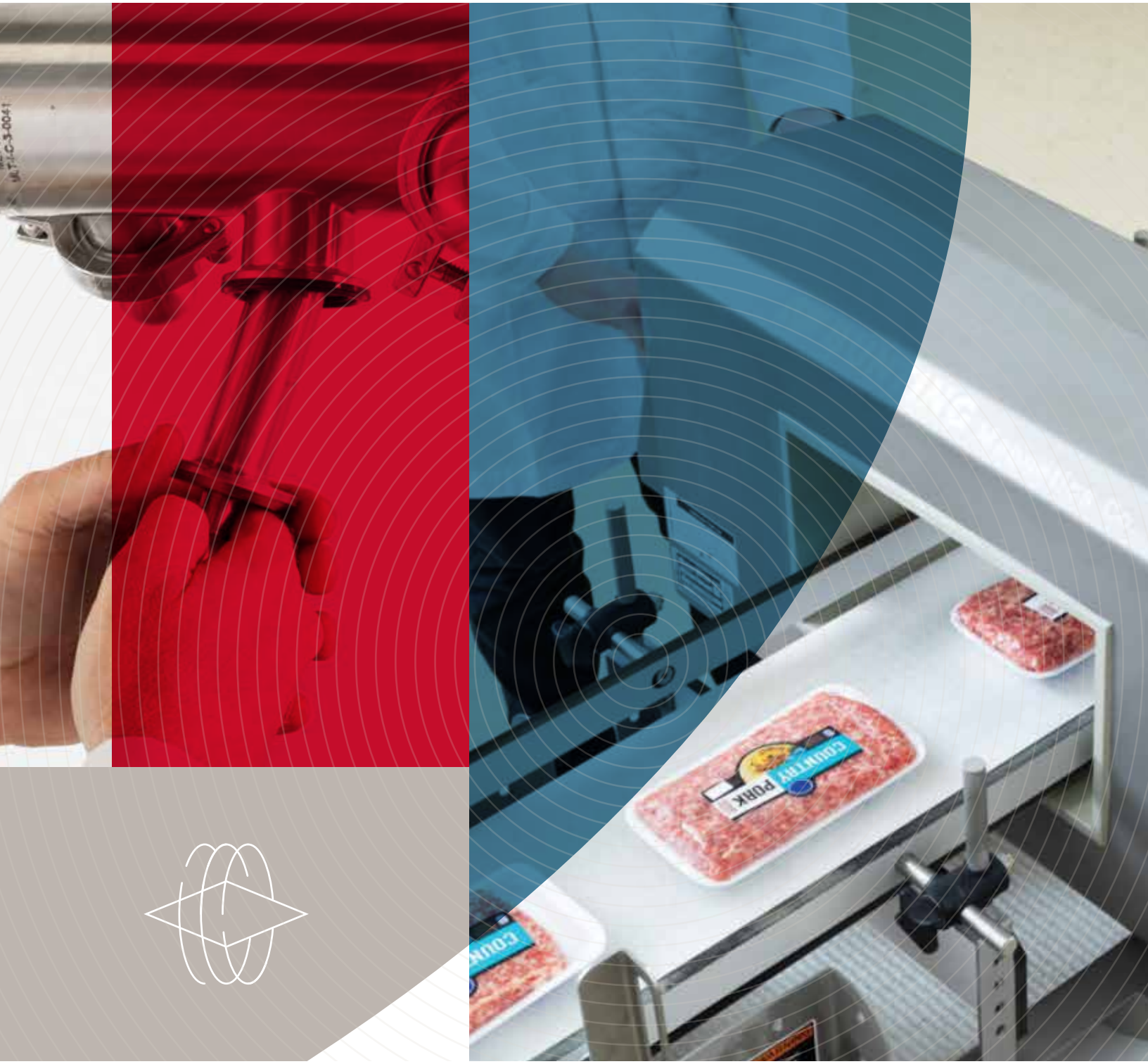
BUNTING®

GLOBAL. MAGNETIC. FORCE.™



Food and Pharma

Whole Food, Liquid, Powder, Bulk, Grain, Milled, Granular, Chemical

About BUNTING

Bunting is an industry leader in the design, manufacture, and sales of cutting-edge magnetic equipment used in applications such as magnetic separation, metal detection, conveyor systems, custom manufactured magnets, and more. All of the products we sell are custom-designed by our engineering team. We work with customers to determine their exact needs and develop a product that will perfectly suit the challenges of the industry they are working in and the materials they are handling, as well as being designed to fit within the existing layout of the customer's facility.

Since 1959, Bunting has been a family-owned, family-operated company. Headquartered in Newton, KS, Bunting currently has multiple manufacturing facilities within the United States as well as abroad in the United Kingdom. We are committed to upholding the values of innovation, dedication, and hard work that Bunting was founded upon sixty years ago.

As technology continues to advance across every industry, Bunting remains committed to integrating new technology into our products, creating solutions that address modern industry challenges, and continuing to expand our domestic and international reach.

Bunting-Newton primarily focuses on magnetic equipment for magnetic separation and metal detection applications. Newton, Kansas has served as the company's headquarters since 1979. Here, we design and manufacture magnetic separation, metal detection and material handling equipment as well as a complete line of printing cylinders.

With a team of engineers using world-class, computer-aided design equipment, we can customize and develop products to fit any application or production line.

Bunting-DuBois has a unique role as it is the only North American manufacturer of compression bonded, injection molded, and hybrid magnets used in custom designed permanent magnet assemblies. These assemblies are used in the military, aerospace, automotive, and other industrial commercial industries.

Bunting-Elk Grove Village is home to the company's Magnet Materials division. Bunting-Elk Grove Village provides the largest online selection of permanent magnets and magnetic equipment, with all in-stock items able to be shipped within 24 hours of an order being placed on its website, BuyMagnets.com.

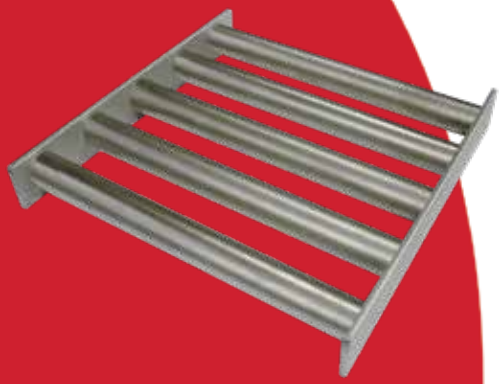
Bunting-Berkhamsted provides total magnetic solutions—from individual magnets and magnetic sub-assemblies to magnetic separation, material handling, and metal detection equipment to various industries throughout Europe and the UK. Bunting-Berkhmasted also manages E-magnets.com, where customers may purchase a wide variety of commonly used magnets.

Bunting-Redditch provides a complete line of magnetic separation, recycling, and metal detection equipment to industries across the globe.

Bunting®

Magnetic Technology for All Industries

The unique benefits of magnetic technology can be utilized across a wide range of applications, and Bunting is always looking to the future regarding new challenges that present themselves in the many industries we work with. Bunting engineers are constantly working to develop new technologies and improve upon our existing product lines. Bunting custom designs, manufactures, and distributes a broad selection of magnetic separation and metal detectors for the following general sectors:



FOOD AND PHARMACEUTICALS

PLASTICS

RECYCLING

AUTO SHREDDING

AGGREGATE, MINING, AND MINERALS

CERAMICS

TEXTILES

METAL STAMPING & FABRICATING

PRINTING, DECORATING AND CONVERTING

CUSTOM MAGNETS AND MAGNETIC ASSEMBLIES

STOCK MAGNETS & MAGNETIC TOOLS

Across all the industries Bunting works with, our commitment to providing quality products and customer service remains consistent. Bunting enthusiastically offers custom designed applications for customers bringing unique challenges to the table, and we take pride in working individually with each customer in order to provide the best product possible.

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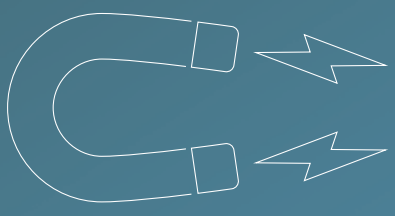
Permanent Magnets:

Permanent magnets are essential to virtually every type of modern technology and convenience. Being able to provide the optimum magnetic solution to the customer requires in-depth knowledge of the full supply chain. Bunting's team of magnet experts and engineers is fully equipped with this knowledge. Bunting entered the magnetics industry in 1959 as a magnet distributor and rapidly grew to a manufacturer of magnetic products, focused on custom design and customer-focused engineering. Today, Bunting is a leader in manufacturing and designing a diverse range of innovative magnetic technologies across industry sectors. Listed below are the general permanent magnet types that are used in Bunting products.

Neodymium Iron Boron Magnets

Neodymium magnets are a type of rare earth magnet and are the most common rare earth permanent magnets in the world. They are composed of Neodymium (Nd), Iron (Fe) and Boron (B), and exhibit the highest maximum energy product of any permanent magnet material. However, these magnets are vulnerable to corrosion if they are exposed to the elements. To protect the magnet from corrosion, the magnet is usually coated with nickel. Other coating options are aluminum, zinc, tin, copper, epoxy, silver and gold.



Plastic Bonded Neodymium Magnets

These magnets are-cost effective while offering high performance and tolerances in addition to low electrical conductivity. It is possible to multipole magnetize them as a complete ring, and they can be designed to achieve specific flux density profiles. These are especially well suited for applications such as minimizing cogging torque in motors. These injection molded magnets are an excellent choice for higher volume applications. Compression bonded magnets can also be easily machined, making them suitable for low volume production in manufacturing magnets with multipole magnetization, skew angled poles, and various other directions of magnetizations. Magnetizing patterns are only limited by whether or not a magnetizing coil fixture can be produced to give the required magnetizing pattern.

- Bonded NdFeB magnets can be compression or injection molded to final shape. These high tolerances can be achieved without the need for further machining.

- Injection molded magnets are available in both neodymium and ferrite varieties.

- Injection molded ferrite magnets offer high durability and resistance to shock, as well as a low cost and extreme resistance to corrosion and conditions such as low density.

- Available in high tolerance and complex shapes.
- No coating required, although black epoxy and Parylene coatings are available.

Samarium Cobalt Magnets

Samarium cobalt magnets are rare earth magnets that offer high maximum energy products and can operate in high temperature environments. They are extremely strong and typically allow for smaller size magnet profiles. Though not as strong as neodymium magnets, samarium cobalt magnets present three significant advantages. They work over a wider temperature range, have superior temperature coefficients, and also have a greater resistance to corrosion. Special coatings are available for specific marine and automotive applications.

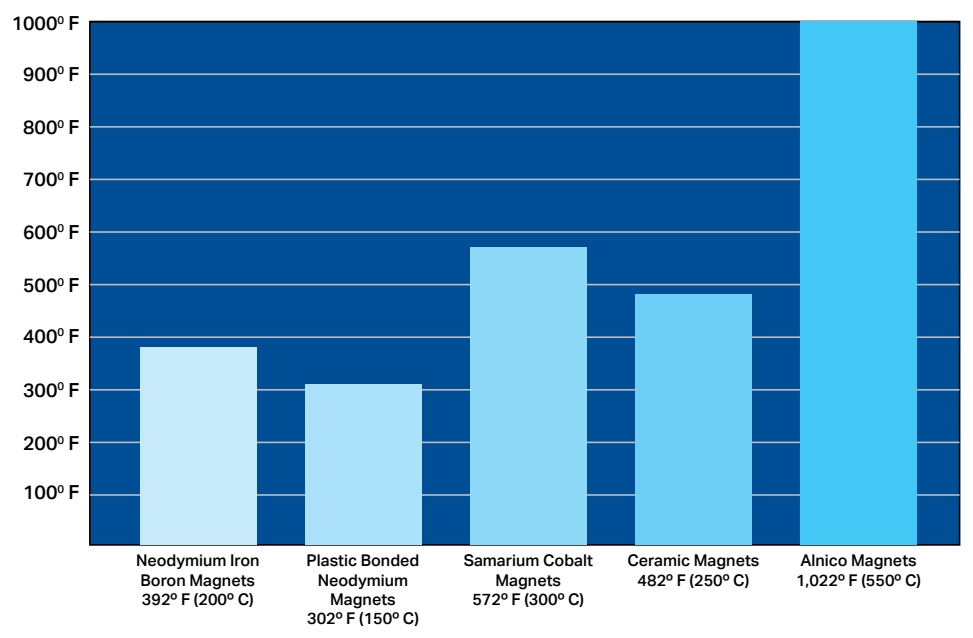
Samarium cobalt magnets are one of the most useful magnets for high temperature applications. They retain most of their energy up to 575° F, making them ideal replacements for Alnico magnets when high temperature use or miniaturization is required. Samarium cobalt magnets are known for their excellent temperature stability—maximum use temperatures are between 250 and 550°F; Curie temperatures range from 700 to 800°F.

Ceramic

Ceramic magnets, or ferrite magnets, are low cost, lightweight, moderate energy permanent magnets capable of withstanding operating temperatures of up to 480°F. They are highly corrosion resistant and work well in high volume applications. Ceramic magnets can be made in many shapes and sizes, can be ground to intricate and accurate shapes, and can even be designed to be small enough to be used in micro applications.

Alnico Magnets

Alnico magnets are alloys comprised of aluminum, nickel, iron, and cobalt. They have the highest operating temperature and temperature stability of any permanent magnetic material. They retain approximately 85% of room-temperature magnetization at temperatures of up to 1,000°F. They possess high residual induction as well as relatively high energies. Alnico magnets naturally possess an excellent corrosion resistance.



Specialty Finishes

CHOOSE THE RIGHT CONSTRUCTION GRADE

For equipment to be safe and effective, it must be built with the proper construction grade material and finish. Bunting offers three grades – utility, food and sanitary – to suit the full range of food and pharmaceutical industry applications.

UTILITY GRADE [BMC 100 SPEC]

We recommend utility-grade separation equipment specs for handling inert products (primarily granular or pelletized materials) when product retention is not a concern. and when the materials being handled are not intended for human consumption.

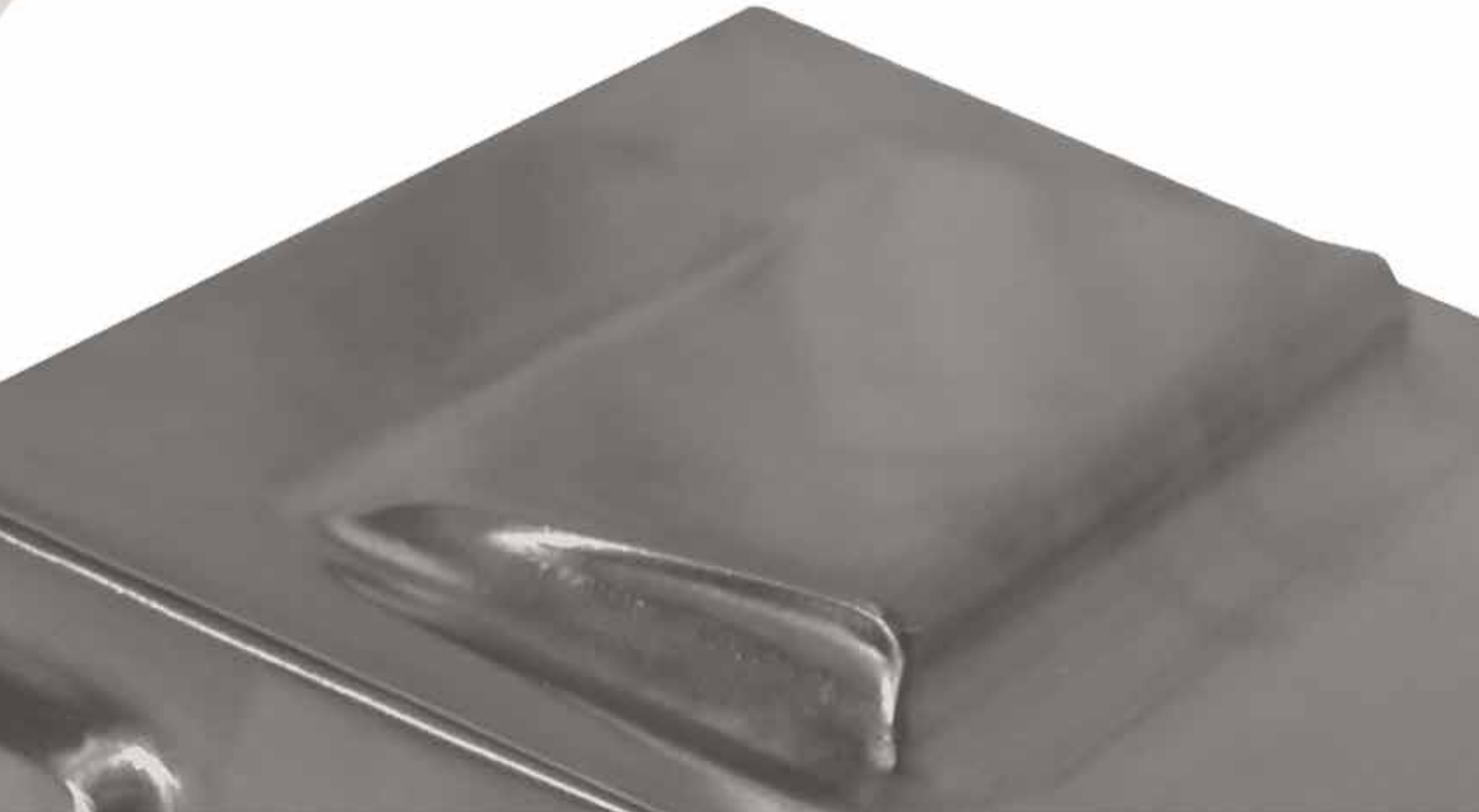
FOOD GRADE [BMC 200 SPEC)

Handling ingredients for human or animal consumption requires food-grade construction specs. Construction criteria assume that the finishing process will eliminate bacterial contamination. Stainless steel is the primary material for food-grade equipment, and gaskets and seals are FDA-approved. All mating panels are formed or welded into one continuous surface.

SANITARY GRADE [BMC 300 SPEC)

Sanitary-grade units are used where finished products for human or animal consumption are handled, following guidelines set by the USDA-3A standard for sanitary fabrication. Bunting magnetic separation products are the first special sanitary grade models to have earned the USDA, AMS-Acceptance. These separators feature FDA-approved gaskets, seals and special interior/ exterior finishes, including optional electro-polishing.

They meet or exceed the USDA/AMS criteria as published in the NSF/ ANSI/3-A 14159-1 2002 specifications, and bear the USDA/AMS Meat and Poultry Accepted Equipment logo.



MAGNETIC SEPARATION

Safeguard your product quality and protect your processing equipment with Bunting's line of magnetic separation products.

Separation of metal contaminants is an essential step in the production of food and pharmaceutical products. Bunting manufactures an extensive line of magnetic separation equipment that removes contaminants from a variety of material consistencies, including dry particulates, liquids, and slurries. We offer units designed to remove metal contamination from gravity, mechanical, and pneumatic conveying systems.

Metal contaminants in a production line present not only a risk to a consumer who may bite into a sharp piece of scrap metal, but also to the other equipment in your facility.

Our magnetic separation equipment pulls contaminants out of the production line quickly and efficiently, sparing you the costs of repairing or replacing equipment such as grinders that could be seriously damaged if a piece of metal scrap were to pass through. In addition to causing harm to the consumer and to other equipment within a facility, metal contamination found in a product can seriously damage a manufacturer's brand and reputation.

We are proud to be the first company in the metal separation industry to have earned USDA and AMS acceptance for our sanitary-grade metal separators. Bunting engineers have made it a priority to stay on top of the constantly changing marketplace and government requirements regarding the safety and purity of food and pharmaceutical products. We welcome the challenge of ever more stringent guidelines as we are driven to continuously improve our product offerings.

All of our product models listed meet or exceed USDA/AMS criteria published in the NSF/ANSI/3-A SSI 14159-1-2002 specifications. They have all passed inspection and earned the right to bear the USDA/AMS Meat and Poultry Accepted Equipment logo.

Plate Magnets

Bunting supplies various types of plate-based magnetic separators that can be implemented into a broad range of applications, and can be used with an equally wide range of materials. All plate magnets are designed for the capture of tramp metal in gravity free-fall applications. Metal-detectable gaskets and grommets are standard features in housing of plate magnets.

STANDARD PLATE MAGNETS

Standard Plate Magnets are available with permanent ceramic magnets or with high-intensity permanent rare earth magnets. Both types of magnets work efficiently to capture fine metal particles and slightly magnetic debris from powdery, moist, clumpy, or abrasive materials that might choke or wear cartridge-based separators. Plate magnets install easily in chutes to remove ferrous fine particles and larger pieces of tramp iron from many types of free-flowing and pneumatically conveyed material. They can also be installed above conveyors or below conveyor drive pulleys to capture contaminants as material drops from open belts. Standard installation kits include a pre-drilled hinge, latch, and other hardware to ensure easy mounting. The tapered magnetic face is designed to prevent contaminant wipe-off in rapid product flow. Standard plate magnets are available in widths from 4″ to 60″.

- Ideal for 30° to 60° inclines, allowing contaminants to be trapped as material flows over the plate magnets.
- Food, sanitary, and USDA finishes available to fit your production safety regulations.
- Hinged plates swing out for easy cleaning.
- 300 series SS construction. 316 stainless steel available when required. Tapered step face to prevent product wipe off in rapid product flow is standard with 400 stainless steel.
- Rare earth magnets are available to provide maximum strength and reach out.
- Optional replaceable grain face available for dealing with abrasive materials.

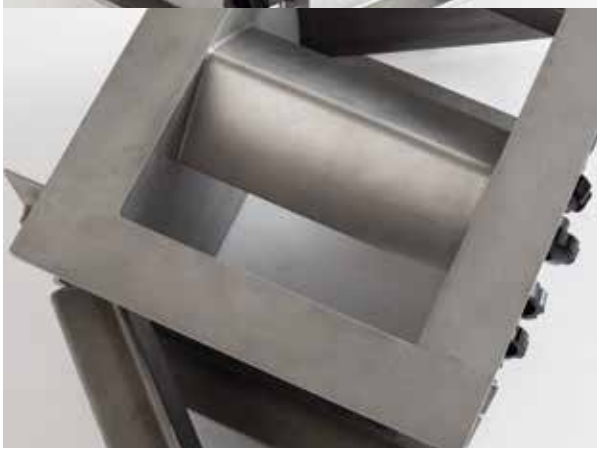


PLATE HOUSING MAGNETS

Plate Housing Magnets resist bridging and choking to remove tramp iron and ferrous fine particles from flow-resistant bulk materials. The stainless steel housings mount easily to enclosed spouting or directly on processing equipment. Optional square, rectangular, and round adapters can be supplied or designed to your specifications for ease of installation. A baffle at the top of the housing helps break up clumps and directs product flow over the unit's two powerful plate magnets.

- Excellent for separation of coarse, fluffy, and other flow resistant materials that bridge in grates and drawer magnets.
- A diverter at the top of the housing helps break up clumps and directs product flow over the unit's two powerful plate magnets. Additional removable/replaceable diverters are available.
- Custom transitions for round, square, or rectangular spouting are available to fit any application.
- Economical ceramic and powerful rare earth magnets are both available based on your production needs.
- A self-cleaning option is available for increased efficiency.
- Compact design fits easily into limited spaces, which allows for mounting on processing equipment or on spouting.
- Rugged stainless steel construction resists wear and extends life of equipment.

SUSPENDED PLATE MAGNETS

Bunting suspended plate magnets are designed to be suspended above open conveyors to remove ferrous objects and fines found in grains, feedstuffs, raw and processed food products, dry powders, and other particulates.

- The stainless steel design complies with food and sanitary grade requirements.
- The magnet suspends over a conveyor belt or drop-off point to remove contaminants from dry powders, grains and particulates without interrupting the product flow.
- The powerful ceramic magnet field reaches deep into conveyed material to pull ferrous tramp from flat-belt and trough conveyers. Rare earth magnet models are available for applications that require greater magnetic power.
- Sturdy, free-standing, bolt-together support frames enable convenient mounting.
- Optional stripper plate slides out for fast, easy, out-of-the-way cleaning.

Our Suspended Plates come in sizes matched to common belt widths and are outfitted with eye-bolts to aid in handling and overhead suspension.

- 950 Suspended Plates are designed for deep 10" reachout troughing applications and for high conveyor speeds of 100 to 300 fpm.
- 650 Suspended Plates are designed for medium-duty and lighter burden depth where 6 1/2" reachout is adequate. The 650 Series is a cost effective choice when dealing with lighter product density, lower conveyor speeds, or thinner burden depths.
- 450 Suspended Plates are designed for light-duty flat belt applications with a 6 1/2" reachout. They can be upgraded from ceramic to rare earth magnets, resulting in higher intensity magnetic fields to separate metal fines from thin, light layers of products conveyed at speeds under 100 fpm on flat belts.

HUMP MAGNETS

Hump magnet separators are specifically built to handle high-volume product flow. Available in hump and half-hump housings, they are designed for installation in enclosed flow lines or on processing equipment.

STANDARD HUMP MAGNETS

Hump magnet housings handle gravity, moderate positive, and negative pressures. Their angled shape directs the product flow into the magnetic field, helps prevent build-up and bridging, and assists in breaking up clumps of product for increased protection against entrapped ferrous debris.

Offset design breaks up clumps and directs material into magnetic field.

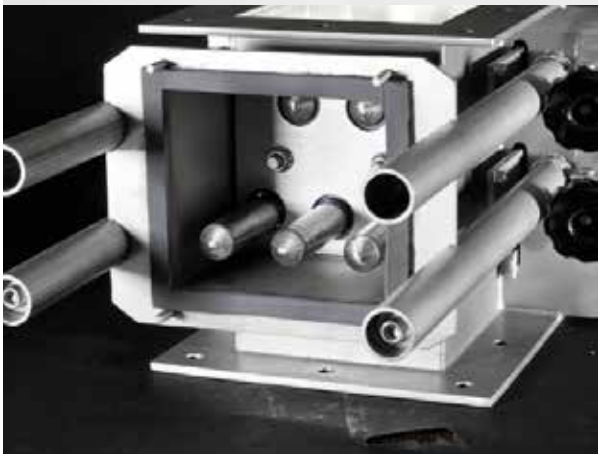
- Select double or single hump housings sized and outfitted to your specs.
- Available with mild steel or stainless steel construction. Custom transitions for round, square, or rectangular spouting are available to fit any application.
- Hinged plate magnets swing open for quick manual cleaning.
- Self-cleaning models reduce cleaning time and labor.

HALF HUMP MAGNETS

Half-hump magnets are used where standard hump magnets will not fit because of height restrictions. Like its larger version, the half-hump housing directs the material flow over the single high-strength permanent magnet, and breaks up aggregated material to dislodge and capture embedded metal contaminants.

HF Drawer Magnets

Bunting HF Series Drawer Magnets are equipped with powerful magnetic cartridges to handle a wide range of separation tasks in mechanical or gravity flow applications. They can be configured with up to 5 cartridge trays, arranged so that the cartridges are staggered to increase contact with the product stream. Material moves in a waterfall flow pattern from one cartridge tray to the next, resulting in exceptionally thorough cleaning.



- Available in utility, food, and sanitary construction grades to suit your safety regulations, with multiple cleaning options and stainless steel housings.
- Bunting supplies custom transitions to match round, square, or rectangular spouting, allowing for a simple, secure fit with your existing equipment.
- Multiple trays provide increased contact with product flow for more complete metal capture.
- HF Drawer Magnets are available with the NUHI™ Neo Ultra High Intensity Cartridge Magnet. Completely redesigned from the ground up to address the processing challenges manufacturers face, the NUHI™ cartridge is nearly 20% stronger and delivers 50% more reach out than our previous cartridge design. The result is more power, a purer product, and improved plant efficiency. Ceramic and rare earth magnets are also available.
- Manual standard, manual self-cleaning, pneumatic self-cleaning and pneumatic continuous self-cleaning configuration options are available.

HF DRAWER CONFIGURATION OPTIONS

MANUAL STANDARD

In the manual standard configuration, ferrous debris is removed from the cartridges by sliding the trays out of the housing and wiping them off by hand. This allows for the operator see exactly how much material was separated out of the product line, giving them insight into the process and providing hands-on interaction.

SELF-CLEANING

The self-cleaning configuration is designed to fully extend the magnetic cartridges outside the housing. As these tube assemblies travel outside the housing, the ferrous metal is wiped from the surface of the cartridge. The collected metal then drops off into a tray outside the housing.

PNEUMATIC SELF-CLEANING

The pneumatic self-cleaning configuration releases ferrous contaminants into the discharge area automatically using pneumatic power. With this model, product flow must be stopped in order to clean cartridges and prevent contaminated products from flowing into product stream. Pneumatic units operate via a toggle control, push button or timer. They can also operated via a Bunting engineered automated control package, making them an ideal choice for installing in hard-to-reach locations.

PNEUMATIC CONTINUOUS SELF-CLEANING

The pneumatic continuous self-cleaning configuration utilizes a special drawer design that allows product to continuously flow while magnets are being cleaned. There is no need for a gate to stop product flow. Each row of magnets is cleaned in an alternating pattern, allowing the product to remain in contact with a row of magnets at all times. This unit operates by remote switch or by a Bunting-engineered automated control package, allowing it to be installed in hard-to-reach locations.

Magnetic Cartridges and Grate Magnets

MAGNETIC CARTRIDGES

Thanks to computer-aided design, Bunting cartridges achieve the optimum balance between magnetic reach-out and holding force. Cartridges can be mounted individually, side-by-side or in multiple-row arrays. Bunting offers ceramic, alnico, neodymium Power-Balanced™ rare earth, neodymium high-intensity rare earth, and neodymium high-intensity rare earth temperature-compensated magnets.

GENERAL-PURPOSE MAGNETIC CARTRIDGES

Both standard and heavy-duty models are constructed of durable 304 stainless steel tubing and are available with threaded hole, threaded rod, or plain sealed end plugs. 316 stainless steel is also available. End plugs are fully welded into the tough 1-inch diameter tubing for added durability.

- Select tapped, sealed or studded ends.
- Standard 1″ round cartridges start at 4″ lengths.

HEAVY-DUTY MAGNETIC CARTRIDGES

Bunting heavy-duty cartridges are designed for maximum metal removal.

For use where high flow rates or bridging might be a problem, or where structurally stronger cartridges are required. These 1 1/2″ square cartridges offer superior reach-out and nearly twice the magnetic surface area of standard 1″ cylindrical cartridges.

- Durable, heavier-gauge stainless steel tubing resists wear and lasts longer in demanding applications.
- High-intensity rare earth magnets are standard.
- Heavy-duty 1 1/2″ square cartridges offer nearly two times the magnetic surface area of standard cartridges.

NUHI™ NEO ULTRA HIGH INTENSITY MAGNETIC CARTRIDGES

Completely redesigned from the ground up to address the processing challenges manufacturers face, the NUHI™ cartridge means more power, a purer product, and better plant efficiency.

- Over 289 oz of Pull Strength with 1/2″ ball.
- 316 Stainless Steel Construction to ensure durability.
- 14% stronger than our previous cartridge design.

GRATE MAGNETS

Bunting grate magnets remove ferrous fines, metal fragments, and larger metal objects various products. Grates can be installed or simply laid inside hoppers, pits, chutes, housings and bins, where they can be accessed for cleaning. Grate magnets are offered in food, sanitary and USDA finishes.

GENERAL-PURPOSE GRATE MAGNETS CARTRIDGES

- Standard grate magnets use 1" round cartridges. They are easy to access and remove for cleaning.
- Available in round, square, and rectangular arrays. Standard sizes from 4" to 36". Easily fit into a variety of applications.
- 304 Stainless Steel is standard but 316 Stainless Steel is available for corrosive environments.

HEAVY-DUTY GRATE MAGNETS

- 1 ½"square tubing made from sturdy 304 Stainless Steel welded to frame with rigid channel side members.
- Available in square and rectangular styles. Standard sizes range from 12" to 60" on a side to fit in a variety of applications.
- Ruggedly built for demanding indoor/outdoor use.
- Ideal for handling abrasive products and hard-to-flow materials and, minimizing bridging and product build-up.

ADDITIONAL GRATE MAGNETS

Plain Style

Angular baffles

Rod baffles

TURBOGRATE™

The TurboGrate™ system is designed to remove ferrous metals from powder and granular material with the most difficult flow characteristics.

- Food, sanitary, and USDA finishes available to fit your production safety regulations.
- Built to fit most gravity flow line sizes, allowing for a seamless fit into your operations.
- Two standard sizes are available for up to 12" spouting. Can be custom-designed to fit your installation requirements.
- Self-cleaning option available to minimize downtime.
- Equipped with high-intensity rare earth magnets to filter out even the finest of contaminants.

DRUM MAGNETS

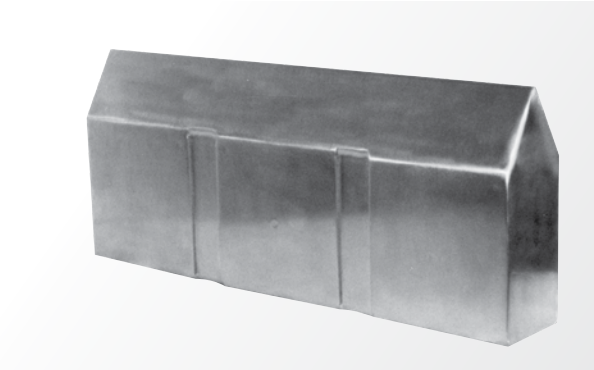
Bunting manufactures many types of drum separators, ranging from heavy duty electro drums for separating ferrous metals from non-ferrous metals, to permanent magnetic drums for fine iron separation. The magnetic drum separator is normally installed at product discharge points and incorporates a 150 – 180 degree magnet system, encased in a stainless steel shell, or manganese wear plates for severe application. This system pulls iron contamination out and behind the clean product path and discharges it automatically while the clean product continues its normal trajectory. Drum magnets are self-cleaning and provide continuous separation of ferrous contaminants from a wide range of free-flowing bulk and granular materials in high-volume applications.

STANDARD DRUM MAGNETS

- All drum magnets use permanent magnets, as well as including the option to be made with a high intensity rare earth magnetic system (ideal for separation of exceptionally small contaminant particles).
- Allow continuous separation and cleaning without interruption to the product flow.
- Ideal for high-flow, heavy-contamination applications.
- Stainless steel drum, mild-steel or stainless steel housings to suit your application needs.
- Bunting supplies custom transitions to match round, square, or rectangular spouting, allowing for a simple, secure fit with your existing equipment.
- Direct drive is standard with an optional variable speed control based on your application needs.
- Open-style design (free of housing) is ideal for installing at the end of conveying machines, (such as chutes), for removal of ferrous contaminants.
- Totally enclosed design (equipped with housing) is ideal for applications where product must be kept free from external contamination. It also protects your employees from inhaling any dust being given off from the product.

WEDGE MAGNETS

Wedge magnets are designed to provide efficient, economical protection against the damage that can be caused by tramp metal contamination. They are an excellent choice for implementation in pellet mills or with other equipment used in processing particulate or semi-solid materials. Wedge magnets efficiently process materials moving under gravity flow.



- Design allows for easy installation in difficult areas, such as narrow chutes.
- Wedge magnets require minimal mounting space, allowing for extra ease in installation.
- Stainless steel construction resists wear and corrosion.
- Unique wedge shape helps prevent product build-up and bridging, keeping material moving smoothly through the production line.
- Available in both ceramic and rare earth magnet configurations.

In-Line Magnetic Separation

GRAVITY IN-LINE MAGNETS (GIM)

These magnets allow you to utilize our powerful plate magnets in round, sloping spouting where material is under gravity flow. For effective tramp capture, spouting should be angled no more than 60° from horizontal.

- Tapered step magnet, effective for capturing material under gravity flow in round, sloping spouting.
- Food, sanitary, and USDA finishes available to fit your production safety regulations.
- Built to fit most gravity flow line sizes, allowing for a seamless fit into your operations.

In-Line Magnetic Separation

PNEUMATIC IN-LINE MAGNETS (PIM)

Pneumatic in-line magnets are built for use in dilute phase pneumatic conveying systems. They can be installed easily with optional factory-supplied compression couplings and, work best in horizontal runs with the plate magnet down to take advantage of material stratification. Pneumatic in-line magnets feature full-flow architecture to allow an unobstructed product stream.

- Designed for unobstructed product flow in dilute phase conveying up to 15 psi.
- Best suited for horizontal installation, but can work in vertical installations.
- Portable carts are available.
- Compression couplings speed in-line installation.
- High-energy rare earth tapered step plate magnets are standard.
- Tapered transitions guide material directly over the face of the hinged plate magnet, which swings away from the housing for quick external cleaning.
- Food, sanitary, and USDA finishes available to fit your production safety regulations.

CENTER-FLOW IN-LINE MAGNETS (CFM)

Center-flow in-line magnetic separators are engineered to remove ferrous fine particles and larger pieces of tramp iron from dry particulates as they travel through dilute-phase pneumatic conveying lines. To achieve optimum contact with the product flow, a conical magnet is suspended in the center-line of the housing. This tapered, exposed-pole cartridge has a stainless steel "nose cone" to direct the flow of materials around the magnet. The magnet's tapered poles allow ferrous fine particles to collect out of the direct air stream. Additionally, the trailing end of the magnet is an active pole which will collect any tramp metal that gets swept down the cartridge.

- Designed for unobstructed product flow in dilute phase conveying up to 15 psi.
- Available with all line and fitting types. Placement in vertical run makes optimum use of the magnetic field and ensures maximum efficiency in separation.
- High-energy rare earth magnets are standard.
- Optional clear view inspection port to observe separation process.
- Comes standard with a tapered step face to prevent product wipe off.
- 3" and 4" models are manufactured using new bolt-on flange design for quick delivery.

Magnetic Separation for Liquid Processing Systems

CARTRIDGE STYLE MAGNETIC LIQUID TRAPS

Magnetic Liquid Traps are designed to remove ferrous tramp metal contamination from liquid processing and conveying lines. To provide continuous and dependable magnetic protection in non-fibrous fluids, the design of this trap forces liquids through a tightly spaced grid of magnetic cartridges, ensuring close contact between the product and the magnetic field.

They provide dependable protection against tramp iron contamination and come equipped with powerful high-energy and high-temperature neodymium magnets to capture challenging types of debris, such as work-hardened 300 series stainless steel fragments.

Metal-detectable gaskets and grommets are standard features in housing of magnetic liquid traps.

- Easily spot check the magnetic cartridge for contamination with unique Clean in Place (CIP) design.
- Equipped with standard high-temperature and high-intensity rare earth magnets, allowing for a powerful magnetic field that will not be compromised by heat.
- All fittings are available. Standard 2", 3", and 4" line diameter. Half inch diameter and other sizes are available upon request to best fit your operating dimensions.
- All models have 316 stainless steel construction to comply with food, sanitary, and USDA grade regulations.
- Special T-Trap design for 5" and above line sizes.

IN-LINE STYLE MAGNETIC LIQUID TRAPS

Our magnetic in-line liquid traps use powerful rare earth magnets to remove even the smallest ferrous particles from high viscosity liquids.

Utilizing a straight-through design that allows liquids to travel easily through the trap.

- High temperature rare earth magnets are standard and tolerate temperatures up to 300ºF.
- Easy to install in tight areas where space is a problem.
- Available in 3" and 4" units. In-stock for immediate shipment.

PLATE STYLE MAGNETIC LIQUID TRAPS

Single-plate magnet and dual-plate magnet liquid traps effectively remove ferrous particles from viscous and fibrous liquids, as well as from liquids containing larger suspended solids. These traps are designed to direct contaminants against a magnetic plate and into a deep magnetic field where they are captured and protected from the wiping action of the liquid flow. A deflector creates gradual change in the direction of flow to agitate the product, and expose contaminants that would otherwise be blocked by suspended solids.

- Equipped with standard high-temperature and high-intensity rare earth magnets, allowing for a powerful magnetic field that will not be compromised by heat.
- All fittings are available. Our standard model offers 1"-4" inlet with ½" sizes, and special sizes are available upon request to best fit your operating dimensions.
- All models have 316 stainless steel construction to comply with food, sanitary, and USDA grade regulations.
- Special T-Trap design for 5" and above line sizes.

CR MAGNETIC LIQUID TRAP

A BUNTING INNOVATION FOR HIGH-CORROSION ENVIRONMENTS

Magnetic liquid traps are an essential piece of equipment for ensuring metal contaminants are separated from the liquid product flowing through the greater system. Under normal circumstances, the 316L stainless steel that standard liquid traps are made of is highly resistant to corrosion. However, when put under extreme stress from handling acidic foods and enduring rigorous cleaning procedures, intergranular cracks can occur in the material. This compromises the integrity of the protective oxide film and results in pitting and corrosion.

Bunting has engineered the new CR-MLT used specifically for processing acidic foods, such as tomatoes and citrus. The CR-MLT is manufactured from a single piece of corrosive-resistant material comprised of Bunting's newly developed superalloy. This material has a much higher resistance to chloride pitting, crevice cracking, and stress-cracking corrosion. It resists not only acid corrosion from food, but also endures the strong chemicals and rigorous water pressure blasts associated with wash-down cleaning procedures in food processing environments.

In addition to the corrosion-resistant material, the CR-MLT offers several other desirable features. It has a high-pressure rating, which allows it to handle a higher volume of product at a faster rate. The 2″ diameter magnetic load is thicker than the normal 1″ diameter cartridge, making it last longer in the field. Cleaning the CR-MLT is simple. The operator pulls out the cartridge, which is wiped clean by an internal gasket. Because it is made from a single piece of stainless steel, there are no welds or crevices to corrode.

The CR-MLT utilizes 45SH magnets (temperature-compensated, high-intensity, neodymium magnets) for superior capture of metal contaminants. Previously products such as tomato paste, ketchup, vinegar-based products, and high-temperature chloride-based cleaning agents, are no longer a concern.

Magnetic Pull Test Kits

FIELD TESTING YOUR MAGNETIC SEPARATION EQUIPMENT

Bunting offers two options of magnetic pull test kits designed to field test your magnetic separation equipment.

MAGNETIC PULL TEST KIT WITH STANDARD SCALE

Measure the force of your magnetic separation equipment with this affordable, reliable pull test kit. The test pieces and tools have been selected for testing a broad range of separation equipment and configurations. This precision instrument ensures consistency and repeatability, which are critical to gathering reliable test data from monitoring magnetic strength over time.

The standard-scale kit includes:

- 0 to ½-lb x 8-oz. force gauge
- 1 lb. calibration weight
- Multi-gap spacer block
- ¼" test ball
- ½" test ball
- 1/8" x 1" x 3" plate test piece
- Polarity Indicator
- Storage case

IMPROVED MAGNETIC PULL TEST KIT WITH NIST-TRACEABLE DIGITAL SCALE

Regular pull tests are critical for any magnetic separator, but especially for those used by food and pharmaceutical handlers due to the risk of contamination at any stage. The precision performance and calibration options of the Bunting custom-made digital scale make it superior to spring scale kits. Easy to use and competitively priced, the Bunting kit includes an improved polarity indicator and a magnetic field-strength indicator for optimizing spacing between cartridges.

An optional version of the digital scale comes with National Institute of Standards and Technology (NIST) calibration check certificate, which is compliant with ISO and other quality and safety programs and renewable with the annual checkup and calibration.

The digital kit includes:

- Digital scale (NIST-traceable calibration)
- Digital scale charger
- Spacer block
- Test plate
- 1 lb calibration weight
- ¼" test ball
- ½" test ball
- Polarity indicator
- Storage case

Ask about having a pull test audit for your facility.

METAL DETECTION

Even the smallest amount of metal contamination can seriously harm a customer, devastate a brand's reputation, and inflict the heavy financial costs of liability, product recall and damage to production equipment. Metal particles are the most common source of foreign contamination in food processing. This contamination frequently enters the product stream as a result of the wear and breakage of other processing equipment in the production facility.

Bunting metal detectors are able to sense and reject extremely small particles of ferrous and non-ferrous metals.

They are suitable for functions such as detecting pieces of aluminum foil within a food item in the initial production line, alerting the operator of a brass or stainless steel machine part that may have broken off and fallen into the product stream, and acting as a final check to ensure packaged items, such as single-serving fruit cups, are free of metal before they are sent off to consumers.

With Bunting metal detection equipment integrated into your process, you can send your product to market with complete confidence.

HOW METAL DETECTORS WORK

The product passes through an opening in the detector, which houses a unique three-coil search head. This is comprised of windings around an aperture opening, whether round or rectangular. There is a transmitter in the center of this coil with two receivers surrounding it, one placed at the entrance of the search head and one at the exit. Within the aperture opening, an electromagnetic field is created. When a piece of metal passes through the coil opening, a signal is generated and calculated at each and activates further operations or devices. All metal detectors utilize electronic control packages designed by Bunting to specifically fit with our metal detection equipment.

Some metal detectors are equipped with automatic reject mechanisms, which isolate contaminated material and remove it from the product flow. Bunting's automatic reject mechanisms operate quickly and efficiently, meaning that the removal of contaminated product does not come at the expense of slowing down your greater operating process.

BUNTING DESIGN ENSURES MECHANICAL INTEGRITY

As our description of metal detector operation suggests, metal detectors are highly sensitive, precisely calibrated instruments that can be affected by vibration, electrical fields and other environmental conditions.

To ensure the most reliable operation in demanding environments, Bunting metal detectors are designed and manufactured to a higher standard of durability and signal strength. The search head is filled with catalyzed epoxy, to eliminate void areas inside the housing. This waterproofs the search head and stabilizes it against vibration. Coils and electronics may be rated for dust and water protection from IP54, to IP65 and IP69k.

Advanced shielding technology in the Bunting design provides superior protection from outside interference. Bunting metal detectors therefore require shorter metal-free zones, and are able to operate in difficult environments where competing detectors cannot.

BUNTING QUALITY CONTROL

Depending on the level of electronics you select, Bunting® metal detectors have recording and reporting functions within the software. Optional features allow your organization to connect detectors for remote monitoring, reporting or control.

SELECTING THE BUNTING METAL DETECTOR FOR YOUR OPERATION

Food and pharmaceutical companies must manage unique process flow conditions and the challenges of handling many different types of material. To assist our customers in choosing the metal detector best suited for their operating conditions, we pair each customer with a Bunting representative to aid the decision making process. Your Bunting representative is available to consult at any phase of the design process. We can assist in both integrating new equipment into established operations as well as planning a new facility from scratch.

Your Bunting representative consults at any phase of design, whether integrating into mature operations or planning a new facility.

Your part in the system integration is greatly simplified by our extensive portfolio of products, options, and by our more than 60 years of manufacturing and customer service innovation.

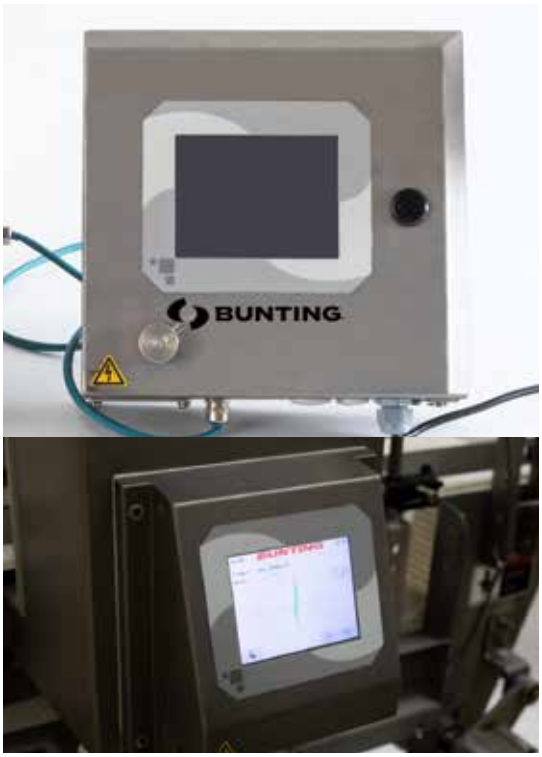
Electronics for Metal Detection Equipment

AVAILABLE ELECTRONICS

Bunting offers the most advanced metal detector controls in the industry, delivering superior results while still maintaining a user-friendly, easy-to-understand operating system. Our metal detectors for the food industry are equipped with 1 of 2 different electronics control packages. All metal detector equipment requires an electronics package in order to operate.

07 ELECTRONICS

- Easy-to-use color touch screen.
- 3 levels of user access for added security.
- USB interface for simple data exchange of backup, updates and quality control logs.
- Compliant with quality surveillance rules according to HACCP, IFS, BRC and SQF.
- Automatic product learning, stores up to 500 unique products.
- imagePHASE™ revolutionary product imaging software delivers improved sensitivity and superior learning in difficult product applications.
- Triple frequency allows the operator to process a wider range of items through the detector with ease.
- Variety of configurations available due to network-enabled system components, including remote monitoring and control via ethernet, or integration into other processing equipment.
- Variety of configurations available due to network-enabled system components, including remote monitoring and control via ethernet,or integration into other processing equipment.
- Automatic Protocol Expert is optional to allow direct connection to your network. Automatic Protocol automatically saves your protocol by batch, product and either daily or weekly.



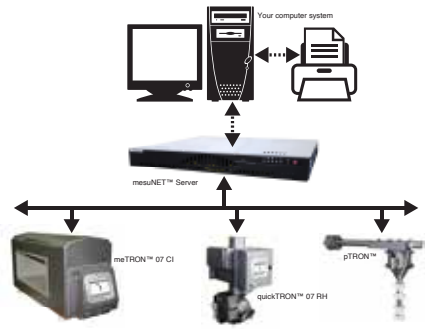
05 ELECTRONICS

- Four button text pad controls with simple menus provides quick access to operating parameters.
- Automatic product learning. Stores up to 500 unique products using an SD card.
- SD card interface for simple data exchange of back-up, updates, and quality control logs.
- Built-in product-effect compensation eliminates false rejects.
- Noise suppression eliminates the effects of electronic interference.
- Self-monitoring system warns if any components are not functioning properly.

mesuNET™ Server

mesuNET™ Server offers the possibility to network any desired number of metal detectors using the AMD 07 Series controls via either Ethernet or WiFi.

- Enables the acquisition and management of event and access data.
- Continuous evaluations of the performance of productions lines,
- Remote maintenance by BUNTING Online Service.



Metal Detectors for Food and Pharmaceutical Industries

TUNNEL STYLE METAL DETECTORS

Tunnel style metal detectors feature epoxy-filled search heads that are waterproof and isolate sensitive internal components from outside damage or interference. Tunnel style metal detectors are capable of detecting ferrous and non-ferrous metal contaminants from raw food as well as packaged products.

meTRON™ 05 & 07 CI

The meTRON™ features a tunnel style feedthrough system, closed loop, and integrated controls (CI) for use in conveyors, chutes, and troughs.

- Operates perfectly in wet spaces. Persistent assault from high-pressure cleaning and aggressive cleansing agents will not damage the durable stainless steel search heads.
- Epoxy filled search head is waterproof and isolates the coils from vibration.
- Proprietary Bunting construction design creates the smallest metal-free zone possible and shields the search head from outside interference.
- Constructed in Epoxy Painted IP54 (05 Controls) or Stainless Steel IP66 or IP69K (05 or 07 Controls).
- Custom aperture sizes are available to ensure the perfect fit in your application.
- Available with remote mounted controls.
- ATEX explosion proof rating available.
- Also available with our 05 control package.

meTRON™ 07 CI

Now Available with Optional Triple Frequency Controls

New integrated controls enhance our company's innovative imagePHASE platform by allowing the processor to learn a packaged food product in three different conditions, and select the one with that yields the greatest sensitivity. With the upgrade to these controls, the detector also displays the expected sensitivities to the operator with all three metal types: ferrous, non-ferrous, and stainless steel.

meTRON™ 07 CI with Conveyor

Bunting has developed the meTRON™ 07 CI to incorporate a custom designed conveyor belt system to allow accurate metal detection while maintaining quick, efficient product flow. All units are custom-built to exact specifications and arrive ready for installation.

The following items for the metal detection conveyor can be customized:

- Available in stainless steel for wash-down environments or painted steel for non-wash-down environments.
- Available in detector conveyor belt (DCB) or detector conveyor modular belt (DCM) with modular or fabric belting options.
- Direct drive reducers and motors.
- Controls with start/stop buttons or variable speed with encoder.
- Adjustable height leveling pads or casters.
- Variety of reject options, including belt stop, belt stop and reverse, air blast, 90° pneumatic pusher, 45° sweeper arm, retracting nose pulley, decline nose pulley, or flap gate on end of conveyor.
- Designed to match your production speed with fixed or variable speed drives. From 0.072 to 100 feet per second.
- Foot pads are standard with optional casters for ease of mobility.
- NEMA 4X rating available for wash-down environments.
- ATEX explosion proof rating available.

* For non-wash-down applications, alternative versions are available.

Gravity Free-Fall Metal Detectors with Reject Mechanism

Gravity free-fall style metal detectors automatically detect and reject all ferrous and non-ferrous metals while maintaining product flow. For HACCP safety, this detector is an efficient Critical Control Point (CCP) when detecting metal in any free-falling product.

quickTRON™ 07 RH (Round Housing)

The quickTRON™ 07 is a highly hygienic metal detector for inspection of material in gravity free-fall applications. It offers fully automatic detection and rejection of metallic contaminants from the product stream without process interruption.

- Patented powerLINE coil technology incorporates an integrated sensing tube into the coil construction, allowing product to flow closer to the coil for greater sensitivity.
- Integral inlet and outlet stubs with Jacob connections shield the coil from environmental interferences, delivering superior reliability and requiring less vertical distance for installation.
- Sanitary reject housing is designed for ease of cleaning. Reject flap is removable without tools.
- Inserting a sealing element readies the unit for CIP (Clean In Place) with water.
- Features 07 controls, the most advanced metal detection controls, delivering superior results with greater ease of use. Remote mounted controls available. Also available with the 05 control package. (See available electronics on page 25.)
- ATEX explosion proof rating available, hazardous environment rating available for flap style unit.

quickTRON™ 05 (Flap or Cowbell Style Diverters)

The quickTRON™ 05 uses a CR coil for reliable metal detection and is a cost-effective option for the examination of bulk material in gravity free-fall applications.

- Flap option is recommended for powders, fine granular, or dry products.
- Cowbell option is recommended for abrasive, sticky or non-powdered products.
- Equipped with simple 05 controls. Remote-mounted controls available.
- Stainless steel, wash-down, or painted versions available to suit your operating needs.
- Food and sanitary finishes available to fit your production safety regulations.
- ATEX explosion proof rating available. Hazardous environment rating available for flap-style unit.

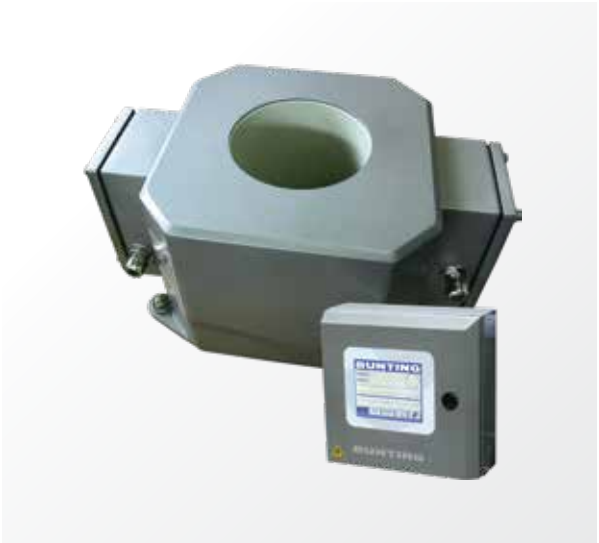
Gravity Free-Fall Metal Detectors (Detection Only)

Gravity free-fall style metal detectors automatically detect and reject all ferrous and non-ferrous metals while maintaining product flow. For HACCP safety, this detector is an efficient Critical Control Point (CCP) when detecting metal in any free-falling product.

flatLINE™ 07

The flatLINE™ 07 is a low-profile metal detector designed for installation in gravity free-fall applications. It is ideal for multi-head weighers and vertical bag-filling machines where space is limited.

- Compact and versatile. Requires minimum installation heights, allowing it to easily fit in tight spaces.
- Stores up to 500 unique product characteristics.
- Comes equipped with our AMD 07 digital controls with touch-pad. Also available with 05 control package.
- Powerline coil construction delivers the smallest metal-free zone possible, while shielding the search head from outside interference.
- Flexible designs integrate with your existing equipment. Available with integrated stainless infeed funnel or removable food-grade plastic funnel.



meTRON™ 05 CR

The meTRON™ 05 CR is a cost-effective metal detector for the examination of bulk material in gravity free-fall applications. This closed collar-style detector monitors liquids, pastes, and slurries conveyed in pipes. It features premium digital controls and offers triple-coil, high-frequency precision. meTRON™ 05 CR is a one-piece, collar-style metal detector that is designed for implementation in gravity or vacuum/pressure conveying lines.

- Easy installation and operation.
- Inspects products to meet ISO 9000 and HACCP standards.
- Triple-coil, high-frequency circuits for accurate detection.
- Standard with 05 controls.
- Equipped with EMFI filters to minimize false signals.

powerLINE™ 07

The powerline™ 07 is easily integrated into existing systems. Offers simplicity of operation and combined with ultimate reliability when detecting metal in gravity free-fall applications, pressure or vacuum lines.

- Patented powerline™ coil technology incorporates an integrated sensing tube into the coil construction, allowing product to flow closer to the coil for greater sensitivity.
- Integral inlet and outlet stubs with Jacob connections shield coil from environmental interferences, delivering superior reliability and requiring less installation space.
- Can be installed either vertically or horizontally.
- Features advanced 07 controls, the most advanced metal-detection controls, delivering superior results and with greater ease of use. Also available with our 05 control package.

Pneumatic Style Metal Detectors

Pneumatic Style Metal Separators detect and reject all metal types in enclosed pipe systems. They are ideal for pressure or vacuum conveyor lines. Machines are easy to operate, maintenance free, and quick-acting.

pTRON™ 05 & 07

Offering a metal separation solution for vacuum or pressure conveyance of dry granular or powder material.

- Fast-acting flap reject assures minimal loss of good product, while ensuring reliable separation of contamination.
- Positive Speed Control assures that the flap activates at the precise time required.
- Double Pinch-Valve reject assures no loss of system pressure.
- Features 05 or 07 controls.
- ATEX hazardous environment rating available.

Pipeline Style Metal Detectors

Bunting offers two main types of pipeline style metal detection systems. The pipeLINE™ system is used for detecting metal in liquids or pastes moving through pressurized conveying lines. The meatLINE™ system is designed specifically for detecting metal in ground meat and uses simple integration with a vacuum filler. All components are made of stainless steel or food-safe plastic. Our pipeline style metal detectors feature a responsive, powerful and permanently maintenance-free pneumatic drive for a long lifespan.

pipeLINE™

The pipeLINE™ system is used for detecting metal in liquids or pastes moving through pressurized conveying lines.

- Custom designed system fits any pipeline application requirements. Built to your specifications and comes ready for installation.
- 3-way separation mechanism is suitable for both pneumatically-driven cleaning (PIG) and Clean in Place (CIP).
- Features 05 or 07 controls, the most advanced metal detection controls, delivering superior results with ease of use.

meatLINE™

The meatLINE™ allows for detection and removal of ferrous and non-ferrous metals from ground meat products. Features a unique reject mechanism designed to remove metal contaminant without sacrificing the integrity of the ground meat.

- Detects and separates any type of metal, whether it is encapsulated or free
- Fits all commercial vacuum fillers.
- Reject mechanism can be easily disassembled and cleaned without the need for tools.
- All reject components are secured with a loss prevention device.
- Pressure washer safe.
- Easy and fast operation through touch screen display with self-explanatory menu structure.

Pharmaceutical Industry Focused Metal Detector

The pharmaTRON™ is a metal detector designed specifically for use in pharmaceutical applications. It detects all types of metals including ferrous metals, slightly magnetized stainless steel, and non-ferrous metals such as aluminum, copper and brass. This metal detector offers highly sensitive, thorough examination of pills and capsules. The Pharmatron ensures reliable detection of free or encapsulated contaminants in product flow.

pharmaTRON™ 07 HQ

Detects all types of metals including ferrous, stainless steel, aluminum, copper and brass through examination of pills and capsules. Reliable detection of free or encapsulated contaminants in product flow.

- Ultra-fast processing of pills and capsules.
- Adjustable working height and angle allows use with all tablet presses and de-busting machines.
- Contaminants are detected and automatically rejected from the product stream without process interruption.
- Minimal loss of good material due to a fast-reacting, powerful reject gate.
- Equipped with the quick-disconnect option. pharmaTRON™ can be thoroughly cleaned without dismantling or using tools. Reject system can be disassembled in seconds.
- Digital 2 channel signal processing and a 1 MHz operating frequency for speed and accuracy.
- Unit detects metal debris as small as 0.2 mm in diameter, which can include die particles or screen fragments.
- Fast cleaning and sanitizing.
- Works with all tablet presses.

Metal Detection Service

PRO-START™

Bunting PRO-START™ commissioning coverage ensures that your metal detector performs to your expectations from its first day on the job.

A factory-trained Bunting service technician will arrive at your site to help verify your installation, calibrate your metal detector to peak performance, and train your personnel. You will receive a calibration label for your metal detector, a highly detailed calibration record for your files, and a complimentary set of test spheres or sticks.

PRO-START also extends the original one-year factory warranty to two years total, including technical support. This makes PRO-START an unbeatable value and a must-have package for new installations.

PRO-MAINTENANCE™

The Bunting PRO-MAINTENANCE™ plan helps keep your metal detector operating like new every minute of its service life. It provides you customer satisfaction and protercts your product integrity and brand reputation.

Under the PRO-MAINTENANCE™ plan, factory-trained service technicians visit your site once a year (Gold Plan) or twice a year (Platinum Plan) to service and calibrate your metal detector, as well as ensuring your software is fully up to date.

The PRO-MAINTENANCE™ plan includes significant parts-and-labor discounts, on-site training for your personnel, two years of technical phone support, and a complimentary set of test spheres or sticks.

The cost of PRO-MAINTENANCE™ is a small price for peace of mind and peak, uninterrupted operation.

Metal Detector Warranty Solutions

PRO-WARRANTY™

The Bunting PRO-WARRANTY™ plan extends your factory-authorized warranty coverage for up to full five years from the install date. This cost-effective coverage includes all repair parts as well as labor costs when an on-site visit is required. The extended PRO-WARRANTY™ is available only on new Bunting metal detectors in one-year increments beyond the initial one-year warranty, for a maximum of five total years of coverage.

The PRO-WARRANTY™ plan also includes free software updates, expedited spare parts, and additional discounts applied to any new metal detection equipment purchased during the warranty period. Free technical support by phone for the whole warranty period is also available.

Avoiding board replacement expense alone justifies the cost of your warranty purchase. One year of our Pro-Warranty™ coverage is about half the cost of one replacement board. PRO-WARRANTY™ provides the confidence that only a factory-authorized plan can.

Purchase of a PRO-WARRANTY™ plan requires that the customer made a PRO-START™ service purchase at the time of the original equipment purchase.

Metal Detector Test Standards

Easily and economically maintain consistent operation and product quality with Bunting certified test balls, wands, and sticks for metal detector calibration and performance checks. These test standards are laboratory-certified and available in ferrous, non-ferrous, and stainless steel in a variety of sizes.

REQUEST MORE INFORMATION ABOUT OUR PRO-SERIES™ PROTECTION PLANS
e-mail: bmc@buntingmagnetics.com, or call: 800-835-2526

CONVEYOR AND CONVEYOR SYSTEM COMPONENTS

Whatever the material, Bunting conveyors can move it. Bunting's innovative conveyors enable smoother operation and greater safety at every point in your process where you handle canned products. Our magnetic conveyors help maintain a steady, uninterrupted flow of material and expedite the transfer of your product from one place to-another. If your plant does not require magnetic conveyors, we also manufacture nonmagnetic models that have the same well designed features, engineer support, and superior durability as our magnetic conveyors.

WASH-DOWN CAN CONVEYORS

Move and control full and empty cans safely and efficiently without risking can damage in today's high-speed applications. Gentle control and stability are maintained by powerful magnetic plate rails that guide cans over mattop or fabric belts as they move throughout your facility. Whether you are conveying, elevating, or lowering full or empty cans, our magnetic can conveyor eliminates potential damage that gripping and mechanical devices can cause to today's thinner wall can. It also reduces the downtime associated with such traditional devices.

- A full line of ceramic and neo rare earth magnetic rails are available to accommodate a variety of different factors in production including: can sizes, can weights, transport speeds, and angle of inclines.
- Matching magnetic corner pulleys and curve sections are available for upper nose-over sections, providing smooth transfers.
- Magnetic mattop conveyors can easily be provided in both single and dual lane conveyors, and are able to convey any size of can, (up to full 1-gallon cans).
- Standard wash-down can conveyors are designed with 11-gauge stainless steel formed frame and can be fabricated in food, sanitary, and USDA finishes to fit your production safety regulations. Optional drip pans are available on all models.
- Conveyors are offered with both fabric and mattop belting options to suit your application needs.
- Standard angle of inclines are 30°, 45°, 60°, 75° and 90º depending on the can size, weight, and configuration desired.
- Either standard duty or fully wash-down duty motors and reducers are available depending on your application requirements. Drives can be either side hollow shaft direct drive mounted or top or bottom mounted with stainless guarding. Most drives are heavy-duty 230/460-3-60 TEFC constant speed motors to provide belt speeds from 40 to 500 fpm for high line speed applications.
- All mattop conveyors feature drive pulleys that are designed in 8", 12", 18" or 24" diameters with vulcanized herringbone rubber lagging with crowned faces for maximum loading and belt tracking. Pulleys and return rollers can be provided in either stainless steel or a more economical epoxy painted steel. All drive bearings are self-aligning sealed precision ball bearings in non-metallic composite flanged housings.
- Sliderbeds can be provided in either smooth or dimpled stainless steel to accommodate different moisture and loading conditions.
- Can guides are available to provide overflow restraint, and can be ordered with either plain stainless half rounds, or wear-resistant plastic coatings to protect labels. Heavy-duty bridge supports provide full adjustability of the guides.
- Stainless steel hinged and latched drip covers are available for moisture control and safety guarding.
- Bunting provides a variety of belt materials in both fabric and mattop belting. They are surface designed to accommodate a variety of challenging factors, such as system capacity, can size and weight, infeed and discharge configuration, degree of incline, and ambient conditions such as moisture or oil presence.
- Mattop plastic belting is by far the most common belting material on newer can plant conveyor installations. It is available in 6" to 10" width as needed. This is the preferred belting material for applications in the food industry where regular high pressure wash-down procedures are required. Mattop plastic belting also makes it easier to slide parts across and is ideal for accumulation applications.
- Traditional fabric belts are offered as either 4" or 6" wide mono-filament belts for easy tracking and minimized drive loading.
- All standard belts are endless, eliminating many of the belt problems caused by splice failures on laced belts. This also allows for a section to be very easily added and replaced by simply pulling a couple belt pins rather than replacing the whole belt.
- Available with many different magnetic plate rail options, such as flat, lugged, and curved, to stabilize, convey, and elevate canned products. Plate rails can be utilized on flat belted conveyors, mattop conveyors, table topped conveyors, cable conveyors, and sideflex mattop conveyors in both horizontal and inclined applications.

SPECIAL HORIZONTAL MAGNETIC TRANSFER CONVEYORS

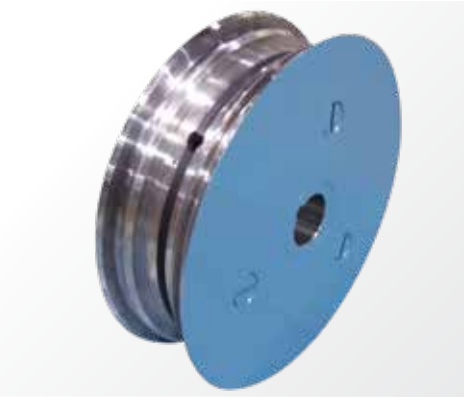
A horizontal magnetic transfer conveyor is typically implemented in a high speed can line where magnetic control and positioning are required. The transfer conveyor has full wash-down motors and drives, composite wash-down bearings, food grade or sanitary stainless steel construction, and food grade belts. It is designed to deliver magnetic position control to transfer empty or full cans into or out of a steamer, filling stations or labeling machines.

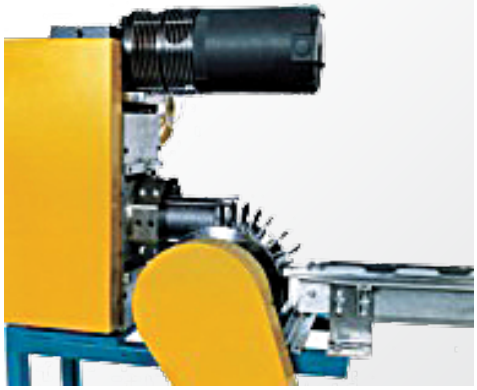
- Available in economical ceramic magnets as well as high-intensity neo rare earth magnets. Magnetic transport makes these conveyors low maintenance and operator friendly.
- Conveyor features endless flat or v-guided fabric belt, mattop belt, stainless steel pulleys and shafts, composite bearings, and wash-down duty drives. It is designed to best suit the size, weight, and speed of the specific cans it is conveying.
- To best suit your application needs more specific customization options include: full wash-down motors and drives, composite wash-down bearings, food-grade stainless steel construction with food-grade fabric, or mattop belts.

MAGNETIC SEPARATION PULLEYS

Provides superior continuous removal and discharge of ferrous contamination, such as nails, staples, bolts and wire from conveyors. Maintenance-free operation.

- Manufactured for maximum reach-out, holding-force and separation effectiveness.
- Available in both economical ceramic and the high-intensity neo rare earth magnets for maximum separation.
- Pulleys are 4" to 18" in diameter depending on your application needs. These pulley systems offer maintenance-free operation.
- Available in all-stainless-steel construction with food, sanitary, and USDA finishes available to fit your production safety regulations.





UPSTACKING PULLEYS FOR LIDS

Bunting® custom manufactures adjustable magnetic upstacking pulleys in many different sizes. These are used on can lids, jar lids, oil filter tapping plates, and other uniform lid and filter type ferrous metal items. Upstacking Pulleys are usually 3-pole or 4-pole magnetic assemblies designed to handle the insertion of lids into sleeves or feeding machines.

The lids are fed into the magnetic upstacker pulley by a high-speed belted conveyor. Then the pulley's magnetic field loops then pulls the lids into magnetic adjustable flanges to secure the lids perpendicular to the pulley.

The magnetic field is transmitted into the lids. This causes similar pole repelling polarity to keep the lids fanned parallel to each other as they rotate around the pulley. As the magnetic upstacking pulley rotates, the magnetic force being applied to the lids forces the lids into a track or sleeve.

- Custom-designed adjustable pulleys to suit different sizes of lids.
- Independently driven with VFD variable speed drive motors to adjust the magnetic upstacker pulley rotation speeds to the line speeds.

MAGNETIC PLATE RAILS

Bunting manufactures the strongest rails in the industry. Used in horizontal and inclined fabric and mattop belted conveyors for wet wash-down environments.

- Available in both the economical ceramic and the high-intensity neo rare earth for maximum holding.
- Available in flat, lugged, and curved.
- Constructed in standard, food-grade, and sanitary grade construction.

HISC® HIGH INTENSITY SEPARATION CONVEYORS®

The HISC® High Intensity Separation Conveyor® is the first of its kind in the industry. It incorporates extremely high gauss fields, neodymium rare earth magnets, and a durable, field-tested design to achieve maximum stainless steel separation of small fraction stainless steel of stainless and ferrous dirt.

- Designed for extreme high-gauss fields of magnetic separation and removal of lightly magnetic tramp metal fines from plastic products. This ensures removal of even the smallest particles of contamination.
- High-intensity fields also separate work-hardened 300 series stainless steel from the product stream, allowing for separation of metal contaminants that a standard magnetic separator would be unable to retrieve.
- Tough urethane endless belts that resist wear and tear.
- Designed i300 series stainless steel construction to comply with food grade regulations.

Features:

- Available in 4" or 6" pulley diameter (6" for ICW wire lines and small fraction stainless steel). Standard widths run from 12" to 66" wide to match flow requirements.
- 2-ply urethane belt with 30mm flexwall and ½" sweeper cleats on 15" centers.
- 60-120 fpm variable speed with VFD depending on application.
- Heavy duty formed 3/16" sideguard with flexwall belt to seal off and contain flow.
- Heavy duty formed 3/16" frame construction with stainless steel frame, and forklift lifting slots for installation.
- ¾ to 1½ hp, 3ph, 60hz single phase or three phase motors.
- Can convey 500-1,500 lbs per foot/per hour depending on application.
- Splitter is adjustable to suit your goals for separation split and purity.

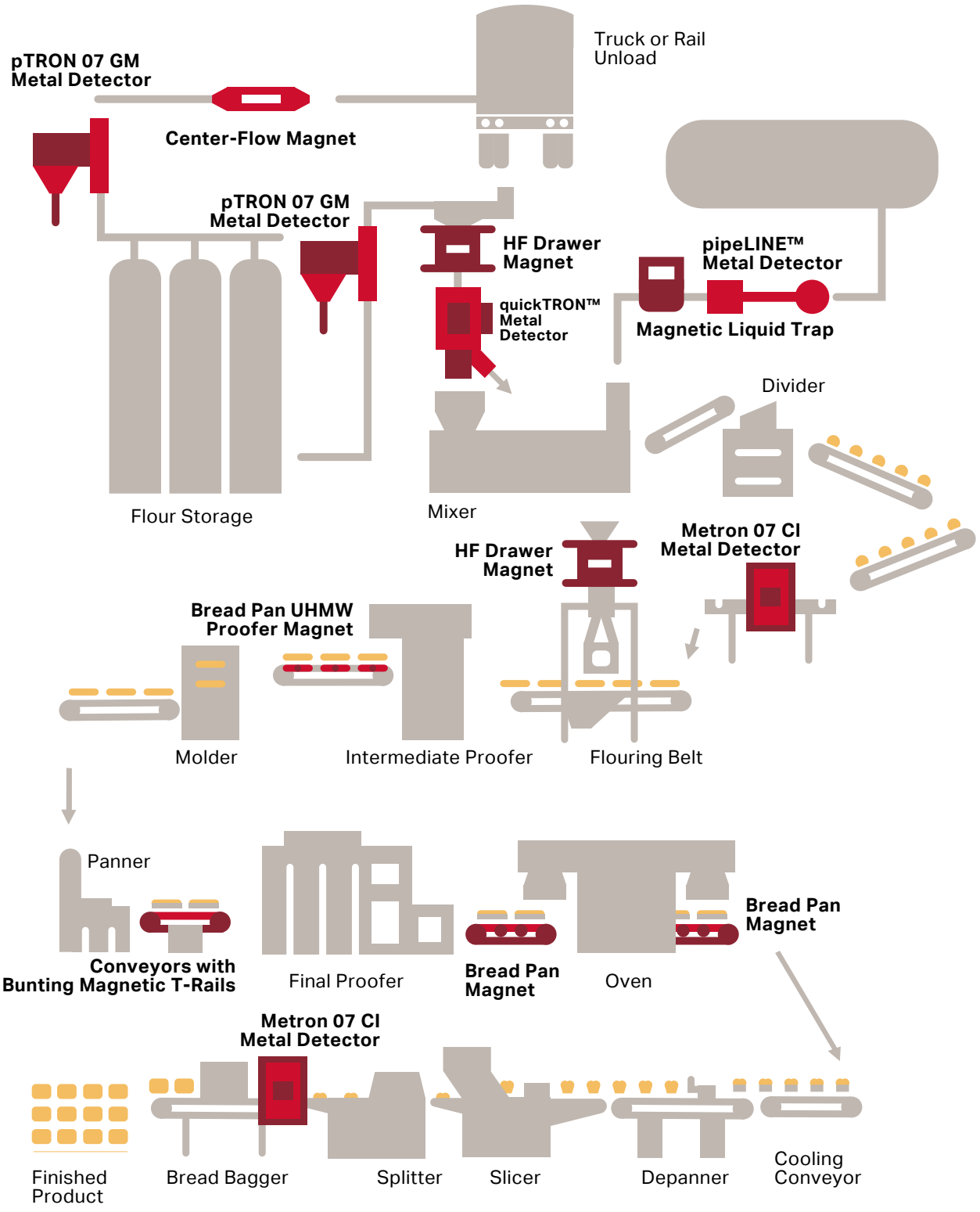
Optional Vibratory Feeder Accessory

- Provides uniform single-layer feeding for maximum separation efficiency. **Highly recommended.**
- Common sub-frame for Vibratory Feeder and HISC to set in place. **Highly recommended.**
- Customizable width and length to match applications.
- Comes complete with VFD controls and can be integrated into existing system.

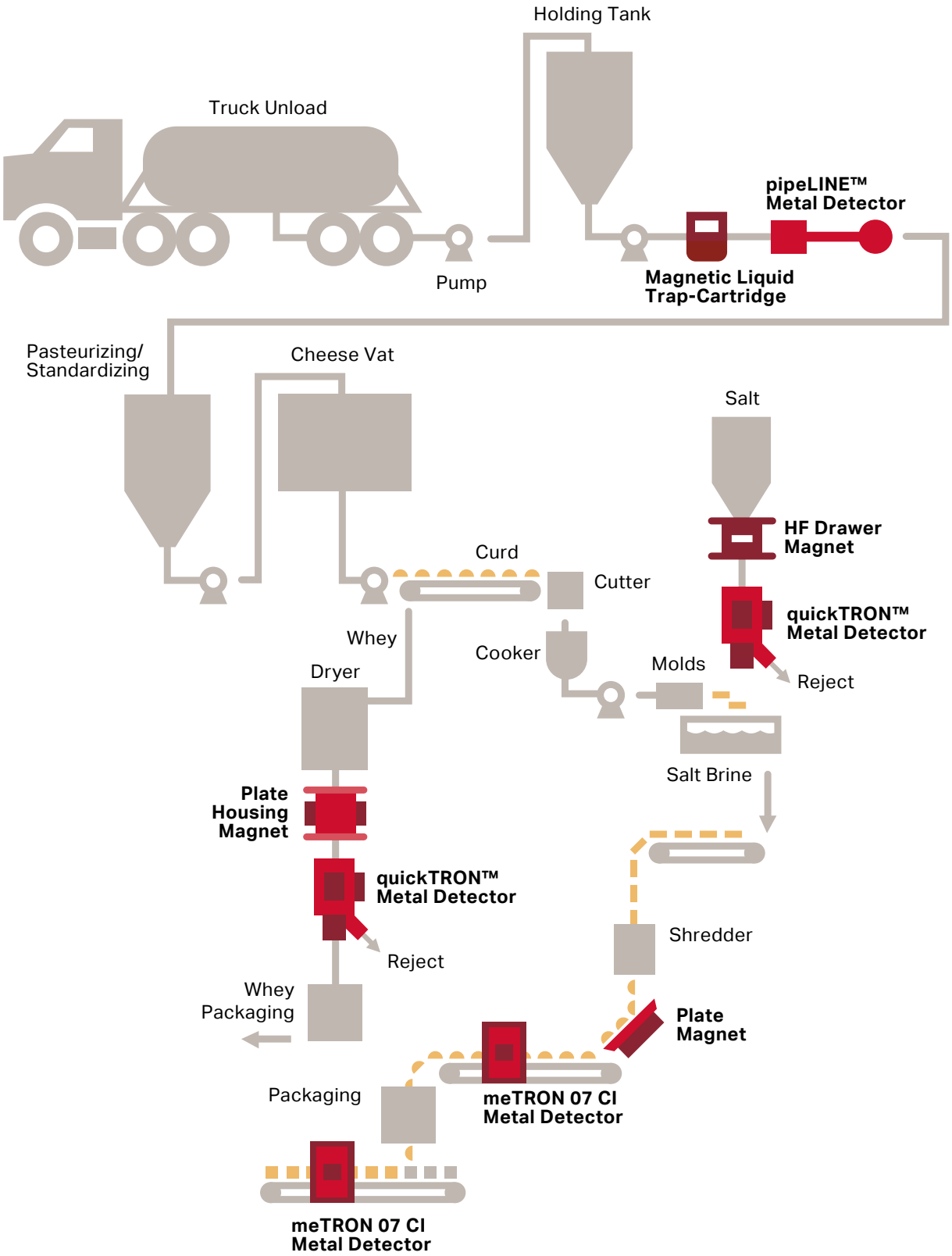
PERFECT PLANT DIAGRAMS

Bunting Perfect Plant diagrams showcase examples of ways to implement our equipment into your facility in order to create an ideal production environment. By installing our equipment at critical points in your process, you will maximize the quality and purity of your product by ensuring metal contaminants are removed from the greater product flow. Bunting's equipment protects the existing equipment in your facility, your customer, and your brand reputation. Bunting's Perfect Plants allow you to reap the benefits of an ideal production environment.

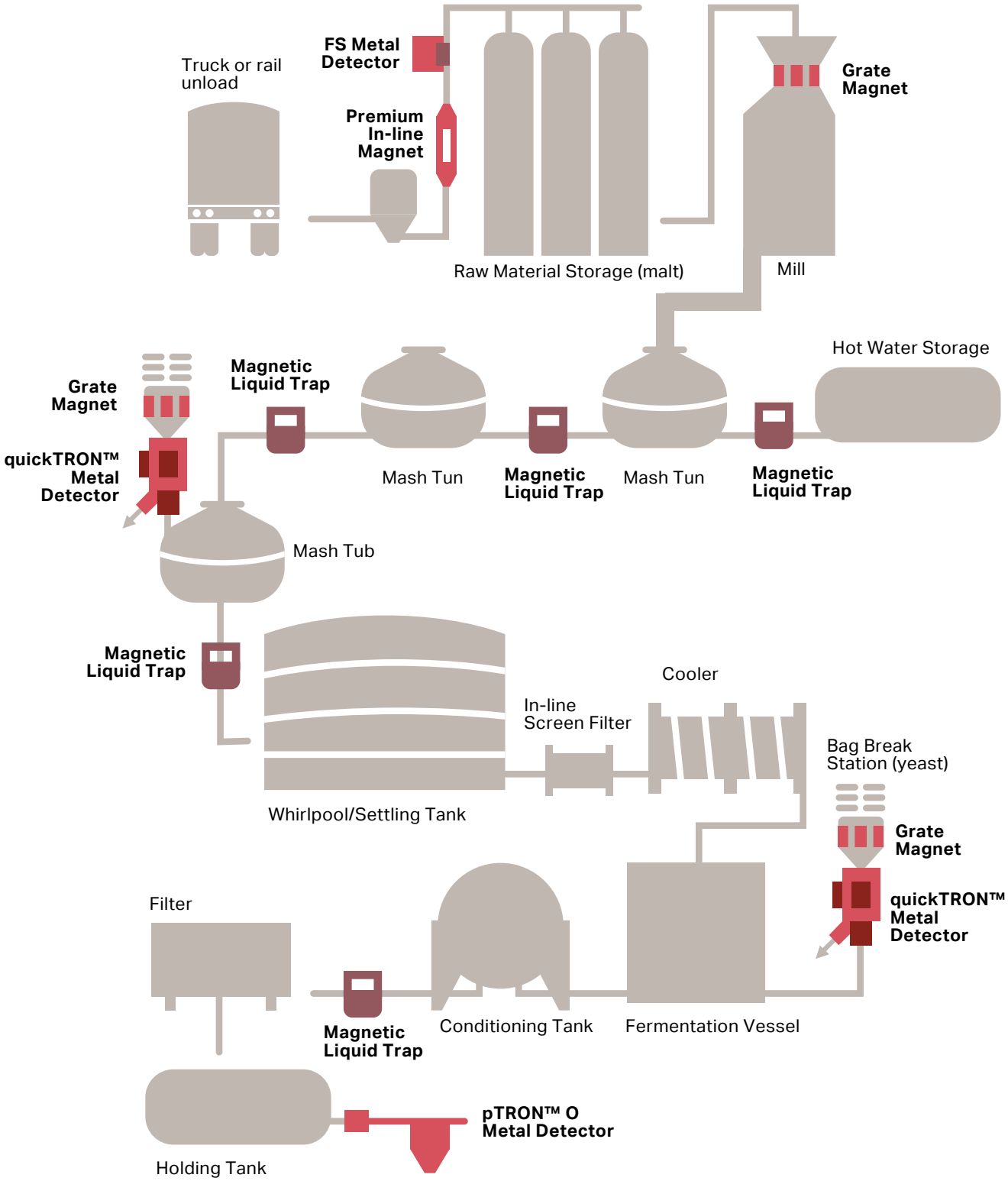
PERFECT BAKERY



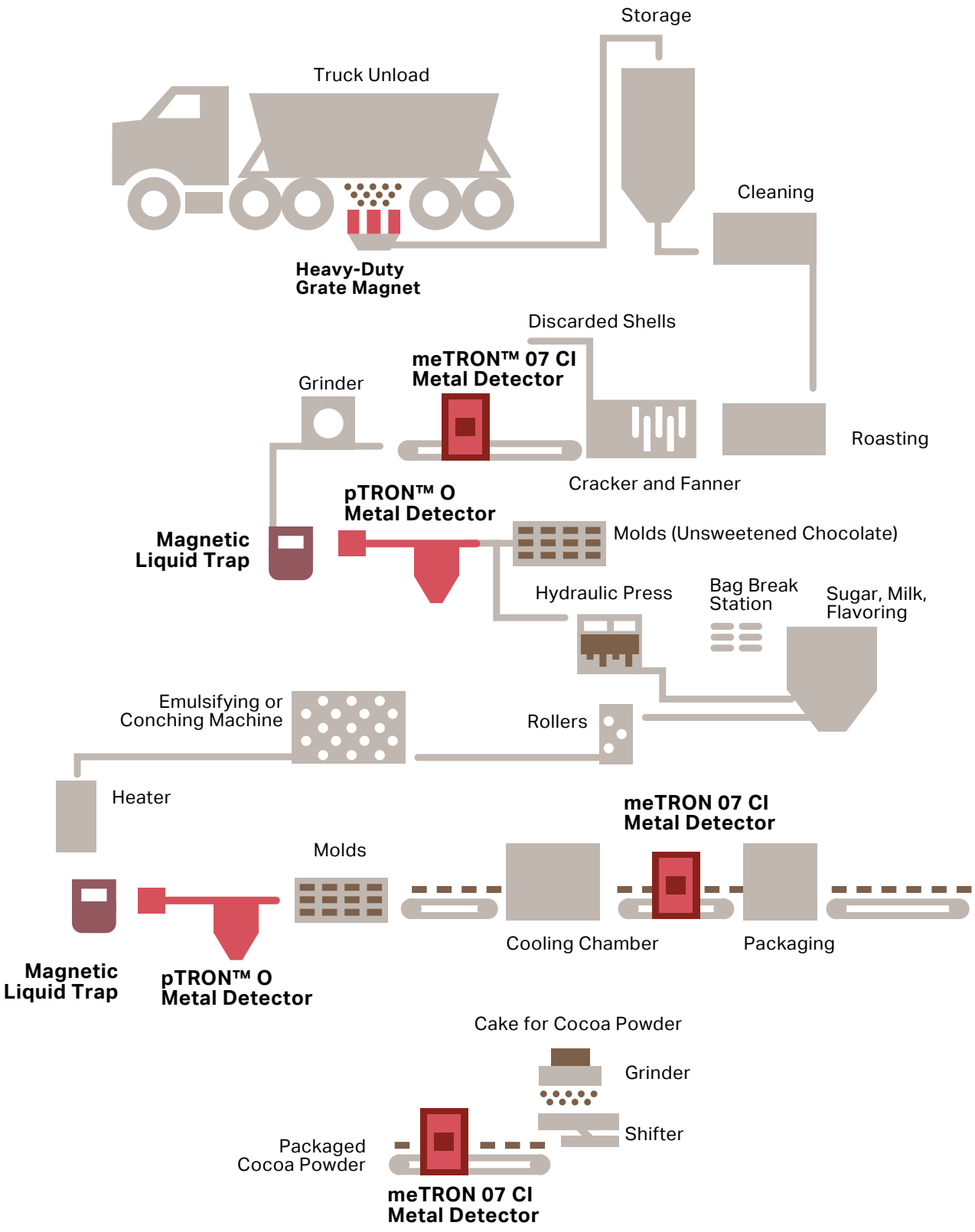
PERFECT CHEESE PROCESSING PLANT



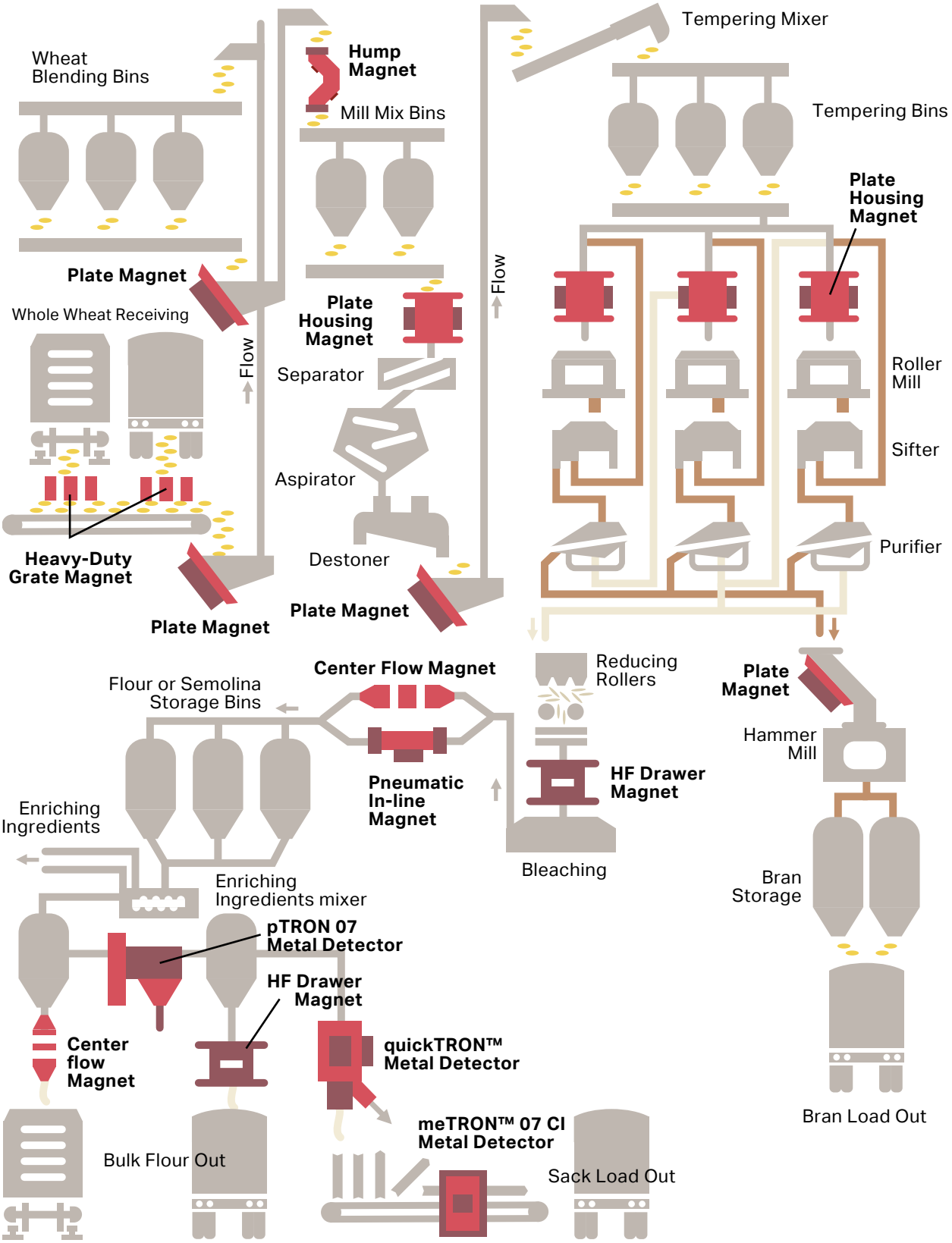
PERFECT BREWERY



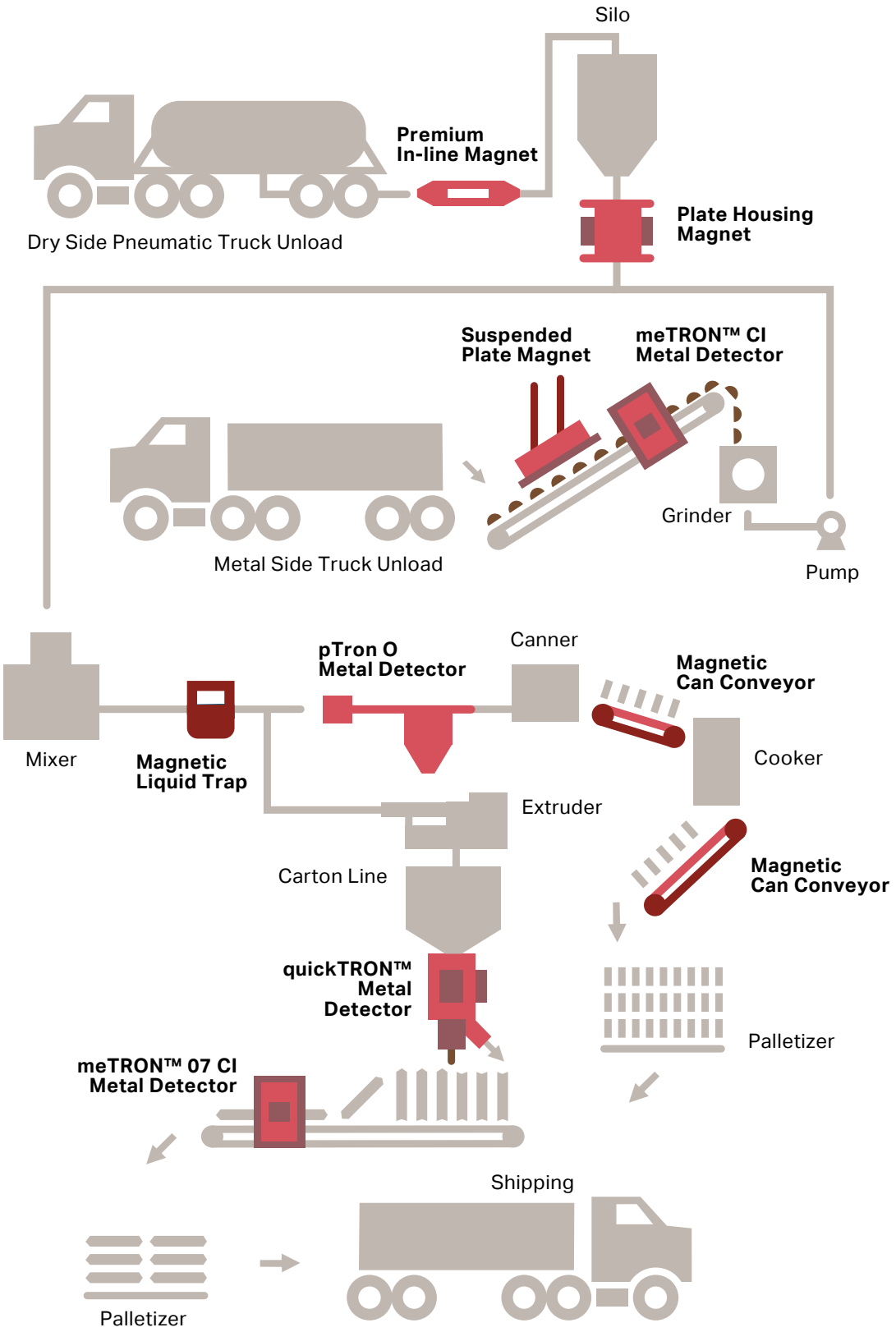
PERFECT CHOCOLATE PLANT



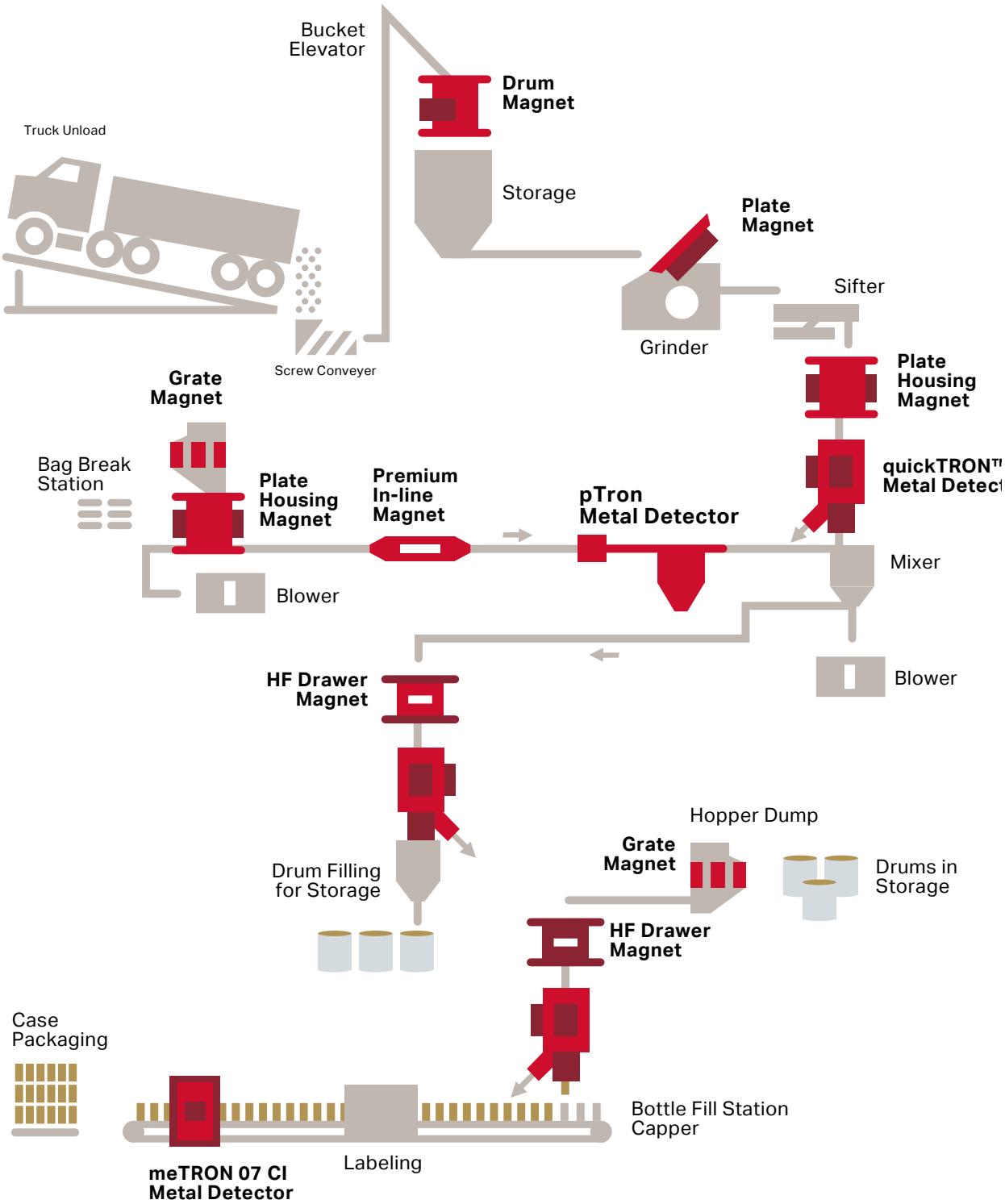
PERFECT GRAIN MILLING PROCESSING PLANT



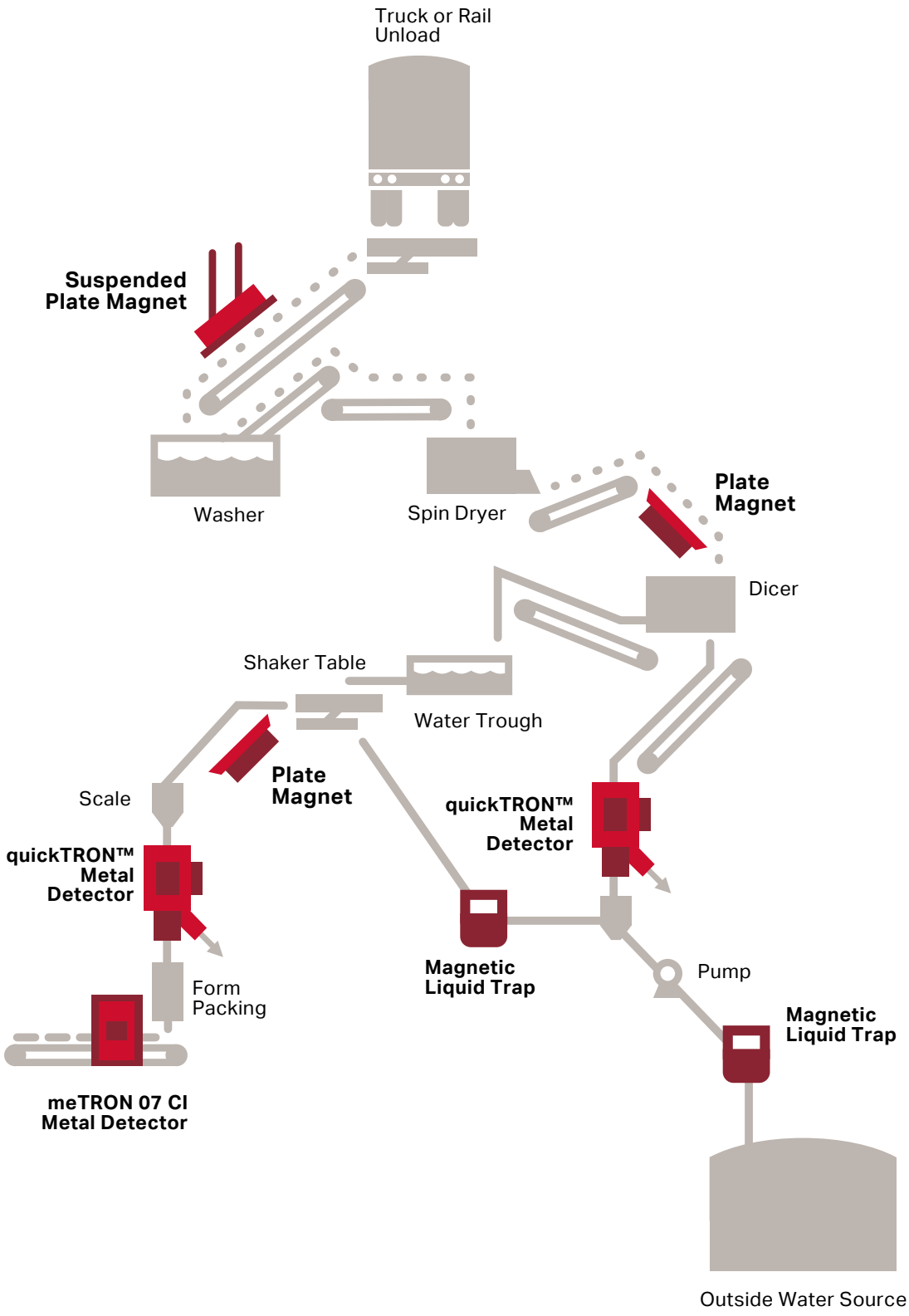
PERFECT PET FOOD PROCESSING PLANT

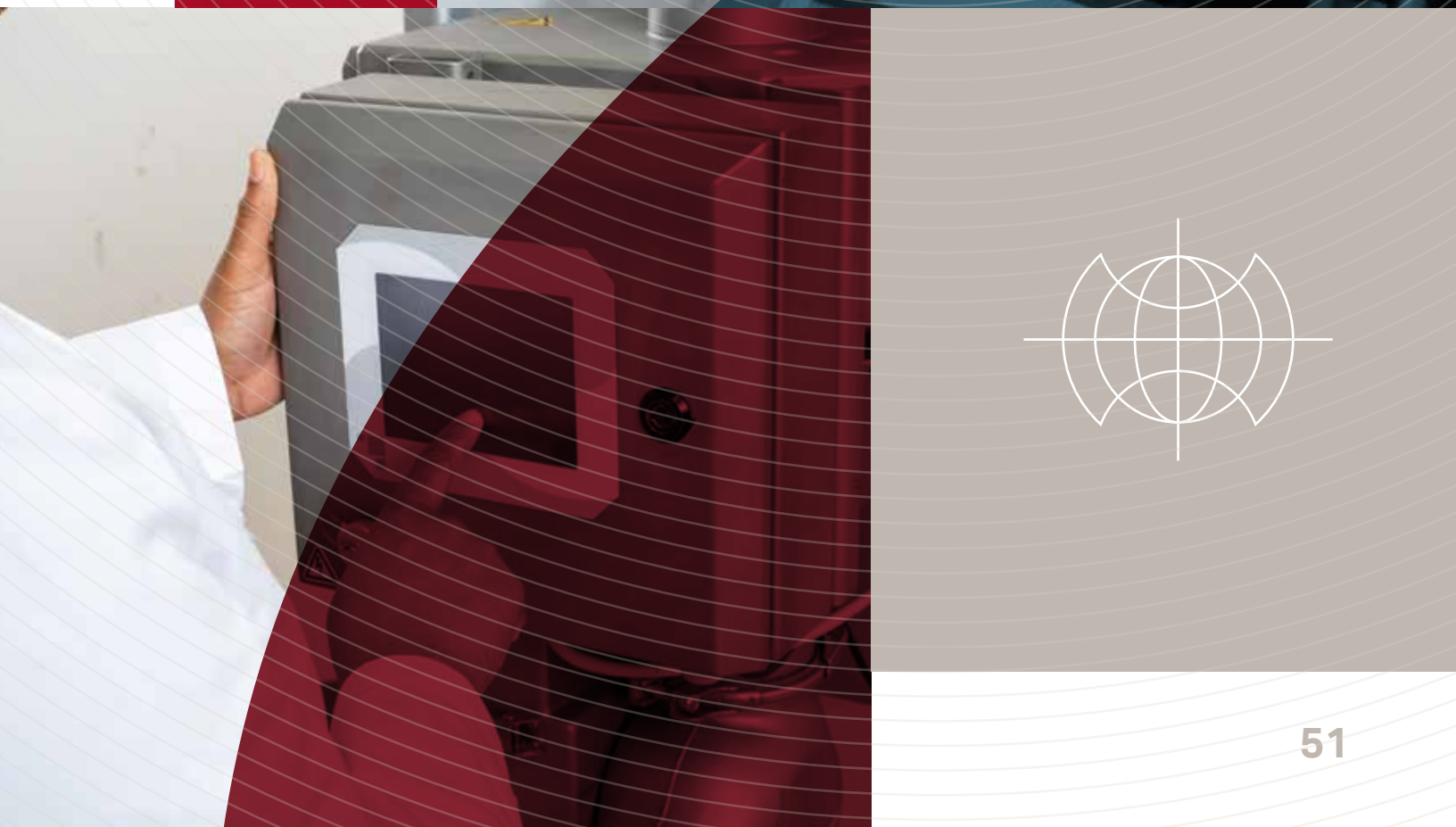


PERFECT SPICE PLANT



PERFECT VEGETABLE PROCESSING PLANT





BUNTING™

Pure success: What the Bunting name means to your food or pharma business.

Bunting is proud to provide innovative, custom-designed solutions for the food and pharmaceutical industries, as well as many other industries such as plastics, recycling, and mining. Our equipment is durable, dependable, and driven by the needs of our customers and the modern challenges they face. Bunting has been a family –owned, family-led company since 1959. Sixty years later, we have made massive strides in developing new technology to meet the unique needs of the 21st century, while remaining committed to delivering the highest quality products accompanied by excellent customer service.

We invite you to experience our customer service and products for yourself. Contact your Bunting representative today for more information or to obtain a specific quote.

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