



80+
YEARS OF
INNOVATION

 ***martin***[®]
engineering

PRODUCT CATALOGUE

L4203ZA



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

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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 unrivalled cleaning performance, durability, and reliability.

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

CleanScape® Primary Cleaner

The CleanScape® 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

CleanScape® 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

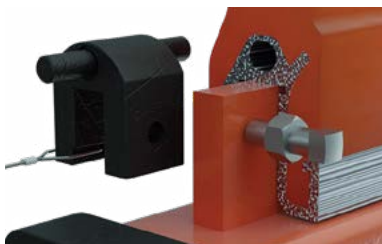
Patented constant angle radial pressure (CARP) blades ensure continuous and consistent cleaning performance across all stages of blade life and are available in six specialized urethane formulations to best suit the material being conveyed.

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 (mm)	Max Belt Speed (m/s)	Pulley Diameter (mm)
QC1+™ PV	2000	2.5	300-400
QC1+™ HD	2800	4.6	400-559
QC1+™ XHD	3048	6.1	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.



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TENSIONERS

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.

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



Twist™ Tensioner



Spring Tensioner XHD



Spring Tensioner

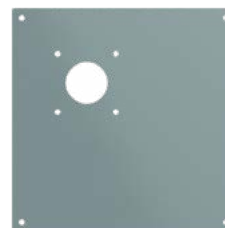
Hanger Mounts & Mount Plates



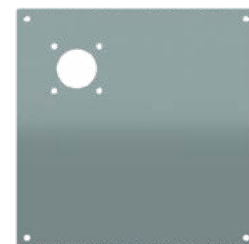
Hanger Mount for XHD Spring Tensioner

Hanger Mount for Twist™ Tensioners

Heavy Duty Hanger Mount for Secondary Cleaners



Mount Plate for XHD Spring Tensioners



Mount Plate for Twist™ Tensioners



12x12 Mount Plate for Twist™ Tensioners

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 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 location in South Africa.



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.



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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.



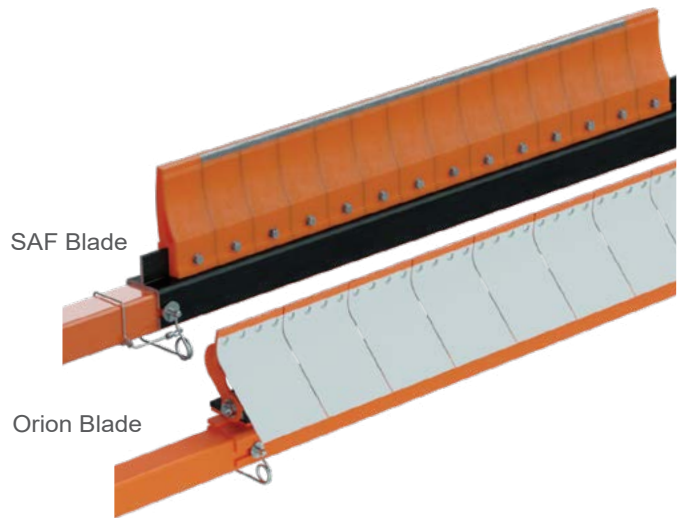
Belt Width (mm)	Max Belt Speed (m/s)		Temperature (C)
500-2600	5,0 for vulcanized splices	3,0 for mechanical splices	up to 300 °C

SQC2™ Cleaner

The most versatile and best-selling secondary cleaner on the market, SQC2™ 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.

Individually-cushioned tungsten carbide blades deliver effective and reliable cleaning performance without risk to belt, splice or blade. Rubber blade buffers cushion the impact of each blade individually, maintaining consistent cleaning pressure. Blade cartridge allows quick and easy removal of all blade segments for rapid return to service. Compact design allows installation in tight spaces while narrow profile resists material build-up.

Available with acid-resistant tips. Blade buffers available in moulded rubber and flame-retardant rubber.



Belt Width (mm)	Max Belt Speed (m/s)	Temperature (C)
450 - 3000	5,1	-30° to 95°

SC 16 Cleaner

Rugged belt cleaner construction withstands punishing applications, like high-speed belts and high-tonnage loads.

Rubber blade mountings maintain constant belt pressure irrespective of belt profile or irregularities.



Belt Width (mm)	Max Belt Speed (m/s)	Temperature (C)
up to 2400	6,1	-30° to 95°

SC 10 Cleaner

The QC™ 2 secondary cleaner combines a unique droplet-shaped blade with a tungsten-carbide blade edge and linear spring tension, thus enabling long wear lives with maximum cleaning performance without high investments.



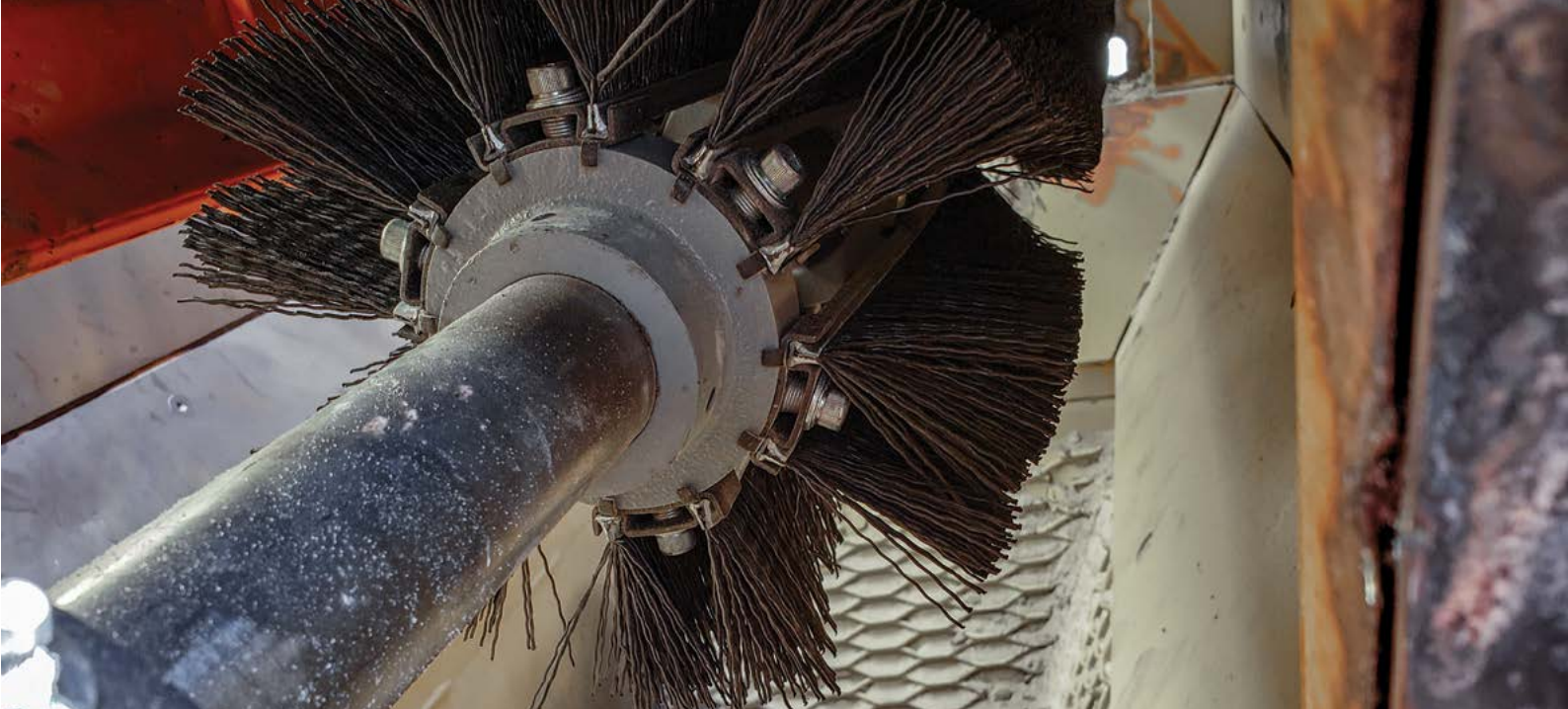
Belt Width (mm)	Max Belt Speed (m/s)	Temperature (C)
up to 1050	4,5	-30° to 95°

SECONDARY BELT CLEANERS

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.

Rotary Brush Cleaner

Martin® Rotary Brush Cleaners are especially suited for the removal of fines and residue from ribbed, flighted, grooved or chevron conveyor belts. Versions of brush belt cleaners are available to suit your conditions and your budget.

Motor options:

- 0.75 kW. : 450 - 750 B/W
- 1.1 kW. : 900 - 1050 B/W
- 1.5 kW. : 1200 - 1800 B/W

The Martin® Spiral Brush Cleaner uses nylon bristles wrapped around the hub.

Two brush options available:

- Martin® Full Brush - Dry Applications
- Martin® Spiral Brush - Wet Applications



Max Belt Width (mm)	Max Belt Speed (m/s)	Temperature (C)
Up to 2000	2,5	-34° to 82°



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

Low design height allows plough to be installed in minimum space. Lightweight split 'V' frame makes for easy installation.

High quality powder coated finish on all metal parts ensures optimum corrosion protection.

Patented spring-loaded rear mount ensures constant positive pressure on the belt, irrespective of belt angle.

A simple arrestor chain on rear mount prevents the 'V' frame from contacting the belt surface when the blade is worn out.



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Bias Plough

Can be used in light and heavy duty application.

The plough is mounted on the conveyor stringers and the blade is held at a constant angle to the belt surface.

Blade floats on belt surface and diverts material away for effective tail pulley protection



Belt Width (mm)	Max Belt Speed (m/s)	Max Temp (C)
450 - 2400	6,5	100



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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.

Modular Tracker™

Provides immediate, powerful and continuous steering to correct a belt path, preventing spillage, equipment damage and repairs.

Systems for offset idlers are available.

Features sensing rollers and lever arms on both side of the unit. It employs a stainless steel paddle wheel to sense the direction of belt travel and to activate the sensing rollers on the proper end of the unit.

The Martin® Modular Lower Tracker features sensing rollers and lever arms on both sides of the unit. Stainless steel paddle wheel is employed to sense the direction of belt travel and to activate the sensing rollers on the proper end of the unit

Belt Width (mm)	Max Belt Speed (m/s)	Temperature (C)
600 - 1650	4,5	-30 to 60°C



Martin® Tracker Upper Unit



Martin® Tracker Lower Unit

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 500 to 1600 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 Width (mm)	Max Belt Speed (m/s)	Temperature (C)
500 - 1600	5,0	-30 to 60°C



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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).



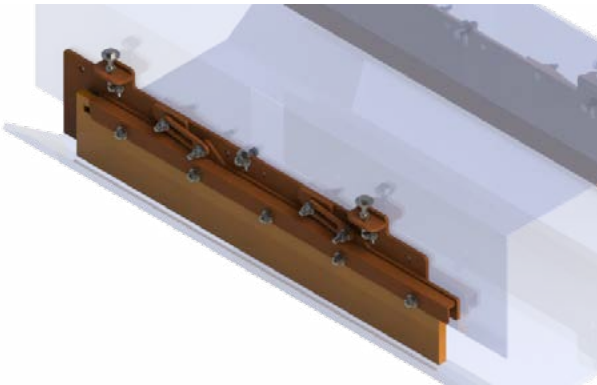
Model	Max Belt Speed (m/s)
Single	3,0
Single HD	3,8
Double HD	3,8
Self-Adjusting	3,0

Minimum Free Belt Area (mm)				
Trough Angle	Single	Single HD	Double HD	Self-Adjusting
0°	54	76	76	38
20°	66	95	95	38
35°	73	106	106	38
45°	77	111	111	38

Self Adjusting Skirting HD

Martin® Self-Adjusting Skirting provides an effective skirtboard seal that minimises spillage and prevents the problems caused by fugitive material. It self-adjusts to eliminate skirtboard maintenance.

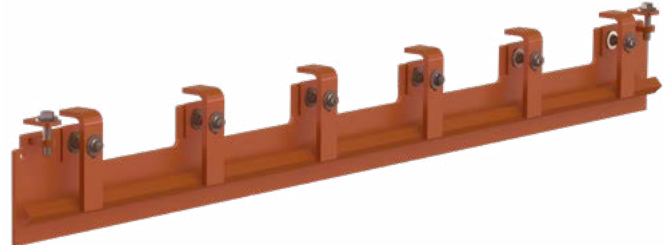
As it requires only 66 mm of free belt space outside the chute and is the ideal sealing system for conveyors with chutes close to the belt edge. The polyurethane and clamp assembly can be installed in spaces as low as 300mm above the belt and replace the pre-punched rubber strip.



Max Belt Speed (m/s)	Trough Angle	Temp Range (C)
3,0	0 - 45	-30° to 121°

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.



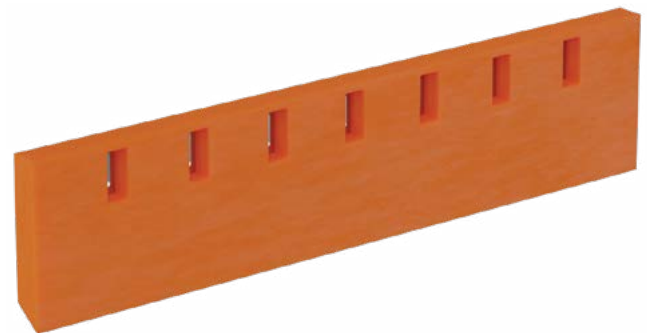
Available in a variety of materials and thicknesses. Fits conveyors with trough angles from flat to 35°.

Max Belt Speed (m/s)	Trough Angle	Temp Range (C)
N/A	0 - 35	-30° to 150°

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 (mm)	
	33 mm thick	51 mm thick
20°	172	251
35°	172	273
45°	172	292



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.

Trac-Mount™ Impact Cradle

Installed under the belt conveyor loading zone, Martin® Impact Cradle 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.

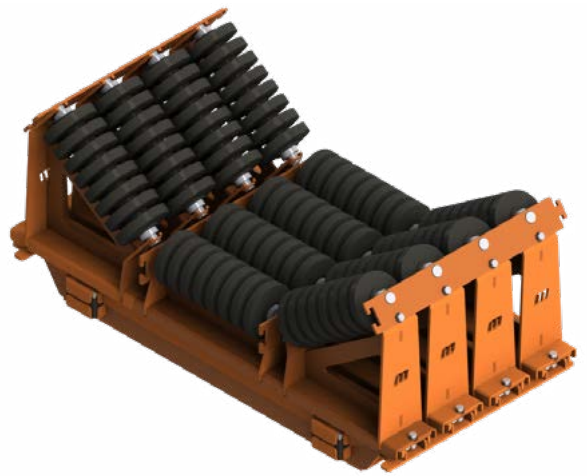


Belt Width (mm)	Trough Angles	Max Belt Speed (m/s)	Temp Range (C)
500-2400	20° - 45°	5,0	-29° to 82°

High Speed Impact Cradle

Designed and engineered for high speed / high tonnage belts, Martin® High Speed Impact Cradles provide belt support in transfer points where belt speeds exceed the operating limits of ordinary impact bar belt support cradles.

Innovative patent-pending upper connector brackets link idlers together throughout the load zone, allowing them to work together as a unified structure. Elastomer bar suspension absorbs shock from impact, maximizing the life of the belt support structure and rolling component while Trac-Mount™ idler design provides ease of service.

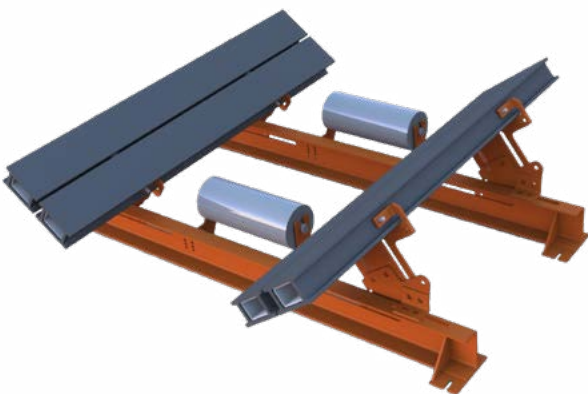


Belt Width (mm)	Trough Angles	Max Belt Speed (m/s)
up to 2400	35° - 45°	6,5

Martin® Modular Slider Cradle

The Martin® Modular Slider Cradle utilizes low friction UHMW bars to support the belt at the outside of the loadcarrying area. This stabilizes the belt line, eliminating the sag and bounce that spill material, and reducing the risk of catching lumps that can abrade the belt surface.

The low friction bars utilize a proprietary “box” design that allows the bars to be turned over to provide a second wear life from each bar. In the center of the cradle, idlers reduce the friction of carrying the loaded belt.



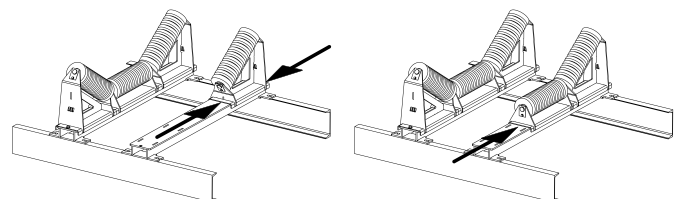
Belt Width (mm)	Trough Angles	Max Belt Speed (m/s)	Temp Range (C)
400-1200	20° - 45°	2,5	-29° to 60°

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.





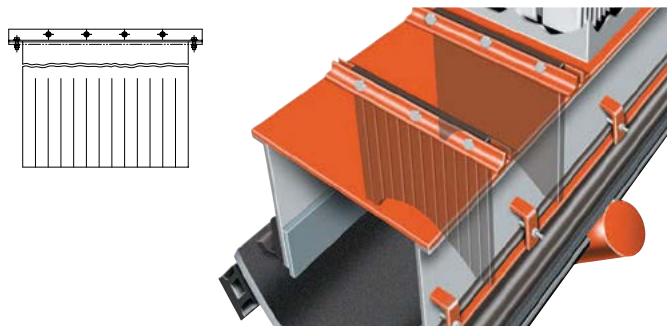
Dust Management

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 mm	Airflow (l/minute)
300	Up to 12,750
600	Greater than 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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SAFETY ACCESSORIES

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.

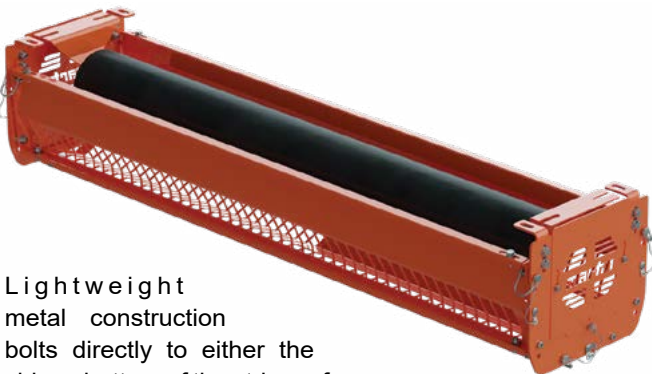
Single or double wedge clamps allow panels to be removed and reinstalled quickly and the modular design installs on supplied angle iron structure without attaching to conveyor equipment. Wedge bolts are also available.



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.

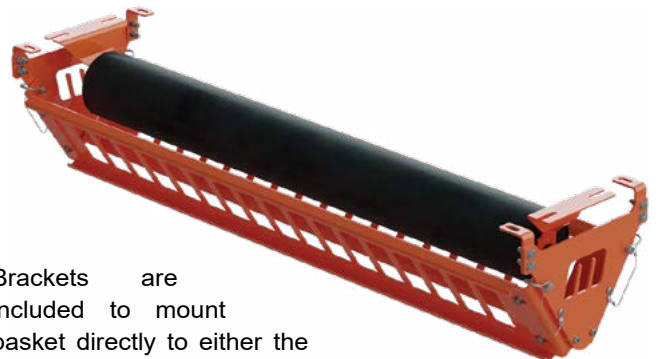


Lightweight metal construction bolts directly to either the side or bottom of the stringer for easy installation with no additional bolts required for assembly. Fits all major roll manufacturers' sizes.

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).



50+
YEARS OF
AIR CANNONS

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.

Hurricane Air Cannon

The Hurricane Air Cannon features an advanced positive pressure, positive firing valve concept that provides more force, uses less air, and simplifies installation and maintenance.

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.

Positive-acting valve eliminates the risk of an accidental discharge while allowing the control solenoid to be positioned as far as 200 feet (60 m) from the tank, keeping solenoids away from harsh conditions and difficult-to-service areas.

Available with 35, 70, and 150L tanks.



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AIR CANNONS

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.



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Passport Retrofit Valve

The Martin® Passport Retrofit Valve allows for upgrades in air cannon technology without the need to remove the tank. The Passport Retrofit Valve works with any makes or models of air cannons.

- Leading-Edge Valve Technology
- Increase Performance
- Ease of Maintenance
- Keep Existing Tank
- Available in Negative or Positive Pressure Firing
- Compatible with the Martin® 6 Pack Program



Positive Pressure Firing

Negative Pressure Firing

NOZZLES AND ACCESSORIES

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.



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.

Mild Steel



316 Stainless Steel

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.



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.



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.



Vibration Solutions

Martin Engineering's comprehensive range of industrial vibrators apply rotary or linear vibratory force to prevent material buildup on interior container walls to maintain effective and efficient material flow. Typical applications include conveying or feeding, screening, draining, dewatering, product sizing, compaction, testing of components, as well as bin, hopper, and chute evacuation.

Ensuring proper material flow and mitigating buildup avoids unplanned downtime and lost production and the time and hazards involved with manual cleaning while maximizing intended production capacity.

Roller Vibrators

Martin Engineering's long-lasting roller vibrators contain a steel, ring-shaped roller that spins around a steel shaft, powered by compressed air. The rapid rotational movement of the roller produces multiple vibrations with each rotation. Roller vibrators are an economical vibration solution for applications that require high force-to-weight ratios.

Available in a variety of sizes and strengths, roller vibrators deliver a high level of vibratory force and are ideal for unloading railcars and compacting both concrete and refractory. Roller vibrators are the only pneumatic option that delivers both high frequency and high amplitude. The rugged epoxy-coated cast design makes them perfect for continuous operation, even in dusty, wet, and harsh environments.



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AP5 Series Piston Vibrators

An economical solution to eliminate the pounding, poking, and hammering of hoppers, the AP5 Series Piston Vibrators help maintain material flow and reduce bottlenecks.

Limited maintenance required for life of the vibrator when used with filtered and lubricated air supply.

Variable control of force and frequency to meet a variety of material conditions.

Can be a bolt-in direct replacement for nearly all piston vibrators on the market.

Comes standard with exhaust mufflers to attenuate the exhaust noise and aid in preventing dust and dirt from entering the vibrator.



Turbine Vibrators

Martin Engineering's pneumatic turbine vibrators contain an unbalanced turbine wheel that spins inside the casing. The rapid, unbalanced rotational movement of the turbine applies centrifugal force to the casing, producing the vibratory force. These vibrators use very little compressed air relative to the force they deliver, so the long-term cost of ownership is low.



Turbine vibrators produce noise levels well below OSHA requirements, so they are an effective solution for noise-sensitive areas. They are ideal for applications such as portioning ingredients in food processing plants and feeding small parts made of plastic or metal onto a feeding tray, as well as conveying materials or loose items in the chemical and pharmaceutical industries.

Brute® Vibrators

Brute® Vibrators are equipped with motor-driven rotary eccentric weights that can be powered by a hydraulic or pneumatic motor and deliver rotary vibration through a complete range of frequencies. The motor is attached to the separate head or case assembly containing the eccentric weights, bearings, and shaft.

Powerful, efficient motor for long service life with minimal power consumption and high-grade ductile iron case to provide maximum durability.

Adjustable eccentrics allow tuning of force output of most models to match application and a tapped exhaust port allows muffler installation to reduce operating noise.



DV Series

For permanent installation on large vessels, these vibrators come with four- or six-bolt-hole mount bases.



CC Series

With its cradle lug bracket, the CC Series is suited for applications requiring portability and position changes.



CCV Series

With an integral clamp foot, these powerful vibrators suit portable applications like railcar unloading.



CV Series

CV Series Vibrators incorporate two bolt-holes for permanent mounting on hoppers, bins, or chutes.

VIBRATORS

MM & MC Series Electric Vibrators

Martin Engineering is the only USA manufacturer of continuous-duty, high-output/low-frequency industrial vibrators guaranteed for 3 years.

MM and MC Series Electric Vibrators are engineered for continuous duty and feature C4 clearance roller bearings. Dust-tight, water-tight, O-ring seals and machined surfaces provide an IP 66 enclosure rating to protect against the entry of dust and water.

Drives are fully interchangeable with other major manufacturers.



Cougar® DC Truck Vibrators

Rugged and economical, Cougar® DC Truck Vibrators provide power to improve the speed and efficiency of unloading dump trucks, concrete pumps, fertilizer, gravel, sand and salt-spreaders, and other mobile equipment. Models are available to suit your truck and your typical load.

Weather-proof aluminum housing provides high output to weight ratio, delivering up to 3700 pounds of vibratory force to improve the unloading of wet, sticky, fibrous, or even frozen material. Small, lightweight units require minimal space while sealed ball bearings eliminate lubrication requirements.

Choose from 12- or 24-volt motor; models match force to output requirements. Supplied with mounting hardware and electrical connections.



Cougar® MDC Truck Vibrators

Available with weights set at either 400 or 700 pounds of vibratory force to improve the unloading of wet, sticky, fibrous, or even frozen material. New high-efficiency motor design with oversized permanent magnet requires less current to operate, putting less stress on your electrical system and allowing the vibrator to run cooler.

O-ring seals and machined surfaces provide protection against the entry of water and dust for an IP 66 rating while smooth external surfaces eliminate material buildup. Small, lightweight units require minimal space while sealed ball bearings eliminate lubrication requirements.

Choose from 12- or 24-volt motor; models match force to output requirements. Supplied with mounting hardware and electrical connections.



Cougar® SDC Truck Vibrators

Cougar® SDC Small Truck Vibrators deliver from 40 up to 200 pounds of vibratory force to improve the unloading of wet, sticky, fibrous, or even frozen material.



Weather-proof and corrosion resistant nylon housing provides high-output-to-weight ratio. Features 12-volt motor and permanently lubricated sealed ball bearings.

THD Hydraulic Vibrators

Built from high-strength aluminum for maximum durability. Efficient motor designed for minimal power consumption and maintenance requirements. Designed to create more force per size/weight. Provides variable speed and continuous duty operation.



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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 programs 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 program 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 program 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 program 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



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.



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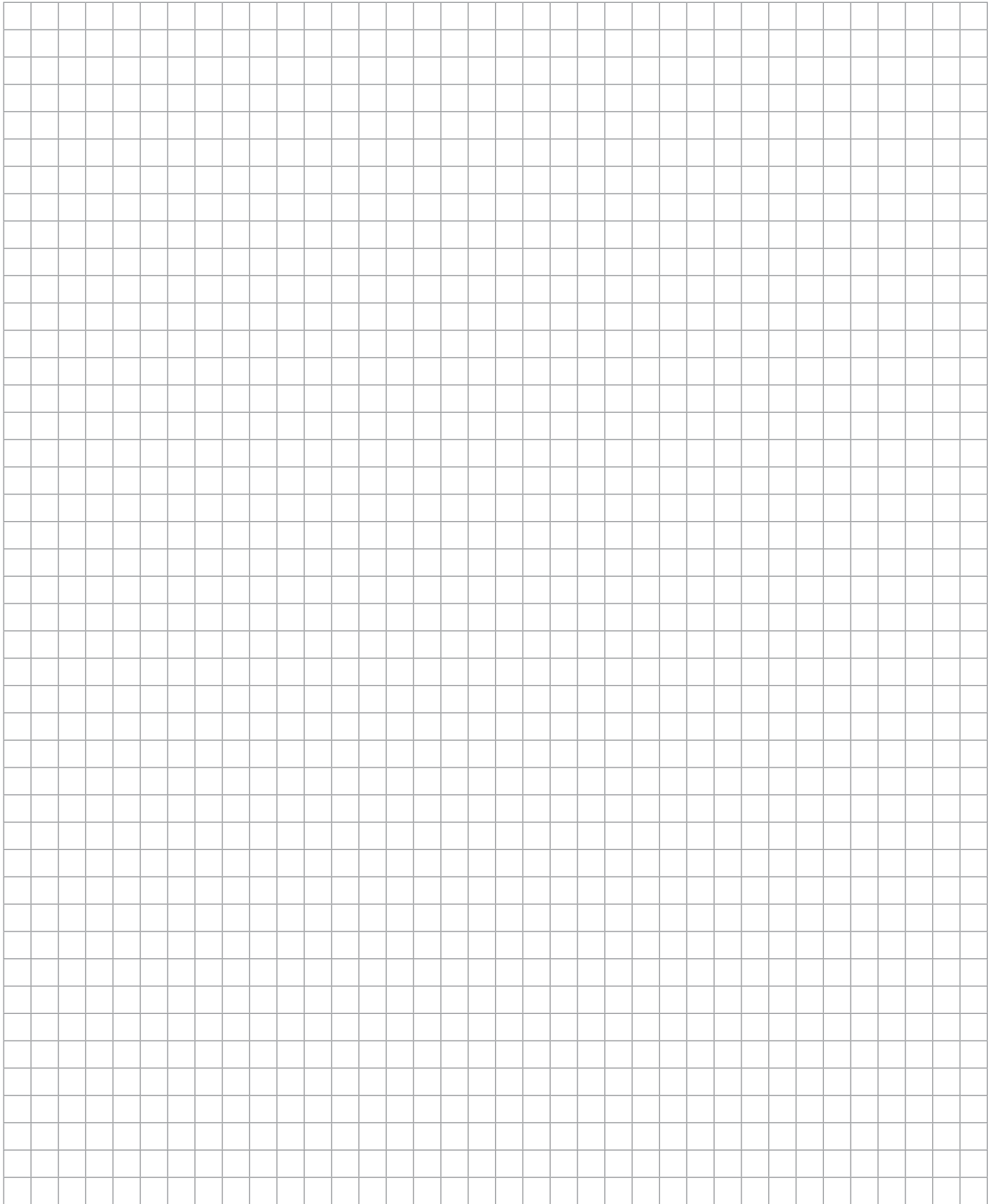


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