

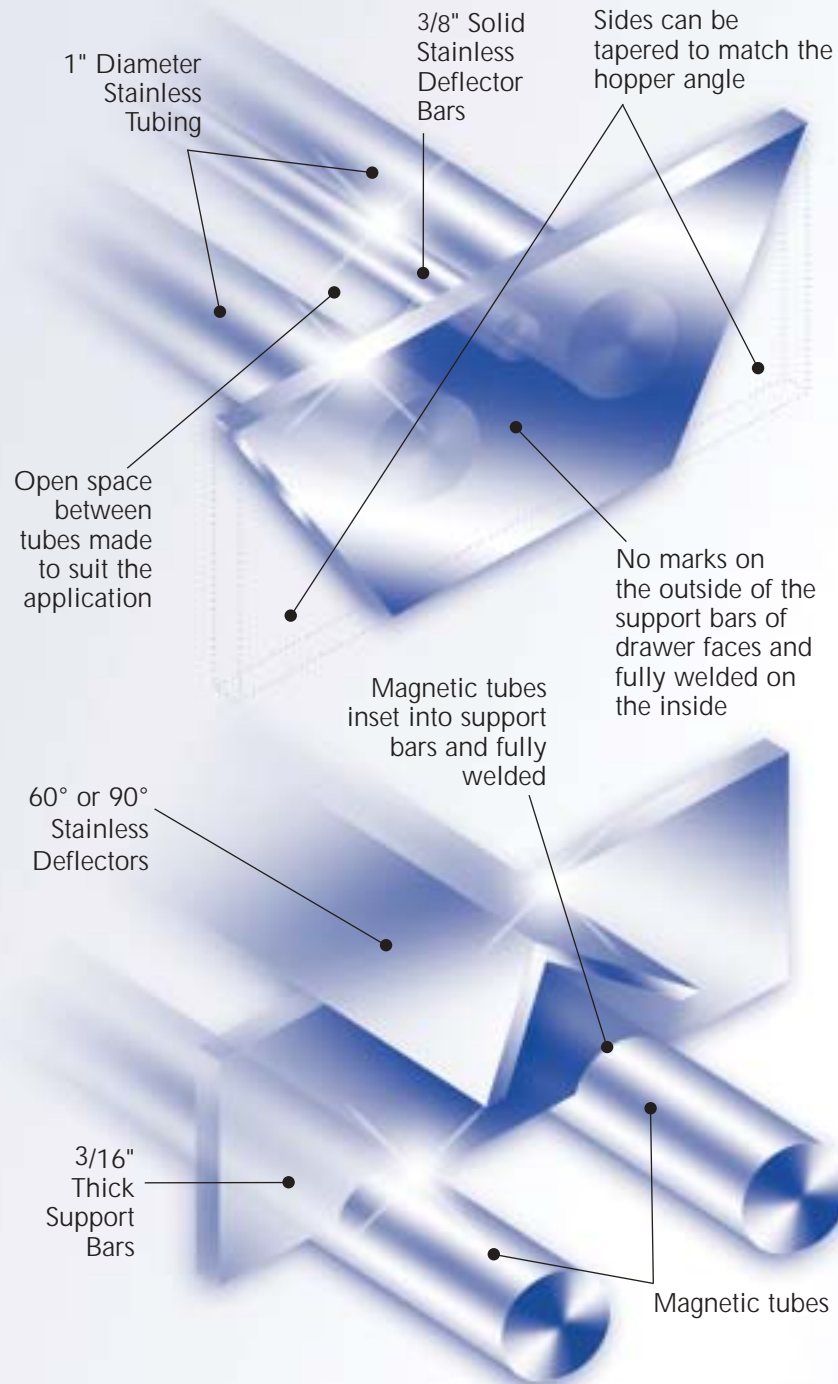


MAGNETIC GRATES

REMOVE UNWANTED FERROUS
AND WORK-HARDENED STAINLESS
FROM PROCESSING LINES



.....{CESCO SERVING FOOD PROCESSORS SINCE 1946}.....



the CESCO EDGE

Magnetic Grates (**MAG-GRATES**) May Look Similar, But They Aren't

While competitors offer grates in 2" incremental lengths, we make them to any length you need. We have made horse-shoe shaped **Mag-grates**, wire frame **Mag-grates**, **Mag-grates** with tapered layers and **Mag-grates** that fit manway openings. *This is the CESCO Edge!*

We are easy to work with because we understand the food industry's language. *This is the CESCO Edge!*

Our **Mag-grates** can be full sanitary (no pits, cracks, or crevices), not just tack welded. *This is the CESCO Edge!*

Others tout that their grate's support bars are made from 1/8" thick stainless. Ours are constructed with 3/16" thick stainless. This heavier material provides more rigidity and helps them resist the day-to-day twisting and bending they receive. *This is the CESCO Edge!*

Others offer grates with only 1" spacing widths between magnetic tubes, we offer grates with spacings from 1/2" minimum to any spacing you might want. *This is the CESCO Edge*

Founded in 1946, we practice the old fashioned values of integrity, service, value and good advice. But we employ cutting edge machinery in our modern production facilities. We utilize the latest in numerically controlled (N/C) machinery, including saws, lathes, milling machines, welding equipment and CAD/CAM. *This is the CESCO Edge*

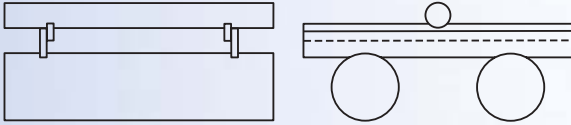
**CESCO builds QUALITY equipment
made to your satisfaction.**

CESCO for all your magnetic separator needs.

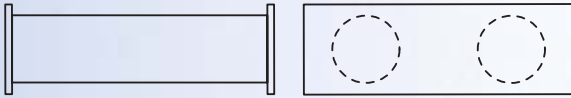


Sketches below show a variety of construction possibilities.

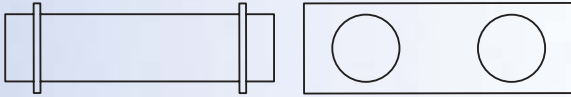
Separated Deflector Bars



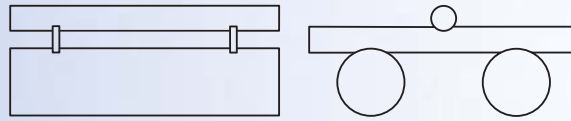
No Deflector Bars



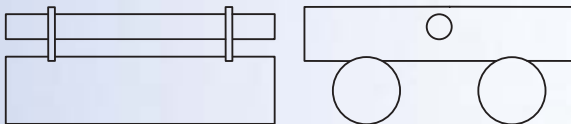
No Deflector Bars



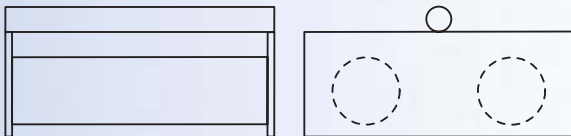
3/8" Dia. Bar Deflectors



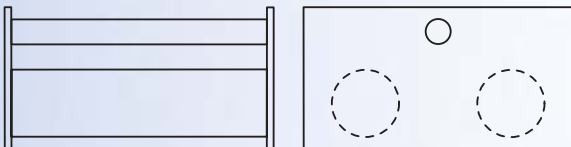
3/8" Dia. Bar Deflectors



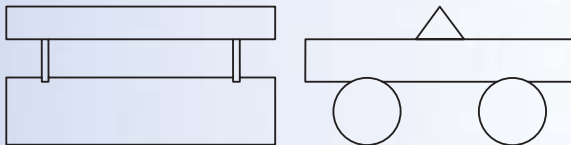
3/8" Dia. Bar Deflectors



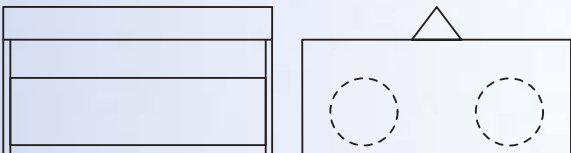
3/8" Dia. Bar Deflectors



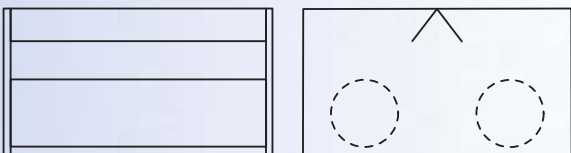
60° or 90° Deflectors



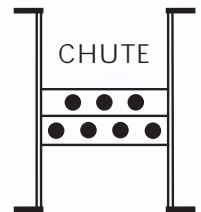
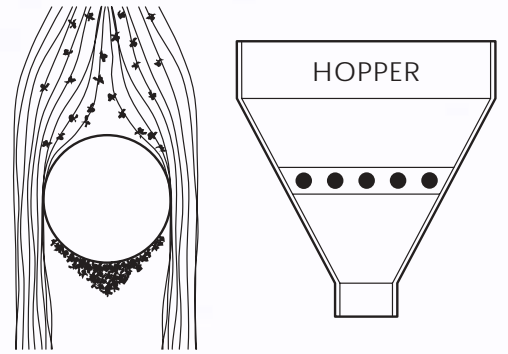
60° or 90° Deflectors



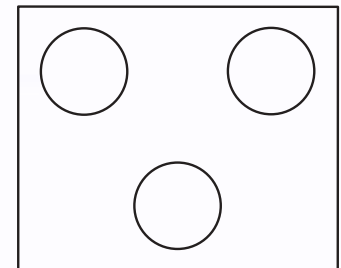
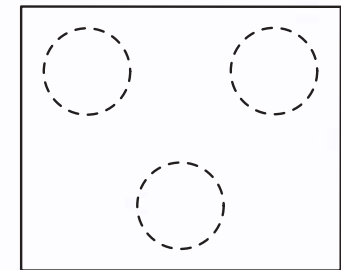
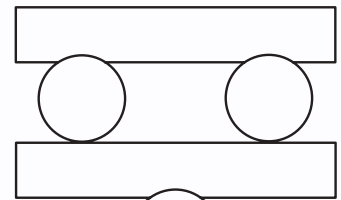
60° or 90° Deflectors



Typical flow pattern showing captured material being held under the tube, where it can not be brushed off by product flow.



Below are just some of the possibilities for multi-tiered, staggered gates. Deflectors can be added as needed.



MAG-GRATES

Designing and Selecting Mag-Grates

Mag-grates remove unwanted ferrous and work-hardened stainless from free flowing, granular and powdered products. Available in an unlimited combination of shapes and sizes, multiple layers, with and without deflector bars and housings, containing either ceramic, or the super-strong rare earth magnets.

The pictures on the back cover show a variety of **Mag-grates** and housings. We offer an almost unlimited variation to match your exact needs; drawer face **Mag-grates** to slide in-and-out of existing ductwork, stainless housings to accommodate single or multiple layers of grates, individual magnetic tubes with tapped holes in the ends, grates to fit bag dumps and sifters, hopper units and anything else you might need. Each made to match your particular specifications. The more information we have, the better equipped we are to recommend the most effective and least costly unit.

Deflector bars are used to direct product flow onto the magnets. They are available in a variety of shapes to suit the need. We can add handles, holes, support brackets, and a range of items to provide ease of use and to minimize the cost to install and operate. Multilayer units use staggered tubes to thoroughly sift the product. More layers improve the capture ratio for products that contain very fine and weakly magnetic particles.

{ MAG-GRATE SELECTION AND DESIGN }

Selecting the proper **Mag-grate** may not be as simple as it appears. A **Mag-grate** placed lower in a tapered hopper will cost less than one placed at the top. An alternative might be to locate the grate beneath the hopper's on-off valve. The one in the bottom of a hopper experiences continual product packing as the valve opens and closes, while the one below the on-off valve, like one placed at the top of the hopper experiences only flowing product. Selection among the three locations would depend upon the product(s), its characteristics and the primary reason for use.

If an 8" x 8" grate were to be placed inside an 8" x 8" vertical duct, it would take up slightly over 50% of the open flow area, leaving (64 sq in - 33 sq in. =) 31 square inches of open area. Should the situation demand all 64 square inches of flow area, then the ductwork must be enlarged to accommodate this rate of flow. We prefer a ratio of 110-120% and here is how it works. A 12" x 13" grate would take up about 82 square inches, leaving (12 x 13) - 82 = 74 square inches of open area. Dividing the 74 by the original 64 square inches, we get 1.16 or 116%. Therefore, the safe bet would be to use a ductwork housing to accommodate a 12" x 13" grate.

{ HELPFUL INFORMATION TO KNOW }

CESCO wants to get it right the first time, thus we appreciate the opportunity to assist customers with their magnetic grate selections. Please contact our representatives, or us. When you call, please be prepared to answer questions such as: What product(s) will pass through the grate? What is the largest chunk or particle size? If you were to squeeze the product in your hand, does it retain its shape? What are you looking to capture? What are the temperatures involved? How is the product being conveyed at the point you think the magnet should go? What is the flow rate? What equipment is in front of that location? What equipment is after that location? Is it gravity fed? What clearance dimensions should we know about? Diameters/sizes involved? Is this location easily accessible? Any special bracketry required? What confidence level do you want respecting ferrous and work-hardened stainless removal?

Once we have the necessary information we provide a design sketch for your approval, complete with price and delivery information. **CESCO's** delivery time for custom equipment is typically two weeks, but if necessary, can be expedited.



Drawer 	Drawer 	Manway 	Manway 
Drawer 	Drawer Duct 	Sifter Outlet 	Sifter Outlet 
Drawer 	<h1>CUSTOM MAGNETIC GRATES</h1> <p>• A CESCO SPECIALTY •</p> <p>Install them with minimum rework.</p> <p><i>Join the Processors Who's Who List</i> <i>Specify CESCO Magnetic Grates</i></p>		Hopper Hanger 
8" Duct 			Hopper Hanger 
Wire Frame 	Duct 	Circular Drawer 	Circular Drawer 
Popcorn Duct 	Custom Circular 	Custom Circular 	Circular Drawer 
		Circular 	