

How to Select and Order Bunting Plate Magnets

The first part of the Model Number is *PM* for *Plate Magnet*. The second part is a code for the magnet that meets your product flow rate needs. The third part is a two-digit entry for the width you select. The remaining parts of the Plate Magnet Model Number are explained below, along with the selection steps. Here's a sample Model Number to show you what a complete one looks like.

PM	C65	24	P	M	H	U	S
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SPECIFICATIONS

General material: Construction is 302/304 stainless steel. Pole faces and tapered step faces are constructed of 410/416 stainless steel.

Magnet material: High-density Ceramic or Neodymium permanent magnets.

Magnet design: 2-pole, high reachout circuit with maximum retention.

Construction: Welded into an integral unit. Contaminant removal: Ferrous fragments, nuts, bolts, wire, and other tramp iron from free-flowing materials.

Method of cleaning: Manual, from outside of spouting by swing-away hinge and latch, or Manual Self-Cleaning.

Styles: Pole face. Tapered step face. Flat face.

Sizes: Available in 6 magnetic strengths and widths from 4" through 60" in 2" increments.

Uses: Mount in spouting or conveyor lines to remove ferrous contaminants from chemicals, plastics, grain, feedstuffs, foodstuffs, glass, etc.



Step 1:

Estimate the maximum flow rate through your chute in cubic feet per hour. Then use the *Ceramic or Rare Earth Adjustments* tables to adjust this flow capacity for the size of tramp iron you encounter and your chute angle. If the magnet will be more than two feet from the feed opening of a chute, increase required capacity by 10% for each additional foot. If you intend to mount two identical magnets within 6" of each other, reduce the required magnet capacity by 50%. This new figure is your revised maximum flow rate estimate.

Ceramic Application Adjustments

	Chute Angle		
	35 degree	45 degree	60 degree
Large Tramp 1 to 8 oz	Use 125% of Capacity	Use Capacity	Use 75% of Capacity
Small Tramp 8 mesh to 1 oz.	Use Capacity	Use 75% of Capacity	Use 50% of Capacity
Fine Tramp 8 mesh and less	Use 33% of Capacity	Use 25% of Capacity	Use 12% of Capacity

Rare Earth Application Adjustments

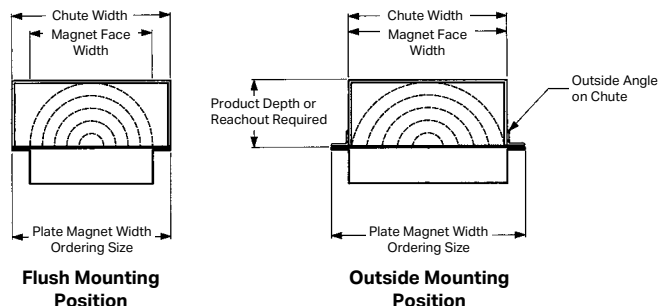
	Chute Angle		
	35 degree	45 degree	60 degree
Large Tramp 1 to 8 oz	Use 125% of Capacity	Use Capacity	Use 75% of Capacity
Small Tramp 8 mesh to 1 oz.	Use Capacity	Use 75% of Capacity	Use 50% of Capacity
Fine Tramp 8 mesh and less	Use 40% of Capacity	Use 30% of Capacity	Use 20% of Capacity

** Consult Bunting for suspended applications

Step 2:

Determine the widest Plate Magnet your chute or spouting will accommodate. Because of the mounting flanges, the actual width of the magnet face is 2" less than the Plate Magnet's overall width. This can create an area of unprotected product flow. To get maximum protection, consider getting a full-width magnet and using angle-iron mounts as shown in the illustration to the right.

Cross Section of Chute with Plate Magnets Installed



Step 3:

Now look at **Plate Magnet Capacities and Weights** table to see what size magnet you need. First find the width that's closest to the width of your chute or spouting, and look across the adjacent row of flow rates for the capacity that's closest to the maximum capacity you've estimated.

Notice that both Ceramic and Neodymium Plate Magnets come with three flow rate capacities for each width. These three strength levels are represented by model numbers. The model numbers (C30, C45, C65 and N35, N50, N65) indicate the vertical reachout of the magnetic field. For example, C45 has a 4.5-inch reachout; N50 has a 5.0-inch reachout. Select the reachout that most closely corresponds to the depth of your chute or spouting.

Neodymium magnets cost more than Ceramic, but Neodymium magnets can be from 40% to 60% lighter than Ceramic magnets with similar flow rate capacities.

Plate Magnet Capacities and Weights

Flow rates in cubic feet/hour. Weights in pounds (#).

Chute Width	Ceramic			Neodymium		
	C30	C45	C65	N35	N50	N65
8"	2280/18#	3370/36#	5800/82#	2240/11#	3200/21#	4160/38#
10"	2850/24#	4280/48#	7400/108#	2800/15#	4000/28#	5200/50#
12"	3420/30#	4900/59#	8980/134#	3360/18#	4800/34#	6240/62#
14"	3990/35#	5720/70#	10500/159#	3920/22#	5600/41#	7280/74#
16"	4560/41#	6430/81#	12000/185#	4480/25#	6400/48#	8320/86#
18"	5130/46#	7250/92#	13480/211#	5040/29#	7200/54#	9360/98#
20"	5700/52#	8060/104#	15000/236#	5600/32#	8000/61#	10400/110#
22"	6270/57#	8880/115#	16540/262#	6160/35#	8800/67#	11440/122#
24"	6840/63#	9600/126#	17970/288#	6720/39#	9600/74#	12480/134#
30"	8550/80#	12050/160#	22470/365#	8400/49#	12000/94#	15600/170#
36"	10260/96#	14290/193#	26970/442#	10080/59#	14400/113#	18720/206#
42"	11970/113#	16750/227#	31470/519#	11760/70#	16800/133#	21840/242#
48"	13680/130#	19100/261#	35970/597#	13440/80#	19200/153#	24960/278#
54"	15390/146#	21500/294#	40470/674#	15120/90#	21600/172#	28080/314#
60"	17100/163#	23900/328#	44970/751#	16800/101#	24000/192#	31200/350#

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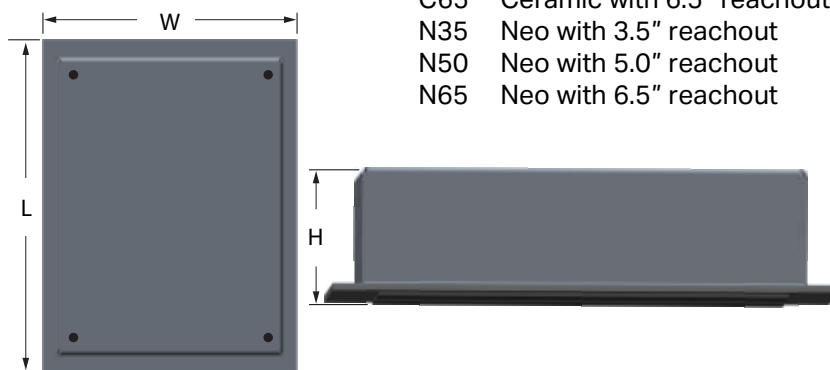
For Part 2 of the Model Number, enter one of these Magnet codes:

- C30 Ceramic with 3.0" reachout
- C45 Ceramic with 4.5" reachout
- C65 Ceramic with 6.5" reachout
- N35 Neo with 3.5" reachout
- N50 Neo with 5.0" reachout
- N65 Neo with 6.5" reachout

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For Part 3 of the Model Number, enter the Plate Magnet width you want:

Enter a two-digit number within the 08- to 60-inch range.



Model	Width (W)	Length (L)	Height (H)
PMC30	*	10"	1-13/16"
PMC45	*	12"	2-15/16"
PMC65	*	18"	4-3/16"
PMN35	*	7-1/2"	1-5/16"
PMN50	*	10"	1-11/16"
PMN65	*	13"	2-3/16"

* Width is chosen by the customer.

Step 4:

Refer to face style illustrations A, B, and C above. If you plan to select the Manual Self-Cleaning Plate Magnet, choose tapered step or flat face. Otherwise, choose any of the three that will work best for you.

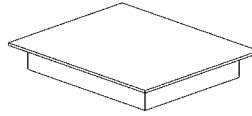
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For Part 4 of the Model Number, enter your Face Style choice:

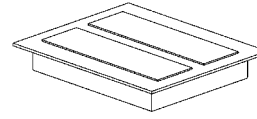
F = Flat Face **P** = Pole Face **T** = Tapered Step Face

Plate Magnet Face Styles

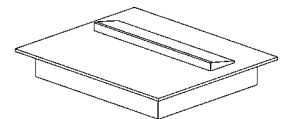
Plate Magnets have stainless steel exteriors and come in three face styles and six magnetic strengths to cover a wide range of applications. All magnetic loads have been designed to deliver up to three times the surface holding force while still maintaining the same powerful reach-out. Faces of pole and tapered step models are constructed of 410/416 magnetic stainless steel and especially well suited to holding captured tramp and fines securely in place. Self-cleaning units are available in tapered step and flat face styles.



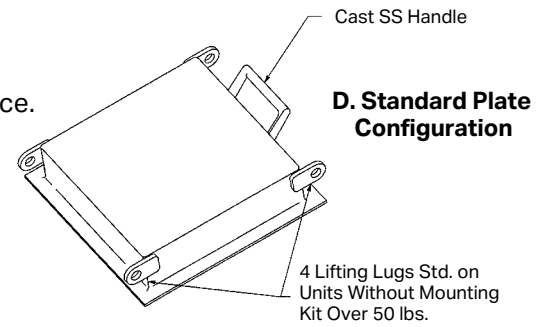
A. Flat Face Model is especially recommended for maintaining a sanitary environment. For low-density product applications and inverted installations.



B. Pole Face Model features two exposed pole plates to capture and hold contaminants. For low-density product applications.



C. Tapered Step Face Model is specifically designed to hold ferrous debris against its solid tapered step to prevent wash-off of tramp iron and fines even when product flow is rapid. For high-density product applications.



D. Standard Plate Configuration

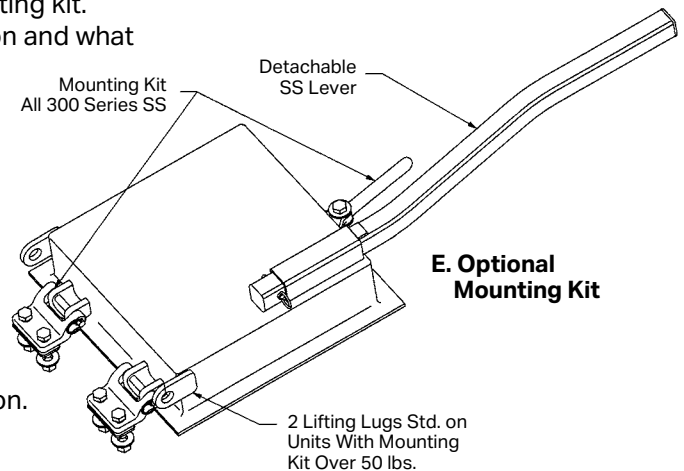
Step 5:

The next step is to decide whether or not you want the mounting kit. Illustrations D and E at right show standard plate configuration and what comes with the optional mounting kit.

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For Part 5 of the Model Number, enter your decision about the Mounting Kit.

X = No Mounting Kit
M = Mounting Kit with hinges, latch, and hardware



E. Optional Mounting Kit

Step 6:

Refer again to the mounting kit and handle illustrations and table of Recommended Accessories. Then make your selection.

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For Part 6 of the Model Number, enter your Handle choice.

X = No handle, lever, or standard lifting lugs
N = Standard lifting lugs – but no handle or lever
H = Cast stainless steel handle
L = Removable stainless steel lever

Recommended Accessories

Weight Range	With Hinge			Self-Cleaning			Std Lifting Lug Qty	
	Handle	Lever	Mech. Assist	Handle	Lever	Mech. Assist	With Hinge and Self-Cleaning	Without Hinge
0-50 lbs.	X			X	X		0	0
50-100 lbs.	X	X			X	X	2	4
100-200 lbs.		X	X			X	2	4
Over 200 lbs.			X			X	4	4

Step 7:

Choose clean upgrade Then make your selection.

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For Part 7 of the Model Number, enter your Clean Upgrade choice.

U = Utility Grade **U** = Sanitary Grade
F = Food Grade

Step 8:

Choose self-cleaning upgrade Then make your selection.

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S = Self-Cleaning if desired