

# **BUNTING Magnetics Co.** Separation Equipment

for the Plastics & Recycling Industries

Find ALL of your plastics solutions at www.buntingmagnetics.com

### TRAP TRAMP METAL WITH THE INDUSTRY'S MOST COMPLETE LINE OF SEPARATION EQUIPMENT

Bunting<sub>®</sub> Magnetics Co. has established leadership in plastics separation by meeting customer requirements with a broad line of Magnetic Metal Separators, Electronic Metal Detectors, Material Handling Conveyors, and Electrostatic Separators designed for a full range of plastics processing and recycling applications.

This booklet will introduce you to an extensive lineup of the industry's most advanced equipment for removing nonferrous as well as ferrous metals from your virgin resins, regrind, and recycled materials. And for moving plastic materials and parts efficiently and economically around your facility, we offer "Move-It" System<sup>™</sup> Conveyors.

















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WARRANTY

Bunting® Magnetics Co. constantly strives to develop new tools for industry and to improve existing products. Consequently, specifications for all of the products described in this catalog are subject to change without notice. Call for the latest information or visit our web site at www.buntingmagnetics.com.

### Let Bunting<sub>®</sub> Magnetics Help You Build the Perfect Plastics Plant

### PROCESSING

Our Perfect Plant schematic illustrates how to trap tramp metal during product delivery by installing a Bunting® Pneumatic In-Line Magnet and FS Metal Detector-Separator in the conveying line from unloading areas.

Under storage silos, rely on Bunting® HF Drawer Magnets to capture ferrous contaminants with their staggered rows of powerful cartridge magnets. Rare Earth magnet loads are an option on these and other Bunting® Magnetic Separators.

Bunting<sup>®</sup> Pneumatic In-Line and Center Flow Magnets are ideal for use anywhere in pneumatic conveying lines – as are our electronic FS Metal Detectors, which reject both ferrous and nonferrous debris.

To protect product and processing equipment from ferrous debris, place Bunting® Grate Magnets inside supply hoppers and mount Bunting®'s widely used FF Series Drawer Magnets above feed throat openings.

To guard against all metal contaminants, install Bunting<sub>®</sub> electronic Low-Profile or Quicktron 03 Detector-Separators at the infeed of molding, extruding, and hot runner machines. They sense and separate all common conductive metal contaminants, including stainless steel, aluminum, brass, copper, and lead. Their fast reject mechanisms minimize the loss of good material.

Another way to remove both ferrous and nonferrous debris is to install Bunting. Separation Magnets and Metal Detectors in tandem. In the illustration, each extruder, molding machine, and hot runner system is so equipped. Ferrous debris is the most common tramp metal. By removing it first from the product stream with a Magnet Separator, you reduce both the number of Metal Detector reject cycles and the resulting loss of good product.

One extruder features a hopper that is bolted to our rugged FF Drawer Magnet, and the FF Magnet is bolted to a Low-Profile Metal Detector for duplex separation. The hot runner system combines a Bunting<sub>®</sub> FFV Vacuum Drawer Magnet and a Quicktron 03R Detector that rejects both ferrous and nonferrous fines down to 0.4 mm in diameter to keep gates metal free. The molding machine to its right offers Just-In-Time operation with a Rare Earth Torpedo Magnet mounted above the Metal Detector. The extruder at the right uses a Torpedo In-Line Magnet between the Gaylord and vacuum loader; a Plate Housing Magnet and Low-Profile Metal Detector back up this first line of defense.









### **REGRINDING IN-HOUSE OR RECYCLING**

Many people are regrinding their scrap and purgings in-house with the increase in the price of virgin plastic material. Bunting<sub>®</sub> Magnetics Co. provides the most complete line of Shredder/Grinder Feeder Conveyors with and without Metal Detectors to protect your equipment and purify your product. In this catalog you will find our complete line of Shredder and Grinder Feeder Conveyors, Magnetic Crossbelt Conveyors, and Shredder Discharge Conveyors. Bunting<sub>®</sub> Magnetics Co. can also provide you with a complete material handling conveyor system for your in-house recycling area along with receiver hoppers, loading, and sorting tables.

A Shredder Feeder Conveyor with a Metal Detector protects your Shredder from large hidden metals than can damage your rotor. Our Shredder Discharge Conveyors can convey the material from the Shredder discharge to a Grinder or Granulator to purify your regrind. A Magnetic Crossbelt Conveyor over this can separate out smaller metals. And with the addition of a second smaller aperture Metal Detector, small contaminants can automatically be removed.







### THE INDUSTRY STANDARD FOR EXTRUSION, INJECTION, AND BLOW MOLDING EQUIPMENT – NOW EVEN BETTER

### Superior Contaminant Capture

For four decades Bunting<sub>®</sub> Drawer Magnets have been the plastic industry's most popular choice for extrusion, injection, and blow molding equipment, and now they're 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 they might not be visible to the naked eye. NEO Magnets have exceptional surface holding force for more complete removal of contaminants and less chance of "wipe-off."

Buntinge's exclusive, highly refined Drawer Magnets are the only temperature-compensated \* Rare Earth magnets available for injection molding machines. Unlike competing Rare Earth drawer magnets that can permanently lose their magnetic power at temperatures above 175° F, ours is guaranteed not to lose its magnetic strength when bolted to feed throats operating at temperatures in excess of 175° F. That kind of magnetic energy means guaranteed durability and less downtime for you – plus reduced screw wear and fewer plugged nozzles.

### **Superior Construction**

Bunting® NEO Drawer Magnets feature rugged 11-gauge stainless steel housings built to support symmetrical compression loads of 10,000 pounds. The drawer gasket on these Drawer Magnets is cut from Ethylene Propylene Diene (EPDM), another Bunting® first. It resists heat aging and compression set and offers much greater durability than sponge rubber.

\* Patent Pending

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### Lifetime Guarantee

We guarantee the durability and performance of Bunting® Drawer Magnets against defects in materials and workmanship for as long as they are owned and used by the original purchaser.

- Our NEOs feature the only temperaturecompensated, \* Rare Earth magnets in this category 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<sup>™</sup> Slide Gate is fitted with a magnetic safety latch to prevent accidental closure in high-vibration applications.
- Stainless steel center drawer guide makes removal and reinstallation of the magnet drawer quick and easy, for cleaning and maintenance.
- Most powdered colorants and resins slide off without sticking.
- Superior cartridge geometry increases reachout and holding power.
- Robust construction prolongs cartridge life.



\* Patent Pending

STRONGEST DRAWER FOR THE PLASTICS INDUSTRY! "Neodymium Rare Earth Magnets are Standard

† The Bunting<sub>☉</sub> FF Series Drawer Magnet product line has earned the CE mark for the European Economic Area (EEA). The CE marking certifies that a product has met EU health, safety, and environmental requirements, which ensure consumer safety.

**BUNTING® MAGNETICS** 

### 07



### **Bunting**<sub>®</sub> Self-Cleaning Drawer

**Magnets** have extra-long magnetic cartridges that fit inside stainless steel sleeves. Tramp metal collects on the sleeve surfaces and falls from the sleeves when they are pulled clear of the magnetic cartridges. No wiping or brushing is required. To clean these units, remove the drawer assembly and pull the magnetic cartridge out of the sleeves away from your processing equipment.



- Patented No-Spill<sup>TM</sup> Slide Gate completely and positively shuts off product flow, so you don't have to worry about product spillage creating a mess or safety hazard when you remove the drawer for cleaning.
- Purge Hopper speeds clean out of your equipment when changing color or compound – without sacrificing magnetic protection or requiring that you empty your hopper.
- Dump Tube lets you completely empty the drawer housing and material hopper of plastic after a run has been completed.
- Liquid Port allows you to inject liquid color additive into the resin. The port can also be used to hold a temperature probe.
- Powder Seal Kit provides a compression seal around the Slide Gate to help prevent

powdery materials from leaking. Order as original equipment or retrofit on site.





### **POWDER FF DRAWER MAGNETS** FOR FINE-GRAINED RESINS

The Powder FF Drawer Magnet is a modification of the Neo FF Series designed to solve the problem of separating ferrous metal contaminants from fine-grained PVC and other powdery materials while preventing product from escaping from the separator. The clear polycarbonate drawer front has leak-resistant seals and permits monitoring material flow and tramp iron accumulation.



The Magnet's redesigned housing has been engineered to provide superior strength to bear the weight of infeed hoppers and other processing components. We grind the inside of the housing smooth to facilitate cleaning and prevent powdered colorants and resins from clinging to the interior surfaces. The unit also features a slide gate that is completely enclosed within the housing so that any powders that cling to the slide gate will be redirected back into the product flow.

### LOW-PROFILE DRAWER MAGNETS **Continuous Protection**

## When Headroom is Limited

When headroom is severely limited, you need Buntinge's Low-Profile Drawer Magnet. Get Buntinge's proven drawer design in a space-saving 5<sup>11</sup>/<sub>16</sub>" overall height. Standard features include a single row of our exclusive NEO Magnetic Cartridges, clear polycarbonate drawer front, and rigid 10-gauge mild steel construction. You can purchase these units in stainless steel and with our original No-Spill<sup>™</sup>Slide Gate option. We'll pre-drill the unit's rugged <sup>1</sup>/4" thick flanges to your specifications at no extra charge.

### **FFV DRAWER MAGNETS**

Our FFV Series Drawer Magnets are specifically designed for small volume, closed-loop, Just-In-Time systems. They mount on the throat of plastic molding machines and are equipped with an O-Ring seal at the drawer front to prevent air leaks. The powerful magnetic cartridges can be pulled out of the housing for easy cleaning. Top and bottom flanges are built to your requirements.

- Most compact housing measures just 3" x 3" Units can be ordered with single or and has a maximum inlet diameter of 2" with a maximum outlet diameter of  $1 \frac{3}{4}$ ".
- Larger 4" x 4" units are also offered.
- Mild and 13-gauge 304 stainless steel housings are available.
- double high energy Rare Earth Magnetic Cartridges.
- Models with two high-energy Rare Earth Magnetic Cartridges can handle applications where extremely small fines or weakly magnetic contaminants are encountered.

### **BUNTING® MAGNETICS**



I-I-V Drawer Magner

### HF SERIES DRAWER MAGNETS FOR SEPARATION OF FREE-FLOWING PLASTICS IN ENCLOSED FLOW LINES

### Versatile Drawer Magnets Fit Many Plastics Applications

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 two or more trays of staggered cartridges to increase contact with the product stream and achieve exceptionally thorough cleaning. They are available in utility, powder, food, and sanitary construction grades with three cleaning options and stainless steel housings. Self-cleaning models come in both manual and fully automatic pneumatic versions and in tube-overtube models. We supply custom transitions to match your round, square, or rectangular spouting.

- Pre-engineered design allows fast field installation.
- Multiple trays provide increased contact with product flow for more complete metal capture.
- Order Ceramic, Alnico, or Rare Earth magnets to get the holding force right for your application.
- Stainless steel construction.
- Housing design allows easy access to magnets.
- Self-cleaning models offer labor-saving convenience.



Self-cleaning HF Series Drawer Magnet



Pneumatic Continuous Cleaning HF Series Drawer Magnet

> Low-Profile HF Series Drawer Magnet



The Bunting<sub>®</sub> HF Series Drawer Magnet product line has earned the CE mark for the European Economic Area (EEA). The CE marking certifies that a product has met EU health, safety, and environmental requirements, which ensure consumer safety.

### **PLATE MAGNETS**

### Plate and Plate Housing Magnets for Bridge-Free Flow of Plastic Materials

### STANDARD PLATE MAGNETS

Plate Magnets are available with permanent Ceramic magnets or with high-energy permanent Rare Earth magnets that can capture fine metal particles and slightly magnetic debris from powdery, moist, clumpy, or abrasive materials that might choke or wear cartridge-based separators. They can be used in spouting and processing equipment, both above and below the product flow, and larger models can be suspended above conveyor lines. The tapered magnetic face is designed to prevent contaminant wipeoff in rapid product flow. Bunting® Plate Magnets are available in widths from 4" through 60".

Manual Self-Cleaning Plate Magnet

> Pole Face Plate Magnet

Plate Magnet

Flat Face

### **PLATE HOUSING MAGNETS**



Bunting. Plate Housing Magnets resist bridging and choking of regrind material. The stainless steel housings mount easily to enclosed spouting or directly on

processing equipment. Optional square, rectangular, and round adapters can be supplied 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.

In standard configuration, Plate Magnets are hinged to the housing like doors and swing out for easy cleaning. Self-cleaning Plate Housing Magnets come in both manual and pneumatic models. The manual self-cleaning model has an interior drawer that carries captured debris out past the Plate Magnets for safe, convenient disposal. Pneumatic self-cleaning models can be operated remotely and installed without regard to accessibility.

- Excellent for coarse, fluffy, and other flow resistant plastic materials that bridge in grates and drawer magnets.
- Compact design fits easily into limited spaces.
- Mount in spouting or on processing equipment.
- Custom transitions for round, square, or rectangular spouting.
- Rugged stainless steel construction.
- Available with Ceramic or powerful, lightweight Rare Earth magnets.
- Hinged plate magnets swing out for manual cleaning.
- Self-cleaning models reduce downtime and labor expense.

### **TORPEDO MAGNETS**

Bunting® Torpedo Magnets are designed for use in Just-In-Time (JIT) hopper loaders and are the best alternative to drawer magnets available for this application. The Torpedo's high-energy Rare Earth Magnetic Cartridge hangs suspended in the center of the JIT loader's glass tube. So tramp metal is captured before it can reach your plastic molding machine. The bottom of the Torpedo Magnet is a live magnetic pole that allows tramp metal to collect, preventing wipe-off into the product stream.



### **TORPEDO IN-LINE MAGNETS**

Bunting® Torpedo In-Line Magnets (TIM) provide permanent magnetic protection for vacuum systems. They clamp directly into flexible hoses to capture ferrous contaminants from virgin or regrind material with Rare Earth power. The compact TIM is an ideal choice for use between gaylords and vacuum loaders wherever limited overhead space prevents the use of a Bunting® Drawer Magnet.



### **PNEUMATIC IN-LINE MAGNETS**

Pneumatic In-Line Magnets are built for use in dilute phase pneumatic conveying systems. They work best in horizontal runs with the plate magnet down to take advantage of material stratification.

- Designed for unobstructed product flow.
- Compression couplings speed in-line installation.
- Powerful magnetic field covers entire cross-section of product flow.
- Available with Ceramic or High-Strength Rare Earth magnets.
- Magnet swings out for easy cleaning.
- Stainless steel construction.





In-Line Magnets

### **CARTRIDGE & GRATE MAGNETS**

### Make or Modify Your Plastics Separation System with Bunting. Magnetic Cartridges

Thanks to computer-aided design technology, Bunting. Cartridges are engineered to achieve the optimum balance between reachout and holding force. Cartridges can be mounted individually, side-by-side, or in multiple-row arrays. These magnets are available in either Ceramic, Alnico, Neodymium Power-Balanced<sup>™</sup> Rare Earth, Neodymium High-Intensity Rare Earth, Neodymium High-Intensity Rare Earth Temperature Compensated.

### **General-Purpose Magnetic Cartridges**

General-Purpose Cartridges are made of durable 304 nonmagnetic stainless steel. End plugs are fully welded into the tough 1-inch diameter tubing for added strength.

### Heavy-Duty Magnetic Cartridges

Bunting® Heavy-Duty Cartridges are designed for use where high flow rates or bridging might occur. These 11/2" square Cartridges offer superior reachout and nearly two times the magnetic surface area of standard 1" cylindrical cartridges.



**Magnetic Cartridge** 

**Heavy-Duty Magnetic Cartridge** 

### GRATE MAGNETS OFFER EASY DROP-IN INSTALLATION

Bunting® Grate Magnets remove ferrous fines, fragments, and larger metal objects from regrind and virgin materials.

### **General-Purpose Grate Magnets**

Bunting<sub>®</sub> General-Purpose Grate Magnets feature durable 1-inch diameter stainless steel tubing arrayed on 2-inch centers and strong welded frames that come in round, square, and rectangular configurations and standard sizes from 4 to 36 inches.





**Hopper Magnet** 



### **SUSPENDED PLATE MAGNETS**

Suspended Plate Magnets are intended for recycling applications where the volume of metal contamination is low and only occasional cleaning will be required. Bunting<sub>®</sub> has 3 models available.

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

### **DRUM SEPARATORS**

These high-volume units are designed for use with products that carry a high percentage of ferrous contaminants and that require a continuous self-cleaning

separator. They can dramatically reduce

main- tenance and interrupted production.

### **GRINDER PLATE MAGNETS FOR BASIC PROTECTION FROM FERROUS TRAMP**

Bunting<sub>®</sub> Grinder Plate Magnets are made specifically for use on all types of grinding units. A pre-drilled aluminum frame surrounds the mild steel back plate and magnetic pole face. To install, just cut a shallow mounting hole in the grinder feed tray and bolt into place. Our high-energy Ceramic magnets keep ferrous trash and misplaced hand tools from shaking loose.



- Order in sizes to fit most applications.
- Capmure many types and sizes of ferrous debris.



### PERMANENT MAGNETIC CROSS-BELT SEPARATORS

Bunting® offers 3 styles of magnetic Cross-Belt Separators that have continuous separation of ferrous contaminants from conveyed materials. With Bunting® Cross-Belt Separators you get full-time self-cleaning protection. Cross-Belt Separators can be sized to create a large coverage area whether mounted parallel or perpendicular to material flow.

### 950 SERIES

- Heavy-duty recycling application like munincipal trash, construction debris, pallets, tires, or heavy plastic recycling.
- Deep 10" reachout.
- Continuous self-cleaning of ferrous material.
- Burden depths of 4" to 8" depending on product density.
- Higher belt speeds from 100 to 300 fpm.





### 650 SERIES

- Medium-duty recycling applications with lower burden depths, slower running belts, and lighter separation.
- Effective magnetic reachout of 6 1/2"
- Product burden depth from 2" to 4" on flat or slightly troughed belts.
- Belt speeds between 60 and 120 fpm.
- Lighter metal removal than the 950 Series.

### **450 SERIES**

- Lighter-duty recycling for thin layers of material on flat belts.
- Burden depths from 1" to 2" on flat belts running less than 100 fpm.
- Reachout of 4 1/2" for continuous magnetic ferous tramp removal.
- Most applications are related to reground plastic separation.
- Can be upgraded to Rare Earth magnets for close, very high intensity magnetic separation.



### MACHINE-MOUNTED ALL-METAL SEPARATORS WITH FF SERIES DRAWER MAGNET MOUNTED ON TOP

Our FF Drawer/MMS Separators mate magnetic and electromagnetic units to remove both ferrous and nonferrous contaminants efficiently from free-flowing virgin, regrind, and recycled materials. Units typically integrate an FF Drawer Magnet with an electronic MMS Metal Detector, but other separator and detector combinations can be ordered to customize your unit for your operation.

- Separators install directly above infeed.
- Rugged housings allow mounting other equipment.
- Precise timing results in accurate cycling.
- Fast pneumatic reject mechanism reduces good product waste.
- Slide gate rejection design eliminates contaminant "leaks".



### DUPLEX SEPARATORS FOR PROTECTION AGAINST FERROUS/NONFERROUS DEBRIS

Our Duplex Separators mate magnetic and electronic units to remove both ferrous and nonferrous contaminants efficiently from free-flowing virgin, regrind, and recycled materials. They are an excellent choice wherever the volume and variety of metal debris might overload a single separator. Units typically integrate a Low-Profile Drawer Magnet with an electronic HS Metal Detector, but other separator and detector combinations can be ordered to customize your unit for your operation.

- Adjustable sensitivity and rejection cycling features conserve good material.
- Open frame construction offers easy access to all components.
- Electronics are sealed against moisture and dust.



### MACHINE-MOUNTED ALL-METAL SEPARATORS FOR EXTRUDERS, INJECTION, AND BLOW MOLDERS

Bunting<sub>®</sub> Machine-Mounted *All-Metal* Separators provide efficient rejection of both ferrous and nonferrous metal contaminants and fit where headroom is limited. Designed especially for choke-feed applications, they can bolt directly to the infeed of processing equipment and support the weight of hoppers and bins. A fast pneumatic rejection mechanism aided by precise timing results in accurate cycling and conservation of good material.

- Separators install directly above infeed.
- Rugged housings allow mounting other equipment.
- Precise timing results in accurate cycling.
- Fast pneumatic reject mechanism reduces good product waste.
- Slide gate rejection design eliminates contaminant "leaks".





### HI-TEMP MACHINE-MOUNTED ALL-METAL SEPARATORS FOR EXTRUDERS, INJECTION, AND BLOW MOLDERS

The Bunting<sub>®</sub> High-Temp Machine-Mounted All-Metal Separator provides efficient rejection of both ferrous and nonferrous metal contaminants. The MMS is designed especially for choke-feed applications where the product is at a higher than normal temperature. It bolts directly to the in-feed of processing equipment and supports the weight of hoppers and other auxiliary equipment. A fast pneumatic rejection mechanism aided by precise timing results in accurate cycling and conservation of good material.

- Separators install directly above infeed.
- Rugged housings allow mounting other equipment.
- Precise timing results in accurate cycling.
- Fast pneumatic reject mechanism reduces good product waste.
- Slide gate rejection design eliminates contaminant "leaks".
- Handles temperatures up to 300° degrees



### **BUNTING® MAGNETICS**

### FS METAL DETECTORS FOR PNEUMATIC IN-LINE APPLICATIONS

Designed for pneumatically conveyed plastic resins, regrind, and other bulk materials, FS Detectors feature reliable single-coil electronics. Custom units can be ordered to meet special needs. FS Detectors are engineered to avoid pressure loss and interruption of the product flow during rejection cycles. FS Detectors operate equally well with continuous and intermittent pressure or vacuum systems.

- Units can be installed horizontally or vertically.
- Line pressure and product flow are maintained during reject cycles.
- Adjustable sensitivity helps minimize loss of good product.
- Adjustable rejection timing handles conveying speeds up to 30 meters per second.



### HS METAL DETECTORS FOR GRAVITY-FLOW APPLICATIONS

HS Metal Detectors feature single-coil detection and a single electronics board enclosed in a dust-tight steel housing for durability and reduced maintenance. An air-powered flap offers rapid rejection cycling for cleaner results and minimal product waste. HS Detectors monitor their sensors, mechanical function, voltage, and air pressure. Stainless steel contact parts are an available option.

- HS units fit many plastic processing applications.
- Sealed housings are rugged and durable.
- Units feature adjustable sensitivity and timing.
- Low maintenance operation contributes to outstanding HS value.
- Stainless steel and high-temp models are available.



### QUICKTRON 03 METAL DETECTORS FOR HOT RUNNER AND OTHER DEMANDING SERVICE

Quicktron 03 units provide consistent performance in demanding applications. They are exceptionally well suited for achieving compliance with strict metal-free standards and meeting utility grade regulations. Units offer easy setup and operation – plus economy. Product-Effect Compensation circuitry minimizes loss of good product.

- Quicktron 03 offers high-tech features at low cost.
- Get compact design, proven reliability, and outstanding value.
- Operates with advanced transmitter/receiver detection system.
- Units provide highly accurate operation even with difficult products.
- Recommended wherever removal of fines is critical.





### QUICKTRON WITH BELL-STYLE DIVERTER FOR FREE FALLING BULK MATERIALS

Quicktron High-Frequency units offer digital Product-Effect Compensation and can be preset to self-adjust for different products and for a range of other variables. This unit has a computer interface that allows for comprehensive monitoring and record keeping. The open frame construction permits easy service access.

- Triple coil detection.
- Ideal for abrasive products and higher levels of contaminated material.
- Removable cover for clean out.
- Mild steel or stainless steel contact parts available.
- Available in 2" 12" diameter apertures.
- Optional AMD 05 control package available for automatic product compensation and when finer sensitivity specifications are needed. (Able to learn up to 50 different products)



### METRON SL LOW PROFILE METAL DETECTOR INSTALLS UNDER CONVEYOR BELTS

Metron SL Detectors provide a low-cost solution for preventing damage to downstream equipment. Metron SL Detectors monitor flat products and materials with shallow burden depths. The Metron SL Detectors have been designed for easy under-belt installation.



- No metal free zone.
- Analog controls.

### METRON S METAL DETECTORS FOR BELT CONVEYORS

Metron S Detectors feature low profile construction and superior reachout. Optional reject devices available.

- Under belt inspection.
- Adjustable sensitivity.
- Product effect compensation.



### METRON D METAL DETECTORS FOR BELT CONVEYORS

The Metron D is a two piece construction that simplifies installation around existing conveyors. Optional Bunting<sub>®</sub> conveyors (page 20-21) can be ordered to your specifications. Metron D includes flashing beacon plus siren warnings. Optional reject devices available.

- Grinder/Shredder protection.
- Product effect compensation.
- User friendly digital controls.



### **DragSlide Conveyors for Plastic Recycling**

Bunting<sub>®</sub> Magnetics Co. DragSlide Conveyors are designed to convey difficult thin mil shredded plastic films and light fluffy fiber materials. These conveyors are an excellent way to positively convey this type of material that typically cling to belts and get carried around and rain on the floor below a belted conveyor. Whether you are conveying 500 #/hr or 12,000 #/hr Bunting<sub>®</sub>

Magnetics Co. DragSlide Conveyors can handle these difficult materials and keep the floor around your equipment clean of shredded plastic. The conveyors are totally enclosed except for the infeed hopper and the discharge chutes – both of which can be sealed to the adjacent equipment.

The Bunting<sub>®</sub> Magnetics Co. DragSlide Conveyor works on the concept of dual chain driven UHMW flights which drags the shredded material inside the enclosed conveyor frame.

Our Heavy Duty DragSlide Conveyors are designed in the same shapes and configurations as our Standard Grinder Feeder Conveyors. "Hockey Stick" DragSlide Conveyors are designed to fit under the Shredder or Grinder discharge and convey the material up and out. Straight horizontal or inclined DragSlides are designed as a positive conveying means to any location around or across your plant.

Optional strong Rare Earth Plate Magnets can be installed in the DragSlide Conveyor's discharge chute to help purify your material from any ferrous scrap metal. Other options:

- Standard Heavy Duty Units or Larger Max Duty Units
- Floor Supported or Mobile Bases
- Constant Speed or Variable Speed
- Infeed Hoppers sized for Shredder Discharge
- Clear sight window in top to view material
- Positive Material flow
- Optional Rare Earth Magnet in Discharge Chute
- Optional Metal Detector in Discharge Chute





### GRINDER/SHREDDER FEED CONVEYORS WITH OPTIONAL METAL DETECTORS FOR PROTECTION FROM FERROUS AND NONFERROUS TRAMP

Bunting<sup>®</sup> Magnetics Co. offers a full line of Shredder/Grinder Feeder Conveyors to handle your in-house recycling of parts, scrap, and purgings. Below you can see the equipment used to feed shredders turning plastic scrap parts into regrind for recycling back into your product stream. Shredder/Grinder Feeder Conveyors when matched with a Metal Detector will protect your machines from ferrous and nonferrous metal. Our Shredder Discharge Conveyors, combined with Magnetic Crossbelts and Metal Detectors with smaller more sensitive apertures will automatically reject tramp metal contaminants.









- Metal Detectors to protect shredders from rotor damage.
- Metal Detectors continuously clean regrind material.
- Protects from ferrous and nonferrous materials.
- Can provide bale loading stations for breaking bales.

- Standard Duty conveyors for hand fed applications.
- Can provide Sorting Table Conveyors.
- Heavy Duty construction with numerous optional features.
- Max-Duty beefy conveyors for the toughest applications.
- Belting materials for the toughest products and applications.

### **BUNTING. MAGNETICS ENGINEERS CAN DESIGN COMPLETE CONVEYOR SYSTEMS FOR GRINDER AND SHREDDER APPLICATIONS**

**3 Construction Models to Choose from** 

Standard Duty Heavy Duty Max Duty

"L" or "Hockey Stick" Shredder Discharge Conveyor

Shredder Feeder Conveyor with D-Coil Metal Detector

Grinder Feeder Conveyor with C-Coil Metal Detector and Mobile Base

Grinder Feeder Conveyor with H.D. Hopper for heavy purgings

Light Duty "Z" Shaped Grinder Discharge Conveyor

**Light Duty Grinder Feeder Conveyor** 

Shredder Feeder Conveyor with Infeed Hopper

Heavy Duty Hockey Stick Conveyor with S-Coil Metal Detector and Automatic Reject

Whether you are feeding small runners into a small beside the Extruder Grinder or feeding 2,000 lb. bales into a mammoth shredder, Bunting<sub>®</sub> Magnetic conveyors are designed to handle your specific application. Both applications are provided with Metal Detectors or Magnetic options to protect your machines from costly rotor damage. From less expensive lighter duty conveyors, to the robust heavy-duty conveyors, Bunting<sub>®</sub> Magnetics Co. conveyors are designed to handle the load and feed your machines to increase your production and purify your regrind material.

- Floor supports or mobile bases.
- Constant or variable speed drives.
- Optional controls that can be tied into shredders.
- Standard infeed hoppers or robust hoppers.
- Flat or troughed belted conveyors.

- Optional access doors in taller side guards.
- Rubber skirting or heavy-duty UHMW skirting.
- Smooth or beefy cleated heavy-duty belts.
- Optional service technician for metal detector set-up.

# Move-It<sup>#</sup> Conveyors

# **PARTS HANDLING CONVEYORS**

"MOVE-IT" Conveyors are built to order but priced like stock. They come in most common conveyor sizes and can be custom ordered in a wide range of lengths and widths to fit your application. All models feature sturdy construction, heavy-duty bearings, and a simple, straightforward design that is both reliable and easy to maintain. Electrical components and variable-speed drive motors are available to match the power needs of each installation. Durable cleated belts allow you to move parts and scrap up and down inclines as well as along horizontal runs for maximum layout flexibility. Belt styles include: standard fabric belts, cleated belts for steep inclines, or scoop cleated belting for maximum versatility.

### STYLE A - STRAIGHT FRAME

Straight Frame "Move-It"™ Conveyors are suited to horizontal or incline conveying to grinders, totes, or to the next work station. They also serve for under-press applications, box transfer, and scrap removal. An optional built-in chute collects parts or scrap for transport. Standard belts can be used for 10-degree inclines. For higher angles, cleated belts keep materials moving. Style A shown with an optional plastic modular belt.

### **STYLE B - GOOSENECK**

Gooseneck Conveyors receive parts that discharge underneath machinery and convey them to totes or other conveyors. The standard belts are PVC with 1.5-inch cleats and polypropylene belts with 2-inch cleats, both on 16-inch centers. The incline on these conveyors are 30°, 45°, and 60°. Standard infeed flaps contain product.

### STYLE C - Z-SHAPE

"Move-It" Z-Shape Conveyors combine the capabilities of horizontal and incline conveyors in a single unit. They can collect parts from underneath machinery and convey them to totes or other conveyors. The standard fabric belt is PVC with 1.5-inch high cleats on 16-inch centers. Incline angles are 30°, 45°, and 60°. Infeed flaps to contain product are standard.

### **STYLE D - NOSEOVER**

Noseover Conveyors typically receive parts from an overhead robot and lower them to an operator or a tote, but they are also used to elevate parts to totes or grinders. These conveyors may be provided with high friction or cleated belts, depending on the part and the incline. The incline angles are 30°, 45°, and 60°.

### **STYLE E - ELEVATOR**

Elevator Conveyors receive small parts from production operations and convey them into totes or feeder bowls. These sturdy conveyors offer inclines of 45°, 60°, and 75°. The standard fabric belt is PVC with 1-inch high cleats on 6-inch centers. Higher cleats are recommended for steep inclines. Infeed hoppers and discharge chutes are standard equipment.

> EXCELLENT BESIDE THE EXTRUDER GRINDER FEEDER CONVEYOR

### LIFETIME MAGNET WARRANTY

The magnetic properties of all magnets used in Bunting<sub>®</sub> Magnetics products are guaranteed for life. There should be no loss of magnetism as long as the magnets or equipment are used in the manner or application in which they were intended for. Any abuse such as overheating, physical shock, electrical charge or exposure to moisture or corrosion will cause a permanent decrease in the magnets performance.

### **OUR "PLAIN TALK" PRODUCT WARRANTY**

- 1) We want our products to exceed your expectations. To support this objective, Bunting<sup>®</sup> Magnetics Co. warrants its products to be free of defects in material and workmanship for one year from the date of shipment. We also warrant that our products will conform to the specifications and quality we quoted and that they will magnetically meet catalog specifications and individual part specifications.
- 2) Bunting® Magnetics Co. will remedy any failure under the terms of this warranty by replacing any defective parts or, at the seller's option, making repairs or adjustments to any defective parts upon:
  - a) The purchaser providing written notice of the defect to Bunting® Magnetics Co. within thirty days of product receipt, specifying the unit serial number, and
  - b) The purchaser returning the defective part to Bunting® Magnetics Co. located at 500 South Spencer Avenue, Newton, Kansas, 67114., at their expense, for inspection and verification of defect; and
  - c) The purchaser accepting shipment of any replacement part(s) F.O.B. Newton, Kansas
- 3) This warranty is limited to the replacement of defective parts. The purchaser is responsible for any expense to install and/or adjust replacement parts unless otherwise agreed to in writing by Bunting<sub>®</sub> Magnetics Co.
- 4) At its option, Bunting<sub>®</sub> Magnetics Co. will provide replacement parts, whether mechanical, electrical, or electronic, that are new, or remanufactured parts tested to be equivalent to new parts in fit and function. Replacement of a part under warranty does not extend the original warranty term.
- 5) This warranty will not apply to products made inoperable due to abuse, improper maintenance or repairs, misapplication, incorrect adjustments, exposure to corrosive or abrasive materials, or any modification or alteration affecting the operation of the unit which is not authorized in writing by Bunting® Magnetics Co.
- 6) Bunting<sup>®</sup> Magnetics Co. will not be liable for any incidental or consequential damages caused by any defect in its products. Under no circumstances will Bunting<sup>®</sup> Magnetics Co.'s total liability exceed the purchase price of the products we furnished.
- 7) Components not manufactured by Bunting® Magnetics Co. will be covered by warranties, if any, of the respective manufacturers. This includes items such as motors, reducers, and bearings.
- 8) Wear items are not covered by this warranty, nor covered by a manufacturer's warranty, as their durability is heavily impacted by the application and the environment. This includes conveyor belts.
- 9) The above warranty is in lieu of all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose.
- 10) Extended warranties for specific applications are available at additional cost. Please inquire.

Bunting® Magnetics Co., 500 S. Spencer Avenue, Newton, Kansas 67114 United States of America

Form: BMC Warranty



### Metal Separation

Protect product purity and equipment with the most complete line of Magnetic Separation Equipment. Bunting® Magnetic Separators achieve exceptional removal of ferrous tramp with models for all applications.



### Metal Detectors

Bunting® Detectors offer exceptional sensitivity, speed, and reliability. Our electronic Metal Detectors reject both ferrous and nonferrous metal contaminants from gravity, pneumatic, and liquid conveying systems. Our Magnetic Material Handling Products save time, labor, and expense. Modular Bunting® Magnetic Conveyors come in many shapes, sizes, and automation levels to move ferrous parts horizontally or vertically.

Material

Handling



### Magnetic Materials & Assemblies

Rare Earth, Ceramic, and Alnico magnets and Holding Assemblies in hundreds of shapes and sizes are in stock and ready to ship from our Chicago facility. Also – Magnetic Lifters, Tools, and Sheet Fanners.

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### Printing Products

Bunting® makes Magnetic Printing Cylinders and Bases guaranteed to OEM specs. Our precision cylinders include dry offset, flexo, corrugated, die-cutting, embossing, and hot stamping models.

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### The Leader in Plastics Separation Technology

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