



# MAGNETIC PLATES

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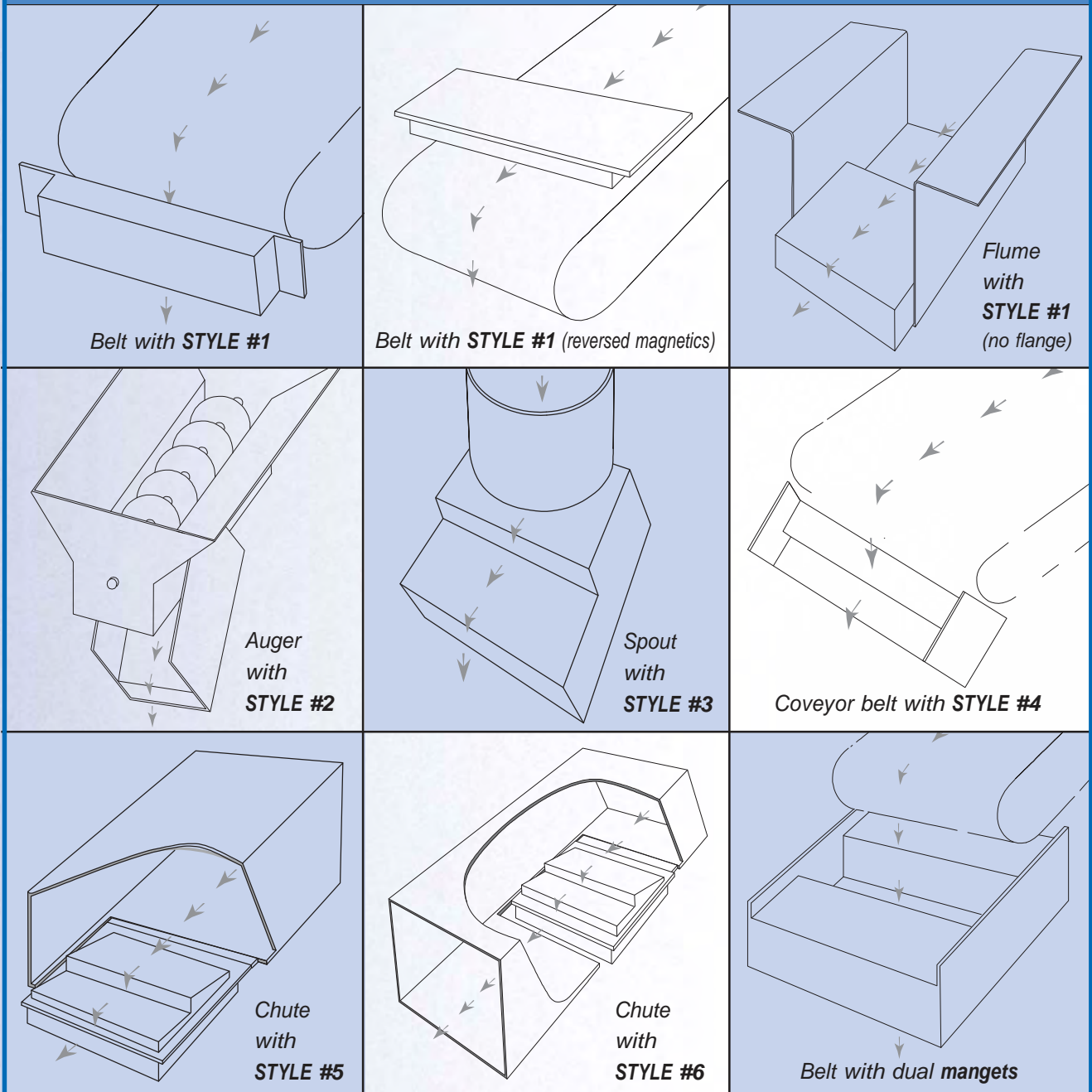
REMOVE UNWANTED FERROUS  
AND WORK-HARDENED STAINLESS  
FROM PROCESSING LINES

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

We recommend when possible, **MAGPLATEs** be placed beneath the product flow. If that is not possible, then the magnetic face should be placed as close to the flow as practical. Magnetic pulling force is inversely proportional to the square of the distance.



# RARE EARTH

## THE CESCO EDGE

Magnetic Plates (*MAGPLATEs*) made to custom sizes and shapes are our specialty, contact our representative, or call us. The pictures on the back cover will give you an indication of what we can do for you. We design and manufacturer custom equipment at production prices. ***This is the CESCO edge.***

We constantly come up with unique solutions to remove ferrous and work-hardened stainless steel contaminants from processor's products. Our designs are USDA approved. All *CESCO MAGPLATEs* feature magnetic trailing edges. Magnetic trailing edges give captured contaminants a place to hide. Captured contaminants cannot be brushed off by the product flow because they are hidden from the flow. While competitive magnetic plates are magnetic only on their face, our *MAGPLATEs* are highly magnetic on four or five sides. ***This is the CESCO edge.***

*CESCO's Step MAGPLATEs* offer two places for captured contaminants to hide, at the bottom of the step and then again at the trailing edge. Push a ball bearing down a *CESCO MAGPLATE*, then down a competitive plate and see the difference. ***This is the CESCO edge.***

Our unique *COMBO MAGPLATEs* use the best features of both ceramic and rare earth magnets. The reaching ability of ceramic magnets pull contaminants downward within range of the more powerful rare earth magnets, which tenaciously grab and hold trash. *COMBO MAGPLATEs* offer the pulling distance you want with the holding power you need. ***This is the CESCO edge.***

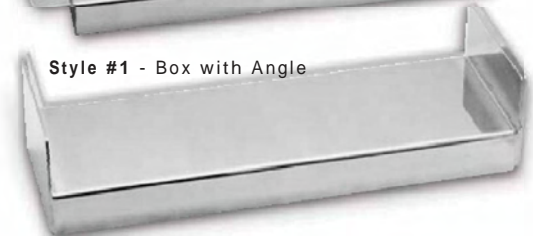
*RARE EARTH MAGPLATEs*, with up to five times the strength of ceramic, do an excellent job of removing the very finest of ferrous and work-hardened stainless particles. We recommend they be used beneath the flow to take full advantage of their inherent properties. ***This is the CESCO edge.***

*CESCO builds QUALITY equipment made to your satisfaction.*

*CESCO for all your magnetic separator needs.*



Style #1 - Box with Angle



Style #2 - Box with Channel



Style #3 - Plain Step



Style #4 - Step with Channel



Style #5 - Step with Flat Flange



Style #6 - Step with Angled Flange and Hinge



# and CERAMIC

## RARE EARTH MAGPLATE

DIMENSIONS (Inches)														ESTIMATED WEIGHT (Pounds / Inches of Width)						
WIDTH														STYLE						
POWER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	#1	#2	#3	#4	#5	#6
120	4.5-72.0	1.63	4.0	A+2.75	1.75	1.25	4.0	0.5	3.0	3.0*	0.25	A+1.5	C+3.0**	1.13	0.9	1.1	1.1	1.1	1.3	1.3
130	6.0-72.0	1.63	5.0	A+2.75	1.75	1.25	5.0	0.5	3.5	3.0*	0.25	A+1.5	C+3.0**	1.13	1.2	1.4	1.5	1.5	1.6	1.7
140	8.0-72.0	1.63	6.0	A+2.75	1.75	1.25	6.0	0.5	4.0	3.0*	0.25	A+1.5	C+3.0**	1.13	1.6	1.8	1.9	1.9	2.0	2.1

## CERAMIC MAGPLATE

DIMENSIONS (Inches)														ESTIMATED WEIGHT (Pounds / Inches of Width)						
WIDTH														STYLE						
POWER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	#1	#2	#3	#4	#5	#6
260	4.5-72.0	1.63	6.25	A+2.75	2.13	1.63	6.25	0.5	3.25	3.0*	0.25	A+1.5	A or G+3.0**	1.13	1.9	1.9	2.3	2.4	2.5	2.6
270	6.5-72.0	2.13	7.25	A+3.63	2.63	2.13	7.25	0.5	3.25	3.0*	0.25	A+1.5	A or G+3.0**	1.13	3.1	3.0	3.4	3.4	3.6	3.6
290	6.5-60.0	3.13	9.0	A+5.63	3.38	2.88	8.25	0.5	4.25	3.0*	0.25	A+2.0	A or G+3.0**	1.13	4.8	4.7	4.8	4.9	5.0	5.1
2100	6.5-60.0	4.13	11.0	A+7.5	3.88	3.38	10.5	0.5	9.6	4.0*	0.25	A+2.0	A or G+3.0**	1.13	7.0	6.8	7.0	7.2	7.3	7.3
2120	8.5-48.0	4.13	13.0	A+7.5	5.13	4.63	12.5	0.5	6.5	4.0*	0.25	A+3.0	A or G+3.0**	-	10.4	10.1	10.3	10.5	10.7	10.7
2210	12.5-48.0	5.2	23.0	A+5.5	5.20	4.20	22.0	1.0	11.375	4.0*	0.25	A+3.0	A or G+3.0**	-	22.9	22.4	20.0	20.2	20.5	20.6

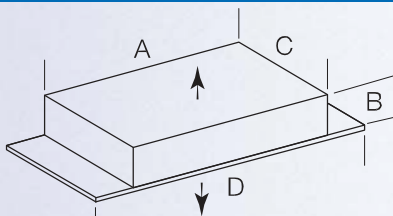
## COMBO MAGPLATE

DIMENSIONS (Inches)														ESTIMATED WEIGHT (Pounds / Inches of Width)						
WIDTH														STYLE						
POWER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	#1	#2	#3	#4	#5	#6
370	4.25-72.0	-	-	-	2.13	1.63	7.25	0.5	3.25	3.0*	0.25	A+1.5	G+3.0**	1.13	-	-	3.1	3.1	3.3	3.4
380	6.5-72.0	-	-	-	2.13	1.63	8.25	0.5	3.25	3.0*	0.25	A+1.5	G+3.0**	1.13	-	-	3.5	3.5	3.7	3.8
395	6.5-60.0	-	-	-	2.75	2.25	9.75	0.5	4.5	3.0*	0.25	A+2.0	G+3.0**	1.13	-	-	5.8	5.7	6.0	6.1
3115	8.6-60.0	-	-	-	2.75	2.25	11.75	0.5	4.5	4.0*	0.25	A+2.0	G+3.0**	1.13	-	-	7.0	6.9	7.2	7.3
3135	8.5-48.0	-	-	-	2.75	2.25	13.75	0.5	6.25	4.0*	0.25	A+3.0	G+3.0**	1.13	-	-	8.5	8.4	8.9	8.9
3138	12.5-48.0	-	-	-	3.34	2.84	13.84	0.5	6.34	4.0*	0.25	A+3.0	G+3.0**	1.13	-	-	12.1	12.0	12.5	12.6

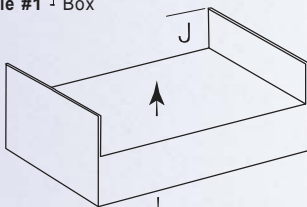
\*To Suit - \*\*Approximate

## CHOICE OF DIRECTION OF MAXIMUM MAGNETISM

### FLAT FACE

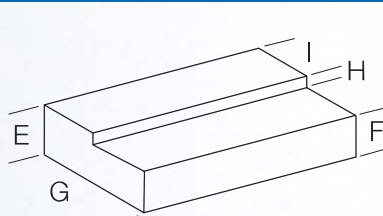


Style #1 - Box

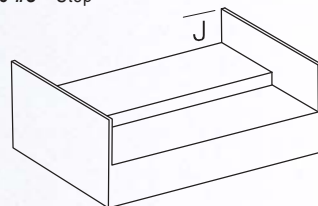


Style #2 - Box Channel

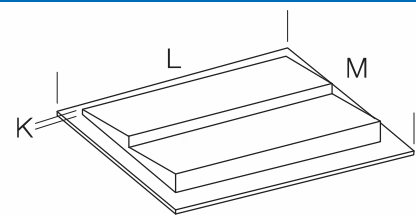
### STEP FACE



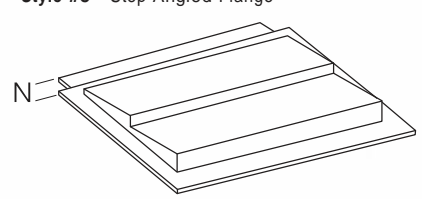
Style #3 - Step



Style #4 - Step Channel



Style #5 - Step Angled Flange



Style #6 - Step Angled Flange and Hinge  
(Not recommended for units over 50 lbs.)



# MAGPLATES

## USEFUL INFORMATION

CESCO recommends that the product flow impact on, or slide directly over the magnetic face. *MAGPLATES* do a better job of removing metal when placed beneath the product flow rather than above the flow. For applications where it is impractical to place a *MAGPLATE* beneath the product flow, it is important that the magnet be positioned as close as possible to the flow. *MAGPLATES* work best when burden depths are thin and the product flows slowly past. Try to locate magnets to take advantage of the three primary factors; below the flow, thin burden depths and slow flow rates. If fine particle and work-hardened 300 stainless extractions are paramount, specify a *RARE EARTH* or *COMBO MAGPLATE*.

## HELPING WITH THE DESIGN

To assist in the design of the most effective unit for your intended application, please be prepared to answer these basic questions: What product(s) will flow past the *MAGPLATE*? What is the largest "chunk" size or length? What is the maximum depth of burden? How fast is the product flowing past the *MAGPLATE*? How are you going to attach the *MAGPLATE*, i.e. do you need any mounting bracketry? You should also be able to provide the basic dimensions of the item the *MAGPLATE* will be used with, such as any widths, lengths, heights, and any clearance dimensions that might be applicable.

## HOW DO MAGNETS CAPTURE STAINLESS STEEL ITEMS?

300 Series stainless steels contain about 70% iron, but with proper alloying and heat-treating, they become non-magnetic. However, if these non-magnetic stainless steels are abraded or torn, the pieces thus generated become slightly magnetic and the powerful rare earth magnets are strong enough to capture them. Regular 300 stainless items, such as nuts and bolts, will not be captured. All 400 Series stainless steels are fully magnetic.

## MAGPLATE THE DESIGN

While we can furnish *MAGPLATES* in any number of shapes and sizes, most have either flat or stepped magnetic faces. Use stepped faces below the product flow, with the exception of fragile products that can be damaged by dropping down the step. Steps provide captured trash a place to hide from product flow, preventing brush-off. Use flat-faced *MAGPLATES* when the magnet will be placed above, or close to, the product flow. Our "length" dimension represents the direction of product flow. The "width" dimension is perpendicular to the product flow, and the "depth" represents the magnetic thickness.

We can recommend magnetic lengths and thicknesses based upon your descriptions. Fast flow rates need added magnetic length to allow sufficient time within the magnetic field to pull trash through the product flow. *MAGPLATE* thickness is dependent upon the depth of burden, the thicker the burden depth, the thicker the *MAGPLATE*.

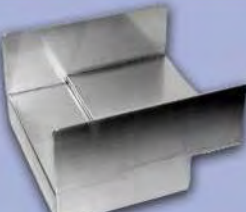
## DID YOU KNOW?

CESCO's *MAGPLATES* are highly magnetic on four or five sides. Competing magnetic plates hold captured trash only on their magnetic face. That is why we recommend leaving an exposed trailing edge.

You will not be able to weld close to a *MAGPLATE*. The relationship between electricity and magnetism causes the welding arc to act like a bolt of lightning making it virtually uncontrollable. Please let us know about any special mounting requirements beforehand so that we may add any necessary bracketry before the magnets are energized.

Magnets have near diamond-like qualities; in fact, diamond saws are needed to cut them. They are extremely hard, yet very brittle, so drilling or beating on the magnetic "box" can fracture the magnets, greatly reducing their efficiency.



			
3 Step Channel	4 Handle	Dual	Angled
			
Channel Step	Pivoting Inspection	Tapered Hinged Step	Angled Step
	<p><b>CUSTOM MAGPLATES A CESCO SPECIALTY</b></p> <p>We recommend MAGPLATES be placed beneath the product flow. When working above the flow, place the magnetic face as close to the product flow as practical.</p>		
			
			
			
Combo Step			Chute
Small Step			Hinged
Hanging Step		Reverse Step	
Flange Step	Flume Step	Special Flanges	<p>Join the Processors Who's Who List</p> <p>Specify CESCO Magnetic Separators</p>



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