart on the opposite page.
- 4. Use **material characteristics** and **application temperature** to identify the appropriate urethane blade in the chart on page 6.

PRIMARY CLEANER SCALE & BELT SPEEDS


Maximum Belt Speed by Categories: fpm (m/sec)
Blade Dimensions given in inches (mm)




SELECTION GUIDE




Orange
(Bauxite, Coke, Coal, Refuse, Steel/Ore, Etc.)




Green
(Clinker)



Brown
(Limestone, Coal, Ore, etc.)



Yellow
(Cement, glass, wood chips, etc.)



Navy Blue
(Cement, glass, wood chips)

PRIMARY BELT CLEANERS



Martin® PV Cleaner ⚡



Martin® QC1™ Cleaner PD ⚡*



Martin® QC1+™ Cleaner HD ⚡



Martin® QC1™ Cleaner HD ⚡



Martin® QC1™ Cleaner
HD MAX ⚡*



Martin® QC1™ Cleaner XHD ⚡*

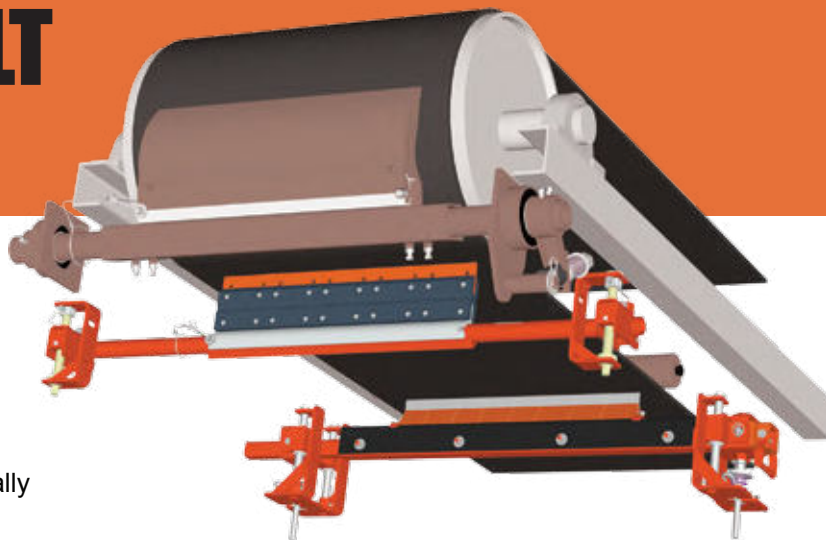


Martin® QC1™ Cleaner HD & XHD STS ⚡*



Martin® SHD 600 & 1200 Series Cleaner

SECONDARY BELT CLEANERS



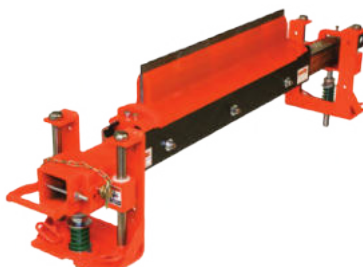
Installed at the point where the belt is leaving the discharge pulley, secondary cleaners remove residual fines that remain on the belt past the primary cleaner. Its location is typically close enough to the material trajectory that the cleanings will return to the main material stream.

Additional tertiary cleaners can be installed to provide final cleaning. These cleaners can be the same model as the secondary cleaner, or of a different design to allow efficient cleaning and maintenance within the available space.

As these cleaners are typically installed away from the pulley, they should be placed at or near a point where the belt is against a roller. Firm support prevents the cleaning pressure from raising the belt line and reducing cleaning efficiency.



Martin® DT2S Reversing Cleaner ⚡



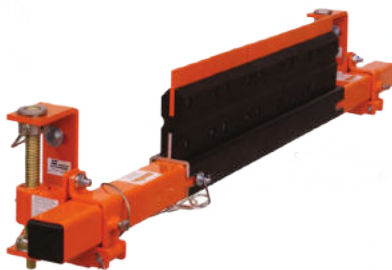
Martin® DT2H Reversing Cleaner XHD ⚡



Martin® QC2™ Cleaner ⚡



Martin® O2 Cleaner



Martin® SQC2S™ Cleaner



Martin® SQC2S™ Cleaner STS



Martin® SC16 Cleaner



Product can be powered by **Martin® Roll Gen™ System** and * With Air Tensioner only

TENSIONERS & ACCESSORIES



Martin® Twist™ Tensionner



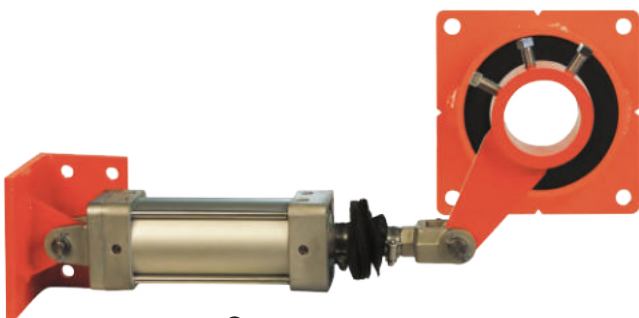
Martin® HD Spring Tensionner



Martin® XHD Spring Tensionner



Martin® Air Tensionner



Martin® Air Cylinder Tensionner



Martin® QC2™ Tensionner



Martin® SQC2S™ Tensionner



Martin®



Martin® DT2S Tensionner

CleanScape® Cleaner

The CleanScape® Cleaner lasts up to four times as long as traditional belt cleaners. Safe for use on mechanical and vulcanized splices, this metal-tipped cleaner provides aggressive cleaning without compromising your belt. Requiring minimal ongoing maintenance, CleanScape® needs only one tensioner adjustment—EVER. Installed at an angle, very little space for installation is required.



CleanScape® Secondary Cleaner



The [CleanScape® Secondary Cleaner](#) is an all stainless steel assembly featuring independent 6 inch wide blades with carbide tips. Each blade 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 is able to arc safely in the event of reversing belt direction or belt roll back.

FEATURES & BENEFITS

- Optimum cleaning results
- “Free Flow” design allows for material to pass through arms
- Crowned Mainframe design compensates for belt wear in the center
- Simple installation inside or outside of chute
- Removed material returns to main flow
- Requires less tensioning over lifespan
- Handles reversing belts and belt rollback without damage to belt
- Easy cartridge removal
- Easy adjustment of cleaning pressure
- Low Blade-to-Belt pressure

CONVEYOR PRODUCTS

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 dramatic damage.

To guard against this possibility, tail pulley protection plows should be installed.



Martin® Vplow HD



Martin® Vplow XHD



Martin® Vplow Diagonal



Martin® Vplow Torsion



Martin® VPlow Modular

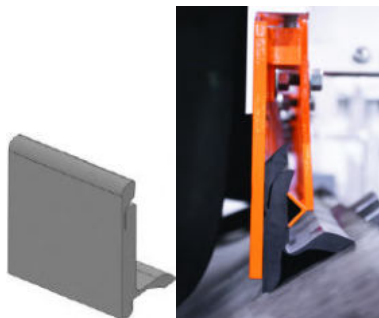
CONVEYOR PRODUCTS

BELT SEALING

The goal of any sealing system is to keep dust and fines from escaping. No sealing system can stand up for long in the face of abuse 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™
Single Skirting



Martin® Apronseal™
Double Skirting



Martin® Wear Liner



Martin® Self Adjusting Skirting

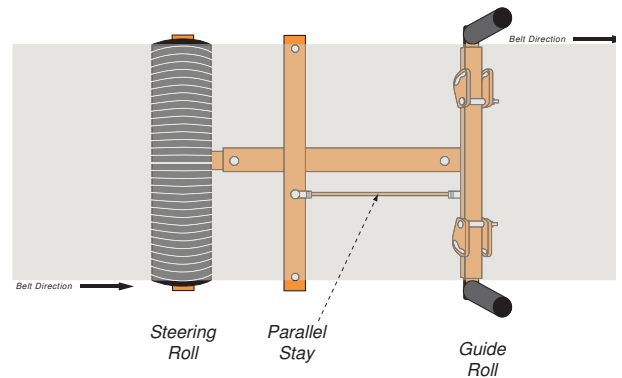
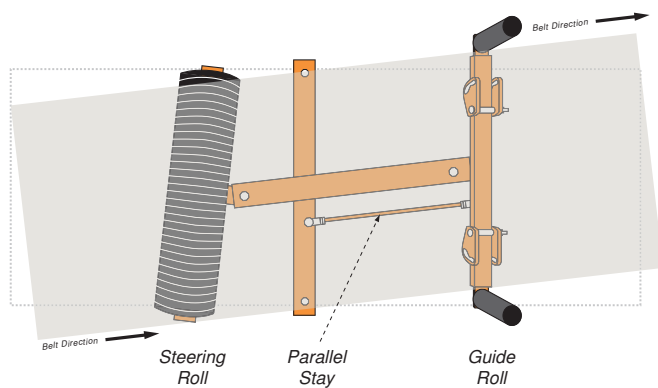
CONVEYOR PRODUCTS

BELT TRACKING

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.

HOW IT WORKS:

The MARTIN® Tracker has four main sections: steering roll, torque arm, parallel stay, and guide rolls. As the belt contacts the guide rolls, the torque arm pivots the steering roll, causing the belt to track to the center of the conveyor structure.



Martin® Tracker™
Lower Unit



Martin® Tracker™
Upper Unit



Martin®

CONVEYOR PRODUCTS

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 substructure. In a conveyor system, it's the belt line.



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



Martin® Slider Cradle

MARTIN® ROLL GEN™ SYSTEM

Self-contained, mini 24-Volt DC power station that generates enough power to run a wide variety of electronic systems:

- Compressor for Air Tensioner
- Activation of Water Supply to Wash Box
- Belt Cleaning System
- Initiation of Spray Bars
- Firing of an Air Cannon
- Many Other Applications...



Martin ® Roll Gen™ System* consists of:

Martin® Roll Generator (3-Year Warranty) coupled with either:

- Martin® Roll Gen™ Power Supply
- Martin® Roll Gen™ Continuous Power Supply

* Mounted on Trac-Mount™ Idler Frame. Depending on your existing setup, this may need to be included.



OTHERS

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. Each Martin® Washbox™ Cleaning System can be custom-engineered to match your cleaning requirements.

Martin® Washbox™ Spray Wash Systems are designed for use in applications where the conveyor belt must be very clean. As the belt enters the Washbox™ a set of return idlers stabilize the belt. A spray box uniformly sprays the belt with water. The dual secondary belt cleaner removes most of the material from the belt. The remaining material is removed by the third secondary belt cleaner and then the H2O Cleaner dries the belt. The material cleaned from the belt can be drained into the plant sump after filtration.



Martin® Washbox™ Cleaning System



AIR FILTRATION

Increase Particle Size + Minimize Air Velocity

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



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.

Application Guidelines:

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

Dust bag must be the easiest path for air to escape the transfer point; effective containment including curtains is a must

AIR CANNONS

Martin® Air Cannons supply a quiet but powerful eruption of compressed air that dislodges buildups and enhances the flow of bulk materials to improve efficiency and maintain profitability. To prevent buildups and blockages in large-scale storage and process vessels, Martin® Air Cannons are the answer. 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 remains the leader in the application of air cannon technology to overcome bottlenecks and boost the movement of material through high-capacity vessels.



Martin® Hurricane
Air Cannons



Martin® Typhoon
Air Cannons

Martin® PassPort Retrofit Valve

To upgrade performance and reduce maintenance, the **Martin® PassPort Retrofit Valve** can be retrofit onto air cannon systems from any manufacturer. A simple, 8-bolt attachment allows the valve assembly to be installed on existing Martin Engineering air cannons.

BENEFITS

- **Leading-Edge Valve Technology**
- **Increase Performance**
- **Ease of Maintenance**
- **Keep Existing Tank**
- **Upgrades All Air Cannon Models**



Negative Pressure Firing



Positive Pressure Firing

MARTIN® SMART™ SERIES JET NOZZLE

QUICK AND EASY REPLACEMENT

The Martin® SMART™ Series Jet Nozzle offers a simple yet innovative solution to the age-old problem of labor-intensive nozzle replacement. Eliminate the time and cost of cutting holes and breaking refractory to replace worn out nozzles.

- Replacement is quick and easy
- Limits or entirely eliminates damage to surrounding refractory
- No need to remove the air cannon tank
- Eliminates improper alignment
- No entry required into the tower or cooler
- Provides the wide area of influence of a standard fan nozzle
- Available in straight or “Y” pipe arrangement



Martin® Smart™ Series
Jet Nozzle Type Y



Martin® Smart™ Series
Jet Nozzle Type Straight

MARTIN® RETRACTABLE NOZZLE

Used for hard to reach locations in cement towers and other high-temp applications.

- 360 degree effective cleaning area.
- Nozzle extends to fire then retracts to protect exposed tip from extreme heat.
- Works with standard air cannons.
- 360 degree nozzle weldment is serviceable from the outside of the riser duct.



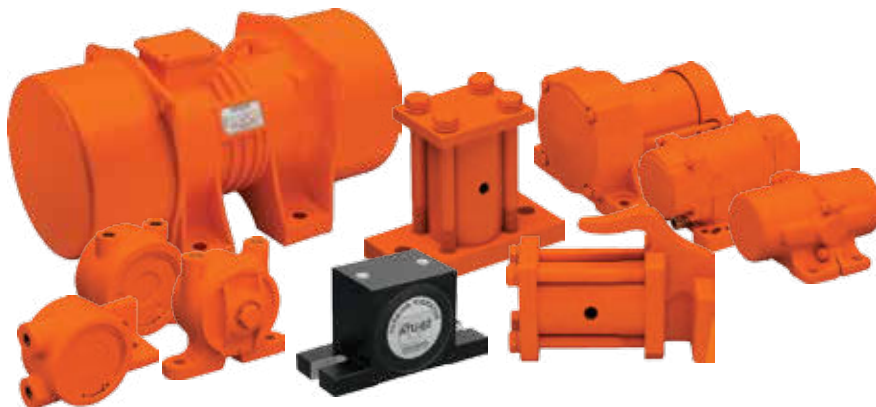
Martin® Retractable Nozzle

FLOW AID PRODUCTS

VIBRATION

Using the power of applied vibration, Martin Engineering Vibration Technologies energize material, reducing friction against container walls as well as internal particle-to-particle cohesion. The material moves more freely, feeds more effectively, sorts more consistently, compacts more efficiently and handles more easily.

Martin offers a complete line of electric and pneumatic vibrators for a wide range of applications.

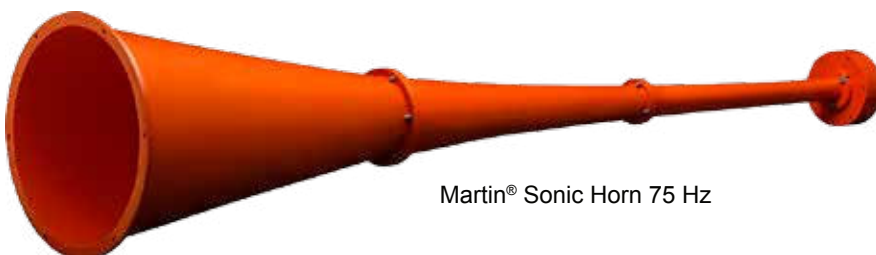


FLOW AID PRODUCTS

SONIC HORNS

Martin® Sonic Horns generate and magnify low-frequency, high-pressure sound waves to cause dry particulate build-up to resonate and fluidize, allowing the material to be removed from the vessel by constant gas flow or gravity. The Martin® Sonic Horn 75 Hz produces 147 dB at one meter with a frequency of 75 Hz.

Applications include boilers, heat exchangers and economizers, bag houses, selective catalytic reduction (SCR), ID Fans, electrostatic precipitators (ESP), silos, hoppers and cyclones, air pre-heaters.



Martin® Sonic Horn 75 Hz

- Prevents dry particulate build-up, increasing system efficiency and life
- Reduces system downtime, maintenance and repair costs
- Lowers operating costs
- Aids compliance with emissions regulations.
- Low cost of ownership
- Effective around pipes and behind obstacles; Sonic energy de-bonds particulate over a 360-degree sweep, cleaning inaccessible parts
- Does not create structural fatigue or damage
- Complies with OSHA dB regulations for vessel interiors
- Improves effectiveness and prolongs life of catalyst
- Improves the performance and prolongs the life of equipment

SERVICES

FOUNDATIONS™ TRAINING PROGRAMS

Over the past 20+ years Martin Engineering has presented over 500 workshops to more than 15,000 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.



Basic Training Workshop

Two-hour basic introduction to belt conveyors and their components and conveyor safety considerations for those employees who are unfamiliar with conveyor belt systems.

Operations & Maintenance Seminar

Full-day, in-depth session covering methods to improve the safety, performance and payback of belt conveyors by controlling fugitive material and improving system efficiency. An internet-based, self-paced version of this seminar is also available.

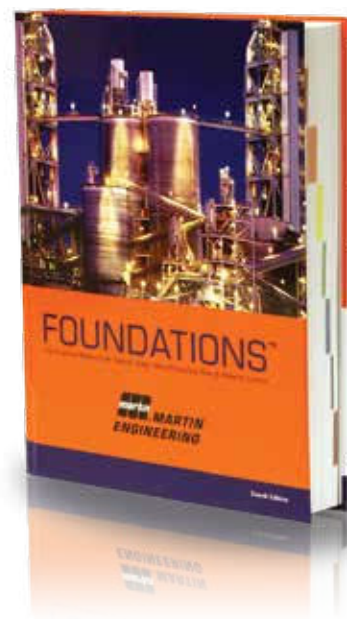
Advanced Seminar

Half- to full-day program focused on the improvement of belt conveyor operations and the justification of the investment in systems to reduce spillage and extend component life.

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.





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GLOBAL LOCATIONS

	UNITED STATES		INDONESIA
	ARGENTINA		ITALY
	AUSTRALIA		JAPAN
	BRAZIL		MEXICO
	CHILE		PERU
	CHINA		RUSSIA
	COLOMBIA		SOUTH AFRICA
	FRANCE		SPAIN
	GERMANY		TURKEY
	INDIA		UNITED KINGDOM

Authorized representatives in over 32 additional countries

Martin Engineering Indonesia (Legal : PT. Martin Supra Engineering) was established in 2002 as the joint venture between Martin Engineering, USA (www.martin-eng.com) and PT. Suprabakti Mandiri, Indonesia (www.beltcare.com). The office of Martin Engineering Indonesia is located in Tangerang - Indonesia with an office & manufacturing facility. Martin Engineering Indonesia is formed to take care of the customer located in Southeast Asia: Indonesia, Malaysia, Thailand, Philippines, Vietnam, Myanmar, Cambodia & Laos. Martin Engineering Indonesia has design and manufacturing capability to meet customer request

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