

**Magnetic Protection
for Products & Equipment**



Puritan offers a wide range of magnetic separation products for capturing, controlling and removing ferrous tramp metal contaminants from products and processing systems. Puritan's magnetic separation products are available in standard sizes and strengths with effective designs to meet most conditions and applications. Special designs, and engineering assistance is available for difficult applications.

Puritan's magnetic separation products are designed for rugged use and easy installation in mechanical, gravity, or pneumatic conveying systems. Optimum performance is achieved when placed at proper locations within the processing system.

A partial list of magnet applications

Equipment Protection

Hammermills
Grinders
Cracking Rolls
Feeders
Mixers
Rotary Air Locks
Molding Machines
Blenders
Shredders
Screw Conveyors
Bucket Elevators
Drag Conveyors
Wood Hogs
Belt Conveyors

Product Protection

Grain, Flour, Pasta, Cereals
Plastics, Chemicals, Minerals
Spices, Sugar, Salt
Nuts, Fruit, Vegetables
Meat Processing
Dairy Products
Wood Chips, Sawdust
Bakery Products
Beverages
Pet Foods
Tobacco Products
Stone, Clay, Glass
Coffee and Tea
Snack Foods
Recycled Products

Quality Features of Puritan Separation Magnets

- E-Z CLEAN™ and POW-R CLEAN™ designs for minimum labor effort
- Maximum permanent magnetic strength to resist demagnetization
 - Rare earth, alnico, ceramic, and electromagnetic designs
 - Positive seal, hinge, and latch designs
 - Stainless steel, all-welded, rugged construction
 - Sanitary constructions options
- Standard and non-standard sizes and designs available with 316L stainless steel and other alloys
 - High capture and hold magnetic surfaces
 - Pre-engineered for fast field installation
 - Custom inlet/outlet transitions available
- Total commitment to quality backed by a staff of magnet technicians with over 100 years of experience

Unlimited Warranty on Magnetic Strength

- Puritan magnetic designs resist demagnetization
- Permanent magnetic design will not shut down during a power failure
- Little or no maintenance, except for periodic cleaning

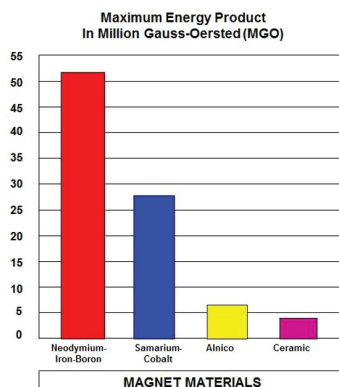
Note: Puritan magnets will retain their full magnetic strength unless subjected to extreme adverse conditions or used improperly. Contact Puritan for detailed information.

Magnetic Materials

Rare Earth Magnets

- 10 times higher energy than ceramic, and can have 25 times the holding value
- Can handle high flow rates with optimum capture, especially on ferrous fines
- Delivers optimum separation performance for size, thus allowing reduction in magnet weight and size
- Puritan products utilize the highest grade magnetic materials available
- Available in Neodymium-Iron-Boron and Samarium Cobalt

Maximum Energy Product In Million Gauss-Oersted (MGO)



MGO: Maximum Energy Product in Million Gauss Oersted

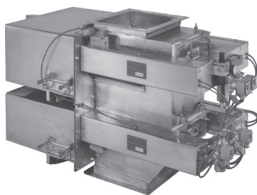
Maximum Operating Temperature: The maximum temperature a magnet can withstand without significant long range instability or structural changes

Curie Temperature: The temperature that a magnetic substance loses its magnetic properties

Puritan Magnetics Standard Magnet Operating Temperatures

	Maximum Operating Temp.		Curie Temp.	
	F	C	F	C
Neodymium	176	80	536	280
Samarium	572	300	1517	825
Alnico	975	525	1580	860
Ceramic	482	250	842	450

Custom Magnet Designs



5 Row POW-R CLEAN™ Drawer Magnet



30" x 45" Dual Acting POW-R CLEAN™ Drawer Magnet



Double Rotating Drum Magnet with Vibratory Feeder

Plate Magnets

Used in applications involving angled spouts or suspended over conveyors

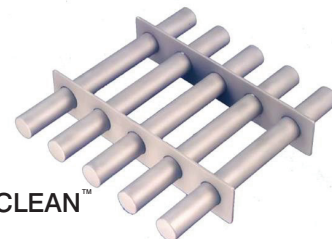
- Rare earth or ceramic designs
- Trapfaced: Single Trap™, Twin Trap™
- Available in a wide range of strengths
- All stainless steel, welded construction
- Replaceable wear surface options
- Special designs available
- E-Z CLEAN™ or POW-R CLEAN™ options



Tube and Grate Magnets

Used directly in the product stream for optimum separation within the flow

- Rare earth, ceramic, and alnico designs
- Optional tube spacing
- All stainless steel, welded construction
- E-Z CLEAN™ or POW-R CLEAN™ options available
- Sanitary construction options



Hump Magnets

Used in gravity flow or pneumatic applications forcing product flow into the magnetic fields

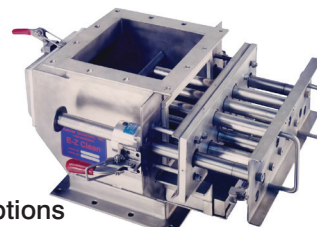
- Rare earth or ceramic designs
- Dust tight, food grade gasketing
- E-Z CLEAN™ or POW-R CLEAN™ options
- All stainless steel, welded construction
- Available in a wide range of plate magnet styles and strengths
- Sanitary construction options



Drawer Magnets

Used in gravity flow lines for quick access to magnets

- Rare earth and ceramic designs
- Single, double, and multiple drawer options
- Pre-engineered for fast field installation
- All stainless steel, welded construction
- E-Z CLEAN™ and POW-R CLEAN™ options
- Dust tight construction, food grade gaskets
- Sanitary construction options
- Rear access door for inspection and maintenance



Angled Spout Magnets

Used for unobstructed product flow in spouts and lines

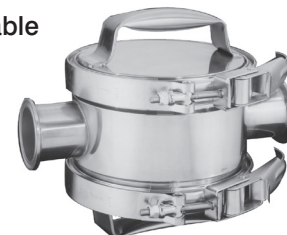
- Rare earth or ceramic designs
- All stainless steel, welded construction
- Strong magnetic field covers product flow
- E-Z CLEAN™ and POW-R CLEAN™ options
- Custom transitions available
- Sanitary construction options



Liquid Plate and Trap Magnets

Used in liquid and slurry applications

- Rare earth, ceramic, and alnico magnet designs
- Magnetic tube or plate style options
- Tri-clamp, weld ends, bevel seat, John Perry and IDF line connections
- E-Z CLEAN™ options available
- Sanitary construction



Suspended Belt Magnets

Used over trough or flat belt conveyors to quickly snap tramp metal out of product flow

- Deep reaching magnetic field
- Permanent magnet and electromagnetic designs
- E-Z CLEAN™ and POW-R CLEAN™ options
- Heavy duty support frame option
- Rugged all welded construction
- Several mounting options available



Head Pulley Magnets

Used with belt conveyors to continuously remove and discard tramp metal from product flow

- Rare earth or ceramic options
- Maintenance free
- Radial and axial magnetic design
- Flat faced, crowned, and lagged options
- Sizes to fit most conveyors
- Fixed or removable shaft options
- Magnetic take-off rails available
- Special shaft and hub designs available



Vertical Spout Magnets

Used in vertical flow products for difficult, high volume applications where bridging and choking occur

- Rare earth or ceramic designs
- E-Z CLEAN™ or POW-R CLEAN™ options
- 2x and 4x powered for intense magnetic field
- All stainless steel, welded construction
- Sanitary construction options
- Custom transitions available



Rotating Drum Magnets

Used where continuous product cleaning is necessary in high volume applications

- Rare earth and ceramic options
- Continuous POW-R CLEAN™ design
- Dust tight design
- All stainless steel, welded construction
- Motor driven
- TEFC or explosion proof motors available



Air-Vey™ Magnets

Used in dilute phase pneumatic systems for tramp metal removal

- Rare earth or ceramic designs
- All stainless steel, welded construction
- Easy access cleaning
- E-Z CLEAN™ options
- Easily installed with compression couplings
- Strong magnetic field
- Covers entire cross section of product flow



Material Handling Magnets

Contact PURITAN for all your other magnetic needs

Magnetic Conveyors
Magnetic Rails and Pulleys
Magnetic Blank Fanners
Lift Magnets
Magnetic Hand Tools
Magnetic Floor and Road Sweepers
Holding and Fixturing Magnets
Magnetic Materials: Rare Earth, Ceramic, Alnico, and Flexible Rubber
Electromagnets and Power Supplies
Electronic Equipment
Custom Magnetic Designs and Services

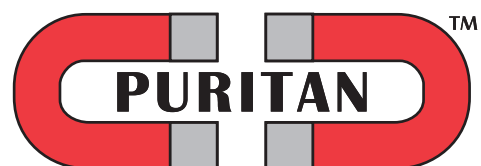
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Solutions To Your Magnetic Needs



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