



AIR CANNONS

POWERFUL, SAFE & EFFICIENT POWER
TO PUT MATERIALS IN MOTION

L3748





Martin Engineering India



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 service technicians average 27 years of experience in bulk material handling. 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.

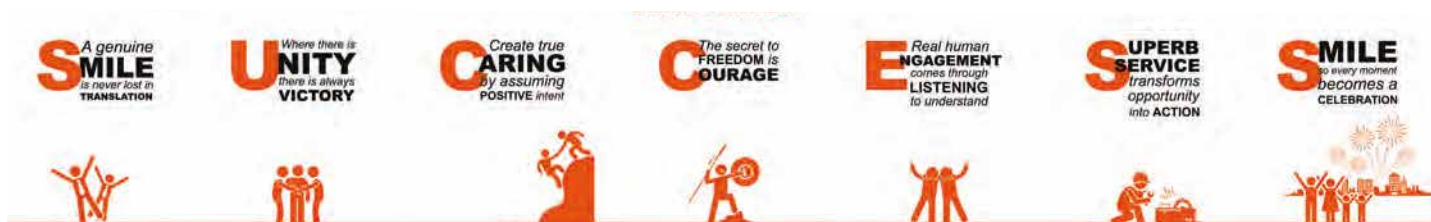
OUR VISION

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



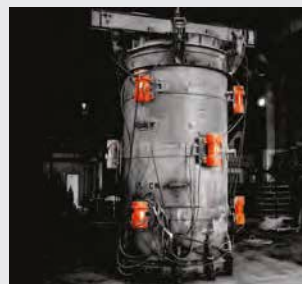
CONVEYOR PRODUCTS

- Belt Cleaners
- V-Plows / Diagonal Plows
- Belt Support Cradles
- Belt Sealing Systems
- Transfer Point
- Dust Management



FLOW AIDS

- Air Cannons
- Vibrator Motors
- Sonic Horns



VIBRATION SOLUTIONS

- Electric
- Pneumatic



SERVICES & TRAINING

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



**CONSEQUENCES OF POOR
MATERIAL FLOW**

CHOKED PRODUCTION

REDUCED OUTPUT

STRANGLING EFFICIENCY

MISSING MATERIAL

INCREASED MAINTENANCE

MISSED OPPORTUNITIES

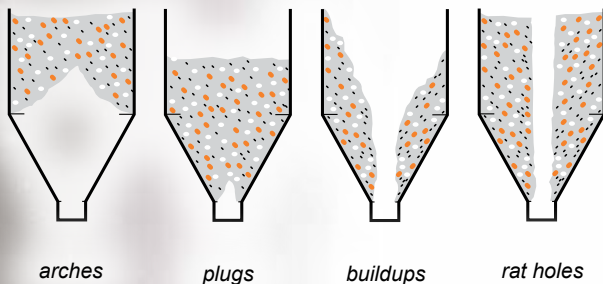
LOST PROFITS



SOLVING PROBLEMS IN MATERIAL FLOW



Hammering on the bin or chute wall leads to damage to the wall surface, often called "hammer rash."



Problems in material flow can bring an operation's efficiency and productivity to a halt. Hang-ups in storage systems and accumulations in process vessels choke material flow while bottlenecks create costly reductions in equipment and process performance. Poor material flow raises maintenance expenses and drags profits down.

Martin® Air Cannons supply a quiet but powerful release of compressed air that dislodges buildups and enhances the flow of bulk materials, to improve efficiency and maintain profitability.

Since 1974, Martin® Air Cannons have been used around the world to prevent buildups and improve material flow. Martin Engineering remains the leader in the application of air cannon technology to overcome bottlenecks and boost the movement of material through high-capacity vessels.

Problem Solved™
GUARANTEED!



MARTIN® TYPHOON

TECHNOLOGICAL HYBRID

The hybrid design of the Martin® Typhoon Air Cannon offers an improvement on negative-pressure firing systems by combining the simple one-line plumbing of traditional valve design with the power, efficiency, and ease of maintenance of advanced internal valve design.



MARTIN® TYPHOON AIR CANNON

Hybrid design combines minimal one-line plumbing with compact, powerful, and efficient centrally-located valve.

- **Minimal Plumbing:** Requires only one air line to fill tank and trigger valve.
- **Outstanding Performance, Modest Price:** Negative-pressure firing and the most direct air path provides effective performance in challenging applications with limited budgets.
- **One-Step Maintenance:** The complete valve assembly can be removed in one easy step, working from one side of the tank, and replaced within minutes to keep your process running. There is no need to ever remove the tank from the vessel for service.



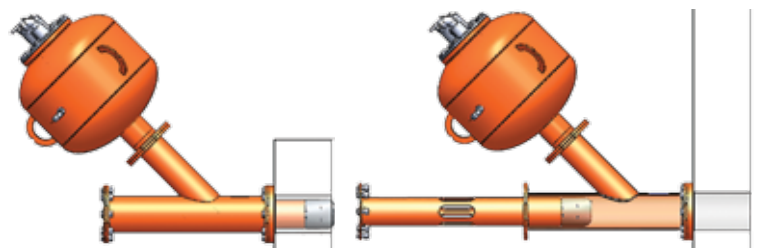


MARTIN® SMART™ SERIES JET NOZZLE

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



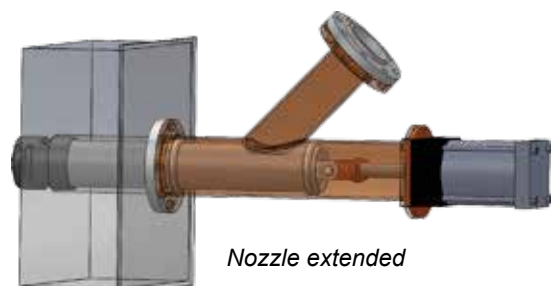
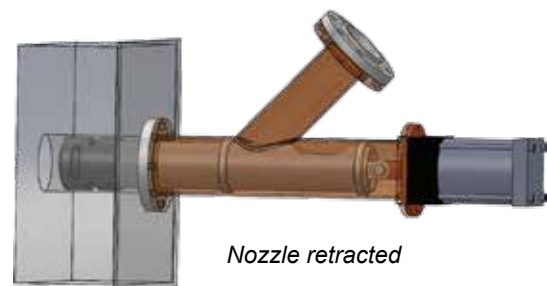


MARTIN® SMART SERIES RETRACTABLE NOZZLE 360°

360-DEGREE CLEANING

The Martin® SMART™ Series Retractable Nozzle 360° is used for hard to reach locations in cement towers and other high-temp applications. The 360-degree nozzle makes cleaning on the center of the wall possible. Serviceable from the outside of the tower/vessel, so no waiting until the next scheduled outage for nozzle assembly replacement.

- 360-degree effective cleaning area
- Nozzle extends to fire then retracts to protect exposed tip from extreme heat
- Works with standard air cannons (150L Martin® Hurricane is recommended)
- Nozzle weldment is serviceable from the outside of the riser duct
- Controlled by one solenoid (110 volt / 220 volt / 24 volt)
- Less aggressive than blasting, eliminating damage to refractory from improper use of compressed CO₂



ACCESSORIES



MARTIN® THERMO SAFETY SHIELD

Slide gate safety valve allows timely maintenance on air cannons in high temperature processes without requiring the tank to be dismantled.

- **Improve Employee Safety:** Shelters workers from exposure to severe heat, gases, and high temperature material.
- **Simple to Install:** Sliding shield bolts between air cannon valve and mounting flange.
- **Secure, yet Simple to Operate:** Sliding shield operates under tough conditions, yet can be locked out to prevent intrusion.



MARTIN® CORE GATE

The new 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





GLOBAL LOCATIONS

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

Authorized representatives in over 32 additional countries

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Part No. L3748-09/16