Magnet application equipment general catalog Separators

INI Nippon Magnetics,Inc.







Deliver Something Small and Bring a Great Joy to Our Customer

Our company was founded in 1943 as Haramaki Iron Works. Later, the magnetic division was separated and Nippon Magnetics was established in 1983. Since then, we have been involved in research and development over 30 years, and have manufactured permanet magnet and electromagnetic devices that separate iron and iron powders.

More over, we're integrating more sophisticated technologies to improve efficiencies such as electrostatic and eddy currentt. "Protection of environment" is the top priority in conductiong our business, and our work begins from where we live and further broaden our perspective in the global arena. We strive into toward improvement for higher separation efficiencies. From solid materials to particle, from millimeters to microns, and even inside the world of nanotechnology — we would like to support our customers by providing a magnet applied technology and fine-tuned services that are tailored to the needs of individual customers.



Nippon Magnetics,Inc. Chairman, Keiji Haramaki

Magnetic separators and Equipment General Catalog

Page	Product name			
01-04	Tube Magnet			
05-06	Grate Magnet			
07	Magnetic strainer (Model: SMS / MS / SP)			
08	Plate Magnet (Model: HP / RHP)			
09-12	Electromagnetic separator (Model: CG / MINI)			
13-14	Magnetic filter (Model: CS)			
15	Magnetic Pulley (Model: WN / RWN)			
16	high magnetic pulley HGMP /15000 Gauss			
17–18	Drum Magnetic Separator (Model: ENS)			
18	Permanent magnetic type hanging			
19–20	magnetic separator (Model: PUF)			
21-22	Suspension Type Electromagnetic Separator (Model: HUF / HLS)			
23-24	Eddy Current Separator (Model: ALS)			
25-26	Eddy Current Separator Systems device Shigenka-kun			
27	Can Separator (Model: ABC)			
31 28	Press Machine (Model: KCP)			
29-30	Lifting Magnet (Model: HL / QZ1)			
34 31-32	MugHammer			
35 33-34	Other Magnets Devices			
40	λ n Ω_{h}			



Tube Magnet

Features

Can be easily installed anywhere on the production line, Removes magnetic foreign matter. Removes magnetic metals.

Specification

- ① Since it is a stainless steel pipe, it can be used even in liquids.
- ② The length is in 1mm increments and can be manufactured according to your desired dimensions.
- With magnetic force notation for HACCP and ISO use. It is also possible to attach an inspection report.
- 4) We can also process taps, male threads, and handles (TMG type).
- ⑤ Surface treatments such as ion nitriding, tungsten spraying, and Teflon processing are also available.





What? Does stainless steel attract to magnets?

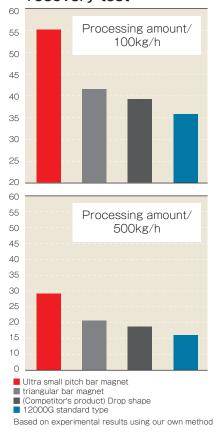
Most of the production lines in food factories are made of stainless steel, so metal foreign substances are shifting from iron to stainless steel. SUS304 and SUS316L, which are called austenitic materials, are originally non-magnetic and do not attract magnets, but they may be damaged by some kind of shock (for example, cutting, tearing, twisting, scraping, pressing, or surface polishing such as buffing) or by welding. - When friction is applied, plastic deformation occurs, which makes it magnetic and becomes attracted to a magnet.



■ NMI Tube Magnet Lineup

Model	Specification					
Tube Magnet	Outer diameter dimension	Surface Magnetic Flux Density	Material	Heatproof Temperature	Magnet Materials	
15000 gauss	φ25	1.5T (15,000G)	SUS316L		Neodymium magnet	
14000 gauss	φ24.2	1.4T (14,000G)		100℃		
12000 gauss	φ25	1.2T (12,000G)				
3000 gauss	φ25	0.3T (3,000G)		150℃	Ferrite	
3000 gauss	φ32	0.3T (3,000G)		1500	magnet	
Heat Resistant	φ24.2	1.1T (11,000G)	SUS304 SUS316L	200℃	Samarium- Cobalt	
Tube Magnet	φ25	1.0T (10,000G)				
Small Pitch Tube Magnet	φ24.2	1.2T (12,000G)				
Ultra Small Pitch Tube magnet	φ24.2	1.0T (10,000G)				
20 φ Tube Magnet (Small Pitch)	4.00	1.2T (12,000G)				
20 φ Tube Magnet	φ20	1.3T (13,000G)				
Hanging square	□60×60	1.0T (10,000G)		100℃	Neodymium magnet	
bar magnet	□25×25	1.0T (10,000G)	SUS304	_		
Triangular Tube Magnet	△(25×30)	1.2T (12,000G)				
Titanium Pipe Tube Magnet	φ25.4	1.2T (12,000G)	Therefore			
Titanium Pipe Tube Magnet (Small Pitch)	Ψ 2 0.4	0.9T (9,000G)	Titanium			
17000 gauss	φ50	1.7T (17,000G)	SUS316L	80℃		

■ SUS304 powder: recovery test



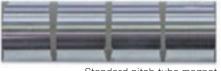
^{*}Magnetic flux density was measured using a Gaussmeter GM-4000 (Denshi Magnetic Industry) at room temperature. The measured value of the surface magnetic flux density varies depending on the manufacturer and model of the measuring instrument, the accuracy of the probe (Hall element), and the temperature. Therefore, there may be a difference between our measured values and your measured values.

Ideal for removing SUS foreign substances from raw materials (fine powder)!!

Ultra Small Pitch Tube Magnet

Wouldn't it be better if the magnetic force was stronger?

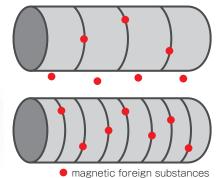
Only the magnetic poles on the surface of the tube magnet exert an attractive force on weak magnetic foreign objects. Foreign objects that pass through areas other than the magnetic poles are difficult to attract. Therefore, increasing the number of magnetic poles is extremely effective in improving the recovery rate of foreign substances, even if the surface magnetic force is somewhat small.



Standard pitch tube magnet



Ultra small pitch tube magnet



Specification						
Outer diameter dimension	φ24.2					
Surface magnetic flux density	1.0T(10,000G)					
Length	100~2000mm					
Material	SUS304,SUS316L					
Heatproof temperature	100℃					
Magnet material	Neodymium magnet					

It is also possible to attract magnetic foreign substances that cannot be attracted with the standard type.

*Please feel free to contact us regarding dimensions other than those listed above *Magnetic flux density was measured using a Gaussmeter GM-4000 (Denshi Magnetic

Industry) in an environment at room temperature. -The measured value of surface magnetic flux density varies depending on the manufacturer and model of the measuring instrument. the accuracy of the probe (Hall element), and the temperature. Therefore, there may be a difference between our measured values and your measured values.

Successful miniaturization of tube magnets!

20 Small OD Tube Magnet

Ideal for final inspection before product shipment.

1.7 tesla **Tube Magnet**



Features

- Because the diameter is small, it is possible to increase the number of bar magnets in a grate magnet of the same size.
- Because the diameter is small, it is lighter and easier to work with even with the same size.

Purpose

Can be used for various purposes such as inspection and recovery of weakly magnetic materials.

Features

- At 1.7 Tesla (17000 Gauss), weak magnetic substances are attracted.
- Ideal for the final inspection before product shipment.

12000 Gauss sp	ecification (small pitch)	13000 gauss specification		
Outer diameter dimension	φ20	Outer diameter dimension	φ20	
Surface magnetic flux density	1.2T (12,000G)	Surface magnetic flux density	1.3T (13,000G)	
Length	100mm~1000mm	Length	100mm~1000mm	
Material	SUS304,SUS316L	Material	SUS304,SUS316L	
Heatproof temperature			100℃	
Magnet material	Neodymium magnet	Magnet material	Neodymium magnet	

^{*}If the length is 1000mm or more, please contact us.

*Magnetic flux density was measured using a Gaussmeter GM-4000 (Denshi Magnetic
Industry) in an environment at room temperature. The measured value of the surface
magnetic flux density varies depending on the manufacturer and model of the measuring
instrument, the accuracy of the probe (Hall element), and the temperature. Therefore,
there may be a difference between our measured values and your measured values.

Specification				
Outer diameter dimension	φ50			
Surface magnetic flux density	1.7T(17,000G)			
Length	100~1000mm			
Material	SUS316L			
Heatproof temperature	2°08			
Magnet used	Neodymium magnet			

*Please feel free to contact us regarding dimensions other than those listed above *Magnetic flux density was measured using a Gaussmeter GM-4000 (Denshi Magnetic Industry) in an environment at room temperature. The measured value of the surface magnetic flux density varies depending on the manufacturer and model of the measuring instrument, the accuracy of the probe (Hall element), and the temperature. Therefore,

there may be a difference between our measured values and your measured values

Can be used even at temperatures of 200°C!!

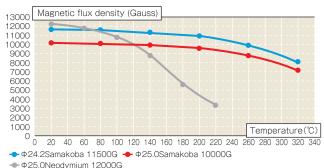
Heat Resistant Tube Magnet

Can be used at high temperatures

Heat resistant tube magnets(Nd-based) usually have an upper temperature of 120 to 150°C Once the temperature returns to room temperature, the magnetism will return to its original level, but in that environment, the magnetism will be lower than expected. On the other hand, Sm-based heat-resistant tube magnets have the advantage of less loss of magnetic force.

Specification Outer diameter | Surface magnetic Heatproof Magnet Length Material dimension flux density temperature material φ24.2 1.1 T (11.000G) SUS304 Samakoba 100~2000mm 200℃ magnet SUS316L φ25 1.0T(10,000G)

■ Changes in magnetic flux density due to operating temperature



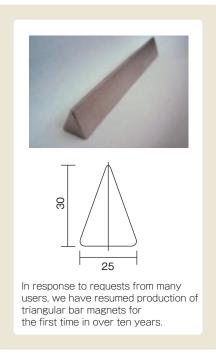
The measured value of the surface magnetic flux density varies depending on the manufacturer and model of the measuring instrument, the accuracy of the probe (Hall element), and the temperature. Therefore, there may be a difference between our measured values and your measured values.

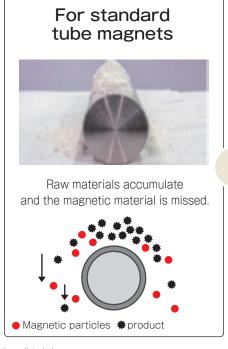
Effective for powder raw materials that tend to accumulate!!

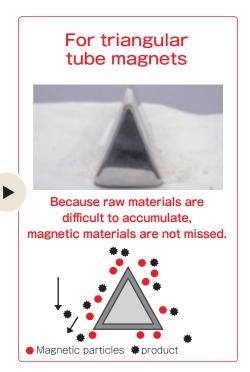
Triangular Tube Magnet

Effective for powder raw materials that tend to accumulate. Since it is difficult to accumulate, the iron removal effect is increased.

Specification							
Outer diameter dimension	Surface magnetic flux density	Length	Material	Heatproof temperature	Magnet material		
△(25×30)	1.2T(12,000G)	100~1000mm	SUS304	100℃	neodymium magnet		







^{*}Please feel free to contact us regarding dimensions other than those listed above

^{*}Magnetic flux density was measured using a Gaussmeter GM-4000 (Denshi Magnetic Industry) in an environment at room temperature

^{*}Please feel free to contact us regarding dimensions other than those listed above.

^{*}Magnetic flux density was measured using a Gaussmeter GM-4000 (Denshi Magnetic Industry) in an environment at room temperature.

The measured value of the surface magnetic flux density varies depending on the manufacturer and model of the measuring instrument, the accuracy of the probe (Hall element), and the temperature. Therefore, there may be a difference between our measured values and your measured values.

Suspended Tube Magnet for Hanging

Product explanation video From here



World First! (Patented)

Tube magnets have a strong surface magnetic force, but the magnetic flux does not spread far. On the other hand, suspended tube magnets can maintain a storong magnetic Therefore, even when used hanging, the effect was not great. We have developed a hanging rectangular bar magnet for removing fine iron powder that maintains high magnetic flux density even when suspended over a conveyed object at a certain distance.

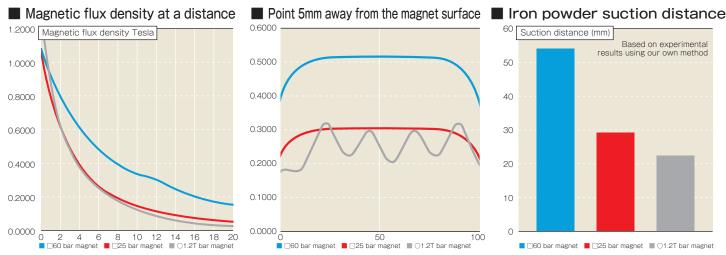
			Specification			
Outer diameter dimension	Surface magnetic flux density	Length	5mm lower magnetic flux density	Material	Heatproof temperature	Magnet material
□60×60	1.0T(10.000G)	100~1600mm	0.5T(5,000G)	SUS304	100℃	neodymium magnet
□25×25	1.01 (10,000G)	100~2000mm	0.3T(3,000G)	303304		

Purpose

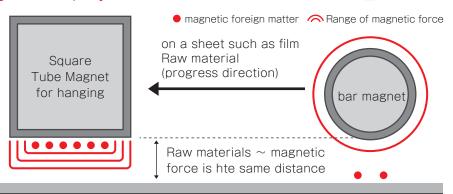
Suspended over film-like or dough-like raw materials. Can also be installed on a belt conveyor.

Features

This is a first-of-its-kind tube magnet developed for the purpose of hanging above the conveyed object. Unlike the conventional type, it can be installed with no gap between poles, which greatly improves the recovery rate.

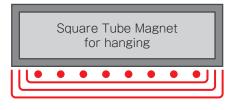


 \Box 25 and standard O1.2T have the same magnetic flux density, but since the magnetic flux density is uniform in the length direction, they can be attracted even in distant locations. \Box It becomes even more powerful when it reaches \Box 60.

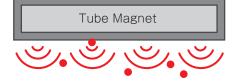


It needs to be close to the raw material, and there is a possibility that foreign objects may come into contact with the raw material and be swept away. In the case of films, etc., there is a possibility that foreign objects may come into contact with them and cause damage.

 Attract magnetic particles no matter where it flow.



 Magnetic particles are difficult to attract depending on the location.



^{*}Please feel free to contact us regarding dimensions other than those listed above. *Magnetic flux density was measured using a Gaussmeter GM-4000 (Denshi Magnetic Industry) in an environment at room temperature. The measured value of the surface magnetic flux density varies depending on the manufacturer and model of the measuring instrument, the accuracy of the probe (Hall element), and the temperature. Therefore, there may be a difference between our measured values and your measured values.



Grate Magnet







ound shape triangular shape



Grate magnet can be designed with tube for various locations to remove magnetic objects.

Features

- ① The spacing of the magnets can be adjusted based on the raw material.
- ② In addition to welding the entire grid circumference, bar magnets can also be installed using countersunk screws, drop-in type, etc. We will manufacture it according to your request.
- ③ Double tube type is also available for easy clean operation. ④ We can design and produce based on your request.

Specification

- ① You can select the type of tube magnet. *Please refer to the tube magnet lineup.
- ② Material: SUS304, SUS316L, titanium, etc.



Surface tube at 10,000 gauss.

Double Tube Grid Magnet

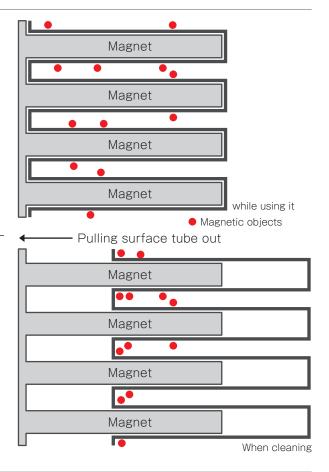
Features

- ① Demonstrates more than 1.0T (10,000G) on the surface of the double tube.
- 2 Double tube structure makes cleaning easy.

Specification

- ① Tube magnet surface gauss 1.4T (14000G)
- ② Surface tube diameter: φ26
- ③ Double pipe pipe material: SUS304, SUS316L
- 4 Can be coated on doublet tube.







Rotating tube magnets prevents clogging

Rotary Magnet

Double Tube Type



The tube magnets rotate and capture magnetic objects white preventing raw materials from clogging. Ideal for raw materials with poor fluidity.

Specification

- ① Double tube magnet can be designed also. designed and manufactured.
- ② Ferrule connection type can also be manufactured.
- 3 Please specify the power supply voltage

© 1 lease specify	the power supply voltage.
*Design changes such as connection, distance between	surfaces, number of tube magnets, etc. are also possible.

•			
	Connection diameter	Tube magnet length	# of tubes
	100A	140L	
	125A	160L	6 piece set
	150A	185L	
	200A	240L	8 piece set
	250A	290L	12 piece set
	300A	340L	12 piece set



Grate Magnet with Casing

Purpose

It can be incorporated into a production line by connecting flanges, ferrules, etc., and when cleaning is needed, the grid magnet can be pulled out for easy cleaning.

Features

- 1) It is possible to increase the iron recovery rate by assembling in multiple stages.
- 2 We design and manufacture a casing that matches the installation space.
- 3 Double tube grid type magnet specification allows for easier cleaning.

Specification

- 1) You can select the type of bar magnet. *Refer to NMI bar magnet lineup
- ② Casing material: SUS304, SUS316L
- ③ Flanges, ferrules, and other connections can also be manufactured.



Connetion diameter A(mm)	Tube magnet length	# of tubes and layers	Distance B
		2 tiers, 7 pieces(4+3)	290
150A(φ165.2)	190L	3tiers,10 pieces(3+4+3)	350
:		4tiers,14 pieces(4+3+4+3)	410
200A(φ216.3)		2tiers,9 pieces(5+4)	320
	240L	3tiers,13 pieces(4+5+4)	390
		4tiers,18 pieces(5+4+5+4)	460
	290L	2tiers,11 pieces(6+5)	320
250A(φ267.4)		3tiers,16 pieces(5+6+5)	390
		4tiers,22 pieces(6+5+6+5)	460
		2tiers,13 pieces(7+6)	340
300A(φ318.5)	340L	3tiers,19 pieces(6+7+6)	410
		4tiers,26 pieces(7+6+7+6)	480

*Special design ca be arranged also



Eliminate labor shortages with automation!

Self-cleaning Grate Magnet

Features

It has a double tube structure and uses an air cylinder to automatically pull out the tube magnets and clean the tube surface. Automation can solve the problem of installing in areas that cannot be

cleaned by hand or labor shortages.

Specification

- 1) With dedicated control panel
- 2 Please specify the power supply voltage.



Dedicated control panel



Grate Magnet with Vibrator



Double pipe type



By vibrating with a vibrator, it is possible to reduce the accumulation and adhesion of raw materials on the bar magnet and prevent clogging of raw materials. Since the raw material does not adhere to the surface of the tube magnet, the recovery rate also improves.

Specification

- 1) You can select the type of tube magnet.
- 2 Double tube type can be designd also.
- 3 Please specify the power supply voltage.



With vibrator (without stand)





With vibrator



Sanitary specifications

Magnetic Strainer SMS type

Purpose

Iron mixed into liquid (Ideal for removing fine iron particles, wear particles from stainless steel, etc.).

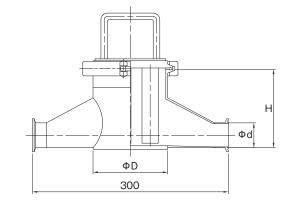
Features

- 1) The bottom surface is flat to prevent liquid pooling.
- 2 You can choose the magnetic force from a wide variety of variations.
- ③ Bar magnets are welded all around, making them ideal for food factories where bacteria are averse.
- 4) We also manufacture double pipe types.

Specification

- ① The magnetic force and number of tube magnets can be changed according to the customer's request.
- ② Flange connection and screw connection types can also be manufactured.
- ③ Material: SUS304, SUS316L #320 buffing finish on both inside and outside
- 4 Clamp band and ferrule gasket included

Model	Nominal diameter	φ d (mm)	H(mm)	φ D (mm)	Normal pressure	Number of magnets	
SMS-1	1S	25.4			- 0.7MPa -		
SMS-1.5	1.5S	38.1	120	114.3		5 pieces	
SMS-2	28	50.8				0.7MD-	
SMS-2.5	2.5\$	63.5	160				
SMS-3	38	76.3		139.8		7 pieces	
SMS-3.5	3.5\$	89.1					





Sanitary Pipe Strainer SP type

Purpose

Cleaning is easy because it can be disassembled. Compact and lightweight.

Specification Material: SUS304, SUS316L

*Design changes such as connection, distance between surfaces, number of bar magnets, etc. are also possible

					0
Model	Nominal deimeter	φ d (mm)	Nominal Pressure	Number of magnets	0
SP-1	18	25.4			34
SP-1.5	1.58	38.1	0.7MPa	Approximately 5kg	100
SP-2	28	50.8			



Magnetic Strainer MS type



Ideal for removing iron mixed in high viscosity liquids such as foods, chemicals, paints, printing inks, lubricants, cutting oils, china clay, pigments, dyes, sugar, pulp, etc.



- ① The magnetic force and number of bar magnets can be changed according to your request.
- ② We can also manufacture ferrules and screw connections.
- 3 Double pipe type is also designed and manufactured.
- 4 Material: SUS304, SUS316L
- (§) Standard is pickled finish on the inside and outside. Buffing finish is also available.



Model	Connection	Normal pressure	Number of magnets
MS-25A	25A flange	4.045	
MS-40A	40A flange		7 pieces
MS-50A	50A flange		
MS-65A	65A flange	1.0MPa	
MS-80A	80A flange		9 pieces
MS-100A	100A flange		

*Design changes such as connection, distance between surfaces, number of bar magnets, etc. are also possible.



Plate Magnet HP/RHP type

Purpose

It can be used in a wide range of applications, such as hanging from the chute, hopper, duct, dropping part or top of a belt conveyor, or submerged in liquid.

Features

- ① Made of stainless steel and completely sealed, it can be used even in liquids.
- ② We will design and manufacture the flange dimensions and mounting holes according to your request.
- ③ A barrier stop type is also available to increase adsorption power.

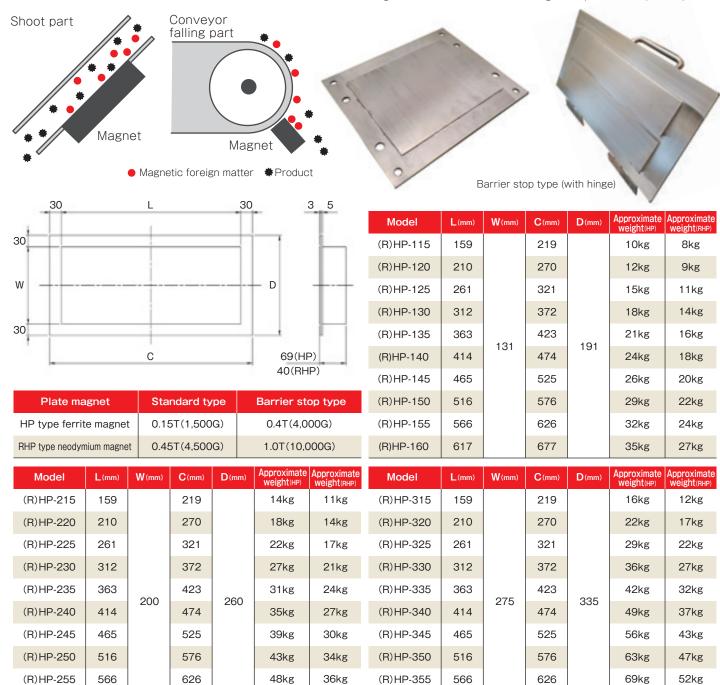
Specification

617

677

(R)HP-260

- 1) Materials are SUS304, SUS316L
- ② Ferrite magnet SUS304 or SUS316L (HP type) and neodymium magnet (RHP type) are available.
- ③ We also design and manufacture items with custom made.
- ④ We also manufacture samarium cobalt magnets that can be used at high temperatures (300°C).



52kg

40kg

(R)HP-360

617

677

76kg

58kg

Electromagnetic Separator For Dry Powder



Removes fine iron powder from raw materials!

Electromagnetic Separator CG

Purpose

This is the most efficient model for removing fine iron particles from the powder. EMS is widely used in lithium-ion battery materials (cathode, anade, and electrode) as well as in the chemical, plastic, food, ceramic, and pharmaceutical industries.



Features

- 1) The magnetized screens remove magnetic particles of several microns.
- ② Since the screen case is vibrated by vibrators, it can be used even with raw materials with poor fluidity.
- ③ Yield Loss of raw materials is minimal.
- 4 Tunning off the excitation power makes, the screens with no magnetic and it makes easy to clean the poor fluidity materials.

Specification

- ① A Maghammer can be attached to materials with poor fluidity as an option.
- ② Screen design and opening can be selected according to the raw material.
- ③ Variable magnetic force option is available. ④ Comes with a dedicated control panel.
- (5) Can also be combined with an automatic iron powder discharging system (AT-CG model).
- 6 CE compatible models are also available.

Electromagnetic separator CG type developed exclusively for powder materials

It has been said that iron removal is difficult when the particle size of the raw material is 0.1 mm or less, as it increases not only the adhesion between particles but also the adhesion to the magnetic separator. The CG type is characterized by a structure that efficiently concentrates the generated magnetic flux inside the device and creates a high magnetic flux density area. There is no magnetic leakage, and by placing multiple layers of screens with sharp edges inside the cylindrical shape and applying slight vibrations to them, fine powder with poor fluidity is dispersed and passed through the magnetized screen, resulting in high efficiency. This makes it possible to remove fine iron powder.

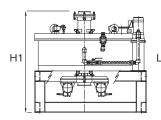
Model	CG-HHH type			
Model	150HHH-3	250HHH-3	300HHH-3	
Magnetizing power (kW)	6.1	8.12	9.53	
Magnetic flux density *1 ^w / ₀ screens	3,300GAUSS			
Magnetic flux density *2 ^w / screens	16,500	16,000	15,500	
#of Standard screens	20	17	17	
Unit weight (kg)	1,500	1,830	1,950	

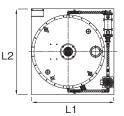
Screens Magnetic foreign particles product The magnetic flux densities in the table above are measured or analyzed values when cold (exciting coil is cold).

■ External dimensions of main models

Model	L1	L2	H1
CG-150HHH-3	1,050	1,000	1,755
CG-250HHH-3	1,100	1,100	1,800
CG-300HHH-3	1,200	1,200	1,830

*() is for AT specification.





screens

- ① Standard screen: opening 5mm, 7mm, 10mm, 12mm, 15mm, 20mm
- ② Screen with ring: opening 5mm, 10mm, etc.
- ③ Honeycomb screen: Coarse, medium, coarse (up to 75 sheets can be set)
- 4 Micro pitch screen: 5mm, 10mm, 15mm etc.







Standard screen Screen with ring

*Other various elements are available as options You can choose according to your application.

.

^{*1:} Magnetic flux density (peak value) with no element set

^{*2:} Maximum cored magnetic flux density (analytical value) when using a 5mm screen. Depending on the measurement location, there are locations where the magnetic force is stronger or weaker Core magnetic flux density varies depending on the structure, material, and measurement location of the element.

^{*3:} Maximum number of sheets when standard screen is set.

Amazing Over 18,000 Gauss

Electromagnetic Separator CG-X

(High magnetic force model)

Features

- ① Demonstrates maximum cored magnetic flux density of 18,000gauss or more. (w/ screen when cold.) *2
- 2 Removes magnetic foreign particles of several microns.
- ③ The cooling effect has been significantly improved, reducing the decrease in magnetic force when it is hot.

Specification

- ① Various screens can be used.
- ② Optional automatic cleaning system (AT-CG type).
- ③ Combined with a chiller unit (optional), it can suppress the rate of current drop in high temp. Therefore, it is possible to stably maintain high magnetic force.





Model	CG-X type		
Model	150X-1	250X-1	300X-1
Magnetizing power (kW)	13.4	17.5	19.7
Magnetic flux density *1 % screens	6,000GAUSS		
Magnetic flux density *2 */ screens	18,500	19,500	18,500
# of standard screens *3	20	17	17
Unit weight (kg)	3,000	4,000	4,300

AT-CG-150X-1 type

The magnetic flux densities in the table above are measured or analyzed values when cold (exciting coil is cold). *1: Magnetic flux density (peak value) with no element set *2: Maximum cored magnetic flux density (analytical value) when using a 5mm screen. There are also locations where the magnetic force is stronger or weaker depending on the measurement location. Core magnetic flux density varies depending on the structure, material, and measurement location of the element. *3: Maximum number of sheets when standard screen is set.

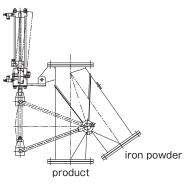
Continuous operation with timer setting

AT-CG (with automatic cleaning system)

Product explanation video From here



By temporarily stopping the flow of raw materials and combining an automatic discharging device with a timer, the machine can be operated repeatedly at any time, eliminating the need for manual cleaning. An optional MagHammer can help magnetic material dischanging by impact.





Powder change dumper

Raw material supply

Magnet off Dumper swich

Magnet ON Dumper switch

lron powder discharge





Electromagnetic Separator For Dry Powder



Compact yet powerful performance!

Electromagnetic Separator MINI

Patent pending

Overview

Compact electromagnetic separators CG and CS types are available now. We have realized a compact type while maintaining performance. Even if the installation space was a problem with the conventional size, the MINI model will solve the problem.

Features

- Coil case volume ratio ·······▽75%
 Magnetizing power ················▽50%
- Installation area ratio → Weight → Weight

Specification

You can select the opening of the element according to the raw material. Comes with a dedicated control panel.

10		
B	H	י יע
8	8	H

CG-150MINI		
Magnetizing power (kW)	3.3kW	
Magnetic flux density *1 ^w / ₀ screens	3,000 gauss	
Magnetic flux density *2 ^w /screens	14,000 gauss	
Number of screens *3	10 pieces (standard 5mm)	
Unit weight (kg)	600kg	

CS-150MINI (Magnetic filter)		
Magnetizing power (kW)	3.3kW	
Magnetic flux density *1 ^w / ₀ screens	3,000 gauss	
Magnetic flux density *2 */ screens	12,000 gauss	
Number of screens *3	22 sheets (coarse)	
Unit weight (kg)	600kg	

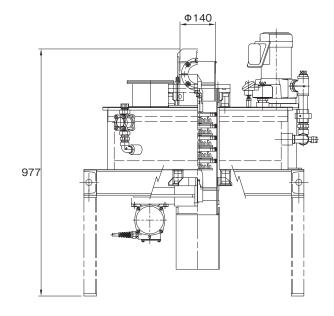
■ Main external dimensions

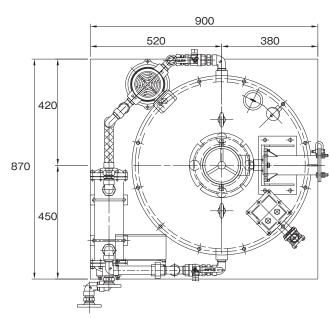
Model	L1	L2	H1
CG-150MINI CS-150MINI	900	870	977

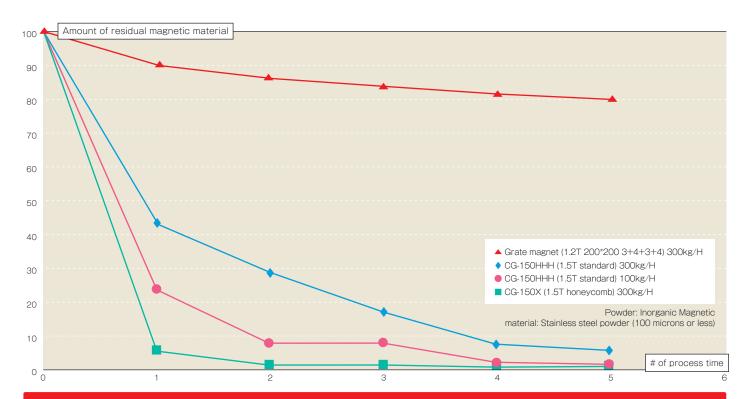


The above magnetic flux density is a measured value and an analysis value when it is cold (exciting coil is cold).

- *1: Magnetic flux density (peak value) with no element set
- *2: Maximum cored magnetic flux density (analytical value) when using standard elements. There are also locations where the magnetic force is stronger or weaker depending on the measurement location.
- *3: Maximum number when standard elements are set

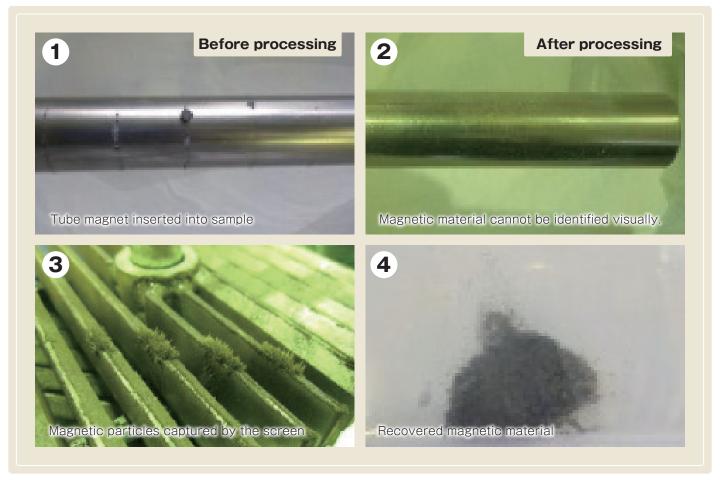






Thoroughly removes fine iron particles that could not be recovered with conventional permanent magnet iron removers.

■ Electromagnetic separator test example - Fine powder (50 μ m)



Electromagnetic Filter For Slurry



For removing fine iron powder from any liquid

Magnetic Filter CS type



Iron powder and fine iron powder mixed in the liquid are removed using a magnetized magnetic filter. It can also be used for relatively high temperature items and slurry-like items.



Features

- ① Because the raw material passes through dozens of magnetic filters that are highly effective in removing iron, It is possible to remove fine iron powder of several microns.
- ② Once the excitation power was turned off, the filter will lose its magnetic force and can be easily cleaned.

Specification

- ①You can select the shape and opening of the magnetic filter according to the raw material.
- 2 With dedicated control panel
- 3 Can also be combined with automatic cleaning equipment (AT-CS type)
- 4 CE marking compatible specifications can also be manufactured.

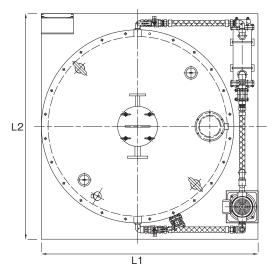
Model	CS-ННН			
Model	150HHH-3	250HHH-3	300ННН-3	
Magnetizing power (kW)	5.9	8.1	9.53	
Magnetic flux density *1 % filters		3,300GAUSS		
Magnetic flux density *2	12,000	12,000	12,000	
Number of filters *3	41	41	42	
Unit weight (kg)	2,200	2,800	3,000	

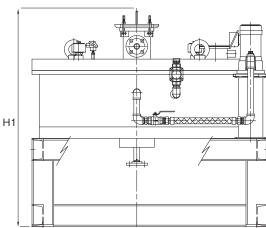
The magnetic flux densities in the table above are measured or analyzed values when cold (exciting coil is cold).

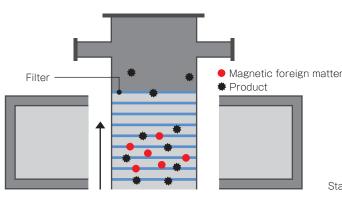
- *1: Magnetic flux density (peak value) with no element set
- *2: Maximum cored magnetic flux density (analytical value) when using a standard filter.

 There are also locations where the magnetic force is stronger or weaker depending on the measurement location. The cored magnetic flux density varies depending on the structure, material, and measurement location of the element.
- *3: Maximum number of filters when standard filter 11t is set.

Model	L1	L2	H1
CS-150HHH-3	1,350	1,400	1,223
CS-250HHH-3	1,500	1,500	1,264
CS-300HHH-3	1,550	1,500	1,273







■ Filter

①Standard filter coarse, medium, coarse ②Steel ball





Standard filter (coarse, medium, coarse)

Steel balls



Ideal for removing weak magnetic materials and trace amounts of iron powder!

Magnetic Filter (Highest Magnetic force model) CS-X type

Features

- ① Demonstrates maximum magnetic flux density with filters of 20,000 gauss or more. (When cold)
- ② Removes foreign particles of several microns.
- ③ The cooling effect has been significantly improved, reducing the decrease in magnetic force when it is hot.

Specification

- ① Various elements can be used.
- ② Can also be combined with automatic cleaning equipment (AT-CS type)
- 3 In combination with a chiller unit (optional), it is possible to suppress the rate of current drop during heat and maintain stable high magnetic force.



CS-250X type *Painting and SUS frame are optional.

Model	CS-X			
Model	150X-1	250X-1	300X-1	
Magnetizing power (kW)	13.4	17.5	19.7	
Magnetic flux density *1 */ ₀ filters	6,000GAUSS			
Magnetic flux density *2	20,000			
Number of filters *3	41	41	42	
Unit weight (kg)	3,000	4,000	4,300	

The magnetic flux densities in the table above are measured or analyzed values when cold (exciting coil is cold).

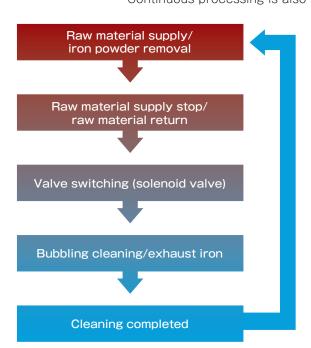
- 1: Magnetic flux density (peak value) with no element set
- *2: Maximum cored magnetic flux density (analytical value) when using SUS bulbs. Core magnetic flux density varies depending on the structure, material, and measurement location of the element
- *3: Maximum number of sheets when standard filter 11t is set

The iron powder collected by the filter is automatically cleaned.

AT-CS type (with automatic cleaning functions)

Features

By arranging two or more units in parallel, raw material supply is not interrupted. Continuous processing is also possible. (FAT-CS type)





white slurry



Before sorting

·Tube magnet inserted into sample

·Magnetic particles are captured.



After sorting

·Tube magnet inserted into sample(Magnetic material cannot be visuallyconfirmed)



Magnetic side

·Bar magnet inserted into the magnetic material side(You can confirm the collection of magnetic material)



Magnetic Pulley WN type/RWN type

Purpose

Metal foreign substances in raw materials can be removed and recovered by simply replacing the conveyor head pulley with a magnetic pulley. This separator is indispensable for food factories and other recycling plants.

Features

- ① You can choose between vertical and horizontal poles according to your application.
- ② We also manufacture magnetic pulleys made of samarium cobalt magnets that can be used at high temperatures.
- 3 Pulley shafts, keyways, etc. can also be manufactured as desired.

Specification

- ① Standard magnetic force type (WN type): Horizontal pole 1,000 Gauss, vertical pole 2,000 Gauss
- 2 High magnetic force type (RWN type): Horizontal pole 3,000 Gauss, 5,000 Gauss
- ③ Pulley diameter: Vertical pole type $\phi 215^{\sim} \phi 318$ /Horizontal pole type $\phi 215^{\sim} \phi 406$
- Pulley length, shaft dimensions, etc. will be designed and manufactured according to your request.

WN type (Ferrite magnet)

Horizontal pole

1,000 Gauss

Vertical pole

2,000 Gauss

RWN type (Neodymium magnet)

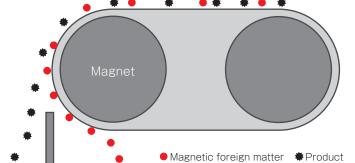
Horizontal 3,000 Gauss

Horizontal 5,000 Gauss



Pulley diameter(mm)	Pulley width(mm)	Compatible belt width(mm)	Approximate weight(kg)	
	450	400	80	
	500	450	90	
	550	500	100	
φ215	650	600	120	
	800	750	140	
	950	900	170	
	1,050	1,000	190	
	450	400	110	
	500	450	120	
	550	500	130	
φ265	650	600	160	
	800	750	190	
	950	900	230	
	1,050	1,000	250	
	450	400	140	
	500	450	150	
	550	500	170	
φ315	650	600	200	
	800	750	240	
	950	900	290	
	1,050	1,000	310	

diameter(mm)	width(mm)	belt width(mm)	weight(kg)
	450	400	160
	500	450	175
	550	500	190
φ355	650	600	230
	800	750	280
	950	900	330
	1,050	1,000	365
	500	450	230
	550	500	250
φ406	650	600	300
Ψ406	800	750	330
	950	900	365
	1,050	1,000	480
	·	·	



^{*}We can also design and manufacture products with dimensions other than those listed above. Please feel free to contact us. *Approximate weight.



Stainless steel separator! High magnetic pulley removes weak magnetic stainless steel pieces!

Videos being sorted are From here



with casing

High Intensity Magnetic

Separator for Stainless Steel, HGMP type



Found in food, powder, wood chips, and other raw materials. Can be used to remove stainless steel foreign matter.



- ① Demonstrates a high magnetic force of 12,000 Gauss on the pulley surface.
- ② Uses a permanent magnet (neodymium).
- 3 Magnetic materials attracted by the pulley type are immediately discharged, so continuous processing is possible!



- 1) Two types of pulley diameters are available: ϕ 70 and ϕ 135.
- 2The pulley length and shaft dimensions will be designed and manufactured according to your request.

Pulley diameter(mm)	Pulley width(mm)	Magnetic effective width (mm)
	300	218
	350	266
	400	314
4.70	450	362
φ70	500	410
	550	458
	600	506
	650	554
	700	614

	-
We design and manufacture products with	casings.
Vibration feeder available as an ontion It can be manual	factured

Pulley diameter(mm)	Pulley width(mm)	Magnetic effective width(mm)
	300	234
	350	272
	400	310
	450	386
	500	386
4.405	550	462
φ 135	600	500
	650	538
	700	614
	800	690
	900	804
	1,000	880
	1,100	994

*Please feel free to contact us regarding dimensions other than those listed above.

New

Ideal for collecting not only stainless steel but also lithium-ion batteries that get mixed in with garbage!

5000 Gauss Magnetic Pulley

Features

Demonstrates an ultra-high magnetic force of 15,000 Gauss on the pulley surface. Uses permanent magnets (neodymium).



Pulley diameter: φ215° φ406 We will design and manufacture the pulley length and shaft dimensions according to your request.







Sample testing is available. For details, please contact us.

^{*}Photos are from our sample test. Selection status varies depending on various conditions



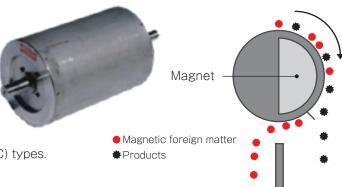
It can be used in a wide range of fields such as resource recycling, wood, mining, ceramics, chemicals, food, etc.

Drum Magnetic Separator

EN type/ **REN type (drum body)**

Features

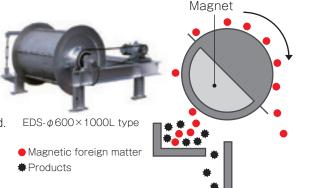
- 1) Adsorbed iron powder and iron pieces can be continuously discharged.
- 2 1,000 Gauss (EN type), 3,000 Gauss 5.000 Gauss (REN type) available.
- ③ We also manufacture heat-resistant (300°C) types.



Electromagnetic Drum Separator EDS type

Features

- 1) For shredding bulky waste, collecting iron pieces from shredder lines, etc.
- 2 Iron can be collected using the pick-up method.
- There is also an EDSP type that uses permanent magnets.



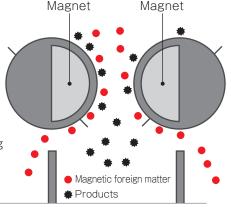
Twin-pole Magnetic **Drum Separator** :TRMX type



TRMX- ϕ 355×1200L type

Features

When a drum magnetic separator is placed on opposite poles, a strong magnetic field is generated in the opposing fields. By placing the drums facing each other, we have made it possible to separate stainless steel pieces with weak magnetism.



Intensive Magnetic Force Drum Separator :HGMD type

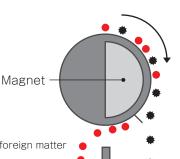
HGMD- ϕ 405×420L type *Photo shows with vibration feeder(option)

Features

- ① Demonstrates 9,000 Gauss (vertical pole) on the drum surface!
- ② SUS bolts and nuts can be sorted out.

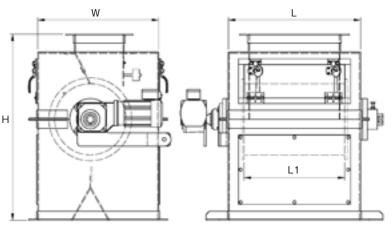


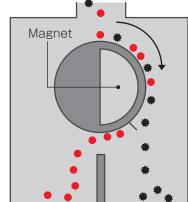
Products





Drum Magnetic Separator ENS type/RENS type (with Casing)





Magnetic foreign matter

*Products

We can also manufacture custom-made products other than those listed below.

Drum	Drum	Throughput	Drum EN type	Drum ENS type			
diameter (mm)	width L1 (mm)	(M3/H)	Approximate weight (kg)	W (mm)	L(mm)	H(mm)	Approximate weight(kg)
	300	20	40		440		180
	350	24	45		490		190
	400	28	50		540		210
φ267	450	32	55	490	590	780	220
	500	36	60		640		240
	550	40	70		690		250
	600	44	85		740		270
	300	25	70		440		200
	350	30	80	540	490	830	220
	400	35	85		540		240
φ318	450	40	90		590		260
	500	45	95		640		270
	550	50	100		690		290
	600	55	110		740		310
	450	48	105		590		300
	500	54	110		640		320
	550	60	115		690		340
φ355	600	66	120	590	740	880	370
	700	78	130		840		390
	800	90	140		940		420
	900	-	160		1,040		440



Drum	Drum	Throughput	Drum EN type		Drum El	Drum ENS type			
diameter (mm)	width L1 (mm)	(M3/H)	Approximate weight (kg)	W (mm)	L(mm)	H(mm)	Approximate weight (kg)		
	500	62	140		640		330		
	550	69	145		690		350		
	600	76	150		740		370		
φ406	700	90	165	640	840	930	410		
	800	104	180		940		460		
	900	118	200		1,040		510		
	550	86	200		690		460		
	600	94	210		740		490		
	700	110	240		840		560		
φ508	800	126	270	780	940	1,030	620		
	900	142	300		1,040		680		
	1,000	158	330		1,140		740		
	1,200	-	400		1,340		860		

*Processing amount display: For grain feed *Please check the specifications, dimensions, weight, etc. on the drawing when ordering.



Suspension Permanent Magnetic Separator: PUF-S

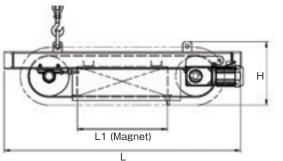
Purpose

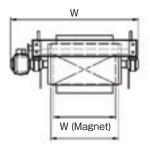
PUF-S is designed to install above and 90 degrees to the conveyor belt to remove scrap metals from the materials on the moving conveyor

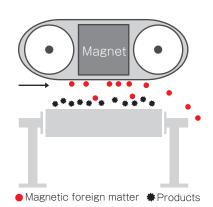
- **Features**
- 1) Pemanent magnet saves energy cost on magnetization power.
- ② Tough durable design issuitable for outdoor use. ③ Compact size with reliable performance.

specification

- ① Aveilable in 3 model series. ② Wear protection wiper standard.
- ③ Optional oil protection wiper and protective cover models.
- 4 Comes with hook for handing installation







■ E5 series

Model	Applicable	Belt	Body dimensions(mm)			Magnet dimensions(mm)		Belt width	Drive motor	Weight	
Model	belt width	speed	L	w	н	L1	W1	(mm)	(mm)	(kg)	
PUF-S30E5	<450		1,700			500				410	
PUF-S40E5	<600	60m/min	1,850			650				450	
PUF-S45E5	<750	(60Hz)	2,000	930	507	800	400	450	0.75	500	
PUF-S50E5	<900	50m/min (50Hz)	2,150			950				530	
PUF-S60E5	<1,050		2,300			1,100				620	

■ E8 series

Model	Applicable	belt	Body dimensions(mm)			Magnet dimensions(mm)		Belt width	Drive motor	
Model	belt width	speed	L	W	н	L1	W1	(mm)	(mm)	(kg)
PUF-S30E8	<450		1,800			500				630
PUF-S40E8	<600	66m/min	1,950			650				730
PUF-S45E8	<750	(60Hz)	2,100	1,135	562	800	550	600	1.5	820
PUF-S50E8	<900	55m/min (50Hz)	2,250			950				890
PUF-S60E8	<1,050		2,400			1,100				1,000

■ E10 series

Model	Applicable	belt	Body dimensions(mm)			Magnet dimensions(mm)		Belt width	Drive motor	
Model	belt width	speed	L	W	н	L1	W1	(mm)	(mm)	(kg)
PUF-S40E10	<600	- 7 ()	2,060			650				1,000
PUF-S45E10	<750	57m/min (60Hz)	2,210	1.286	594	800	700	750	1.5	1,100
PUF-S50E10	<900	47m/min	2,360	1,200	594	950	700	750	1.5	1,250
PUF-S60E10	<1,050	(50Hz)	2,510			1,100				1,450



Suspension Permanent Magnetic Separator: PUF-SM

Features

- ① Compact design.
- ② Simple structure and low cost .

Specification

- ① Hanging bolt with turnbuckle attached.
- 2 Please specify the power supply voltage.



Model	Applicable	Belt	Belt Body dimensions(mm)			Magnet dimensions(mm)		Drive motor	Weight
Model	belt width	speed	L	w	н	L1	W1	(mm)	(kg)
PUF-400×(100)M	<400	* 1	1,047	432	229	525	290	0.4 %2	120
PUF-450×(170)SM	<450	60m/min	1,550	892	395	500	400		300
PUF-600×(170)SM	<600	(60Hz)	1,700	1,040	395	650	490	0.75	420
PUF-750×(170)SM	<750	50m/min (50Hz)	1,900	1,140	395	800	650		560
PUF-900×(260)SM	<900		2,250	1,450	448	1,000	800	1.5	1,200

^{*1.} Belt speed 42m/min (50Hz), 50m/min (60Hz) *2. Motor pulley drive



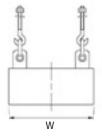
Suspension Permanent Magnetic Separator: PUF-H type

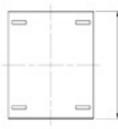
Purpose

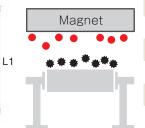
PUF-H is designed to install over the belt conveyor to remove scrap metals.



- ① No operating energy is required. Tough durable design is suitable for outdoor use. **E5 series**
- 2 Three models (E5, E8, E10 types) with different magnetic forces are available depending on the target object.









Model	Applicable	Body dimensions(mm)				
Wodel	belt width (mm)	L1	W1			
PUF-H30E5	<450	506				
PUF-H40E5	<600	656				
PUF-H45E5	<750	806	400			
PUF-H50E5	<900	956	400			
PUF-H60E5	<1,050	1,106				
PUF-H70E5	<1,200	1,256				

■ E8 series

wiagi ietic	ioreign matter	FILLUUU

reign matter *Products E10 series	_

Model	Applicable	Body dimensions(mm)			
Model	belt width (mm)	L1	W1		
PUF-H30E8	<450	506			
PUF-H40E8	<600	656			
PUF-H45E8	<750	806	550		
PUF-H50E8	<900	956	550		
PUF-H60E8	<1,050	1,106			
PUF-H70E8	<1,200	1,256			

Model	Applicable	Body dimensions(mm)			
Model	belt width (mm)	L1	W1		
PUF-H40E10	<600	656			
PUF-H45E10	<750	806			
PUF-H50E10	<900	956	700		
PUF-H60E10	<1,050	1,106			
PUF-H70E10	<1,200	1,256			



Hybrid heat relesing, No insulation oil necessary!

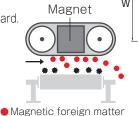
Self-cooled Suspension Electoromagnetic Separator: HUF-S

Purpose

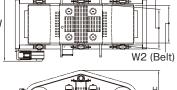
HUF-S is designed to install above and at 90 degrees to primary conveyor belt and remove scrap metal from the primary conveyor.

Features

- ① The dry self-cooling mechanism requires no insulation oil or cooling fan to cool the coil. Therefore, there is no fire hazard.
- ② The unit requires no insulation oil, therefore, the unit can be installed in any angle.
- ③ High cooling efficiency maximizes separator ability without a dust protection cover and allows 24-hour continuous operation.
- 4 Durable mechanical design for outdoor use.



* products



W1 (Magnet)

L1 (magnet)

Specification

- ① Three models (E5, E8, E10) with different magnetic forces are available depending on the target object.
- ② The standard belt material is equipped with wear protection wiper. Special specifications such as oil protection wiper and armor protection cover models are available. ③ Comes with controller and supension bolts.

Model	Applicable	Magnetizing	Вос	dy dimension:	S(mm)	Magnet dim	ensions(mm)	Motor	Approximate
Model	belt width	power (kw)	L	W	н	L1	W1	capacity(kw)	weight(kg)
HUF-S30	400Max	1.0	2,190	945	710	540	440	0.75	750
HUF-S35	500Max	2.1	2,050	1,055	733	700	600	0.75	880
HUF-S40	600Max	2.5	2,450	1,299	730	800	740	1.5	1,300
HUF-S45	750Max	3.4	2,600	1,409	780	950	850	1.5	1,600
HUF-S50	900Max	4.5	2,750	1,509	779	1,100	950	1.5	2,100
HUF-S60	1,050Max	5.6	3,050	1,637	959	1,250	1,090	2.2	3,100
HUF-S70	1,200Max	8.6	3,490	1,877	1,106	1,450	1,240	3.7	4,900
HUF-S80	1,400Max	9.7	4,080	2,176	1,085	1,600	1,400	5.5	6,900
HUF-S90	1,600Max	11.1	4,280	2,389	1,145	1,800	1,600	5.5	8,400

24

Suspension Type Electoromagnetic

Separator: HUF-H

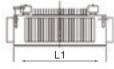
Purpose

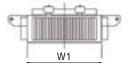
Installs over the primary conveyor belt to remove iron particles from the raw material on the belt.ldeal where smaller amounts of iron contamination are expected. The unit is easy to reach for cleaning.

Specification

- ① Comes with controller and suspension bolts.
- 2 Durable mechanical design for outdoor use.







Model	Magnetizing	Magnet dim	ensions(mm)	Approximate	
wodei	power (kw)	W1	L1	weight(kg)	
HUF-H30	1.0	440	540	300	
HUF-H35	2.1	600	700	500	
HUF-H40	2.5	740	800	750	
HUF-H45	3.4	850	950	1,200	
HUF-H50	4.5	950	1,100	1,350	
HUF-H60	5.6	1,090	1,250	2,000	
HUF-H70	8.6	1,240	1,450	4,000	
HUF-H80	9.7	1,400	1,600	4,300	
HUF-H90	11.1	1,600	1,800	6,000	



Lifting Magnet Model: HLS

Purpose

Durable mechanism is suitable for cement plant and quarry.

Features

Water and dust proof design eliminates contamination and extends the life of the unit.

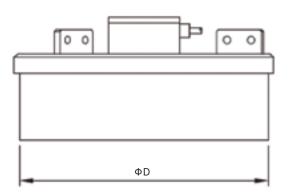
Specification

- ① Dedicated control panel and hanger bolt included.
- ② Can be used continuously for 24 hours.



Model: HLS-1100 type

Model	Model Applicable width(mm)		Dimension D(mm)	Approximate weight(kg)
HLS-300	250	0.19	318	120
HLS-400	350	0.34	406	170
HLS-500	400	0.68	508	350
HLS-600	500	0.87	609	450
HLS-700	600	1.1	700	600
HLS-800	700	1.4	800	800
HLS-900	750	1.9	900	1,000



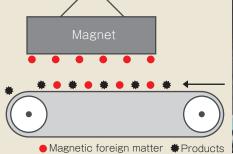
*Please contact us for applicable widths other than those listed above.



Special specifications such as cover and armor are available.

Suspension magnetic separator used in various situations

Leave the model selection to us!







with armor



Eddy Current Separator (non-ferrous separator)

Purpose

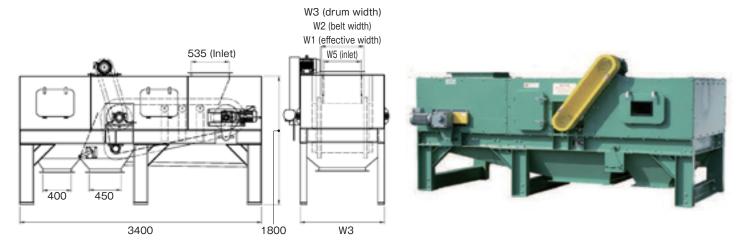
- ① Recovery aluminum cans from plastic and glass bottles.
- 2 High efficiency of recovery of aluminum from city waste.
- ③ Separation of nuts and iron steels from crushed machines.
- 4 Recovery of valuable metals from glass cullet.

Features

Two models are available depending on the size of the raw material. ALS-L for langer objects like cans. ALS-2 for small objects.

Specification

- ① Magnetic drum rotation speed/ALS-L type: Mqx.1,800rpm ALS-S type: Max.2,500rpm
- 2 Belt drive uses a hyponic motor



■ ALS-L series

Model	Standard body dimensions (mm)		Drum Drum	Drum speed	Belt speed	Output(kw)		Approximate	
Model	W1	W2	W3	diameter (mm)	er (RPM)	(m/min)	for belt	for rotor	weight (kg)
ALS-L3	330	260	880	Max 1.800 17.100			0.75	2.2	1,200
ALS-L4.5	480	410	1,030					0.7	1,600
ALS-L6	630	560	1,180		17-100 (variable)	1.5	3.7	1,800	
ALS-L7.5	780	710	1,330	φ354	(variable)	17-100 (variable)		5.5	2,100
ALS-L9	930	860	1,480				0.0	7.5	2,400
ALS-L12	1,230	1,160	1,780			2.2	7.5	2,700	

ALS-S series

Model	Standard body dimensions (mm)		Drum	Drum speed	Belt speed	Output(kw)		Approximate	
Model	W1	W2	wз	diameter (mm)	(RPM)	(m/min)	for belt	for rotor	weight (kg)
ALS-S3	330	260	880				0.75	3.7	1,250
ALS-S4.5	480	410	1,030						1,500
ALS-S6	630	560	1,180	4.004	Max 2.500 17 100 (variable)	1.5	5.5	1,800	
ALS-S7.5	780	710	1,330	φ361	(variable)	17-100 (variable)		7.5	2,100
ALS-S9	930	860	1,480				0.0	7.5	2,400
ALS-S12	1,230	1,160	1,780				2.2	11	2,800



Please view video from here.



We test your materials for review.

Aluminum separator used for

Bulk waste separator line

We perform highly efficient sorting and collection of aluminum cans from shredded municipal waste.

Processing of aluminum molding sand

Demonstrates its power in collecting aluminum pieces in the aluminum shell sand regeneration line.

Aluminum recovery from PET bottles

We perform highly efficient sorting and recovery of aluminum contained in PET bottles.

Collection of conductors in glass cullet

ALS can streamline the recovery of valuable metals from glass cullet.

Classification of Aluminum vs steel cans

ALS automatically pick up aluminum and steels cans from municipal waste, recycling station, and highway debris.

Other recoveries

Ideal for sorting nails from pachinko machines and collecting other conductive materials.



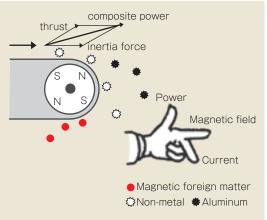




collected by ALS-S

Principle of eddy current separator

When a magnetic drum with N and S magnetic poles arranged around its circumference rotates at high speed, eddy currents are generated inside a good conductor such as aluminum due to electromagnetic induction. Since the aluminum is in the strong magnetic field generated by the magnet drum, a thrust force acts on the aluminum in the tangential direction, according to Fleming's left hand rule. Additionally, since the aluminum is being conveyed on a belt conveyor, inertia is acting on it. As a result, the aluminum flies out in the direction that combines these forces.





Revolution in High Efficiency Devices for small volumes

Eddy Current Separator and Compression Combined device

Purpose

Separate resources(steel cans, aluminum cans, glass, plastic bottles) and compacting

Features

- ① Automated separation and pressing will reduce the labor cost and process time.
- 2 Space saving design of 4.5m× 2m.

Specification

- ① Power souce:200/220V AC200/220V
- 2 Controller included

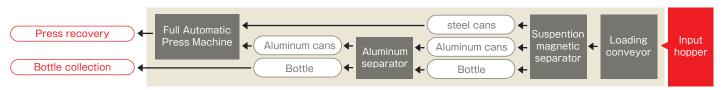


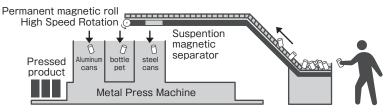
standard Specification

- Suspension magnetic separator: PUF-S30E5T type
 Aluminum separator: ALS-L2 type
- Belt conveyor: Finned/inclined type 300W (effective 240W)
 Press machine: KCP-072 type
- Input hopper
 Total power consumption: 10.15kW
 Total weight: approx. 3,100kg

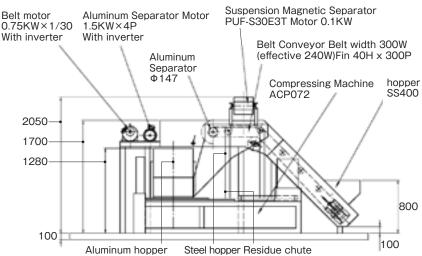
Press machine/standard specifications

- Operation method: Fully automatic/manual
 Compression method: Hydraulic one-way tightening
- Molding dimensions: 400W x 400H x 856L
 Processing capacity: 0.5t/h (for steel cans): 0.15t/h (for aluminum cans)
- Motor capacity: 7.5kWPress machine weight: 1,500kg





A combination of Eddy Current Separator, Suspension Magnetic Separator and compressing machine.





Revolution of High Efficiency
Recycling Devices for Large Volumes

Videos being sorted are From here



Eddy Current Separator and Compression device

Features

- 1) Processing Capacity: Upto 1.5MT/Hr.
- ② Easy quick installation(Min 2days).
- ③ Adding a press machine will make the equipment even more effective.



- ① Suspension magnetic separator: PUF-S30E5 type ② Aluminum separator: ALS-L3 type
- ③ climber Conveyer. 400w×4500L
- 4) Press machine: KCP-100-2 type (§)Input hopper: 1,600L x 1,040W x 500H





29

Aluminum and Steel Can Separator

Features

- ① Requires small space for installation.
- ② Liquid vent to release water from cans.
- 3 Easy installation.



Processing capacity: approx. 500 kg/hour (steel can equivalent) Power consumption: 5.9 kw Operation method: Fully automatic/manual Compression method: Hydraulic one-way tightening Press Compartment: $400 \times 400 \times \text{free}$ length (mm)

Aluminum can and steel can sorting + press machine

Aluminum cans and steel cans are sorted using a magnetic pulley and stored in their respective hoppers. When the predetermined amount is reached, it is automatically fed into the press machine and compacted.





Waste Materials can be turned into Valuable by recycling

Empty can simple separator: ABC type

Videos being sorted are From here



Purpose

Separation of Aluminum and Steel cans, iron recovery from rubber, glass, wood waste and other non-ferrous materials.

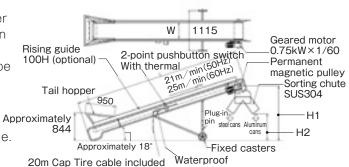
Features

- ① Easy to handle. It comes with moving wheels so you can change the installation location freely.
- 2 Can be combined with a drum magnetic separator or suspension type magnetic separator for large-volume processing.
- 3 More streamlined processing is possible when used in conjunction with an aluminum separator.
- 4 By attaching a variable belt speed inverter as an option, it can be used in combination with manual sorting.
- 5 Removable hopper and work station can be optional.

Specification

- 1) Power Source: 200/220V, 50/60Hz Energy saver system.
- 2 Comes with 20m long plug in cab tire cable.
- ③ Includes sorting chute and tail hopper

Empty can simple separator ABC-3550 type (Rising guide is optional)



connector

Model	Belt width(mm)	Horizontal L (mm)	H1 (mm)	H2 _(mm)	Permanent magnetic pulley	Geared motor	Approximate weight(kg)
ABC-3530		3	1,250	398			400
ABC-3540		4	1,350	507			400
ABC-3550	050	5	1,650	816	1015 V 0001		400
ΔBC-3555	350	5.5	1 800	950	φ215×380L		400

ABC-3540		4	1,350	507			400
ABC-3550	350	5	1,650	816	4.01E V.000I		400
ABC-3555	330	5.5	1,800	950	φ215×380L		400
ABC-3560		6	1,950	1,126			500
ABC-3570		7	2,100	1,435			500
ABC-4040		4	1,350	507		0.75kw(1/60)	400
ABC-4050		5	1,650	816			400
ABC-4055	400	5.5	1,800	950	φ265×430L		400
ABC-4060		6	1,950	1,126			500
ABC-4070		7	2,100	1,435			500
ABC-5040		4	-	507			400
ABC-5050		5	1,650	816			400
ABC-5055	500	5.5	1,800	950	φ265×550L		500
ABC-5060		6	1,950	1,126			500
ABC-5070		7	2,100	1,435			500
ABC-6040		4	-	507			400
ABC-6050		5	1,650	816			500
ABC-6055	600	5.5	1,800	950	φ265×650L		500
ABC-6060		6	1,950	1,126			600
ABC-6070		7	2,100	1,435			600

^{*}H1 and H2 dimensions are approximate dimensions as the height can be adjusted. *Rising guide and side safety cover are optional.



Automated Can Compactor Model:KCP

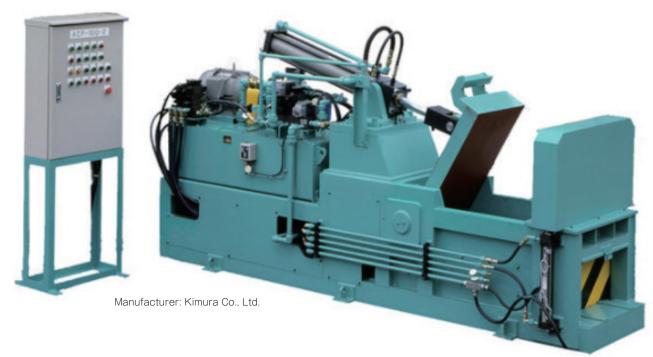
Small and High Efficiency Model

Purpose

- ① Fully automated operation. ② Strong Compression.
- ③ Compact design saves space.

Specification

① Comes with a dedicated control panel. ② Can be combined with automatic supply hopper (optional).



Method, capacity, dimensions	KCP-400A type	KCP-500A type	KCP-600A type	KCP-650A type	KCP-700A type		
Compression method	Hydraulic two-way tightening						
Method of operation	Automatic Manual						
Cylinder pressure	21MPa	21MPa	21MPa	21MPa	21MPa		
Cylinder pushing force (upper lid)	16.7ton	16.7ton	32.9ton	43ton	54.4ton		
Cylinder pushing force (compression)	32.9ton	32.9ton	60.6ton	67.2ton	84.3ton		
Cylinder pushing force (gate)	3.4ton	3.4ton	8.6ton	8.8ton	14.2ton		
Electric motor	7.5kW	7.5kW	11kW	15kW	22kW		
Press dimensions	400W×575H×860L	500W×488H×1070L	600W×650H×1300L	650W×716H×1450L	700W×800H×1600L		
Molding dimensions	400W×400H× Free	500W×300H× Free	600W×400H× Free	650W×450H× Free	700W×500H× Free		
Processing cycle	Approximately 60~70sec	Approximately 65~75sec	Approximately 70~80sec	Approximately 65~75sec	Approximately 65~75sec		
Processing capacity (steel can)	0.65ton/h	0.85ton/h	1.5ton/h	1.9ton/h	2.5ton/h		
Processing capacity (aluminum cans)	0.2ton/h	0.25ton/h	0.5ton/h	0.6ton/h	0.85ton/h		
Oil tank capacity	180L	200L	300L	500L	700L		
Gross weight	2.4ton	2.5ton	6ton	7ton	8ton		
Overall width _(mm)	800	900	1070	1,250	1,280		
Total length _(mm)	3,000	3,150	4,100	4,300	4,650		
Overall height(mm)	1,628	1,750	2,170	2,594	2,883		



Lifting Magnet: HL

Video during transportation From here



Purpose

Best for scraps and steel plate handling. Can be used on an overhead traveling crane, backhoe or crane vehicle.

Features

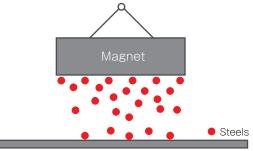
- ① Durable long life design.
- ② Wide variety of installation to backhoe and cranes.
- 3 Custom made for backhoe size.

Specification

- ① Power Source: AC200/220V 50/60Hz. Power supplied by generator on backhoe.
- 2 Custom and light version is available upon request.

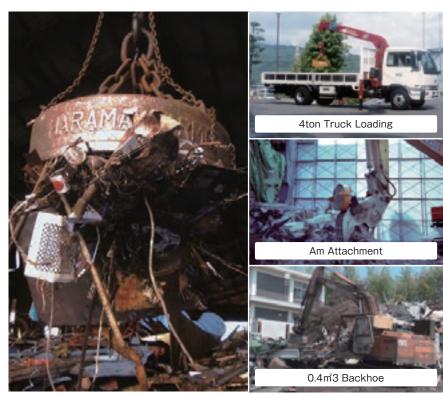


Lifting magnet HL-1100 type





Manufactured to suit various attachments.



Model	Ci	Malkana	Current			Own weight	Ha	anging capac	ity (maximu	ım)
Model	Size(OD)	Voltage(AC)	Cold time A	Heat time A	power(kw)	(kg)	Ingot (kg)	Pig iron(kg)	Scrap (kg)	Cut shoulder
HL-300	318		9.3	7	0.63	120	1,300	-	-	-
HL-400	406		9.1	-	0.84	140	-	-	-	-
HL-500	508		9.7	8.3	2.15	250	2,300	130	100	90
HL-600	609		9.8	-	2.16	300	-	-	-	-
HL-700	700	200/220	14.3	11.3	3.16	480	2,800	240	160	105
HL-800	800		12.5	15	2.74	550	3,000	300	200	110
HL-900	900		32	22	7.00	750	4,000	360	260	160
HL-1100	1,100		39.1	33	8.69	1,450	-	500	450	230
HL-1300	1,300		58.2	56	12.8	1.650	-	800	700	360
HL-1500	1,500		80	69	17	2,500	-	1,100	1,100	550



Convenient! Permanent Magnetic Lifter for Steel Handling

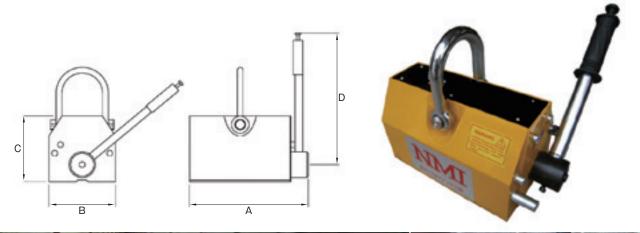
Permanent Lifting Magnetic: QZ1

Purpose

Hanging steel materials and workpieces from a crane or hoist It can be transported to the desired position.

Features

- ① Flat and round steel plates can be lifted. ② Operation is easy with ON/OFF switch.
- ③ No power is required, therefore, no fear of falling due to power failure while transferring object.
- 4 The structure is designed with safety concern. The handle is turned on only when it recognizes absorption of certain thickness of magnetic materials.









Model	Lifting ca	pacity _(kg)		Woight			
Model	Flat steel	Round steel	А	В	С	D	Weight _(kg)
QZ1-0.1	100	50	130	75	80	150	3.0
QZ1-0.3	300	150	205	100	110	225	10.0
QZ1-0.6	600	300	265	120	125	260	24.0
QZ1-1	1,000	500	320	150	160	320	43.0
QZ1-2	2,000	1,000	410	185	195	460	89.0



Hammering device to remove adhering powder and prevent clogging

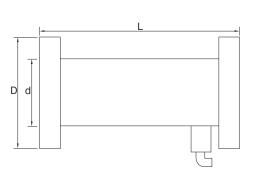
Electromagnetic Hammering Device

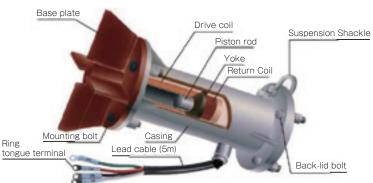
Purpose

Eliminates and prevents build-up, clogging, rat holes, arching, and bridges that occur in hopper chutes, ducts, tanks, etc.

Features

- 1) High efficiency for continuous impacting force.
- ② Flexible adjustments by controller fit specific needs for application.
- ③ Sealed design allows use in severe dusty atmosphere.
- ④ Operation can be activated by an external signal, internal timer or manual control.





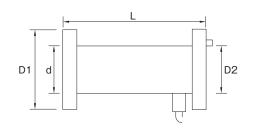
Model	Christian	Impact Force			Dimensions(mm)	Watabba	Ampere(A)	
Model	Structure	kg·m/sec	Hammer	D	d	L	Weight(kg)	AC220V
SIC-05A		1.8	1 pound	130	76.3	226	7	1.3
SIC-1A	Sealed uit	3.8	2pound	165	101.6	284	13	1.8
SIC-2A	(indrect hitting)	8.2	4pound	190	114.3	318	22	3.4
SIC-3A		21.3	10pound	255	165.2	384	52	3.9
SIC-05AS		1.3	0.7pound	130	76.3	224	7	1.3
SIC-1AS	Sealed unit indirect	2.7	1.5pound	165	101.6	284	13	1.8
SIC-2AS	hitting& reducing noise	5.7	3pound	190	114.3	318	22	3.4
SIC-3AS		14.9	7pound	255	165.2	384	52	3.9

Can be used in hazardous locations such as gas and steam (class 1 and 2 hazardous locations)!

Explosion-proof type (ExdIBT4) Electromagnetic

MagHammer (utility model)





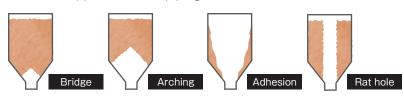
Model	Туре	Impact Force			Dimens	Weight(kg)	Ampere(A)		
	approval No.	kg·m/sec	Hammer	D1	D2	d	L	weign(kg)	AC220V
SIC-05AEX	TC18745	1.8	1ポンド	130	140	76.3	226	8	1.3
SIC-1AEX	TC18746	3.8	2ポンド	165	175	101.6	284	15	1.8
SIC-2AEX	TC18747	8.2	4ポンド	190	190	114.3	318	24	3.4
SIC-3AEX	TC18748	21.3	10ポンド	255	260	165.2	384	55	3.9

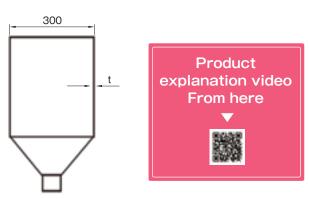
Selection Guide

Although it varies depending on the shape and dimensions of the hopper, the degree of clogging of the product, and the characteristics, shape, moisture content, etc. of the powder, we recommend the model and number of units as shown in the table on the right as a rough guide for selecting a MugHammer. The selection criteria is to select the type of MagHammer based on the thickness of the hopper wall (t), and determine the number of MagHammer based on the size of the hopper (ϕ) . Since the impact force of the maghammer can be adjusted, it is best to choose a larger model.

Clogging and adhesion

By applying a strong momentary impact with a MugHammer, it is extremely effective in resolving various powder problems that occur in hoppers, chutes, piping, etc.





tmm ø m	1	2	3	4	5	6	7	8	9 or more
0.5									
0.8	0.5A x 1	type unit	1A ty	pe x 1	I unit	2A ty	/pe x	1 unit	3A type x 1 unit
1.0									
1.5		•							
2.0	0.5A x 2	type unit	1A ty	oe x 2	units	2A ty	pe x 2	units	3A type x 2 unit
2.5									
3.0				_					
3.5	0.5A x 3	type unit	1A ty	oe x 3	units	2A ty	pe x 3	units	3A type x 3 unit
4.0									
5.0									
6.0	0.5A × 4	type unit	1A ty	oe x 4	units	2A ty	pe x 4	units	3A type x 4 unit

MagHammer for the special environments

- ·High-temperature specifications (ambient temperature 100°C).
- Corrosion-resistant specifications (all made of SUS) .
- ·Direct impact type (piston protruding) .









■ Control panel

Model	#of controllable MagHammer by a controller	Construction	Input power	Operation	Impact force variable	
SB-1A	05A×3·1A×2 2A×1·3A×1	Indoor use and		Auto or remote Hits variable:1 to 10		
SB-2A	05A×6·1A×4 2A×2·3A×2			Pause variable:30 sec to 10 min	50~100%	
SN-1A	05A×3·1A×2 2A×1·3A×1	Control unit	50/60Hz3	Auto operation by	30.4100%	
SN-2A	05A×6·1A×4 2A×2·3A×2	without case		external signal:1 hit/1 sec		



Separate metals and non-metals

Electrostatic Corona Separator: ESCI

Purpose

- 1) Resin-coated foundry sand and aluminum chips
- ② Recovery of copper and aluminum in crushed products and minerals
- ③ Selection of zirconium,rutile,ilmenite,tungsten,etc. in minerals
- 4 Recovery of heavy metals from waste home appliances and waste OA equipment, sorting of resin and laminated metal

Conditions

- ① Applicable grain size of 0.1 to 5mm
- ② Humidity greatly affects separation efficiency, so an environment with humidity of 50% or less is desirable. It is necessary that the sorted items are dry.

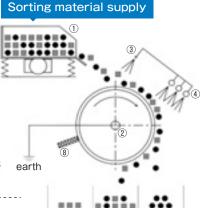
Principle

It is now possible to sort fine metals and non-metals!

Raw materials are fed evenly to the rotating drum connected to the earth ground. The raw materials then pass the electrostatic corona electrode to electric field to be charged. After electro charged, loose their charge based on their conductivity. Good conductive material separate remain attached to the drum's surface until rubber scrapers peel it off. Multiple stacks of separators will increase the effectivess.

- ① Feeder ② Drum ③ Corona electrode (needle-shaped)
- 4 Electric field electrode 5 Conductive materials
- 6 Non-conductive materials 7 Mixture 8 Rubber scraper





36

Light and convenient! For rapid pick up of small parts!

Hand magnet: G-2

Purpose

Scattered iron pieces and screws can be easily collected.

Features

- ① Durable Aluminum body.
- 2 Iron pieces can be attached and detached with one touch.
- ③ The weight is 1.7kg, which emphasizes ease of use.

Specification

Weight/1.7kg·Dimensions/W87×L140×H192mm





Easy to use! Just pull it out!

Magnetic Drum Sweepar: BS-1

Purpose

Collect scattered iron pieces and iron powder.

Features

The magnet has a double tube, If you pull it out, the iron piece will be removed instantly.

Specification

Weight/approx. 6kg/Effective width/342mm/Total width/496mm





Just pull

out!



Magnetic Sweeper: FS-1

Purpose

Easy installation to the forklift arm lend this unit to wide range of maneuvers for quick cleaning of parking lots, construction sites, manufacturing floors, roads and more.

Features

- 1) Strong magnetic force collects small iron pieces.
- ② Forklift covers wide range of cleaning area quickly.

Specification

- ① Dedicated platform.
- ② Modification to the customs design upon request.







Electromagnetic Positioner: Magposi

Purpose

This is a holding and fixing device for the final finishing of complex-shaped products such as cast and injection molded products.

Model	Content dimensions(mm)	weight (kg)
MP-4	400W×400L×100H	120
MP-7	700W×700L×100H	350



Specification

- Any shape can be firmly fixed with magnetized steel balls (φ0.1 to 3 mm).
- ② It can be easily held, fixed, and removed by turning the switch ON and OFF.

40

Can be used with all grinding machines!

Drum Coolant Separator

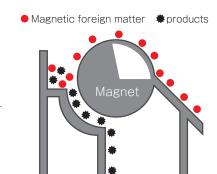
Purpose

Separation and cooling off of iron partickles from coolant oil grinder machine. Works perfectly with any type of coolant oil.

Specification

- ① Compact design and high perfomance.
- ② Magnetic drum mechanism.

Model	Throughput	Drum diameter	Drum width	Drum surface magnetic flux density (Gauss)	Weight(kg)
CSH-80	80	φ101.6	200	6,000	20
CSH-120	120	φ101.6	300	6,000	36
CSH-180	180	φ165	315	4,000	80
CSH-300	300	φ165	400	4,000	95
CSH-500	500	φ165	700	4,000	120





We also manufacture items other than those in the catalog. If you have any requests, please feel free to contact us!



Sample test information

We have a track record of testing a variety of samples, including food, chemicals, and recyclable waste.

We provide optimal sample tests based on our many years of experience.

Witness the test online can be arranged.





We have a variety of test machines and have created an environment where sample tests can be performed.

If you would like a sample test, please contact your nearest sales office.

Model Selection Guide

Tube Magnet, Grate Magnet, Strainer, Plate Magnet, etc.

Customer in	formation (pleas	e fill in the i	nformation be	low and co	ontact us	by fax or	e-mail)
Company Name							
Person in charge				Affiliated department			
Address	₹			1			
telephone number							
Email							
Raw mater	rial specificat	ons					
Contents (raw materials)		Particle Siz	ze	mm	Temperature		°C
Throughput	(t/h·n	Specific Gravity			Adhesion	□Yes	□No
Moisture (viscosity)	,	Angle of Repose		Degree	Iron content		
Equipment	: being consid	ered					
Model	☐ Tube Magnet ☐	Grate Magnet	☐ Strainer Magr	net 🗌 Plate	Magnet	Others	
Magnetic force (Tube Magnet)	□15000G □1400	00G □12000)G □11000G	□10000G	□3000G	□Extremely	small pitch
Magnetic force (Plate)	□4500G □150	0G □1000	00G(barrier stop)	□4000G(l	parrier stop)		
Material	□SUS304 □SU	IS316L □T	itanium □Othe	ers()	
Surface Finish	□Pickling □Bu	ffing(#) □Others	s()	
Connection size	□Flange(A) □Fei	rrule(;	S) □Othe	ers()
Double pipe	□Yes □No	Tube Magnet Quantity			nber of ages		Stages

Other specifications (please specify)

Model Selection Guide

Suspension Magnetic Separators / Drum Magnetic Separators / Aluminum Separators

formation (please fil	I in the in	forma	ation belo	ow and co	ontact us	by fax	or e-ma	ail)
				Affiliated department				
Ŧ								
				FAX number				
al specifications								
	Particle size			mm	Temperature			°C
(t/h·㎡)	Specific Gravity				Liquidity			□×
wt%	Iron content							
specifications								
mm	Belt speed			m/min	Tilt angle		Eve	ery time
Every time	Layer thickness			mm	others			
eing considered								
☐ Suspension (permanen	t magnetic)	□ Su	uspension (e	electromagne	tic) 🗌 Dru	ım (perm	anent mag	gnetic)
			Quantity					
relative	V	Hz				()
☐ Required ☐ N	ot required		Installation location					
	al specifications (t/h·m²) wt% specifications mm Every time being considered Suspension (permanent Aluminum Separator relative	al specifications Particle size (t/h·m') Specific Gravity wt% Iron content pecifications mm Belt speed Layer thickness peing considered Suspension (permanent magnetic) Aluminum Separator Others relative V	al specifications Particle size (t/h·m') Specific Gravity wt% Iron content specifications mm Belt speed Layer thickness seing considered Suspension (permanent magnetic) Aluminum Separator Others relative V Hz	Particle size (t/h·mi) Specific Gravity wt% Iron content pecifications Belt speed Layer thickness Layer thickness Considered Suspension (permanent magnetic) Aluminum Separator Others Quantity relative V Hz Installation Ins	Affiliated department T FAX number FAX number Particle size mm (t/h·m) Specific Gravity wt% Iron content wt% Iron content pecifications Belt speed m/min Every time Layer thickness mm Peing considered Suspension (permanent magnetic) Suspension (electromagne magnetism) Aluminum Separator Others Particle size mm Superifications Magnetic force (permanent magnetic) Suspension (electromagne magnetism) Magnetism Magnetism Installation Particle size mm Magnetic force (permanent magnetic) Suspension (electromagne magnetism) Magnetic force (permanent magnetism) Installation Installation	Affiliated department T FAX number Temperature mm Temperature Liquidity Liquidity Tilt angle pecifications Melt speed Layer thickness mm Others Peing considered Suspension (permanent magnetic) Aluminum Separator Others Quantity Regardit force (permanent magnetic) Suspension (electromagnetic) Drugenament magnetic) Drugenament magnetic) Installation Installation	Affiliated department FAX number Itemperature Liquidity Iron content Magnetic force [permanent magnetic] Aluminum Separator Others Ouantity Installation Affiliated department FAX number Temperature Liquidity Itemperature Liquidity Ouantity Aluminum Separator Others Ouantity Installation Installation	FAX number FAX

Other specifications (please specify)

Model Selection Guide

Suspension Magnetic Separators / Drum Magnetic Separators / Aluminum Separators

Customer information (please fill in the information below and contact us by fax or e-mail) Company Name Affiliated Person in charge department ₹ Address FAX number Telephone number Email Raw material specifications Contents (raw materials) Remarks Specific gravity particle size Liquidity □good □usually □bad Moisture content Temperature Adhesion □good □usually □bad $^{\circ}$ C **Equipment specifications** Installation situation ☐Newly established □Existing Dimension table *If attached, please enter the attachment position. Installation) Shoot □Other(Hopper location В) Round □Square □Other(Shape Plate thickness) mm **★**A(**★**B() \square SS □SUS □Other() Material C(Inner lining ■Nothing ☐Yes(specifically)) ★D() **★**E() □Bridge □ Arching □Rat holes ★F(Clogging situation □Adhesion □Other() □Stuck □ At the start of discharge □ During discharge Clogging time D □Nothing □Yes(☐SS hammer Current workaround

Remarks

Installation

location

Environment

Ambient temperature

Power supply

□Plastic hammer(

☐ High temperature

□Outdoor

phase

□Indoor

٧

kg

□Lots of dust

lb)

 $^{\circ}$

□Hopper

Piping wall thickness(Piping length(

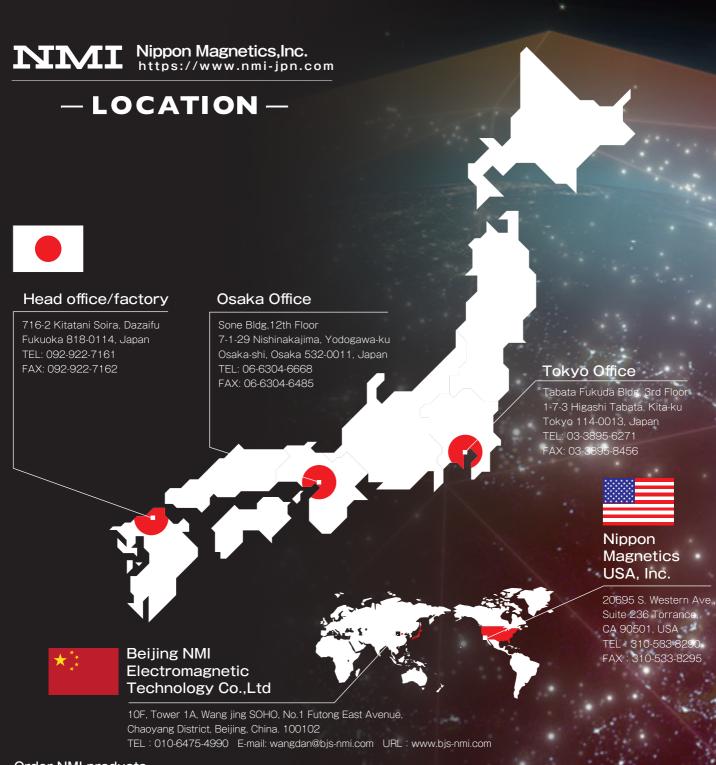
Size(

□Shoot

*Please enter details in the notes section.
★: Please fill in as much information as possible.

□Piping

)



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