



## Recycling

Automotive and Metals, Plastics and Film, Tyres, Municipal, WEEE, Wood

# 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 branches within the United States as well as abroad in the United Kingdom. We are committed to upholding the all-American 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.

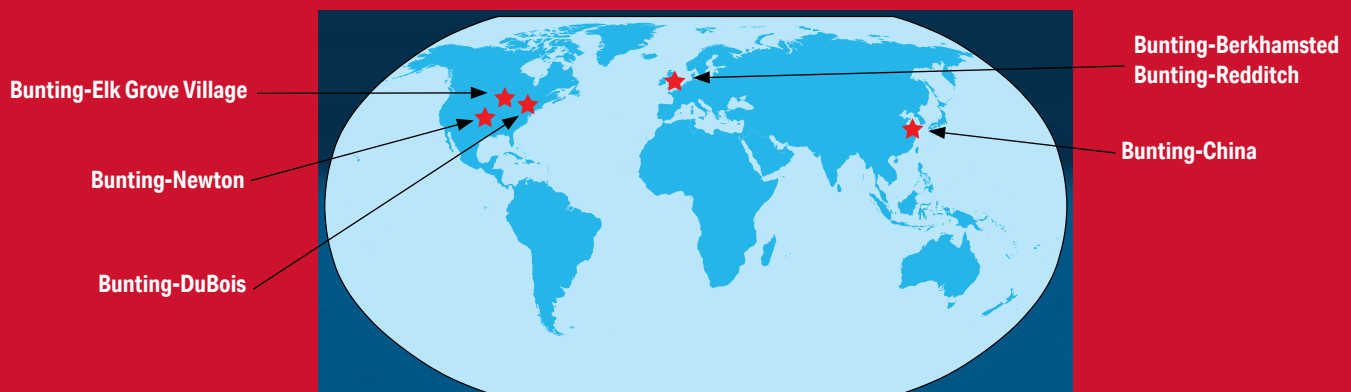
**Bunting-Newton** primarily focuses on magnetic equipment for magnetic separation and metal detection applications. Newton, Kansas has served as the company's headquarters since 1979. Here, we design and manufacture magnetic separation, metal detection and material handling equipment as well as a complete line of printing cylinders. With a team of engineers using world-class, computer-aided design equipment, we can customise 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 moulded, 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 various industries throughout Europe and the UK. Bunting-Berkhamsted also manages E-magnetsuk.com, where customers may purchase a wide variety of commonly used magnets.

**Bunting-Redditch** provides a complete line of magnetic separation and metal detection equipment to industries across the globe. Bunting-Redditch has one of the largest selections of permanent and electro-magnetic separation equipment and provides innovative magnetic solutions for metal reclamation, tramp metal protection and high intensity mineral separation. All designed and manufactured at the Redditch location.



# Bunting®

## Magnetic Technology for All Industries

The unique benefits of magnetic technology can be utilised across a wide range of applications. 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 conveyors, magnetic separation, and metal detectors for the following general sectors:



FOOD AND PHARMACEUTICALS

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PLASTICS

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**RECYCLING**

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AUTO SHREDDING

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AGGREGATE, MINING, AND MINERALS

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TEXTILES

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METAL STAMPING & FABRICATING

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PRINTING, DECORATING AND CONVERTING

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CERAMICS

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CUSTOM MAGNETS AND MAGNETIC ASSEMBLIES

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STOCK MAGNETS & MAGNETIC TOOLS

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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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# Recycling Equipment

## Separation, Detection, and Conveying Equipment for the Recycling Industries

Bunting provides equipment to help customers working in the recycling industries by using magnetic separation technology to remove metal contaminants from material lines, providing metal detection equipment to alert operators of ferrous and non-ferrous metal hazards within the system, and offering magnetic conveying systems to assist customers with efficiently moving material throughout their facilities. All of our equipment is designed to be low-maintenance and operator friendly to increase efficiency and decrease downtime in your operations.

Magnetic separation utilises powerful magnets to pull out ferrous metal contaminants from a processing line, trapping them against the face of the magnet and ensuring they cannot re-enter the material stream. The strength of the magnetic field means that continued material flow, no matter how rapid, will not be able to dislodge the ferrous material from where it has been initially trapped. Bunting offers magnetic separation equipment suitable for conveyed, gravity free-fall systems, in-line systems, and liquid processing systems.

Metal detection systems generate an electromagnetic field that material is flowed through, sensing and rejecting any ferrous or non-ferrous metal that is hidden within the material. In

situations where a magnetic separator may be unable to remove a non-ferrous contaminant, such as aluminium, a metal detector is able to sense this metal and remove the contaminated section of material from the greater flow of operations. Bunting offers metal detection equipment suitable for conveyed, gravity free-fall, pneumatic, and pipeline applications, with three different packages available for electronics customisation.

Bunting offers conveyor systems and conveyor system parts in order to provide efficient transport of various recycled materials throughout your facility. Bunting's magnetic conveyors and accessory parts offer an efficient, low-maintenance answer to moving high volumes of material quickly and safely in any environment, no matter how tough.

All of our products are custom designed according to the customer's specifications, allowing for them to integrate seamlessly into the existing production environment. Our team of engineers works with each customer to deliver a personalised piece of equipment with the physical dimensions to best fit your space and the magnetic components that best suit your separation, detection, and conveying needs.



# OVERBAND MAGNETS

Bunting® have been manufacturing permanent magnetic and electromagnetic overbands for over 40 years. Recent investment in manufacturing techniques and magnet technology has enabled us to offer the most comprehensive range of overband magnets with the highest levels of performance.

Supplying all industries, volume OEM's and one off installations, Bunting has the overband magnet to suit your application.

- Three distinct model types of permanent overband magnets
- Three deep field model types of electro overband magnets
- Compact and lightweight permanent and electro overband magnets
- Range of overband magnets available now from stock



## BUNTING OFFERS:

- An extensive range of design sizes to suit all applications
- Solutions for both cross belt and in-line installations
- Welding to ISO3834 accredited standards
- Accreditation to ISO9001 quality standards
- Technical application engineers available to advise and assist
- Custom design service
- Same day dispatch on a vast range of spare parts
- Qualified service engineers and technical support



## Permanent Overband Magnets



### PCB Permanent Overband

Heavy duty range designed mainly for recycling and quarrying industries to remove ferrous tramp. For conveyors 300 to 2000mm wide at operating heights up to 400mm.

- High magnetic performance
- Selection available from stock
- Range of sizes and options to suit your application



### PCB-C Compact Permanent Overband

Aimed at the volume mobile equipment market. More compact and lightweight. For conveyors 600 to 1500mm wide at operating heights up to 300mm.

- Latest manufacturing technology to reduce weight and size
- Increased magnetic force to weight ratio.



### QBC Quick Belt Change Permanent Overband

Fast belt change overband magnet for reduced downtime. For conveyors 600 to 1500mm wide at operating heights up to 300mm.

- Top and bottom belt guides and guards
- Range of sizes and options to suit your application

## Electro-Overband Magnets



### ElectroMax Compact Air Cooled

High performance, lightweight, air cooled electromagnetic overband. For conveyors 1000 to 1800mm wide at operating heights up to 600mm.

- Highest magnetic power to weight ratio of any overband magnet
- No oil present
- Low profile, compact design



### OCW Heavy Duty Oil Cooled

Heavy duty oil cooled electromagnetic overband range available in over 300 sizes. For conveyors 500 to 3000mm wide at operating heights up to 1000mm.

- Manganese baseplate for high wear and impact resistance
- Long life powerful magnetic coil design
- ATEX rated models available



### ACW Heavy Duty Air Cooled

Heavy duty air cooled electromagnetic overband range available in over 300 sizes. For conveyors 500 to 3000mm wide at operating heights up to 1000mm.

- No oil present
- Permanent extension magnets can be attached to extend the discharge zone away from the extraction point

# Overband Model Guide and Options

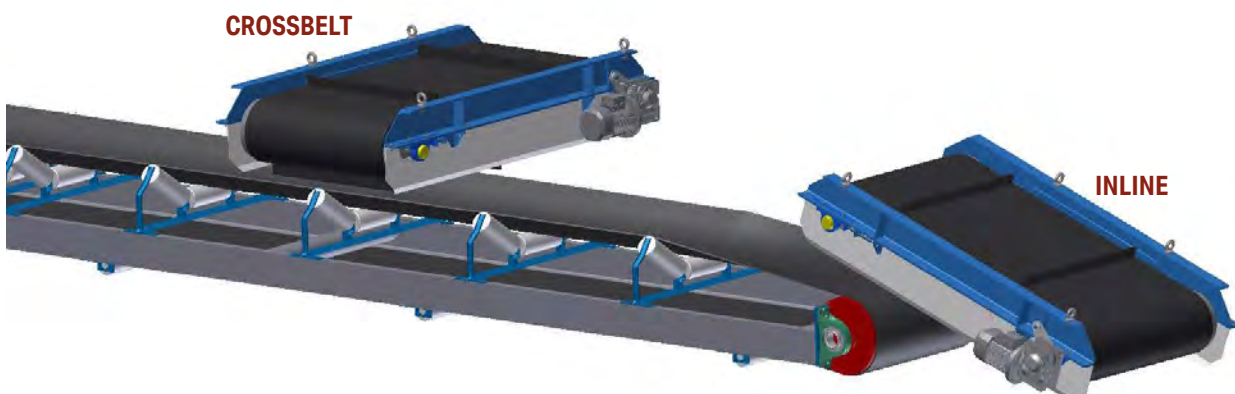
All our overbands have a vast range of options to suit your application and requirements.

Please call our experienced applications engineers to help specify the correct magnet and options for your individual application.

| MODEL                           | PCB                | PCB-C              | QBC                | EMAX     | OCW      | ACW      |
|---------------------------------|--------------------|--------------------|--------------------|----------|----------|----------|
| Permanent magnet                | •                  | •                  | •                  |          |          |          |
| Electro-magnet                  |                    |                    |                    | •        | •        | •        |
| Maximum operating gap           | 400                | 300                | 300                | 600      | 1,000    | 1,000    |
| Maximum customer belt width     | 2000               | 1500               | 1500               | 1800     | 3000     | 3000     |
| Light weight                    |                    | •                  |                    | •        |          |          |
| Air/Oil cooled electro system   |                    |                    |                    | Air      | Oil      | Air      |
| OPTIONAL FEATURES               |                    |                    |                    |          |          |          |
| Drive                           | Electric/hydraulic | Electric/hydraulic | Electric/hydraulic | Electric | Electric | Electric |
| ATEX 22                         | •                  |                    |                    |          | •        |          |
| Heat resistant, antistatic belt | •                  | •                  | •                  | •        | •        | •        |
| Armoured belt                   | •                  |                    |                    | •        | •        | •        |
| Stainless steel frame           | •                  | •                  | •                  | •        | •        | •        |
| Custom design mounting brackets | •                  |                    | •                  | •        | •        | •        |
| Cantilever frame design         |                    |                    | •                  |          |          |          |
| Full sheet guarding             | •                  |                    |                    | •        | •        | •        |
| Belt tracking limit switches    | •                  | •                  |                    | •        | •        | •        |
| Rotation sensor                 | •                  | •                  | •                  | •        | •        | •        |
| Permanent magnetic extension    | •                  |                    |                    |          | •        | •        |
| Single pole magnetic system     | •                  | •                  | •                  |          |          |          |
| Twin pole magnetic system       | •                  |                    |                    |          |          |          |
| Tri-polar magnetic system       | •                  | •                  | •                  |          |          |          |
| Special paint coatings          | •                  | •                  | •                  | •        | •        | •        |

## Installation Options

Whilst the most common mounting position for an overband magnet is crossbelt, in-line models are also available which maximise magnet efficiency due to the material already being airborne.







# SSSC<sup>®</sup> Stainless Steel Separation Conveyor<sup>™</sup>



## REMOVE UP TO 94% OF LARGE FRACTION STAINLESS STEEL

After developing the HISC High Intensity Separation Conveyor to separate smaller fraction stainless steel, Bunting engineers took on an even tougher challenge: Develop a machine to separate even larger fractions of stainless steel. The patented core design in our SSSC Stainless Steel Separation Conveyor enables the conveyor to attract, hold and extract irregular stainless steel metals and paramagnetic chips up to an impressive 125mm in size.

These large pieces of work-hardened stainless steel – materials once thought impossible to separate are easily removed thanks to extremely high gauss fields, revolutionary patented configuration of high-strength neodymium rare earth magnets in the core design and superior industry-leading design technology. Bunting engineers can test specific material to calculate proper sizing and construction.

### Patented Air Knife (optional):

An optional air knife gently blows ferrous foam, dust and cloth from your material to purify the stainless steel stream.

### Vibratory Feeder (optional):

- Provides uniform single-layer feeding for maximum separation efficiency
- Customisable width and length to match applications
- Power supply and isolator designed to match flow requirements
- Mild steel or stainless steel fabrication
- Comes complete with controls and can be integrated into existing systems
- Optional AR Steel Liners



"I have operated a shredding facility for 8 years and I have seen many products. There isn't anything else out there that will do what this High Intensity Separation Conveyor will do. Bunting Magnetics Co. has built something that no one else in the industry has.

With this HISC we are able to successfully separate Stainless Steel from our shredder wire. We estimate a payback ROI period of less than 1 year.

Bunting Magnetics Co. has been fantastic to work with. I have received excellent customer support and have been very pleased that Bunting visited our facility in person. Bunting has been very honest about the abilities of the magnet, and it has produced better results than they claimed. Currently we are removing about 300lbs of Stainless Steel from our shredded wire daily."

Pat Dooley  
Pacific Steel

### Select Features

- Patented High Intensity Deeper Reach Magnetic Circuit.
- 200mm diameter pulleys for small and mid fraction stainless steel extraction.
- 300mm diameter pulleys for mid and large fraction stainless steel extraction.
- Conveyor belt widths of 600 - 2000mm.
- Heavy-duty formed frames with forklift lifting slots.
- Heavy-duty rolled over belt flexwall edge side guards to contain product flow.
- Tough 2-ply urethane belts with 30mm flexwalls.
- Varying operating speeds depending on product stream.
- Variable frequency drives permit optimal separation.
- Optional patented air knife to help clean & purify stainless steel separation.



Knurled Splitter Roller



Air Knife Regulator



Diverter Adjustment Wheel



Optional Air Knife

# HISC® HIGH INTENSITY SEPARATION CONVEYOR



## REMOVE UP TO 98% OF SMALL FRACTION STAINLESS STEEL

Through Bunting® engineering design and Magnetic Finite Element Design software technology, you can attract, hold and extract paramagnetic work-hardened stainless steel metal and chips from your product stream. Recycled chopped wire, plastic flake, e-scrap and more can now be stainless steel-free with the HISC High Intensity Separation Conveyor.

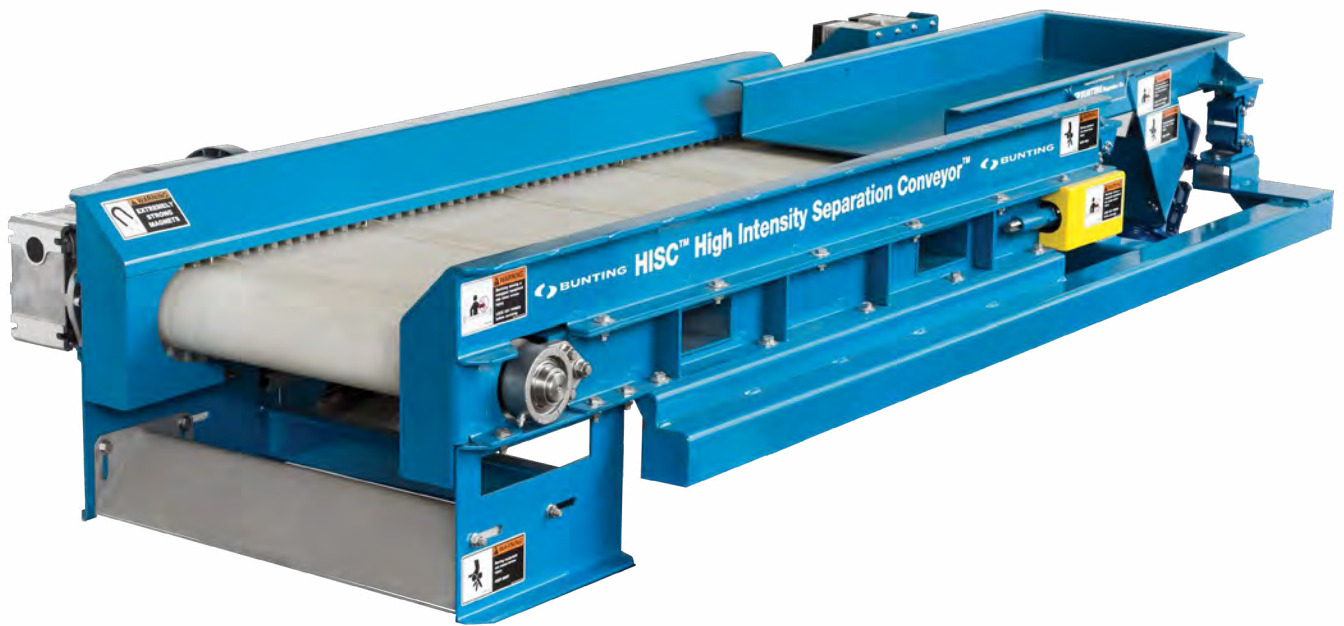
The first of its kind in the industry, the HISC High Intensity Separation Conveyor incorporates extremely high gauss fields, neodymium rare earth magnets and a field-tested design to achieve maximum stainless steel separation and copper purification.

The HISC can attract, hold and extract some of the weakest magnetic materials, including stainless steel needles, small computer screws, titanium chips, small stainless sheet metal from computer hard drives, tiny screws in plastic chips and green boards with attached chips. Bunting engineers can test specific material to calculate proper sizing and construction.

"In the business of metal recycling, our profitability depends on the volume of recovered product and the purity of that product. Bunting Magnetics' High Intensity Separation Conveyor, and its unmatched ability to get stainless steel out of our mid-sized fraction, ensures we get the purity needed to sell to our domestic smelters."

Kevin Gershow  
Gershow Recycling / Medford, NY





Cleated Belt



Diverter



Bearing Assembly

### Select Features

- 100 and 150mm high intensity pulleys available.
- 100mm diameter for copper purification.
- 150mm diameter for cleaning ICW before chopping, small fraction stainless steel recovery and purification.
- Neodymium exposed pole design for maximum gauss intensity.
- Belt widths 300-1800mm
- Heavy-duty formed frames with forklift lifting slots.
- Heavy-duty rolled over belt flexwall edge side guards to contain product flow.
- Tough 2-ply urethane belts with 30mm flexwalls and v-guide cleats on 300mm centres.
- Operating speeds from 0.2-0.6 mps depending on product stream.
- Variable frequency drives permit optimising separation.
- Adjustable splitter chute divider to adjust purification split.

### Optional Vibratory Feeder

Uniform single-layer feeding for maximum separation efficiency and purification.

- Customisable widths and lengths to match application requirements.
- Power supply and isolator designed to match flow requirements.
- Fabricated in either mild steel or stainless steel.
- Comes complete with controls and can be integrated into existing system.

### Optional Splitter Chute

An adjustable splitter chute separates the stainless steel fraction from the non-magnetic material.

## Eddy Current Separation Conveyor



The Eddy Current system consists of a short belt conveyor with its drive located at the return end. The ECS rotor, which is fitted at the discharge end of the conveyor, is constructed using a high-intensity rare earth (neodymium iron-boron) magnet system and sits inside a non-metallic rotor cover. The rotor, when spinning at high speeds, induces an electric current into conducting metals. This induced electric current produces a magnetic field, which opposes that of the rotor, repelling non-ferrous metals over a splitter plate. The remaining materials free-fall over the rotor, separating them from the repelled conductive particles.

The Bunting line of Eddy Current Separators (ECS) are advanced metal sorting machines used in areas such as Auto Shredder Recycling (ASR), Materials Recycling Facilities (MRF), Energy from Waste plants (EfW), wood, skip waste and glass recycling. These non-ferrous separators are increasingly used wherever separation of non-ferrous metals from a product stream can increase the value of the product stream or produce a cleaner material. Whether the end use is in recycling, waste reduction, raw material production or any other process where separation would prove beneficial.

### **HIGH INTENSITY EDDY CURRENT SEPARATORS**

The new High Intensity ECS units are specifically designed for the separation of materials with a wide range of sizes, which require high repulsive throwing forces. These High Intensity ECS units have a larger than normal magnetic count and are used for purification of materials, such as glass, plastic, ASR and wood chip. These top of the line Eddy Current units are built up to 2M wide systems.

### **R TYPE EDDY CURRENT SEPARATORS**

The R Type ECS fits in the Bunting ECS range between the High Intensity and the Can Sorter units. It is designed to be used in recycling applications where aluminium is to be removed for re-sale, such as dry recycling and skip waste at a size greater than 20mm.

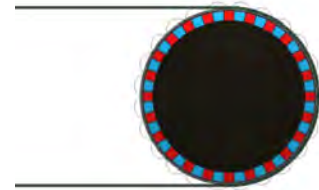
### **CAN SORTER EDDY CURRENT SEPARATORS**

Can Sorter ECS units are designed for the separation of non-ferrous beverage cans from dry recyclable MRF materials. The Can Sorter ECS is a low-cost alternative to the large Eddy Current units, for applications that do not require higher specification machines. The Can Sorter is a simplistic and cost effective unit with pre-set belt and rotor type settings to provide optimum can separation.

### Concentric vs. Eccentric Eddy Current Separators

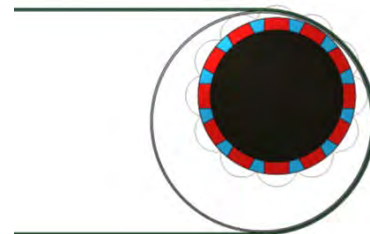
For applications that require separation of fine non-ferrous particles, Bunting manufactures an 'Eccentric' rotor. The specification and characteristics of this rotor arrangement allow for optimum separation of smaller particles such as shredded printed circuit boards, PET flake, and fine glass cullet.

**Concentric rotors** consist of an alternating pole Rare Earth magnet system, which completely fills the space available within the separation rotor drum. The magnet system rotates at high speed within a few millimetres of the outer shell surface generating very high 'eddy currents' on the surface resulting in very high repulsive forces.



**Concentric rotors**

**Eccentric rotors** differ in that the magnet system is of a smaller diameter and is located in an eccentric position to the outer rotor drum. The magnet system is positioned close to the surface where the conveyed feed material is leaving the rotor due to its natural trajectory. This design gives an efficient separation but leaves a 'dead' magnetic area at the bottom of the rotor so that any attracted ferrous falls away extending conveyor belt life.



**Eccentric rotors**

### Optional Extra:

- Optional Vibratory feeders (VF) mounted to ensure uniform flow of material on the ECS belt.
- Optional Rare Earth drum magnet mounted after the vibratory feeder for fine ferrous separation, ferrous material will be discharged from the drum and materials not influenced by the magnetic field will cascade over the drum surface and continue their normal trajectory onto the ECS conveyor.
- Rotary or static cleaning brushes can be installed to remove product, which may adhere to the Eddy Current Separators' belt. Bunting Sales Team can advise customers on these options if required.
- Bunting can supply complete 'turn key' plants to meet specific customer requirements. The plants can include in-feed conveyors, diverter chutes and additional magnetic separation equipment such as Overband Separators.
- Supports to ground level should they be required. Custom designed walkways can also be provided for around the ECS unit to allow for greater access to the machine and its components.

### Features:

- Multiple diameter magnetic rotors designed for the highest magnetic gauss fields on the belt surface for superior product throw.
- Tough polyurethane belts for long wear life
- Models available from 0.5m to 2m wide.
- ECS supplied with integral jacks for easy belt change operation.



# Suspension Magnets

Suspension magnets are designed to extract occasional tramp iron from material being processed by means of a vibratory feeder, gravity chute, or conveyor belt. They are exceptionally efficient in removing tramp iron from coal, stone, fertilisers, recycled asphalt, slag, gypsum, ores and similar materials. Removing tramp metal contamination helps protect the other equipment in your facility from being damaged and maintains higher purity in the materials you are processing through your operation.

## Benefits of the Permanent Magnet Design

- Constructed using non-deteriorating, high power magnet components.
- Intensely durable construction resisting moisture, corrosion, and heat.
- Inexpensive to operate with no cables or wires required.
- Ferrous material is extracted and held in place until manually cleaned off.
  - Optional rubber wiper assists in removing the collected ferrous.
  - Optional stainless steel slider plate simplifies clearing of ferrous.
- Optional Tri-Polar design increases field strength and depth.
- Suspension magnets come standard with suspension chains and hardware .
- Can be suspended horizontally or on an incline.
- Available sizes cover a full range of conveyor widths.
- Works on burden depths up to 350mm



## Benefits of the Air-Cooled Suspension Magnet

- Lighter than oil-cooled electro suspension magnets.
- Less maintenance than oil-cooled electro magnets.
- Durable construction ensures longevity of equipment.
- Ferrous material is extracted and held in place until power is turned off.
- On/Off switching simplifies removal of collected ferrous.
- Comes standard with suspension chains and hardware.
- Works on burden depths up to 600mm depending on material being separated.

## Benefits of the Oil Cooled Suspension Magnet

- Strongest option available.
- Maintains optimum working temperature.
- Maximum protection for your processing equipment.
- Holds extracted ferrous material in place until power is turned off.
- On/Off switching simplifies removal of collected ferrous.
- Comes standard with suspension chains and hardware.
- Works on burden depths up to 800mm depending on the material being separated.
- ATEX 21 + 22 rated.





# Drum Magnets

Magnetic Drum Separators are designed for the continuous extraction of iron from material being fed uniformly onto the face of the drum.

## Principal of Operation

Magnetic Drums are constructed with a 180° stationary magnet system, around which a cover revolves. Material is fed onto the drum cover at the leading point of the magnet section. Magnetics will adhere to the drum cover as it revolves around the magnet system and will be discharged behind the normal trajectory, assisted by the axial wiper bars, after leaving the magnetic field. Non-magnetic materials will fall forward, following their normal trajectory.



## Permanent Magnetic Drums

Permanent Magnetic Drum Separators are built using a fully stabilised Strontium Ferrite magnet system for general tramp metal removal or Neodymium Iron Boron magnet system for fine iron removal, both are non-deteriorating permanent magnet systems which do not require a power source. The magnets are specifically designed to concentrate all flux at the peak of separation, providing a separator that works constantly at maximum efficiency and is virtually maintenance free.

Totally enclosed versions which limit exposure to dust are available.

Typical applications of Permanent Drums include the separation of steel swarf from aluminium and for the removal of ferrous contaminants from shredded wood and glass cullet.



## Electro-Magnetic Drums

For the large scale processing of material, Bunting manufacture a range of Electro Fragmentiser and Slag Drums for special applications.

With larger drums, an electromagnet system is utilised, with coils being wound with insulated aluminium wire. Electro Drums are available in diameter sizes of up to 72 inches (1830mm) and widths up to 110 inches (2800mm).

Fragmentiser Drums are heavy duty alternating pole drums suitable for the reclamation of fragmented metals in applications such as municipal refuse and End of Life Vehicle (ELV) recycling facilities. These drums can be bottom fed where the alternating pole design allows entrapped metals to flip on the face of the drum as it rotates, resulting in cleaner separated ferrous product.

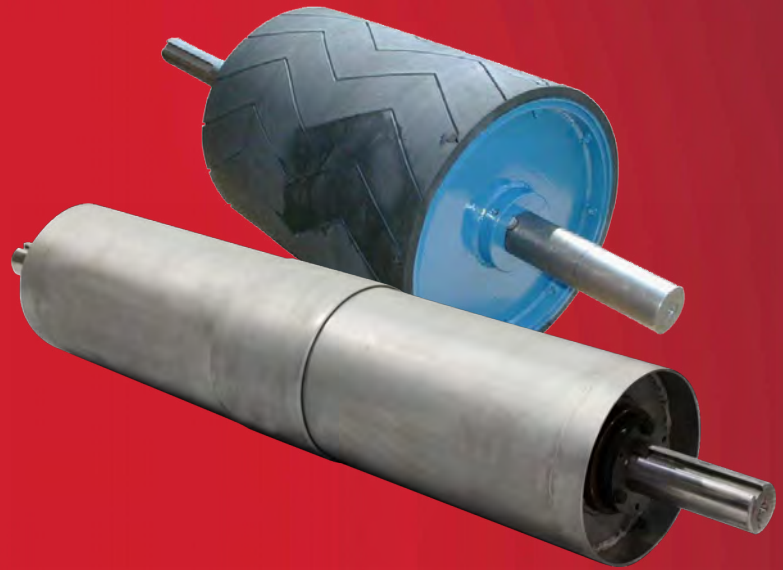
Slag Drums are powerful radial pole drums suitable for the reclamation of slag from Steel Production. Typically, top fed, the pole design allows the maximum entrapment of ferrous and the highest levels of recovery.



# Pulley Magnets

Offering superior continuous removal and discharging of ferrous contamination, such as nails, staples, bolts and wire from conveyors, all with maintenance-free operation. Magnetic Head Pulleys are economical magnetic separation pulleys that can be used to transform your standard material handling conveyor into a material separation conveyor. Being able to combine the transport of your materials and the separation of contaminants into one simple step increases the efficiency of your operation

- Manufactured for maximum holding force and separation effectiveness.
- Available in both economical ceramic and the high-intensity neodymium rare earth magnets for maximum separation.
- Pulleys are designed to suit your application needs. These systems offer maintenance-free operation.
- Available in all-stainless-steel construction with food and sanitary finishes available to fit your production safety regulations.
- These pulleys can be provided with the same shaft your existing conveyor has, making the switch from a standard to a magnetic pulley system quick and easy.



## High Intensity Separation Pulleys

Built with high-intensity neodymium rare earth magnets, these pulleys are designed for the toughest jobs that require maximum separation. High-intensity separation pulleys are ideal for separating materials that are difficult to magnetically attract and separate from a material flow using standard methods, such as paramagnetic fine particles, stainless steel scrap, and work-hardened fasteners.

- Rare earth pulleys are ideal for removing small sized particles
- Pulley units can be easily incorporated on conveyors to create an all-in-one system for conveying and separating materials.



# Grinder Feeder Conveyors (GFC) for Shredders and Grinders



## Heavy-Duty GFC

- Designed for rugged applications that handle between 600-1000 kg/hr- including whole bales, heavy purgings or bulk municipal recycling.
- Typically constructed of formed mild steel on iron frames, 4-ply belts with beefy cleats, UHMW skirting, 250-300mm pulleys and large drives with D-coil Metal Detectors before the Shredder.



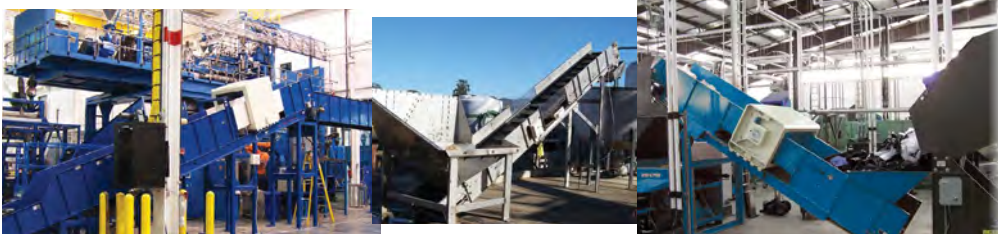
## Standard-Duty GFC

- Designed for 1-5 tonnes/hr of shredded material.
- Fabricated from formed steel.
- Built with 150-250mm diameter pulleys, heavier cleated cross-rigid flexwall belts and flared in-feed hoppers to match up to the Shredder discharge opening.
- Available with optional equipment to purify the regrind, including Overband Magmets, "under the belt plate" or Tunnel-Style Metal Detectors with automatic discharge flip gates.



## Light-Duty GFC

- Used for hand-feed systems of either scrap parts or stringers for in-house beside the machine grinder recycling.
- Constructed of a fabricated steel frame, smaller drives, under the beltplate S-Coil Metal Detector and pulleys with inexpensive smooth or rough-topped belts.



# Shredder Discharge Conveyors

## Heavy-Duty GFC Hockey Stick

- Runs between approximately 4-9 tonne/hr and built for the most rugged applications.
- Heavy-duty construction including: Formed steel frames, heavy cross-rigid or cleat topped belts with UHMW skirting and flared in-feed hoppers to match up to Shredder discharges
- 250-300mm pulleys and large drives with optional Overband Separator, Magnetic Head Pulleys and Metal Detectors with flip gate rejects of contaminant.



## Standard-Duty GFC Hockey Stick

- Designed for 1-5 tonne/hr of shredded material.
- Fabricated formed steel framed conveyors
- Built with 150-250mm diameter pulleys, heavier cleated cross-rigid flexwall belts and flared in-feed hoppers to match up to the Shredder discharge opening.
- Available with optional equipment to purify the regrind, including “under the belt plate” or “loop style” Metal Detectors with automatic discharge flip gates or Overband Separator mounted with or without a discharge, and Rare Earth Discharge Pulley.



## Light-Duty GFC Hockey Stick

- Designed for lower flow rates usually under 100 kg/hr.
- Economically constructed of a fabricated steel frame, smaller drives, with 75mm pulleys and cleated belts.
- Light-Duty allows for optional casters that can easily be wheeled out of the way for machine maintenance.



# DragSlide Conveyors

Designed for the plastic film industry to solve the problem of static electricity, Bunting's sealed Dragslide Conveyors are ideal for handling plastic film, paper, and fibre materials in the recycling industry.

- Dragslide conveyors feature a totally enclosed design, using UHMW drag flights to efficiently move and convey material.
- Sealed conveyor eliminates static conveying lines and results in a much cleaner facility.
- Reduces downtime as employees can focus on production instead of time-consuming clean-up and maintenance.
- Available in larger maximum-duty units, with stationary or mobile bases depending on your production needs.
- In-feed hoppers designed to match up to up shredder discharge points, allowing for seamless integration with your existing equipment.
- Optional rare earth magnet configurations.
- Available to implement in discharge chute.
- Units equipped with clear sight windows, allowing operator to view material flow within the enclosed system.

## HOCKEY-STICK STYLE INCLINED DRAGSLIDE CONVEYOR

Designed and built to match up to and fit up to shredder discharge openings. After receiving material from a shredder discharge opening, these inclined conveyors can then raise the material to the desired elevation, transfer material to another conveyor, or transfer material directly into an extruder.



# Bale Break Station

Bunting® bale break conveyors are designed to improve loading and separation efficiencies. They can be as simple as jogged in-feed conveyors for bales of plastic film or as complex so as to implement powered beater shafts to break up bales of plastic bottles. Whether it is bales of post-consumer detergent, milk jugs or plastic bottles, Bunting has bale break in-feed conveyors to feed your shredding line.

Bales of material are usually placed by fork lift on the in-feed portion of the conveyor either from the side or end loading. The operator then cuts and pulls the baling wire before proceeding to either jog or power feed the material onto the inclined shredder feeder conveyor.

- Heavy duty frame construction to withstand the toughest operating conditions.
- Heavy duty forklift loading and pull-out slots.
- Adjustable belt speeds.
- Optional double beater shafts for bottle applications.
- Available with small tables with forklift pullouts or large tables with stairs and working mezzanines.
- Live bottom belted metering stations.
- Surge hoppers with live bottomed conveyors.
- Optional bailing wire spindles available for operators to wrap material around after cutting bale wires.
- Horizontal metering conveyors available for Bin dumpers.



# Bale Inspection Conveyor

Bunting® offers Inspection Conveyors with Metal Detection for baled recyclable materials to use either as an independent stand-alone system or as the infeed conveyor to the shredder line. Your bales of post-consumer carpet, plastic bottles, milk jugs, plastic film, clothing or fibre can be inspected to determine if there is scrap metal, aluminium cans or other metal objects enclosed that could damage your shredder or contaminate the product stream.

## Four-Step Process

1. Bales are placed on the infeed portion of the conveyor against optional backstops.
2. Bales then run through a tunnel-style Metal Detector sized perfectly to fit your bales.
3. Using sensitive triple coil technology, the Metal Detector identifies any metal contamination within the bale itself and then double-checks it before conveying the bale out to be down loaded or feed directly onto an inclined Shredder Feeder Conveyor.
4. The inspection conveyor can also mark the contaminated bales making them easily identifiable to do further inspection.

## Select Features

- Heavy duty channel frame construction
- Optional back stop for bale loading
- Optional Metal Detector on separate isolation support



# METAL DETECTION IN THE RECYCLING INDUSTRY

Even the smallest amount of metal contamination that is not properly removed from a recycled product 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 recycled material processing, and this contamination can frequently enter 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, ferrous metal particles from the process flow or from shredded recycled material, even detecting metal encapsulated in individual plastic particles. With Bunting metal detection equipment integrated into your process, you will be able to send your product to market with complete confidence.





# HOW METAL DETECTORS WORK

The product passes through an opening in the detector, which houses a search head. This is comprised of windings around an aperture opening, whether round or rectangular. There is a transmitter in the centre of this coil with 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 activating further operations or devices. All metal detectors utilise 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 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

catylsed epoxy, to eliminate void areas inside the housing. This waterproofs the search head and stabilises 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 organisation to connect detectors for remote monitoring, reporting or control.

## **SELECTING THE BUNTING METAL DETECTOR FOR YOUR OPERATION**

Recycling 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.

# Metal Detectors for Conveyors

## TN77 Metal Detector

- Reliable protection against machinery damage and loss of product
- Detection of tramp iron & manganese steel
- Easy installation into existing conveyors
- Simplicity of operation, fully adjustable sensitivity/ detection level with indication if 1 or 2 pieces of tramp iron are detected
- Overlooks non-magnetic - copper alloy belt fasteners.

The electronic TN77 metal detector enables a continuous inspection to be made of any materials which are non-metallic or non-conductive and which are generally conveyed by a belt conveyor.

The search coil is supplied from a range of standard sizes or made to customer requirements, with aperture height to suit the process.

The control unit is housed as standard in an IP65 wall fixing cabinet and can be sited locally or remotely from the search coil.

On detection of tramp iron a signal is generated in the search coil and transmitted to the control unit, it is then processed and used to control other circuits - these include interlocking of the belt conveyor, operating audible or visual alarms, marking devices or suitable reject mechanisms.

The TN77 Metal Detector is used for the detection of tramp iron ferrous and manganese steel where their presence would prove damaging to processing equipment or product.

Typical materials to be inspected include limestone, granite, sand and gravel, clay, fluorspar, coal, chemicals, wood chips, mineral ores etc.

Detection of digger teeth, drill rods, crusher plates, bars, chains, nuts and bolts all are hazardous to crushers, mills, mixers for quarrying, sand and gravel, brickworks, mining, foundries and other processing plants.



## QTA Metal Detector

- Reliable protection for all crushing and processing plants
- Detection of tramp iron & low grade manganese steel
- Heavy duty construction for quarrying and mining applications - no belt cutting required for installation
- Ease of operation, adjustable sensitivity/detection level and product compensation facility.

The electronic QTA metal detector provides an automatic and continuous search to be made of all raw bulk or processed materials which are non-metallic or non-conductive, materials to be inspected are generally transported by belt conveyors.

The search coil is supplied from a range of standard sizes or made to customer requirements with aperture height to suit the process. Alternative search coil configurations are available for special or extra deep burden applications.

Detection of all tramp metal, ferrous, manganese steels and non-ferrous can be achieved. Typical materials inspected include granite, limestone, gypsum, cement rock, marine sand and gravel, gritstone, whinstone/ basalt, sandstone, coal, mineral ores, etc.

Rugged construction ensures stability and successful operation under arduous and difficult site conditions, providing not only capital plant protection but also reductions in loss of production and down time.



## QDC Metal Detector

- Reliable protection for all processing equipment and machinery
- Detection of ferrous and non-ferrous metals
- Easy installation into existing belt conveyors - without the need for cutting the belt
- Simplicity of operation, adjustable sensitivity/ detection level and product compensation facility.

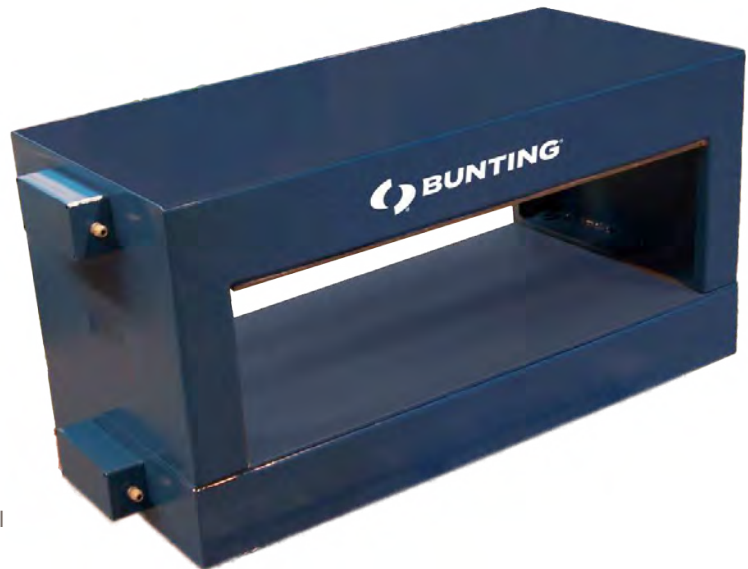
The electronic QDC metal detector enables an automatic and continuous inspection of all materials which are non-metallic or non-conductive.

The materials to be inspected may be transported by belt conveyor, chute, pipeline, elevator or similar material handling equipment.

The QDC search coil dismantles for fitting around endless belt conveyors and alternative search coil configurations are available for special installations.

The QDC offers protection to all forms of processing plant against tramp metal, from large pieces of channel iron or bolts, down to pieces of swarf and wire.

Typical materials examined includes plastics, rubber, glass, clay, fibres, wood, grain, chemicals, coal, cement, food products, powders, liquids and many others for machinery safeguard or protection of the operator or consumer.



# Metal Detectors for Plastics Processing and Recycling

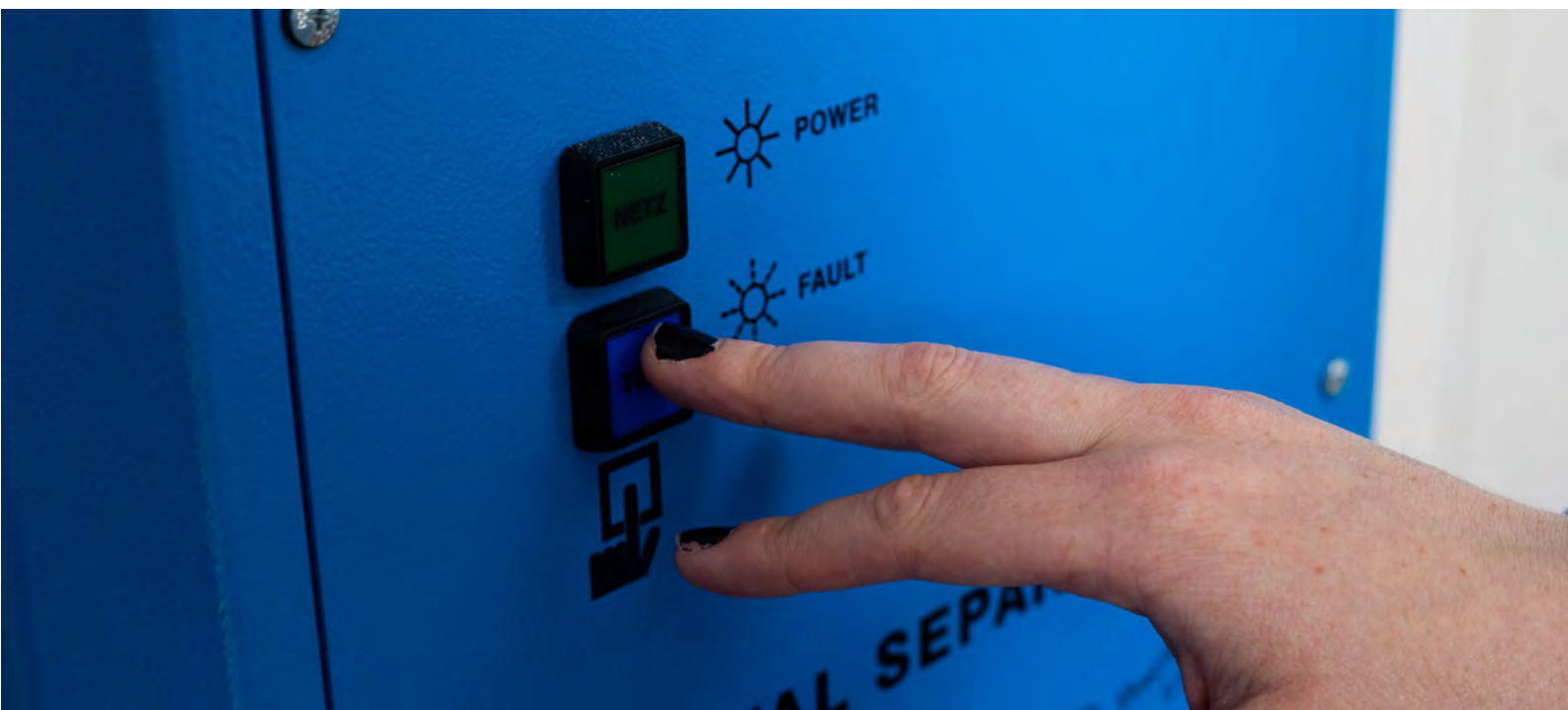
## Gravity Free-Fall Style Metal Detectors with Reject Mechanism



### quickTRON™ 03R

This low-cost, triple-coil detector offers superior sensitivity, simplicity, and reliability. The Bunting® quickTRON™ 03R is specifically designed for demanding applications in the plastics and recycling industries.

- Consistently detects and rejects small fine particles that other metal detectors struggle to detect.
- Handles detection and removal of fine metal contamination in critical processes.
- Housing controls are contained to eliminate risk of interference.
- High-speed stainless steel reject mechanics allow for economical, compact design.
- Units are fully self-monitoring.
- Integral brackets simplify mounting.



# Metal Detectors for Conveyors



## meTRON™ 03 S

These single-sided, triple-coil under the belt detectors install in belt conveyor systems and scan through the belt into product with a maximum burden depth of six inches. This single surface detector works well for Belt Conveyors and Vibratory Chutes.



- Triple-Coil Technology
- EMFI filters reduce waste, misses, and false alarms
- Maximum burden depth of six inches
- Reject options include pusher, flap, and cut-out devices
- Digital controls with keypad
- Works well for belt conveyors and Vibratory Chutes
- Quick and easy installation
- Optional reject devices available

## meTRON™ 05 D

The Bunting meTron™ 05 D is a two-piece, tunnel-style metal detector that can be separated in order to install around belt conveyors. It offers triple-coil sensitivity and accuracy, is easy to install, and provides stable performance. This two-piece, tunnel-style detector is perfect for belt conveyors and vibratory chutes.

- Automatic product tracing and temperature compensation.
- Easy installation and user-friendly operation.
- Triple-coil sensitivity and superior accuracy in detection.
- Overall waterproof construction, in addition to an epoxy-filled search head allows for maximum protection of internal components.
- Serial interface (RS-232) with multi-level password protection and a built-in digital event counter.
- Combination assemblies with detector and conveyor can be custom-built to suit your application utilizing a variety of rejection devices, including pusher, flap, or cut-out styles.





## quickTRON™ 05 (FLAP OR COWBELL STYLE DIVERTERS)

The Bunting 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.
- ATEX explosion proof rating available. Hazardous environment rating available for flap style unit.

## MACHINE MOUNTED ALL-METAL SEPARATORS (MMS)

The Machine Mounted All Metal Separator provides efficient detection and rejection of both ferrous and non-ferrous metal contaminants within all materials, whether loose or encapsulated, without process interruptions. The MMS is designed for mounting on an injection moulding machine or extruder as a "last chance" metal detector. This type of detector, also available in a high-temperature rated model uses a pneumatic rejection mechanism to remove metal contaminants that were detected previously in the process flow.

- Designed especially for choke-feed applications, the MMS can bolt directly to the infeed of processing equipment and support the weight of hoppers and bins.
- Fast pneumatic rejection mechanism, (aided by precise timing), results in accurate cycling and conservation of good material.



- Slide gate rejection design eliminates contamination leaks.
- Available in a high-temperature version suitable for handling product at higher-than-normal temperatures (up to 350°).

# Cleaning Systems

Many companies find it effective to combine multiple Bunting® products in order to create what is called a “cleaning system”. A Bunting cleaning system utilizes magnetic separators and metal detectors assembled together in multiple combinations in order to ensure maximum protection against ferrous and nonferrous debris. They are the perfect solution for purifying regrind and recycled goods in a plastics plant.

Cleaning systems combine magnetic and electronic separators to remove both ferrous and nonferrous contaminants efficiently from free-flowing virgin resins, regrind, and recycled plastics. They are an excellent choice wherever the volume and variety of metal debris might overload a single separator. The sturdy steel framework provides easy component access and includes a receiving hopper.

## DUPLEX SEPARATOR

### FF Drawer Magnet and Electronic HS Metal Detector

- By capturing ferrous debris, the drawer magnet reduces the number of HS reject cycles, which further reduces material waste. The HS detector acts as a backup for removing ferrous contaminants and rejects other common nonferrous metal contaminants as well. Working in tandem, these two component separators can eliminate virtually all tramp metal from a plastics process.



## BY THE PRESS CLEANING STATION

### FF Drawer and quickTRON™ 03R

- The FF Drawer will capture any ferrous fines while the electronic metal detector senses and rejects both ferrous and nonferrous metals. It offers adjustable sensitivity and a fast-acting rejection mechanism.

## MOBILE CLEANING STATION

### FF Drawer and quickTRON™ 03R

- The FF Drawer will capture any ferrous fines while the electronic metal detector senses and rejects both ferrous and nonferrous metals. It offers adjustable sensitivity and a fast-acting rejection mechanism.





## MAGNETIC SEPARATION

Safeguard your product quality and protect your recycling equipment with Bunting's line of magnetic separation products. Separation of metal contaminants is an essential step in the processing of recycled material. Bunting manufactures an extensive line of magnetic separation equipment that removes contaminants from a variety of material consistencies. We offer units designed to remove metal contamination from gravity, mechanical, and pneumatic conveying systems.

Ferrous metal contaminants in a production line present not only a risk to a consumer or employee who may be harmed by a sharp piece of scrap metal, but also to the other equipment in your facility. Our magnetic separation equipment pulls ferrous 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 inappropriately pass through them.



# Gravity Free-Fall Style Magnetic Separation



## NEO FF SERIES DRAWER MAGNETS

### Superior Contaminant Capture that Handles High Temperatures

Since 1964, Bunting® Drawer Magnets have been the plastic industry's most popular choice for extrusion, injection, and blow moulding equipment. Today, they are better than ever. Our FF Series Drawers come standard with super-strong neodymium rare earth magnets powerful enough to capture and hold ferrous particles so small that they are invisible to the naked eye. NEO magnets have exceptional surface holding force for more complete removal of contaminants and less chance of "wipe-off," (which refers to contamination falling off of the magnetic surface and re-entering the product stream).

### Durable Construction

Bunting NEO FF Drawer Magnets feature rugged stainless steel housings built to support symmetrical compression loads of 4500kg. The drawer gasket on these magnets are cut from Ethylene Propylene Diene (EPDM), which resists heat aging and compression set. Much more durable than sponge rubber.

For material coming directly from a high temperature drier ask about our FF 350 model.

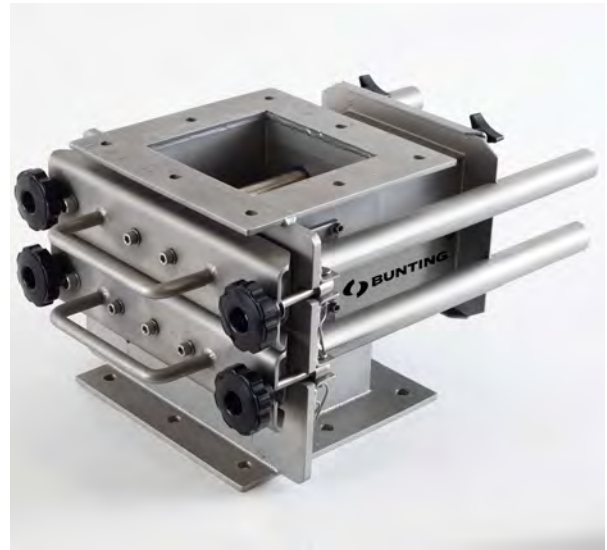
- The NEO FF drawer utilises temperature-compensated rare earth magnets for superior high-temperature operation.
- Units are built with welded stainless steel housings for easy cleaning and durability.
- EPDM gasket resists heat aging and compression set.
- High-torque nylon knobs resist breakage.
- Our patented No-Spill™ Slide Gate is fitted with a magnetic safety latch to prevent accidental closure in high-vibration applications.

- Stainless steel centre drawer guide simplifies removal and re-installation of the magnet drawer for quick, easy cleaning.
- Most powdered colourants and resins slide off without sticking.
- Superior cartridge geometry increases reach-out and holding power.
- Robust construction prolongs cartridge life.

## 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 rows of magnetic cartridges, 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 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, manual self-cleaning, pneumatic self-cleaning and pneumatic continuous self-cleaning configuration options are available.

## HF DRAWER CONFIGURATION OPTIONS

### MANUAL

In the manual configuration, ferrous debris is removed from the cartridges by sliding the trays out of the housing and wiping them off by hand. This allows the operator to 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 the product stream. Pneumatic units operate via a toggle control, push button or timer. They can also operate 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 utilises 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 continuously flow and 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.



# 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.

## PLATE MAGNETS

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. Installation kits include a pre-drilled hinge, latch, and other hardware to ensure easy mounting. Tapered step face plate magnets are designed to prevent contaminant wipe-off in rapid product flow. Standard plate magnets are available in widths from 100-1500mm.

- Flat face, exposed pole, and tapered step models available to meet your specific requirements.
- Ideal for 30° to 60° inclines, allowing contaminants to be trapped as material flows over the plate magnets.
- Hinged plates swing out for easy cleaning.
- 300 series stainless steel construction. 316 stainless steel available when required. Tapered step face, to prevent product wipe off in rapid product flow is constructed from 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, allows for mounting on processing equipment or on spouting.
- Rugged stainless steel construction to resist wear and extend life of equipment.
- For removing both ferrous and non-ferrous contaminants, install a plate housing above a Bunting Quicktron metal detector.



# Grate Magnets

Bunting grate magnets remove ferrous fines, metal fragments, and larger metal objects from various products. Grates can be installed or simply laid inside hoppers, pits, chutes, housings and bins, where they can be accessed for cleaning.

## GENERAL-PURPOSE GRATE MAGNETS

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- Standard grate magnets use 25mm round cartridges. They are easy to access and remove for cleaning.
- Available in round, square, and rectangular arrays. Standard sizes from 100-1000mm. Easily fit into a variety of applications.
- 316 Stainless Steel is available for corrosive environments.



## HEAVY-DUTY GRATE MAGNETS

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- 25mm square tubing made from sturdy Stainless Steel welded to frame with rigid channel side members.
- Available in square and rectangular styles. Standard sizes range from 300-1500mm 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, minimising bridging and product build-up.



## GRATE MAGNET OPTIONS

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- Plain Style
- Angular baffles
- Rod baffles



# 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.

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.
- 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.
- Comes with a tapered step face to prevent product wipe off.



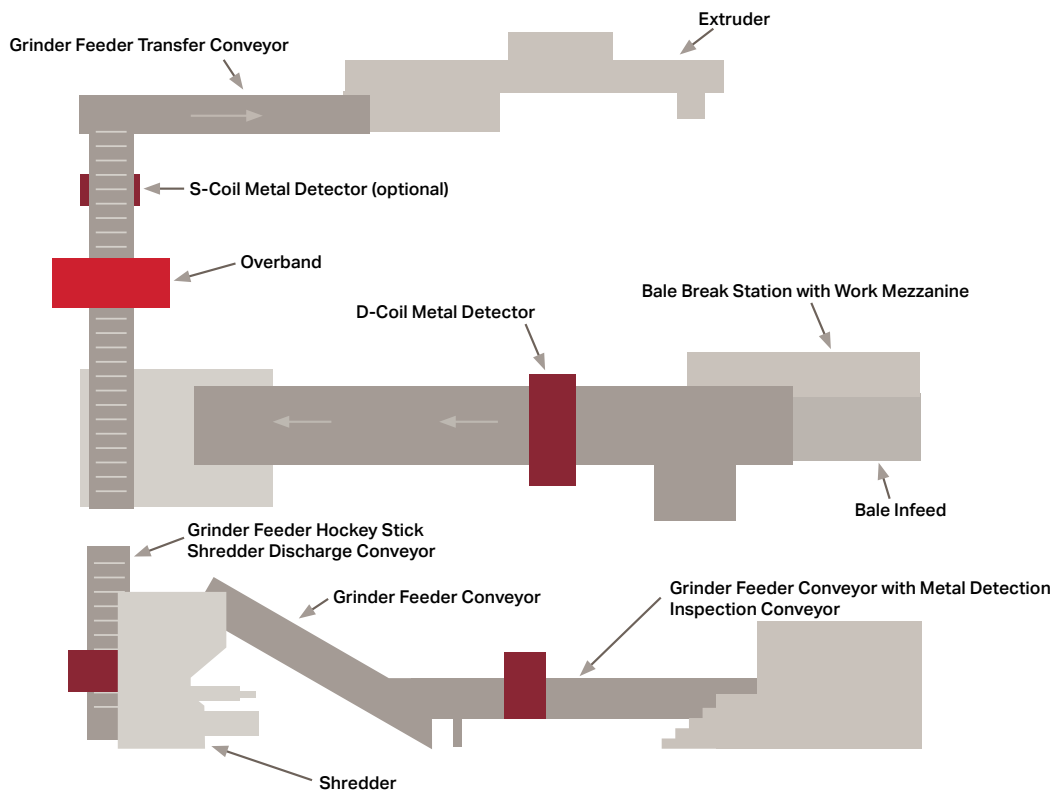
## CENTRE-FLOW IN-LINE MAGNETS (CFM)

Centre-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 centre-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.
- 75mm and 100mm models are manufactured using new bolt-on flange design for quick delivery.

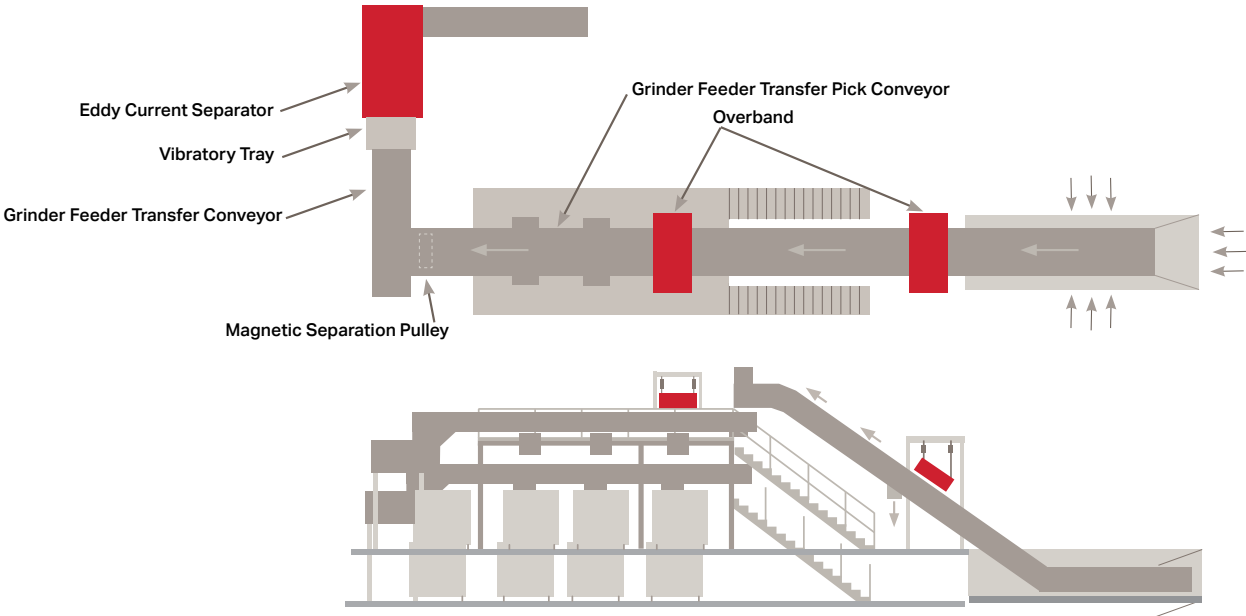


# PLASTIC FILM RECYCLING

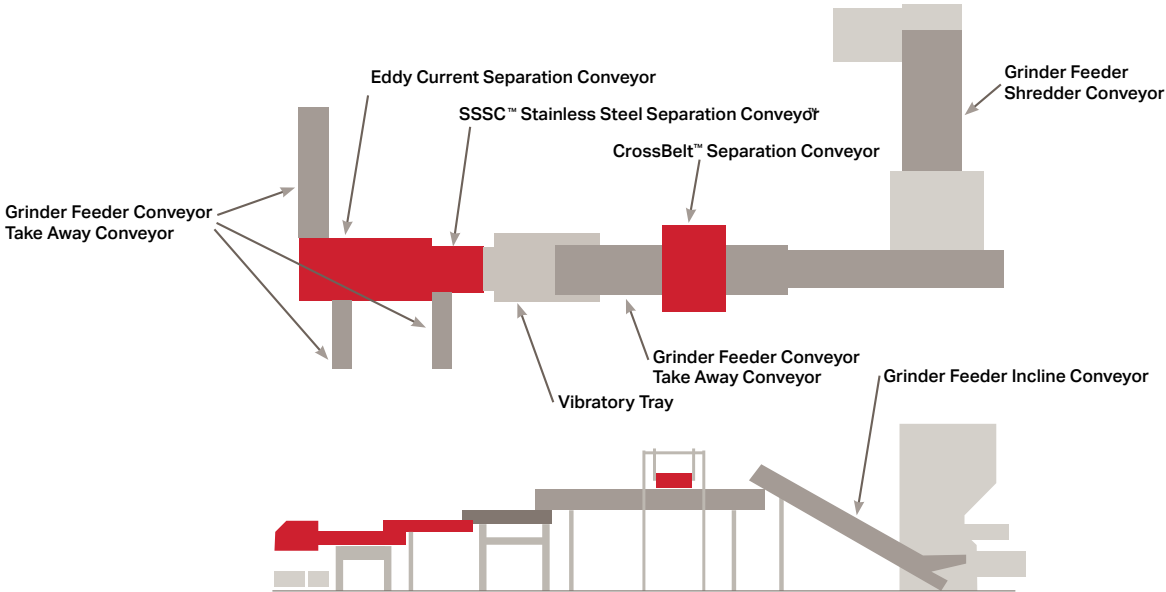




# MUNICIPAL RECYCLING

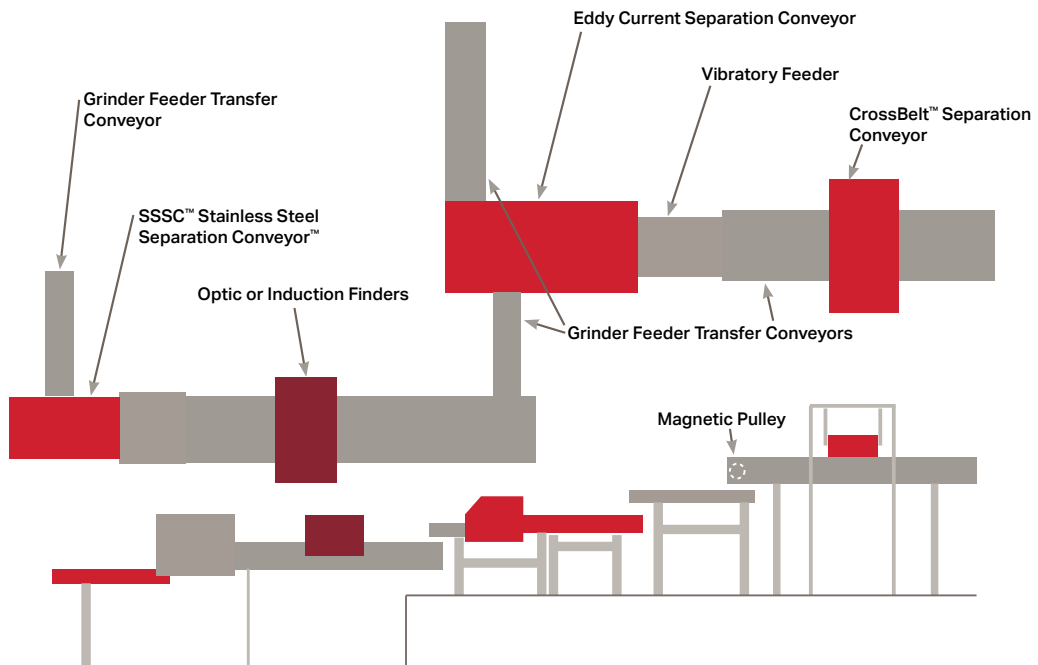


# E-SCRAP RECYCLING



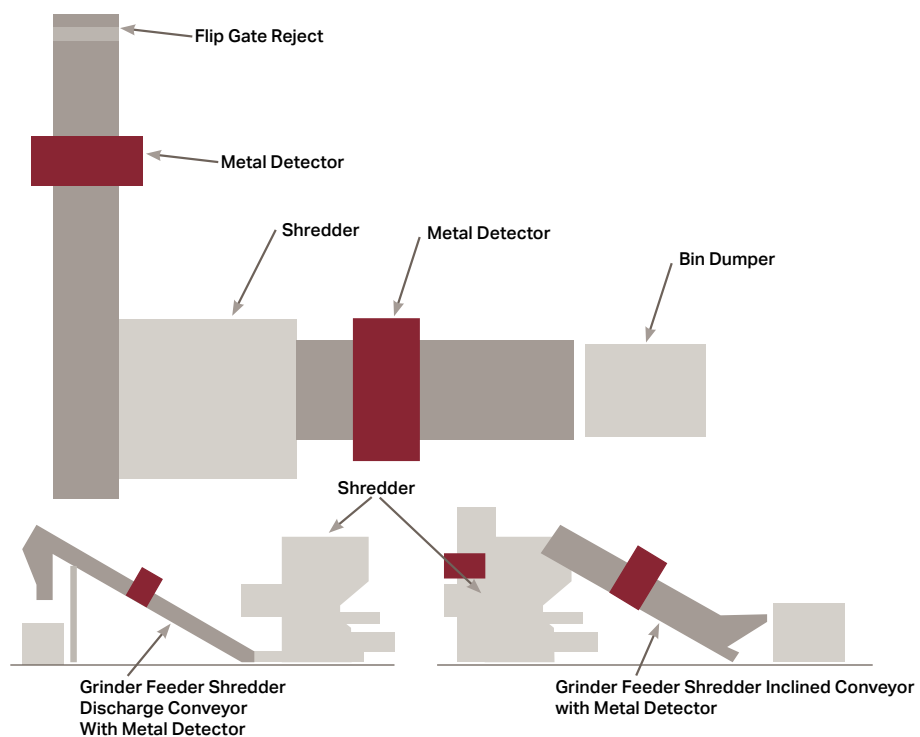
## AUTO RECYCLING

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## PLASTICS RECYCLING

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# Pure success: What the Bunting name means to your recycling business.

Bunting is proud to provide innovative, custom-designed solutions for the recycling industry, as well as many other industries such as food and pharmaceuticals, plastics, 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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**GLOBAL. MAGNETIC. FORCE.™**

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