



# MAGNETIC DUCTS

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REMOVE UNWANTED FERROUS  
AND WORK-HARDENED STAINLESS  
FROM PROCESSING LINES

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[cescomagnetics.com](http://cescomagnetics.com)

# the CESCO EDGE



## MagDucts May Look Similar, But They Aren't

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

Don't pay extra for sanitary standards. Sanitary is standard at CESCO because our customers are the world-wide food and beverage industries. **This is the CESCO edge!**

Does your new equipment install easily, or are there unanticipated problems? If it is custom made it should fit without problems. **This is the CESCO edge!**

The quality and strength of our magnets equals or exceeds those of all competitors. **This is the CESCO edge!**

The design possibilities are almost endless, as illustrated by the photos shown. Grate spacing, pipe flanges, Tri-clamp connections, bolt-on connections, whatever you need CESCO can supply. **This is the CESCO edge!**

Founded in 1946, we practice the old-fashioned values of integrity, service, quality and good advice. 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!**





..... { C E S C O S E R V I N G F O O D P R O C E S S O R S S I N C E 1 9 4 6 } .....

## CESCO BUILDS MAGDUCTS TO YOUR SPECIFICATION

Call CESCO when you need to remove metal from powdered, granular, flaky, chunky or solid products that are moving through chutes, ducts, spouts, above baggers or beneath mixers, blenders or hoppers. CESCO will prepare a custom design for your application at no cost.

Having built magnetic separators since 1946, CESCO has acquired a large database of information that is at your disposal. CESCO has never offered a standard line of **MagDucts** because through the years we have found very few customers asking for the same item. We provide custom units in the same time it takes our competition to deliver a standard unit. But ours are made for your specific application, which saves you time and money when you install it.

If you know exactly what you want or you need to discuss your application or require assistance in selecting the proper separator, please contact your CESCO dealer, or CESCO to receive prompt service. Most separators are delivered within two weeks, more complicated units may require additional time.

Most **MagDucts** are constructed of 304 stainless steel, but we can build in 316 stainless when required. Smaller units are constructed of 16 gage (0.060") material and larger ones of 12 gage (0.105") or heavier material. The magnets can be either ceramic or the much more powerful, rare earth magnets, or a combination of each. Rare earth magnets are capable of removing work-hardened stainless and minute ferrous items; particles so small they pass undetected through metal detectors.

**MagDucts** are typically not designed for pressurized applications. They are shipped ready to install in your facility.

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

**CESCO for all your magnetic separator needs.**



## MAGDUCTS WITH GRATES

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Magnetic grates can remove microscopic particles of work-hardened stainless as well as all sizes of ferrous and nickel trash from processing lines. The grates are manufactured with 1" diameter tubing and contain either ceramic or the more powerful rare earth magnets. The tubes are spaced 2" center-to-center which provides a 1" opening for the product flow through. The open spacing between the tubes can be changed from as little as 1/2" to 3" as needed. Deflector bars of various shapes may be added to direct the flow onto the magnetic tubes, thus increasing separation efficiency. Multiple layers of magnetic grates can be used to further increase separation efficiency.

Placing a magnetic grate into a duct reduces the open flow area by about 50%. When more than 50% flow is needed, a **MagDuct** is required. Because we are constantly asked to solve unique metal removal problems, we are always coming up with new solutions. If you need pads for mounting an air vibrator to the **MagDuct** body, or maybe special brackets for mounting or locating the unit, we can build them.

Our customization capability prevents us from quoting prices from a pre-printed listing. Once we have the necessary information, we send a design sketch for your approval with price and delivery information. To assist with obtaining the necessary information, be prepared to answer questions such as: What products will flow through the **MagDuct**? What items need to be removed from the product? What is the flow rate? What is the largest chunk or particle size, or length? What is the size and shape of the ductwork? How much vertical room is available? What type of connections does the **MagDuct** need? What is the maximum operating temperature? Is there an on/off valve above or below where the **MagDuct** is to be located? Are any special support brackets needed? What clearance dimension should we know about?



# MAGDUCTS

## MAGDUCTS WITH PLATE MAGNETS

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Plate magnets are the solution for products that have larger pieces or whole chunks of product that will not flow through a magnetic grate. Magnetic plates are typically mounted at 45°-60° to the flow, at near right angles to the flow or parallel with the flow, depending upon the application.

One, two or even three magnets mounted at 45° angles in **MagDuct** housings are an excellent solution for chunky and heavy flows of product. The benefits are that they have five sides that are magnetic. Should the product get brushed off the magnetic face, it wraps around the face to the down stream side of the magnet, where it is held until the unit is cleaned.

Magnetic plates can be flat-faced or step-faced, depending upon the ease with which the items being processed can be damaged. They are excellent for larger items rolling or sliding down chutes, spouts or ducts.

A variation for larger products falling vertically is to use two nearly vertical, opposed plate magnets in a **MagDuct** housing. This design works best if the maximum distance between the plates does not exceed 8" - 10". The magnets can be on doors that hinge open for cleaning or the magnets can be fixed and a removable drawer used to extract the collected trash.

CESCO offers an almost unlimited variation of **MagDuct** housings and magnet combinations to match your exact needs. Between **MagDuct** housings made with plates or grates, we can solve you problems.





Spice, 6" dia.



Sugar 60° Line, 6" dia.



Yogurt Fruit, 3" TriClamp



Spice, 8" dia.



Chocolate, 10" dia.



Flour, 6" dia.



Yogurt Fruit, 3" TriClamp



Spice, 5" dia.

## CUSTOM MAGDUCTS

• A CESCO SPECIALTY •

Install them with minimum rework.

*Join the Processors  
Who's Who List... Specify  
CESCO MagDucts*



Spice, 11" dia.



Spice, 6" dia.



Edible Nuts



Dried Fruit



Bacon Bits



Pasta, 45° Line



Popcorn, 4" dia.



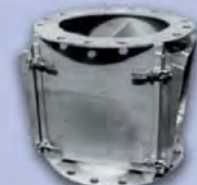
Pasta, 8" dia.



Bacon Bits



Pasta, 8" dia.



Poly Pellets, 11" dia.