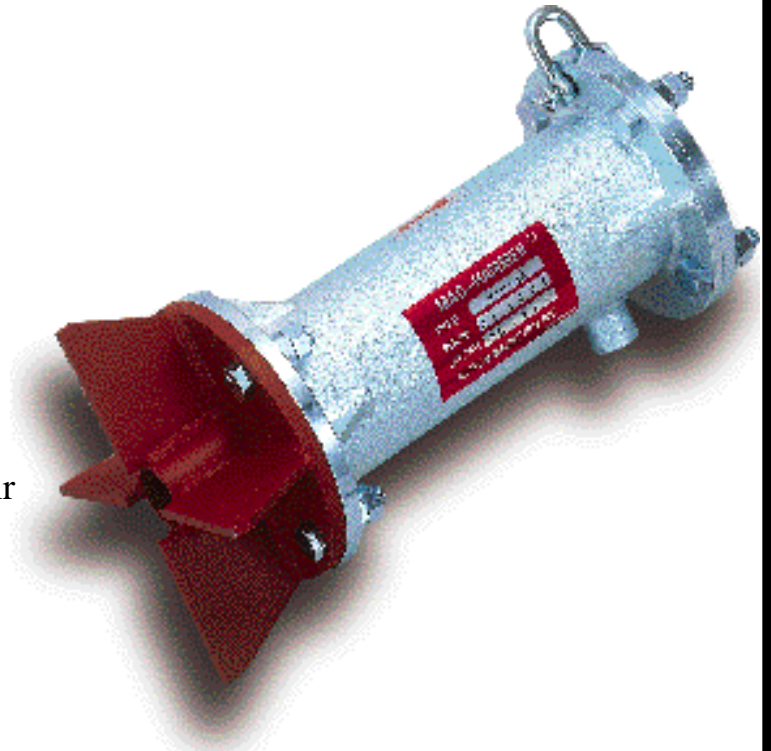


MagHammer™

THE INTELLIGENT SOLUTION TO SOLID FLOW PROBLEMS

- **S**imple control - Force, number of strokes, and pause time are adjustable
- **O**perates on AC power
- **L**ow maintenance with sealed unit design
- **I**ndependent of compressed air - No air lines
- **D**ependable repeatable operation



MagHammer's™ patented design provides an easy-to-install and easy-to-use solution for the previously difficult problems of material handling for solids, powders and bulk dry materials. Operating on electromagnetic principals, MagHammer™ delivers powerful impact performance for complete and steady flow from bins, hoppers, cyclones and transfer lines.

Installation is simple, all that is needed is an AC power source. You have complete control over

the force of impact (0-100% of rated value), number of strokes per cycle and the pause time between cycles. Also provided in the control box is a terminal block to accept a low voltage signal from a PLC or other device. This acts as a contact switch to operate the MagHammer™ only during the flow cycle.

MagHammer™ saves time and money. Because of its all electric operation, MagHammer™ costs less to install than complex pneumatic systems and also costs less to operate and maintain. The sealed unit design drops maintenance to virtually zero while lifecycles are typically 10x pneumatic systems.

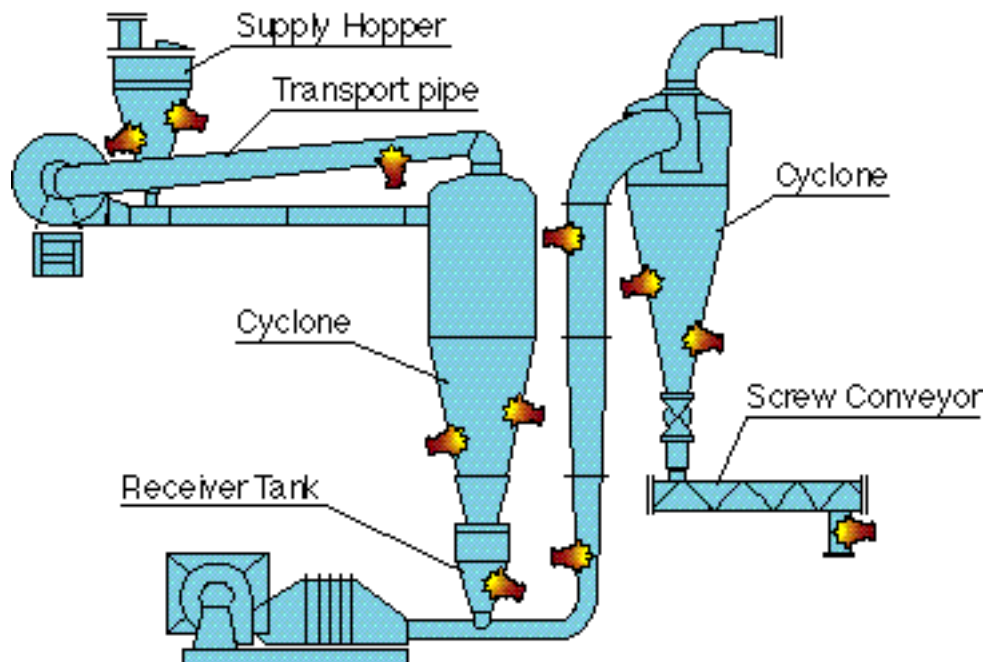
Nippon Magnetics Inc.
Magnetic & Aluminum Separators Specialists
& Industrial Magnetic Devices

MagHammer™ *Solid Flow*

Because MagHammer™ discharges your bin completely, batch to batch repeatability is very high, ensuring consistency in product. Safety is a big factor in today's workplace. Bins and hoppers are often located in difficult to reach places. With the Maghammer™ there is no need to send someone climbing the tower to beat on the bin, reducing potential for injury and more importantly saving your equipment from unnecessary abuse and damage.

MagHammer™ is the solution to solid flow problems from iron ore to pharmaceuticals, and from fertilizer to flour. Its variable impact control allows programming for the weight, density and moisture content of the material.

Applications



Solutions

Industries

Chemical, Pharmaceutical

Dry powders, Fertilizer, Detergents, Resin, Bulk Plastics, Pharmaceuticals

Ceramics & Casting

Powders, Cement, Lime, Rock, and Sand

Iron, Steel, Metal Working and Mining

Ore, Slag, Powders, Coke, Ferrite, Alumina, Tungsten, and Titanium

Food and Grain

Wheat, Barley, Corn, Alfalfa Pellets, Rice, Flour, Salt, Sugar, Coffee, and Spices

Construction

Sand, Concrete, Sludge, Rock



Solves

Bridging

MagHammer™ is designed to break up bridging by providing powerful impacts to the sidewall of the bin or hopper.

Arching

By creating powerful vibrations, MagHammer™ loosens material and breaks arches in material allowing free flow.

Rat Hole

Shaking the sides with cycled impacts insures constant flow of material and avoids rat holing.

Adhesion

Powerful impacts free materials from the sidewall and allow a complete emptying of the bin.

Clogging

MagHammers™ powerful impacts break up material and clear the throat



MagHammer™ Specifications

Model	Type	Impact Force		Weight (kgs/lb)	Body Dim. (length x dia.) (in.)	Face Dim. (depth x dia.) (in)	Current (A)
		kgm/sec	Hammer Force†				
SIC-05	fully	1.8	1 pound	7#6	5.13 x 8.9	2.3 x 6.7	1.3
SIC-1	sealed unit	3.8	2 pound	13#9	11.2 x 6.5	3 x 8.5	1.8
SIC-2		8.2	4 pound	22#9	12.5 x 6.3	3.4 x 7.8	3.4
SIC-3		21.3	10 pound	52#15	15.12 x 10	4.25 x 12	3.9

†Approximate equivalent force of using a hammer of this weight.
For single phase controller add 20% to current load

Controller Specifications

Number of MagHammers™ Controlled:

SB-1: 3 x SIC-05 SB-2: 6 x SIC-05
 or 2 x SIC-1 or 4 x SIC-1
 or 1 x SIC-2 or 2 x SIC-2
 or 1 x SIC-3 or 2 x SIC-3

Enclosure: 11.75" x 11.75" x 5.75" wallmounted indoor dustproof hinged metal box

Power Source: 240 Vac, 50/60 Hz, single phase or 3 phase available (Specify "S" for single phase or "A" for 3-phase on the end of the p/n)

Control Type: Automatic, External signal, or Manual
Impact Force: 0-100% of the rated value of the MagHammer™

of Strokes: 0-17 strokes per cycle

Pause Time: Nominal 30 sec. to max. 10 min.

Recommended not less than 3 sec. rest for each stroke with maximum continuous strokes of no more than 1 min.

Frequency: 1 stroke/sec.

Orientation: Adjustment for 360 degree

Selection Guide

When sizing the MagHammer™ the main variables are maximum diameter and wall thickness. The table at the right serves a general sizing guide.

		Thickness										
		Ga.	18-17	16-13	12-10	9-7	7-5	4-3	2-1			
		h	.04	.08	.12	.16	2	.24	.28	.32	.35	4
Ft	m	mm	1	2	3	4	5	6	7	8	9	10
2	0.5		1 ea.		1 ea.			1 ea.			1 ea.	
3	1		SIC-05		SIC-1			SIC-2			SIC-3	
7	2											
10	3		2 ea.		2 ea.			2 ea.			2 ea.	
13	4		SIC-05		SIC-1			SIC-2			SIC-3	
16	5											
20	6		3 ea.		3 ea.			3 ea.			3 ea.	
23	7		SIC-05		SIC-1			SIC-2			SIC-3	
26	8											
30	9		4 ea.		4 ea.			4 ea.			4 ea.	
33	10		SIC-05		SIC-1			SIC-2			SIC-3	

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