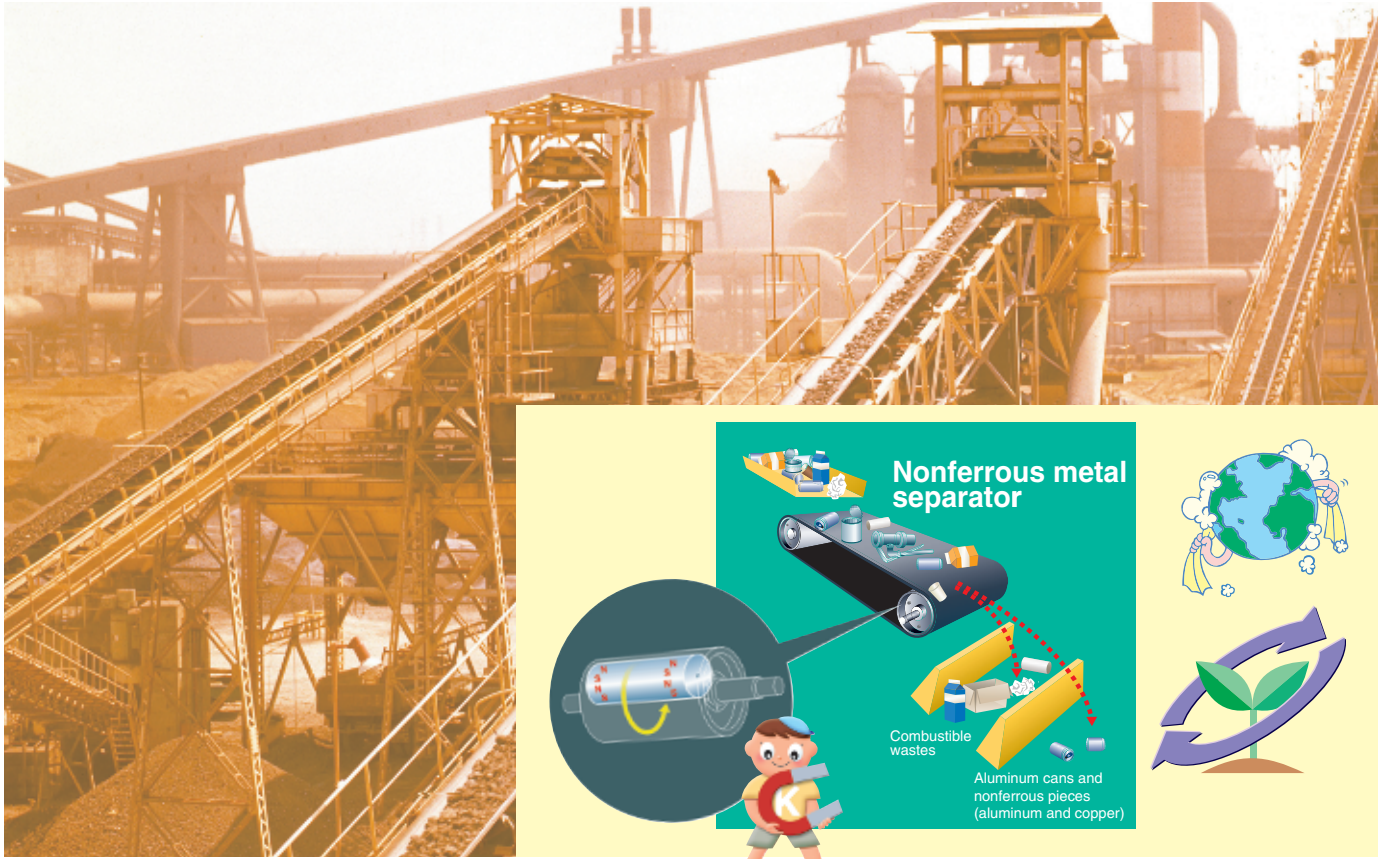


MAGNETIC SEPARATORS



Compliance with the Energy Conservation Act in Japan
 In compliance with the Revised Energy Conservation Act in Japan, all of the motors of 0.75 kW or over employed in KANETEC products are IE3 premium motors.

Types of magnetic separators

Type	Product Name	Model	Features
Eccentric pole	Nonferrous metal separator	BMR	Assists recycling by separating and collecting shredded dust.
Aluminum separation	Conveyor type aluminum separator	MES	Assists recycling by separating crushed wastes and hand-sorted wastes.
Suspension	Suspended electromagnetic separator	BST	Natural discharge type and continuous operation.
	Suspended permanent magnetic separator	SPM	Energy saving and auto discharge type for shallow conveyors.
	Round electromagnet for iron removal	HEM-C	Natural air cooling and enclosed type for less mixture of iron pieces.
	Suspended electromagnet for iron removal	HEM-BS	Oil cooled. Suitable for a small amount of mixed iron pieces.
	Suspended plate magnet	KPMD KPMJ	Larger attractive force than KPMF. Powerful type having larger attractive force than KPMD.
Plate	Plate magnet	KPMF	Chute-mounted type with stainless steel surface.
		KPMT	Chute-mounted type. Attracted iron pieces held firmly.
Tubular	Tubular separator	CPM	Removal of iron pieces during transfer of bulk materials in a pipe.
Small	Magnetic bar	KGM <small>Round, rectangular</small>	Capable of being incorporated in any place.
	Grid type magnet	KGM/KGM-C	Collection of small iron pieces mixed in small amount. Installed at hopper outlet or in duct.
Pulley	Electromagnetic pulley	KER	Usable as a conveyor head pulley. For large diameter pulleys, an electromagnetic type is more effective.
	Permanent magnetic pulley	KPR	Usable as a conveyor head pulley. High iron removal rate.
Drum	Barrel separator	KBS	Barrel polishing.
	Drum separator	KDS	Casing provided for easy installation.
	Large permanent magnetic drum	KPDL	Works well for large iron pieces and a large amount of iron pieces to collect.
	Permanent magnetic drum	KPD	Most suitable for removing iron from granular materials and can be incorporated in equipment.
High magnetic force electromagnetic	Induction type high magnetic force separator	KID-R	Removal of weak magnetic granular materials. 2.6 T (26 kg) max.
	Cross belt type high magnetic force separator	KID-B	For small capacity. Less mixture of raw materials in removed iron.
	Induction type separator	KID	Suitable for removing iron from casting sand.
	Electromagnetic filter	KIF	Suitable for removing iron from fine materials (powder).
High-speed drum	High-speed drum separator	KHDS	High grade sorting and collection of magnetic substances.

MAGNETIC TOOLS & EQUIPMENT
FORMING OPERATION

LIFTING
MAGNET

MAGBORE*

CHIP & SLUDGE
CONVEYANCE EQUIPMENT

ENVIRONMENTAL
EQUIPMENT

MAGNETIZER AND
DEMAGNETIZER

MAGNETIC EQUIPMENT
FOR CONVEYANCE

MAGNETIC
SEPARATORS

POWERFUL MAGNETIC
SEPARATORS

MEASURING
TOOLS

MEASURING
INSTRUMENTS

MAGNETIC
MATERIALS

MAGNETIC SEPARATORS

Examples of application of magnetic separators in various fields

Removal of iron from various kinds of raw materials and semi-finished products and collection of iron powder are called magnetic separation. KANETEC offers a wide variety of magnetic separators for use with lump materials, granular materials, clay-like materials and liquids.

Examples of usage in various fields

Steel making and mining	Separation of steel materials and collection of iron in residues.
Machine, press, plant	Processing of scraps and collection of flux.
Food, candy, can making	Removal of iron from raw materials and foreign matter in manufacturing processes.
Pulp, paper, stone crushing	Removal of iron from raw materials and protection of crushers.
Chemicals	Removal of iron from raw materials and waste liquid.
Casting and nonferrous	Removal of iron from casting sand and chips.
Sand and cement	
Feed and fertilizer	Removal of iron from raw materials and mixed machined parts.
Textile and fabric	
Sugar, salt and cigarettes	Removal of iron from raw materials.

Selection of magnetic separators and notes for inquiry

A magnetic separator to select must be suitable for the purpose of use and have a sufficient capacity. To select such a most suitable separator, when inquiring about separators, conditions such as the purpose of use and properties of materials need to be informed, as detailed below:

- Purpose (improving the grade, collecting useful magnetic substances, etc.)
- Kind, composition and components of raw materials
- Grain size of raw materials (□□ mm - □□ mm, □□ mesh - □□ mesh)
- Water content, raw material temperature
- Apparent specific gravity (bulk density)
- Kind, shape and grain size of mixed magnetic substances
- Amount of raw materials to process per hour (kg/h, m³/h)
- Amount and ratio of mixed magnetic substances
- Other special conditions



Tests of separating samples available.

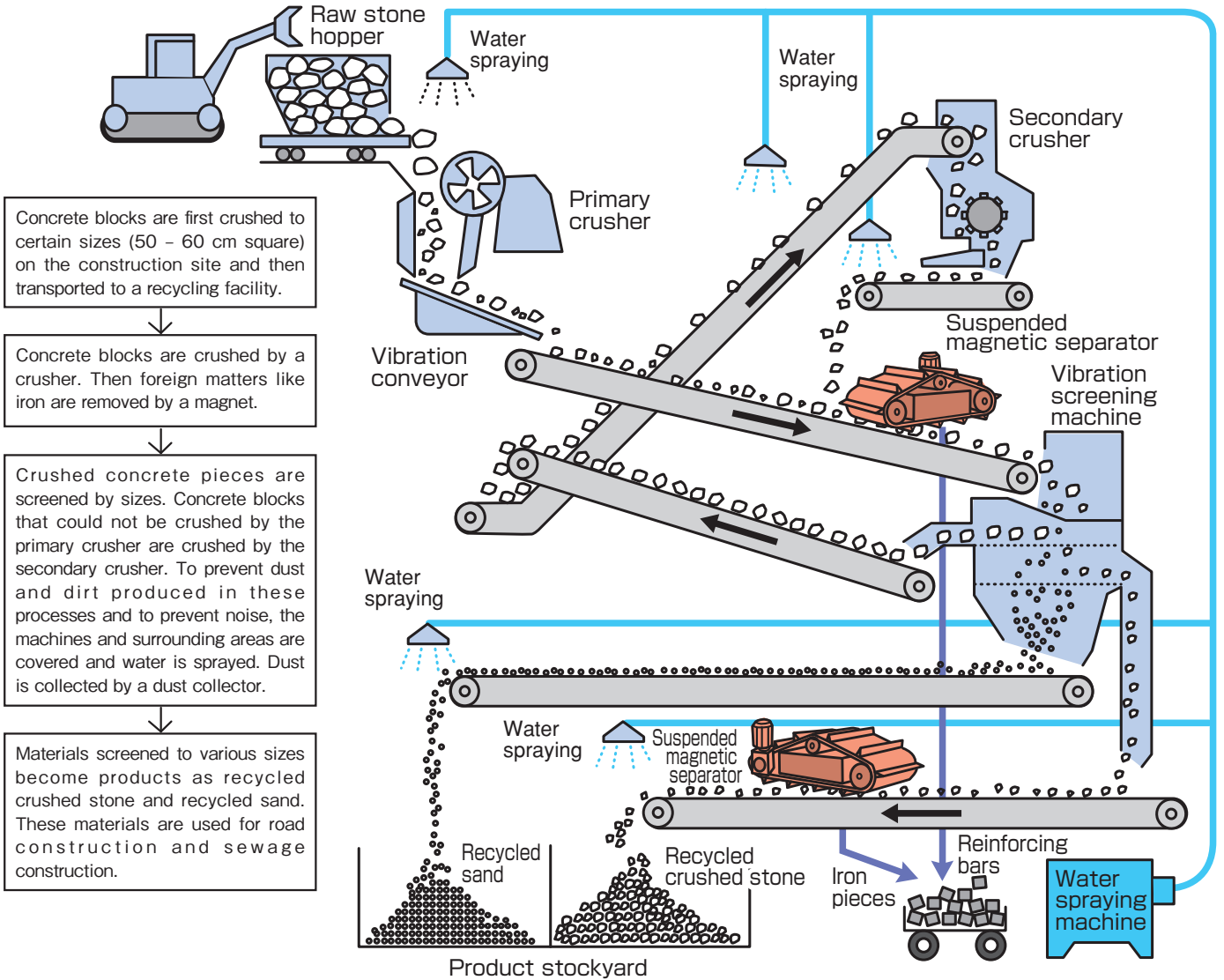
Please contact your nearest KANETEC sales office. Then we will do separation tests and model selection for you.

※ Please use the Facsimile Communication Form (Selection Data) on page 174 and page 175 to select the best separator.

Separation on conveyor (dry)	Separation by magnetic drum (dry)	Separation by suspended separator (dry)
<ul style="list-style-type: none"> ● A magnetic pulley is used. ● A magnet is suspended over the conveyor. ● A plate magnet is installed on the discharge side of a conveyor. ● A grid type magnet is installed on the discharge side of a conveyor. ● A comb type magnet is installed on the conveyor. <p>Listed on pages 135, 136, 138 & 143.</p>	<ul style="list-style-type: none"> ● A magnetic drum is installed at the bottom of the hopper chute. ● A magnetic drum is installed at the exit of a vibrator feeder. ● A magnetic drum is installed on the discharge side of a conveyor. ● A magnetic drum is installed at the raw material exit. <p>Listed on pages 137 & 139.</p>	<p>To automatically remove iron pieces, bolts and nuts on a conveyor, a suspended magnetic separator is installed to attract and remove iron pieces.</p> <p>For fully automatic removal and discharge: BST, SPM, etc.</p> <p>For automatic removal and manual discharge: HEM-BS, HEM-C, KPMJ, KPMD, etc.</p> <p>Listed on pages 133 & 134.</p>
Separation in fluid (wet)	High magnetic force separator (dry)	Nonferrous metal separator
<p>A coolant separator (removal of iron particles in grinding fluid, waste oil, cooling oil), drum separator (collection of iron ores and iron sand materials) or plate magnet (removal of iron particles deposited in oil tanks) is used.</p> <p>Listed on pages 111, 112, 113, 142 & 143.</p>	<p>A magnetic separator generating a high magnetic force of 2.6 T (26000 G). Used for weak magnetic substances that cannot be removed sufficiently by a standard separator.</p> <p>Listed on pages 139, 140 & 141.</p>	<p>Aluminum items can be sorted and separated from noncombustible wastes and large crushed wastes efficiently. A permanent magnet is used as a source of magnetic field for sorting, which is rotated at high speed to cause eddy current to sort materials.</p> <p>Listed on pages 131 & 132.</p>

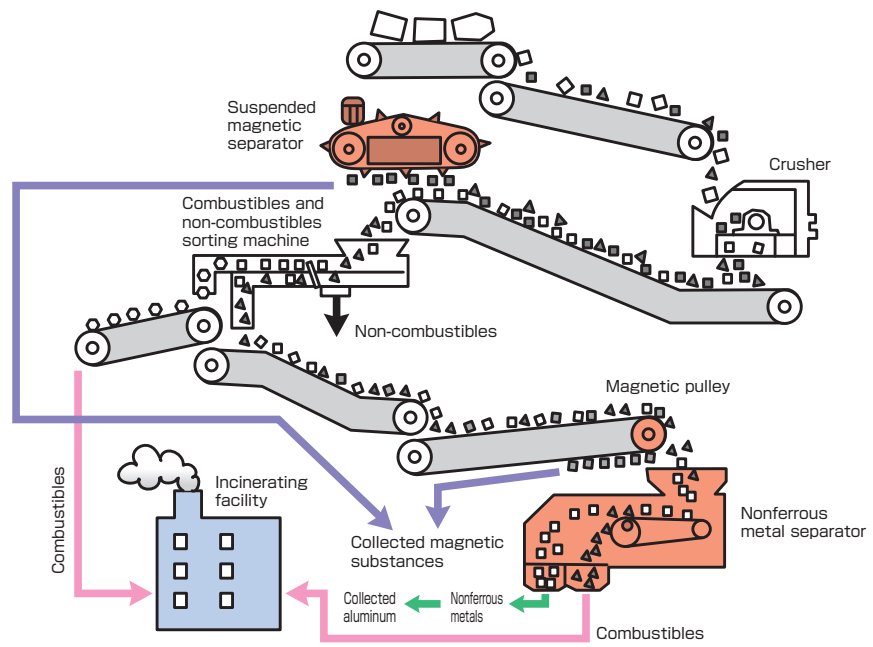
All data in this catalog is based on the Measurement Act in Japan and KANETEC has standardized the indication of the magnetic flux density in the units of mT and T: 0.1 mT = 1 G 1 mT = 10 G 1 T = 10000 G

Construction Scrap Materials Recycling System



MAGNETIC TOOLS & EQUIPMENT : FORMING OPERATION
 LIFTING : MAGNET
 MAGBORE*
 MAGNETIC EQUIPMENT : CHIP & SLUDGE CONVEYANCE EQUIPMENT
 MAGNETIZER AND : ENVIRONMENTAL EQUIPMENT
 MAGNETIC EQUIPMENT : FOR CONVEYANCE
 MAGNETIC SEPARATORS

Non-Industrial Large Recyclable Wastes Processing System



POWERFUL MAGNETIC SEPARATORS
 MEASURING : TOOLS
 MEASURING : INSTRUMENTS
 MAGNETIC MATERIALS

Limited natural resources to the future... Supporting recycling operations.

Environmentally friendly

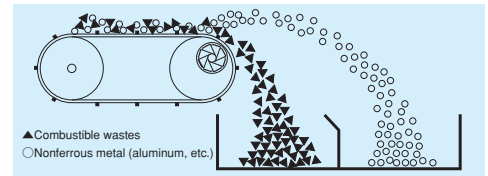
Removing iron in wood-processing plants for biomass power generation also!



The eccentric magnet structure and consistent high-speed rotation separates and collects copper and brass as well as aluminum efficiently!



BMR-C50A



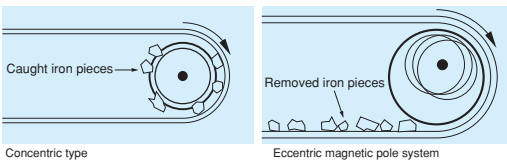
■ Eccentric magnetic pole system that has a high separating capacity and prevents crushed pieces from getting caught

Separation of nonferrous metals is achieved when a high velocity AC frequency of the magnetic field produces a strong "eddy current" in nonferrous metals, which in turn produces a magnetic field having repulsive action against the external magnetic field. This system employs an eccentric pole system to completely separate nonferrous metals from other materials. This system can prevent finely shredded or crushed nonferrous metal pieces from getting caught by the belt or drum shell and if they get caught in a gap between the belt and the shell, they are forced to move to a place where no magnetic field exists and thus can be removed easily. (See the figures on the left side.)

There is no fear of trouble from the system point of view. No cases of failures have been reported when the system has been used for car shredding, which is considered to be one of the severest conditions of use.

■ All models employ the IE3 motors!

The top runner motors in compliance with the Energy Conversation Act in Japan are used.



OD $\phi 350$ mm type introduced for possible replacement of the rotating unit in existing machines!

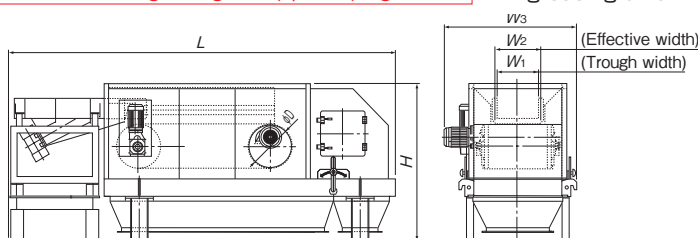
[Features]

- Highly efficient separation and collection!
The consistent high-speed rotation of 2500 rpm and the surface magnetic flux density over 380 mT max. ensures collection of nonferrous metals such as copper and brass as well as aluminum.
- Eccentric magnetic structure employed!
This structure prevents iron pieces and other foreign matter from getting caught, which helps prolong the service life of the drum shells and belts.
- Maintainability improved!
KANETEC's original construction has improved the maintainability around the bearing. The maintenance time such as periodic inspection can be shortened and the line stop time can be reduced.



Automatic greasing unit

Maintainability can be improved further by using the "automatic greasing unit" (optional) together.



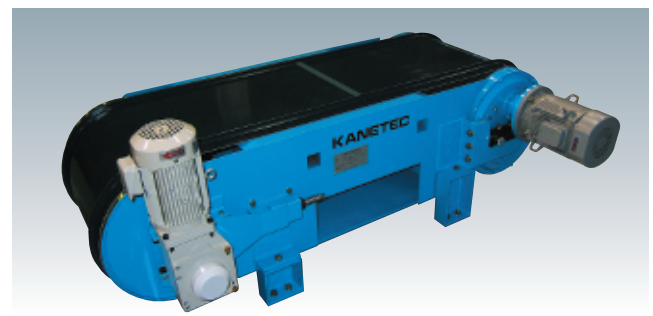
<External view of BMR-C with casing>

[Application]

Suitable for separation of nonferrous metals from small pieces shredded by car shredders, electronic equipment wastes, waste slugs, waste glass (cullet), batteries, etc.

<Other applications>

- Molding sand for aluminum casting and nonferrous metal casting.
 - Refrigerators, washing machines and other scrapped appliances.
 - Screening of aluminum from bulky refuses and recyclable wastes.
 - Separation of aluminum from plastics such as plastic bottles and screw tops.
 - Screening of aluminum from sludge discharged from fluidized beds.
- ※ This system is installed not only in wastes processing plants, materials feeders and materials discharge machines with adjust splitter, but also as part of plants such as nonferrous metal separators.



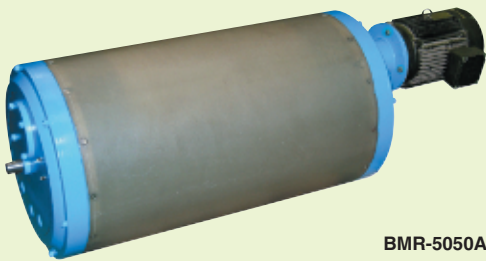
BMR-C50-S Special specification

BMR with casing

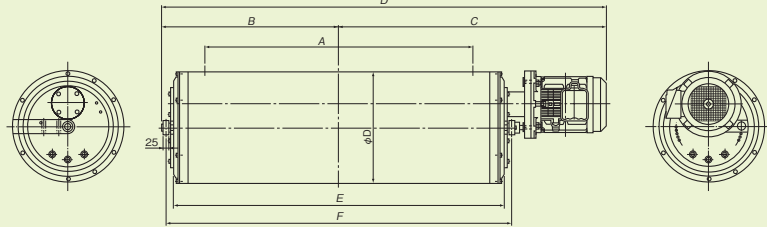
[mm (in)]

Model	Dimensions						Rotation Motor	Conveyor Motor	Feeder Motor	Mass
	W ₁	W ₂	W ₃	L	H	φD				
BMR-C350A	450 (17.7)	500 (19.6)	1420 (55.9)	4120 (162)	1400 (55.1)	φ350 (13.7)	2.2kW	1.5kW	0.5kW × 2	2000kg/4409 lb
BMR-C375A	700 (27.5)	750 (29.5)	1670 (65.7)	4270 (168)						2350kg/5180 lb
BMR-C3100A	950 (37.4)	1000 (39.4)	1920 (75.5)	4440 (174)						2850kg/6283 lb
BMR-C50A	450 (17.7)	500 (19.6)	1485 (58.4)	4375 (172)	1760 (69.2)	φ494 (19.4)	3.7kW	2.2kW	1.96kW × 2	2400kg/5292 lb
BMR-C75A	700 (27.5)	750 (29.5)	1735 (68.3)	4525 (178)						2800kg/6174 lb
BMR-C100A	950 (37.4)	1000 (39.4)	1000 (39.4)	5445 (214)						3400kg/7497 lb
BMR-C125A	1200 (47.2)	1250 (49.2)	1250 (49.2)	5410 (212)						4100kg/9040 lb
BMR-C150A	1450 (57.0)	1500 (59.0)	1500 (59.0)	5435 (213)	4300kg/9481 lb					

**Magnetic rotating units are available individually!
Magnets in existing lines may be replaced for upgrading!**



BMR-5050A



<BMR rotating unit>

BMR rotating unit only

[mm (in)]

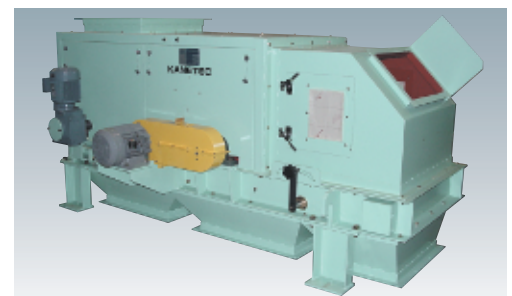
Model	Drive Motor	Dimensions						φD	Mass	Standard Accessory
		A	B	C	D	E	F			
BMR-3550A	2.2kW	500 (19.6)	482 (18.9)	805 (31.6)	1287 (50.6)	770 (30.3)	842 (33.1)	φ350 (13.7)	Approx. 220kg/ 485 lb	-Motor -Coupling -Mounting bracket
BMR-3575A		750 (29.5)	607 (23.8)	930 (36.6)	1537 (60.5)	1020 (40.1)	1092 (42.9)		Approx. 260kg/ 573 lb	
BMR-35100A		1000 (39.4)	732 (28.8)	1055 (41.5)	1787 (70.3)	1270 (50.0)	1342 (52.8)		Approx. 300kg/ 661 lb	
BMR-5050A	3.7kW	500 (19.6)	453 (17.8)	823 (32.4)	1276 (50.2)	795 (31.2)	867 (34.1)	φ494 (19.4)	Approx. 500kg/1102 lb	
BMR-5075A		750 (29.5)	578 (22.7)	974 (38.3)	1552 (61.1)	1045 (41.1)	1117 (43.9)		Approx. 650kg/1433 lb	
BMR-50100A		1000 (39.4)	703 (27.6)	1099 (43.2)	1802 (70.9)	1295 (50.9)	1367 (53.8)		Approx. 800kg/1763 lb	
BMR-50125A	5.5kW	1250 (49.2)	828 (32.5)	1253 (49.3)	2081 (81.9)	1545 (60.8)	1617 (63.6)	φ494 (19.4)	Approx. 970kg/2138 lb	
BMR-50150A		1500 (59.0)	953 (37.5)	1374 (54.0)	2326 (91.5)	1795 (70.6)	1867 (73.5)		Approx. 1120kg/2469 lb	

A type (concentric type) dedicated to collection of aluminum cans available also!

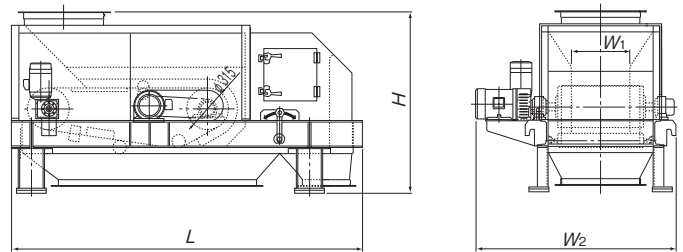


Most suitable for collect cylindrical cans.

MES-J



MES-J345-S Special specification



<External view of aluminum separator>

Types dedicated to collection of aluminum cans

[mm (in)]

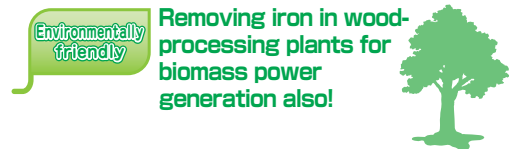
Model	Dimensions				Rotation Motor	Conveyor Motor	Mass
	W ₁	W ₂	L	H			
MES-J345A	450 (17.7)	1510 (59.4)	2650 (104)	1375 (54.1)	3.7kW	1.5kW	1300kg/2866 lb
MES-J360A	600 (23.6)	1660 (65.3)			1450kg/3197 lb		
MES-J390A	900 (35.4)	2010 (79.1)			1700kg/3748 lb		

MAGNETIC TOOLS & EQUIPMENT : FORMING OPERATION
LIFTING : MAGNET
MAGBORE :
MAGNETIC EQUIPMENT : CONVEYANCE EQUIPMENT
CHIP & SLUDGE : CONVEYANCE EQUIPMENT
ENVIRONMENTAL : EQUIPMENT
MAGNETIZER AND : MAGNETIZER AND : DEMAGNETIZER
MAGNETIC EQUIPMENT : FOR CONVEYANCE
MAGNETIC SEPARATORS
POWERFUL MAGNETIC SEPARATORS
MEASURING : TOOLS
MEASURING : INSTRUMENTS
MAGNETIC MATERIALS

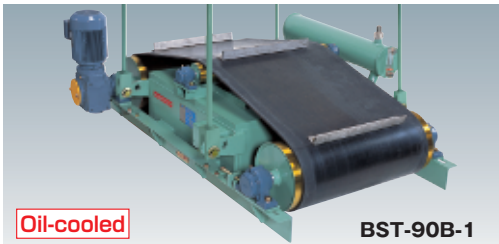
MAGNETIC SEPARATORS

Model **BST** SUSPENDED ELECTROMAGNETIC SEPARATOR

“Air-cooled type” that uses no cooling oil to reduce environmental burden added to “BST Series” !

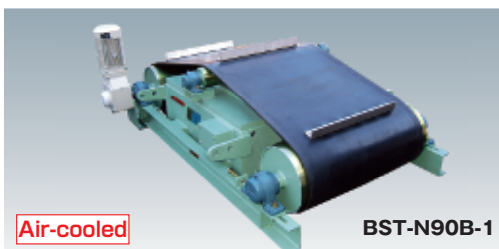


Fully automatic discharge



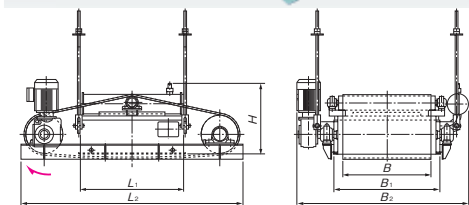
Oil-cooled

BST-90B-1

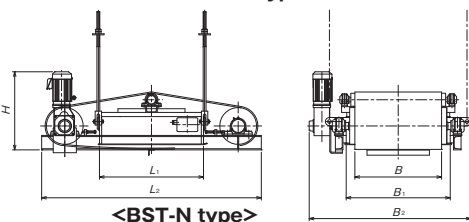


Air-cooled

BST-N90B-1



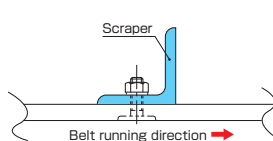
<BST type>



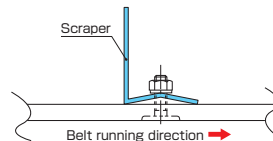
<BST-N type>

Different shapes of scrapers according to models.

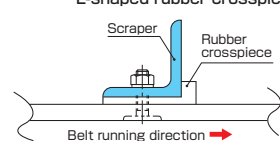
Model: BST-**-B-1/BST-N**-B-1
Shape: Angle scraper



Model: BST-**-B-2/BST-N**-B-2
Shape: Scraper with folded SUS plate



Model: BST-**-B-3/BST-N**-B-3
Shape: Angle scraper with L-shaped rubber crosspiece



3 sizes added for selection of more suitable types!

Model		Conveyor Belt Width		Conveyor Installation Length	Belt Width		Overall Dimensions				Power Consumption		Mass		Applicable Control Unit			
		Cross suspension	Parallel suspension		B	L ₁	B ₂		H		Electromagnet*		Drive motor	Standard		Air-cooled		
Standard (BST)	Air-cooled (BST-N)						Standard	Air-cooled	Standard	Air-cooled	L ₁	B ₁	Standard	Air-cooled				
BST-65B-1.2.3	BST-N65B-1.2.3	450 (17.7) - 650 (25.5)	300 (11.8) - 450 (17.7)	150 (5.90) - 200 (7.87)	450 (17.7)	1640 (64.5)	1170 (46.0)	1095 (43.1)	610 (24.0)	620 (24.4)	650 (25.5)	625 (25.5)	1.5kW	1.29kW	1.5kW	680kg / 1499 lb	625kg / 1377 lb	BSTR-65I
BST-80B-1.2.3	BST-N80B-1.2.3	600 (23.6) - 800 (31.5)	450 (17.7) - 600 (23.6)	150 (5.90) - 250 (9.84)	600 (23.6)	1790 (70.4)	1320 (51.9)	1245 (49.0)	585 (23.0)	675 (26.5)	800 (31.5)	800 (31.5)	2.4kW	1.97kW	1.5kW	970kg / 2138 lb	930kg / 2050 lb	BSTR-80I
BST-90B-1.2.3	BST-N90B-1.2.3	700 (27.5) - 900 (35.4)	600 (23.6) - 750 (29.5)	200 (7.87) - 300 (11.8)	750 (29.5)	1900 (74.8)	1500 (59.0)	1400 (55.1)	645 (25.3)	675 (26.5)	900 (35.4)	900 (35.4)	3.1kW	2.25kW	1.5kW	1370kg / 3020 lb	1310kg / 2888 lb	BSTR-90I
BST-100B-1.2.3	BST-N100B-1.2.3	800 (31.5) - 1000 (39.4)	750 (29.5) - 900 (35.4)	250 (9.84) - 350 (13.7)	900 (35.4)	2250 (88.5)	1720 (67.7)	1565 (61.6)	825 (32.4)	710 (27.9)	1000 (39.4)	1000 (39.4)	4.0kW	3.22kW	2.2kW	2070kg / 4564 lb	1930kg / 4254 lb	BSTR-100I
BST-105B-1.2.3	BST-N105B-1.2.3	950 (37.4) - 1050 (41.3)	750 (29.5) - 950 (37.4)	250 (9.84) - 350 (13.7)	950 (37.4)	2300 (90.5)			825 (32.4)		1050 (41.3)	1050 (41.3)	4.66kW	3.73kW	2.2kW	5732 lb	5711 lb	BSTR-105I
BST-115B-1.2.3	BST-N115B-1.2.3	950 (37.4) - 1150 (45.2)	850 (33.4) - 1050 (41.3)	300 (11.8) - 350 (13.7)	1050 (41.3)	2400 (94.4)	1865 (73.4)	1715 (67.5)	820 (32.2)		1150 (45.2)	1150 (45.2)	5.2kW	4.25kW		3100kg / 6834 lb	3080kg / 6790 lb	BSTR-115I
BST-120B-1.2.3	BST-N120B-1.2.3	1050 (41.3) - 1200 (47.2)	950 (37.4) - 1050 (41.3)	300 (11.8) - 350 (13.7)	1200 (47.2)	2450 (96.4)			875 (34.4)		1200 (47.2)	1200 (47.2)	5.58kW	4.5kW		3400kg / 7495 lb	3360kg / 7407 lb	BSTR-120I
BST-130B-1.2.3	BST-N130B-1.2.3	1100 (43.3) - 1300 (51.1)	1000 (39.4) - 1200 (47.2)	300 (11.8) - 400 (15.7)	1200 (47.2)	2800 (110)	2150 (84.6)	1965 (77.3)	910 (35.8)	840 (33.0)	1300 (51.1)	1300 (51.1)	6.6kW	5.36kW		4500kg / 9921 lb	4400kg / 9700 lb	BSTR-130I
BST-140B-1.2.3	BST-N140B-1.2.3	1300 (51.1) - 1400 (55.1)	1100 (43.3) - 1300 (51.1)	300 (11.8) - 400 (15.7)	1400 (55.1)	2900 (114)	2350 (92.5)	2165 (85.2)	835 (32.8)	845 (33.2)	1400 (55.1)	1400 (55.1)	7.48kW	6.09kW	3.7kW	5200kg / 11464 lb	5200kg / 11464 lb	BSTR-140I
BST-150B-1.2.3	BST-N150B-1.2.3	1300 (51.1) - 1500 (59.0)	1200 (47.2) - 1400 (55.1)	300 (11.8) - 450 (17.7)	1500 (59.0)	3000 (118)			805 (31.6)		1500 (59.0)	1500 (59.0)	8.7kW	6.98kW		5500kg / 12125 lb	5390kg / 11882 lb	BSTR-150I
BST-170B-1.2.3	BST-N170B-1.2.3	1500 (59.0) - 1700 (66.9)	1400 (55.1) - 1600 (62.9)	400 (15.7) - 550 (21.6)	1600 (62.9)	3200 (126)	2570 (101.2)	2385 (93.8)	865 (34.0)	907 (35.7)	1700 (66.9)	1700 (66.9)	10.4kW	8.1kW	5.5kW	7500kg / 16535 lb	7350kg / 16203 lb	BSTR-170I

*A type that uses permanent magnets together is also available. **A type with a dustproof cover is also available.
 **For overhead pulley suspension (parallel suspension), suspension fixtures need to be changed partially. *The electromagnet power consumption is based on 200 VAC (50 Hz).
 **The belt conveyor width for each model is for reference only. As the model to be selected can be different depending on the flow width and volume of objects to process, please consult with us.

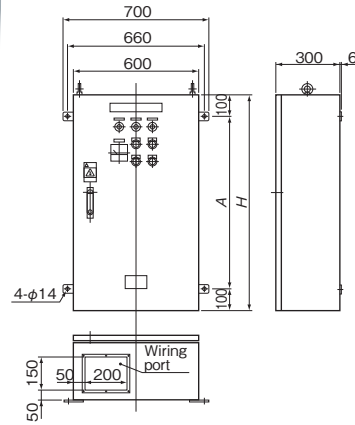
Model **BSTR** CONTROL UNIT

Indoor type

A new compact type; one third of the volume of the conventional unit! Space saving and wall mountable!



BSTR-90i



Model	Power Source	Electromagnet Output	Drive Motor Output	Dimensions [mm (in)]		Construction	Mass				
				H	A						
BSTR-65i	*1 200 VAC 50/60Hz 3φ	90 VDC 1.5kW	200VAC1.5kW	1000 (39.4)	800 (31.5)	*2 Indoor, dustproof, wall mounttype	Approx. 70 kg/154 lb				
BSTR-80i		90 VDC 2.4kW									
BSTR-90i		90 VDC 3.1kW									
BSTR-100i		180 VDC 4.0kW	200VAC2.2kW								
BSTR-105i		180 VDC 4.7kW									
BSTR-115i		180 VDC 5.2kW									
BSTR-120i		180 VDC 5.6kW	200VAC3.7kW								
BSTR-130i		270 VDC 6.6kW									
BSTR-140i		180 VDC 7.5kW									
BSTR-150i		270 VDC 8.7kW									
BSTR-170i		180 VDC 10.4kW	200VAC5.5kW					1200 (47.2)	1000 (39.4)		Approx. 90kg/198 lb

*1: A power source of 220 VAC, 60 Hz, 3φ can also be used.
*2 The outdoor type has partially different specifications.

Exchanging of electromagnet cooling oil
Models and required amount of oil

Model	Amount(L)	Model	Amount(L)	Model	Amount(L)
BST- 65B	80	BST-105B	225	BST-140B	345
BST- 80B	100	BST-115B	265	BST- 150B	450
BST- 90B	120	BST- 120B	345	BST- 170B	570
BST-100B	235	BST- 130B	415		

※Exchange oil once every five years. (The frequency varies slightly depending on models and run hours.)
As for special models, the amount depends on sizes of electromagnets. (Increased)

Types of cooling oil
(JIS C2320 Electrical Insulating Oils Type 1, No. 2, No. 4)

※The values are JIS Standard values.

Property	Total Acid Number (mgKOH/g)	Flashing Point (PM) °C	Specific Gravity 15/4°C	Breakdown Voltage (KV)
Manufacture (Brand)				
Idemitsu Kosan (Transformer Oil G)	0.02 max.	130 min.	0.91 max.	30 min.
Showa Shell Sekiyu (Shell Transformer Oil A)				
JX Nippon Oil & Energy Corp. (High Voltage Insulating Oil K)				

※Cooling oil used by KANETEC; Idemitsu Kosan Transformer Oil G

※By using a cooling oil having a high flashing point, it is possible to offer a product that is excluded from the dangerous goods stipulated in the Fire Services Act in Japan.

Model **SPM** SUSPENDED PERMANENT MAGNETIC SEPARATOR

Fully automatic discharge type

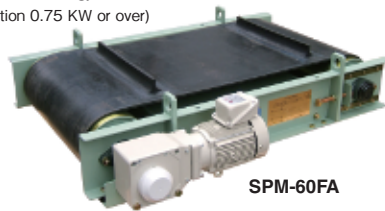
Environmentally friendly

Removing iron in wood-processing plants for biomass power generation also!

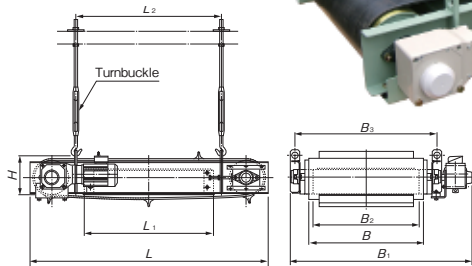


All models employ the IE3 motors!

The top runner motors in compliance with the Energy Conservation Act in Japan are used. (Power consumption 0.75 kW or over)



SPM-60FA



※The shape of the suspending bracket is different among SPM-100FA, 120FA, 65120A - 65160A.

The suspended permanent magnetic separator employs a fully automatic discharge system by using a powerful permanent magnet. The operating method is similar to that of the suspended electromagnet separator. This model is suitable for removing iron from relatively thin layer of materials on a belt conveyor.

[Application]

Suitable for removing iron from raw materials used in the food industry, chemical industry and various other industries, and can also be installed in wastes sorting systems to remove iron. This model is also suitable for removing iron in operations of industrial wastes sorting systems.

[Features]

- Permanent magnet type, requiring no DC power source.
- Simple but robust construction for easy maintenance.
- The weather resistant construction allows this separator to be easily installed on existing outdoor conveyors.
- The permanent magnet system requires minimal maintenance cost.
- Usable for wide-belt conveyors and special designs of interface of discharge chutes. (Long type SPM-65120A - 65160A)
- A powerful type is also available.
- An overhead pulley suspension (parallel suspension) type is also available. (Special fabrication)
- An optional intrusion preventing plate is also available.
- The motor breaker is optionally available for simple motor ON/OFF operation and prevention of burn due to motor overloading. (The breaker is available individually.)

Model	Conveyor Belt Width (*1)		Conveyor Installation Length	Belt Width		Overall Dimensions					Magnet Size	Power Consumption Drive motor	Mass
	Cross suspension	Parallel suspension (*2)		B	L	B ₁	H	L _s	B _s	L ₁			
SPM-30F	-	400(15.7)	90(3.54)-130(5.11)	300(11.8)	1000(39.4)	677(36.6)	248(9.76)	440(17.3)	470(18.5)	400(15.7)	250(9.84)	0.4 kW	170kg/ 374lb
SPM-40F	300(11.8)	500(19.6)	100(3.93)-150(5.90)	400(15.7)	1100(43.3)	777(30.6)		540(21.2)	570(22.4)	500(19.6)	350(13.7)		270kg/ 595lb
SPM-60FA	500(19.6)	650(25.5)	150(5.90)-200(7.87)	600(23.6)	1270(50.0)	1015(39.9)	242(9.52)	700(27.5)	770(30.3)	650(25.5)	490(19.2)	0.75kW	390kg/ 859lb
SPM-80FA	650(25.5)	800(31.5)	200(7.87)-250(9.84)	700(27.5)	1470(57.8)	1115(43.9)		900(35.4)	870(34.2)	800(31.5)	650(25.5)		610kg/1344lb
SPM-100FA	800(31.5)	1000(39.4)		900(35.4)	1900(74.8)	1435(56.5)	312(12.2)	1100(43.3)	1170(46.0)	1000(39.4)	800(31.5)	1.5 kW	1150kg/2535lb
SPM-120FA	1100(43.3)	1300(51.1)		1050(41.3)	2200(86.6)	1605(63.1)		1400(55.1)	1320(51.9)	1300(51.1)	950(37.4)		1600kg/3527lb
SPM-65120A	-	1050(41.3)			1870(73.6)			1000(39.4)		1200(47.2)		880kg/1940lb	
SPM-65140A	-	1200(47.2)		700(27.5)	2070(81.5)	1147(45.1)	258(10.1)	1200(47.2)	890(35.0)	1400(55.1)	650(25.5)	990kg/2182lb	
SPM-65160A	-	1400(55.1)			2270(89.3)			1400(55.1)		1600(62.9)		1100kg/2425lb	

※The outdoor specification is the standard.

(*1) The belt conveyor width for each model is for reference only. As the model to be selected can be different depending on the flow width and volume of objects to process, please consult with us.

(*2) The parallel suspension specification is optional.

MAGNETIC TOOLS & EQUIPMENT
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MAGNETIC
MATERIALS

MAGNETIC SEPARATORS

Model HEM-C ROUND ELECTROMAGNET FOR IRON REMOVAL

Air-cooled



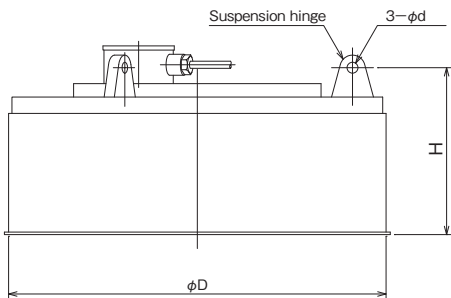
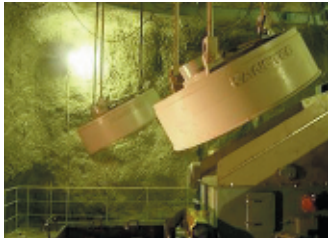
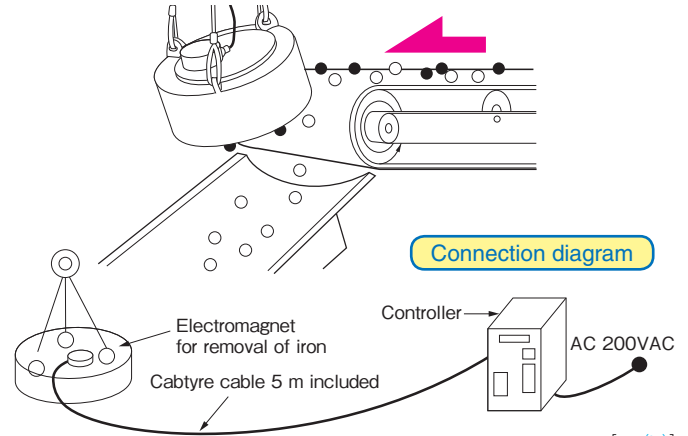
HEM-70C

[Application]

The standard suspended electromagnet designed for removing iron from substances on conveyors. This model is suitable for removing iron from ores and various materials (glass, ceramics, sugar, paper, chemicals, etc.) as well as from crushed stone in crushing plants and from casting sand in casting plants.

[Features]

- Light weight and compact for easy handling.
- Minimum maintenance and weather resistant.

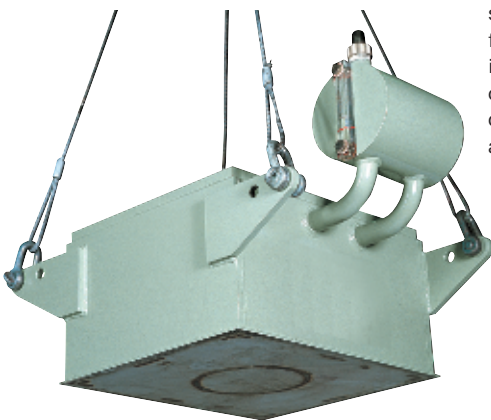


Model	Conveyor Belt Width	Conveyor Installation Length	Dimensions			Power Consumption	Mass	Applicable Rectifier
			φD	H	d			
HEM-40C	350 (13.7)	120 (4.72) - 150 (5.90)	400 (15.7)	240 (9.44)	16 (0.62)	0.51kW	170kg/ 375 lb	KR-A208
HEM-50C	400 (15.7)	130 (5.11) - 180 (7.08)	500 (19.6)	300 (11.8)	22 (0.86)	0.82kW	310kg/ 683 lb	
HEM-65CN	500 (19.6)	150 (5.90) - 200 (7.87)	650 (25.5)	320 (12.5)	22 (0.86)	1.5/1.8kW	340kg/ 749 lb	HEMR-65CNI
HEM-75CN	600 (23.6)	150 (5.90) - 250 (9.84)	750 (29.5)	330 (12.9)	26 (1.02)	2.0/2.4kW	460kg/ 1014 lb	HEMR-75CNI
HEM-90CN	750 (29.5)	200 (7.87) - 300 (11.8)	900 (35.4)	400 (15.7)	26 (1.02)	2.6/3.1kW	830kg/ 1829 lb	HEMR-90CNI
HEM-110CN	900 (35.4)	250 (9.84) - 350 (13.7)	1100 (43.3)	465 (18.3)	32 (1.25)	3.9/4.7kW	1350kg/ 2976 lb	HEMR-110CNI
HEM-130CN	1050 (41.3)	300 (11.8) - 450 (17.7)	1300 (51.1)	535 (21.0)	36 (1.41)	6.1/7.4kW	2300kg/ 4850 lb	HEMR-130CNI
HEM-150CN	1200 (47.2)	400 (15.7) - 550 (21.6)	1500 (59.0)	585 (23.0)	42 (1.65)	7.3/8.8kW	3350kg/ 7385 lb	HEMR-150CNI

※ The power consumption is based on 200 VAC, 50/60 Hz. (HEM-40C/50C consume the same amount of electricity on both 50 Hz and 60 Hz.)
 ※ The belt conveyor width for each model is for reference only. As the model to be selected can be different depending on the flow width and volume of objects to process, please consult with us.

Model HEM-BS SUSPENDED ELECTROMAGNET FOR IRON REMOVAL

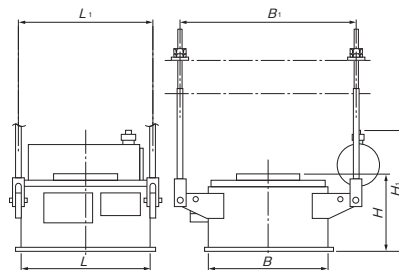
Oil-cooled



HEM-BS65

[Application]

This model utilizes the electromagnet design taken from the suspended electromagnetic separator and is recommended for use where there is a relatively small amount of mixed iron pieces on conveyors. This model is for use on large conveyors as with Model BST, but is most suitable for operations where the amount of mixed iron pieces is small and attracted iron pieces can be removed periodically.



[Features]

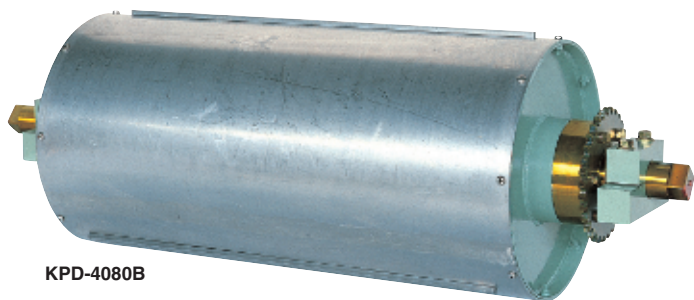
- There are no moving parts and the construction is simple for trouble-free operation.
- The oil-cooled system can keep temperature rise and heating below a certain level when in continuous operation. (For cooling oil used, see page 134.)
- The separating capacity is about the same as Model BST.
- The magnetic separation efficiency is high because an effective magnetic field is produced all over the attractive face.
- The applicable belt width has been widened.

Model	Conveyor Belt Width	Conveyor Installation Length	Dimensions					Power Consumption	Mass	Applicable Rectifier	
			L	B	H	L ₁	B ₁				H ₁
HEM-BS65	450 (17.7)	150 (5.90) - 200 (7.87)	650 (25.5)	650 (25.5)	347 (13.6)	755 (29.7)	1025 (40.3)	605 (23.8)	1.5Kw	590kg/ 1300 lb	HEMR-BS 65
HEM-BS80	600 (23.6)	150 (5.90) - 250 (9.84)	800 (31.5)	800 (31.5)	328 (12.9)	905 (35.6)	1175 (46.2)	570 (22.4)	2.4Kw	870kg/ 1918 lb	HEMR-BS 80
HEM-BS90	750 (29.5)	200 (7.87) - 300 (11.8)	900 (35.4)	900 (35.4)	349 (13.7)	1005 (39.5)	1360 (53.5)	600 (23.6)	3.1Kw	1200kg/ 2646 lb	HEMR-BS 90
HEM-BS100	900 (35.4)	250 (9.84) - 350 (13.7)	1000 (39.4)	1000 (39.4)	485 (19.0)	1115 (43.8)	1583 (62.3)	790 (31.1)	4.0Kw	1820kg/ 4013 lb	HEMR-BS100
HEM-BS115	1050 (41.3)	300 (11.8) - 350 (13.7)	1150 (45.2)	1150 (45.2)	496 (19.5)	1265 (49.8)	1733 (68.2)	785 (30.9)	5.2Kw	2800kg/ 6174 lb	HEMR-BS115
HEM-BS130	1200 (47.2)	300 (11.8) - 400 (15.7)	1300 (51.1)	1300 (51.1)	593 (23.3)	1431 (56.3)	1926 (75.8)	890 (35.0)	6.6Kw	4100kg/ 9040 lb	HEMR-BS130
HEM-BS150	1400 (55.1)	300 (11.8) - 450 (17.7)	1500 (59.0)	1500 (59.0)	498 (19.6)	1643 (64.6)	2126 (83.7)	775 (30.5)	8.7Kw	4900kg/ 10804 lb	HEMR-BS150
HEM-BS170	1600 (62.9)	400 (15.7) - 550 (21.6)	1700 (66.9)	1700 (66.9)	575 (22.6)	1843 (72.5)	2326 (91.5)	840 (33.0)	10.4Kw	6500kg/ 14332 lb	HEMR-BS170

※ The power consumption is based on 200 VAC (50 Hz).

※ The belt conveyor width for each model is for reference only. As the model to be selected can be different depending on the flow width and volume of objects to process, please consult with us.

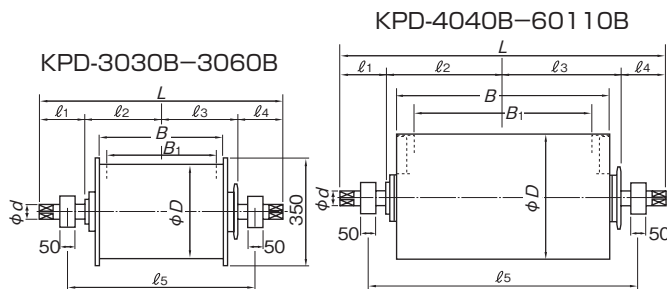
Model KPD PERMANENT MAGNETIC DRUM



KPD-4080B

[Application]

Used for sorting wastes and removing iron from granular materials in mining, ceramic, chemical and food industries.

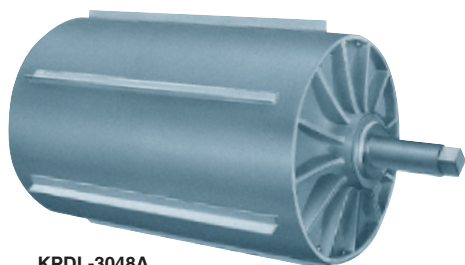


[Features]

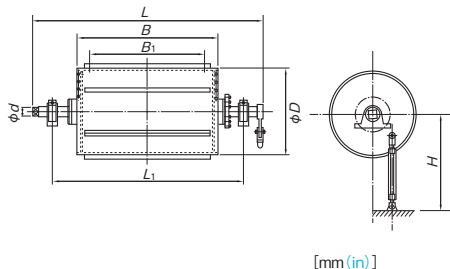
- A powerful permanent magnet is used, requiring no power source.
- The outer nonmagnetic drum is rotated to automatically discharge iron.
- The drum shell is made of nonmagnetic stainless steel.
- KPD-HA 180 mT (1800 G), HB 250 mT (2500 G), HC 300 mT (3000 G) and HE 500 mT (5000 G) Series are also available.
- In addition to the permanent magnet type, an electromagnet type (KED) is also available.

Model	Processing Capacity	Dimensions									Surface Magnetic Flux Density	Recommended Revolution	Recommended Motor	Mass			
		D	B ₁	B	l ₂	l ₃	L	l ₄	l ₅	phi d							
KPD- 3030B	025m ³ /h	268 (10.5)	300 (11.8)	200 (7.87)	225 (8.85)	690 (27.1)	580 (22.8)					100mT (1000G)	30-45rpm	0.4kW	60kg/ 132 lb		
KPD- 3040B	035m ³ /h	368 (14.4)	400 (15.7)	250 (9.84)	275 (10.8)	790 (31.1)	680 (26.7)				120 (4.72)				145 (5.70)	45 (1.77)	80kg/ 176 lb
KPD- 3050B	045m ³ /h	468 (18.4)	500 (19.6)	300 (11.8)	325 (12.8)	890 (35.0)	780 (30.7)									100kg/ 220 lb	
KPD- 3060B	055m ³ /h	568 (22.3)	600 (23.6)	350 (13.7)	375 (14.7)	990 (38.9)	880 (34.6)									120kg/ 264 lb	
KPD- 4040B	045m ³ /h	330 (12.9)	430 (16.9)	260 (10.2)	292 (11.5)	830 (32.6)	710 (27.9)									150kg/ 330 lb	
KPD- 4050B	060m ³ /h	430 (16.9)	530 (20.8)	310 (12.2)	342 (13.4)	930 (36.6)	810 (31.8)				55 (2.16)					200kg/ 440 lb	
KPD- 4065B	075m ³ /h	580 (22.8)	680 (26.7)	385 (15.2)	417 (16.4)	1080 (42.5)	960 (37.8)							250kg/ 551 lb			
KPD- 4080B	090m ³ /h	730 (28.7)	830 (32.6)	460 (18.1)	492 (19.3)	1230 (48.4)	1110 (43.7)							215kg/ 474 lb			
KPD- 5050B	080m ³ /h	430 (16.9)	530 (20.8)	310 (12.2)	342 (13.4)	930 (36.6)	810 (31.8)				123 (4.84)		155 (6.10)	60 (2.36)	280kg/ 617 lb		
KPD- 5065B	105m ³ /h	580 (22.8)	680 (26.7)	385 (15.2)	417 (16.4)	1080 (42.5)	960 (37.8)							345kg/ 760 lb			
KPD- 5080B	125m ³ /h	730 (28.7)	830 (32.6)	460 (18.1)	492 (19.3)	1230 (48.4)	1110 (43.7)							410kg/ 903 lb			
KPD- 5095B	150m ³ /h	880 (34.6)	980 (38.5)	535 (21.0)	567 (22.3)	1380 (54.3)	1260 (49.6)							335kg/ 738 lb			
KPD- 6065B	090m ³ /h	580 (22.8)	680 (26.7)	385 (15.2)	417 (16.4)	1080 (42.5)	950 (37.4)						410kg/ 903 lb				
KPD- 6080B	190m ³ /h	730 (28.7)	830 (32.6)	460 (18.1)	492 (19.3)	1230 (48.4)	1100 (43.3)				65 (2.55)		490kg/ 1080 lb				
KPD- 6095B	220m ³ /h	880 (34.6)	980 (38.5)	535 (21.0)	567 (22.3)	1380 (54.3)	1250 (49.2)						570kg/ 1257 lb				
KPD-60110B	240m ³ /h	1030 (40.5)	1130 (44.4)	610 (24.0)	642 (25.2)	1530 (60.2)	1400 (55.1)										

Model KPDL LARGE PERMANENT MAGNETIC DRUM



KPDL-3048A



[mm (in)]

[Application]

This model is recommended for removal of large iron pieces and iron lumps from various raw materials as well as from bulky wastes.

[Features]

- The super powerful, large magnet generates a uniform and strong magnetic force.
- The robust construction can withstand impacts by large iron pieces when they are collected.
- Scrapers for complete removal and collection are provided.
- The magnet position adjusting turnbuckle is installed to enable adjustment of the collection position as desired.
- In addition to the permanent magnet type, an electromagnet type (KEDL) is also available.

Model	Processing Capacity, (Magnetized substance X 75%)	Dimensions							Surface Magnetic Flux Density	Recommended Revolution		Recommended Motor	Mass
		B ₁	B	L ₁	L	D	phi d	H		Over Feed	Under Feed		
KPDL-3026A	12-17t/h	460 (18.1)	660 (25.9)	1140 (44.8)	1420 (55.9)				100mT (1000G)	25-30 rpm	1.5kW	700kg/ 1543 lb	
KPDL-3048A	20-32t/h	1020 (40.1)	1220 (48.0)	1700 (66.9)	1980 (77.9)	760 (29.9)	100 (3.93)	1190 (46.8)				1200kg/ 2205 lb	
KPDL-3060A	28-40t/h	1320 (51.9)	1520 (59.8)	2000 (78.7)	2280 (89.7)							1200kg/ 2646 lb	
KPDL-3636A	16-24t/h	660 (25.9)	930 (36.6)	1430 (56.3)	1730 (68.1)							1000kg/ 2205 lb	
KPDL-3648A	25-36t/h	950 (37.4)	1220 (48.0)	1720 (67.7)	2020 (79.5)	930 (36.6)						1350kg/ 2976 lb	
KPDL-3660A	35-50t/h	1250 (49.2)	1520 (59.8)	2020 (79.5)	2320 (91.3)							1700kg/ 3748 lb	
KPDL-3672A	42-60t/h	1550 (61.0)	1820 (71.6)	2320 (91.3)	2620 (103.1)					2000kg/ 4409 lb			
KPDL-4260A	40-56t/h	1250 (49.2)	1520 (59.8)	2180 (85.8)	2520 (99.2)	1080 (42.5)	120 (4.72)	1260 (49.6)		2500kg/ 5512 lb			
KPDL-4272A	40-65t/h	1550 (61.0)	1820 (71.6)	2480 (97.6)	2820 (111.0)					3000kg/ 6614 lb			

Measurements of magnet attractive force (attraction distance)

No.	Test Piece to Attract	Weight (g)	Attraction Distance (mm)
1	12-cm nail	10g/0.02 lb	400 (15.7)
2	Hex bolt M10 x 70	40g/0.09 lb	325 (12.8)
3	Hex bolt M16 x 100	60g/0.13 lb	300 (11.8)
4	Hex bolt M20 x 100	280g/0.61 lb	275 (10.8)
5	Hex nut M20	30g/0.06 lb	150 (5.90)
6	Round bar phi 20 x 200	480g/1.06 lb	350 (13.7)
7	Steel plate 25 x 30 x 65	350g/0.87 lb	200 (7.87)
8	Steel plate 6 x 55 x 280	720g/1.59 lb	400 (15.7)
9	Angle 40 x 40 x 350	930g/2.05 lb	400 (15.7)

* Values by KPDL-3660A.

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 MATERIALS

MAGNETIC SEPARATORS

Model KDS DRUM TYPE MAGNETIC SEPARATOR



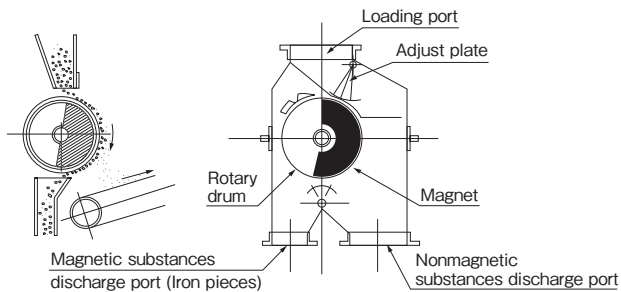
KDS-300C

[Application]

A motor-driven magnetic separating system incorporating a permanent magnetic drum in a casing automatically removes and collects iron pieces, bolts, etc. from raw materials loaded from a hopper.

[Features]

- Very easy to handle.
- Compact and light weight for easy relocation and installation.
- The powerful magnetic force type having a large processing capacity.
- KDS-HA-C 180 mT (1800 G), HC-C 300 mT (3000 G), HE-C 500 mT (5000 G) Series are also available.

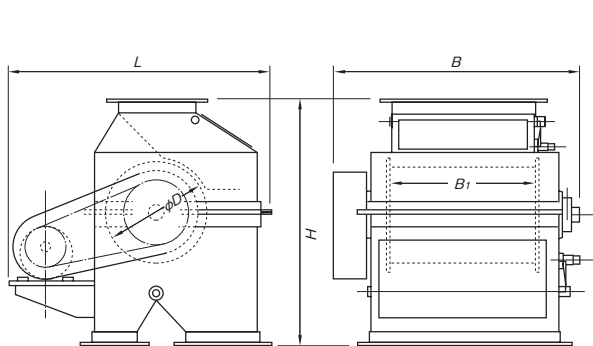


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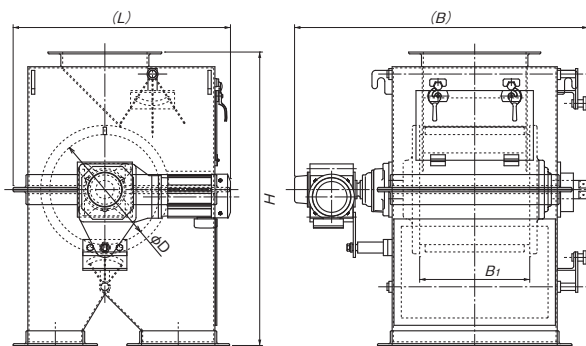
Model	Processing Capacity	Dimensions			Drum		Surface Magnetic Flux Density	Drive Motor	Mass		
		L	B	H	ϕD	B_1					
KDS- 250C	15m ³ /h	540 (21.2)	700 (27.5)	725 (28.5)	250 (9.84)	250 (9.84)	90mT (900G)	0.2kW	125kg/ 275 lb		
KDS- 300C	25m ³ /h		800 (31.5)			300 (11.8)			150kg/ 330 lb		
KDS- 500C	40m ³ /h	590 (23.2)	950 (37.4)	800 (29.5)	300 (11.8)	450 (17.7)			100mT (1000G)	0.4kW	230kg/ 507 lb
KDS- 600C	50m ³ /h		1100 (43.3)								600 (23.6)
KDS- 800B	75m ³ /h	930 (36.6)	1000 (39.4)	850 (33.4)	400 (15.7)	680 (26.7)		0.75kW		450kg/ 992 lb	
KDS- 900B	90m ³ /h		1150 (45.2)							830 (32.6)	550kg/ 1213 lb
KDS-1100BA	105m ³ /h	1150 (45.2)	1000 (39.4)	1100 (43.3)	500 (19.6)	680 (26.7)				600kg/ 1323 lb	
KDS-1200BA	125m ³ /h		1150 (45.2)							830 (32.6)	740kg/ 1631 lb

※Pre-test is available. ※The Processing Capacity is presented as a guide. The listed values may drop depending on substances to process.

※KDS-1100BA/1200BA use the IE3 motor.

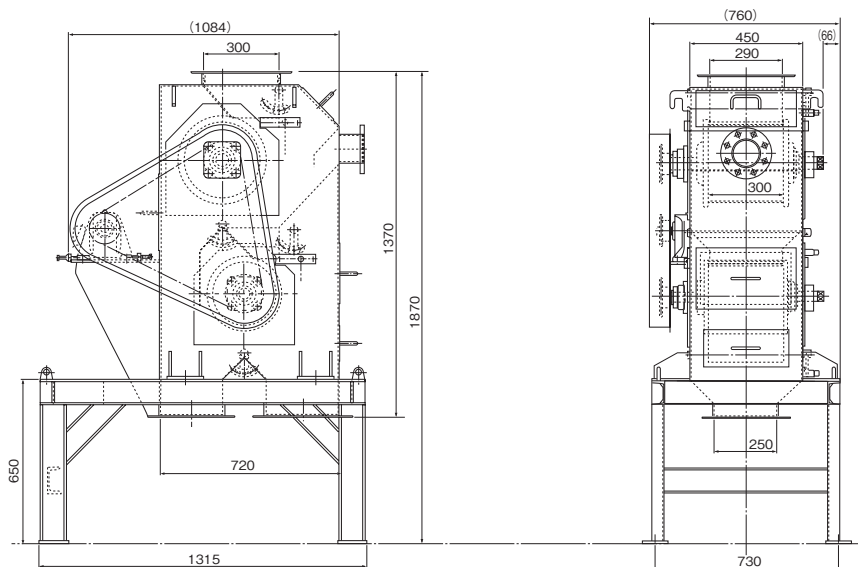


<KDS-B>



<KDS-C>

An example of fabrication of KDS-300B-2-S 2-stage drum type magnetic separator

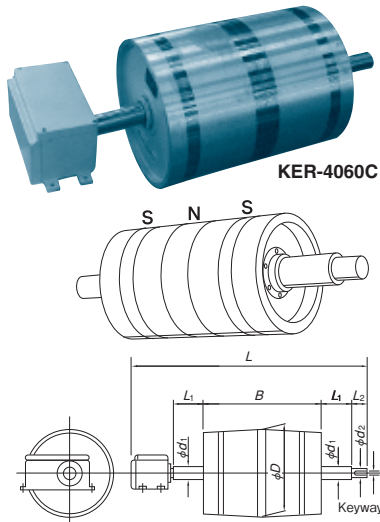


Model KER ELECTROMAGNETIC PULLEY

[Application]

These pulleys have been widely used in wastes processing systems and also used to remove iron from granular materials in chemical, steel making, coal, food and mining industries.

The electromagnetic pulley is equipped with a rectifier having an ammeter. The power source is single-phase 200 VAC and the output is 180 VDC.



Model	Belt Width	Dimensions								Power Consumption	Mass	Applicable Rectifier
		ϕD	B	L	ϕd_1	ϕd_2	L ₁	L ₂	Keyway			
KER-3030C	300 (11.8)	300 (11.8)	350 (13.7)	880 (34.6)	50 (1.96)	45 (1.77)	130 (5.11)	60 (2.36)	14 (0.55) x 5.5 (0.21)	300W	140kg/ 308 lb	KR-A203
KER-3035C	350 (13.7)		400 (15.7)	930 (36.6)						360W	155kg/ 341 lb	
KER-3040C	400 (15.7)		450 (17.7)	980 (38.5)						400W	175kg/ 385 lb	
KER-3045C	450 (17.7)	400 (15.7)	500 (19.6)	1030 (40.5)	60 (2.36)	55 (2.16)	50 (1.96)	70 (2.75)	16 (0.62) x 6 (0.23)	450W	195kg/ 429 lb	KR-A208
KER-3050C	500 (19.6)		550 (21.6)	1110 (43.7)						490W	210kg/ 463 lb	
KER-4040C	400 (15.7)		450 (17.7)	1030 (40.5)						550W	380kg/ 837 lb	
KER-4045C	450 (17.7)	500 (19.6)	500 (19.6)	1080 (42.5)	80 (3.15)	80 (3.15)	150 (5.90)	18 (0.70) x 7 (0.27)	620W	430kg/ 948 lb	KR-A215	
KER-4050C	500 (19.6)		550 (21.6)	1140 (44.8)					680W	475kg/ 1047 lb		
KER-4060C	600 (23.6)		650 (25.5)	1240 (48.8)					800W	560kg/ 1235 lb		
KER-4075C	750 (29.5)	500 (19.6)	820 (32.2)	1430 (56.3)	70 (2.75)	65 (2.55)	160 (6.29)	20 (0.78) x 7.5 (0.29)	1000W	700kg/ 1543 lb	KR-A230	
KER-5050C	500 (19.6)		550 (21.6)	1169 (46.0)					950W	730kg/ 1609 lb		
KER-5060C	600 (23.6)		650 (25.5)	1279 (50.3)					1000W	900kg/ 1984 lb		
KER-5075C	750 (29.5)	600 (23.6)	820 (32.2)	1449 (57.0)	80 (3.15)	90 (3.54)	170 (6.69)	25 (0.98) x 9 (0.35)	1300W	1130kg/ 2491 lb	KR-A240	
KER-5090C	900 (35.4)		1000 (39.4)	1649 (64.9)					1500W	1300kg/ 2866 lb		
KER-6060C	600 (23.6)		650 (25.5)	1299 (51.1)					1200W	1320kg/ 2910 lb		
KER-6075C	750 (29.5)	750 (29.5)	820 (32.2)	1479 (58.2)	100 (3.93)	100 (3.93)	180 (7.08)	28 (1.10) x 10 (0.39)	1500W	1580kg/ 3483 lb	LMT-A240	
KER-6090C	900 (35.4)		1000 (39.4)	1679 (66.1)					1800W	1900kg/ 4189 lb		
KER-75100C	1000 (39.4)		1100 (43.3)	2050 (80.7)					2800W	1800kg/ 3968 lb		
KER-75120C	1200 (47.2)	750 (29.5)	1300 (51.1)	2170 (85.4)	110 (4.33)	95 (3.74)	230 (9.05)	180 (7.08)	3400W	2200kg/ 4850 lb	KR-A250	
KER-75150C	1500 (59.0)		1600 (62.9)	2570 (101.2)					3800W	2600kg/ 5732 lb		
KER-90100C	1000 (39.4)		1100 (43.3)	2050 (80.7)					4200W	3100kg/ 6834 lb		
KER-90120C	1200 (47.2)	900 (35.4)	1300 (51.1)	2280 (89.7)	125 (4.92)	100 (3.93)	280 (11.0)	250 (9.84)	4300W	3000kg/ 6614 lb	LMT-A250	
KER-90150C	1500 (59.0)		1600 (62.9)	2670 (105.1)					4700W	3500kg/ 7716 lb		
KER-100120C	1200 (47.2)		1300 (51.1)	2490 (98.0)					5200W	4400kg/ 9700 lb		
KER-100150C	1500 (59.0)	1000 (39.4)	1600 (62.9)	2900 (114.2)	135 (5.31)	110 (4.33)	300 (11.8)	300 (11.8)	5500W	4200kg/ 9259 lb	KR-A250	
KER-120120C	1200 (47.2)		1300 (51.1)	2490 (98.0)					6500W	5000kg/ 11023 lb		
KER-120150C	1500 (59.0)		1600 (62.9)	2900 (114.2)					7600W	6500kg/ 14330 lb		

Note: The slip ring SRB-100 is used for 3030C - 4060C and SR-20 for 4075C and over.

Model KPR PERMANENT MAGNETIC PULLEY

Environmentally friendly

Removing iron in wood-processing plants for biomass power generation also!



[Application]

These pulleys are utilized to remove iron as with electromagnetic pulleys.

[Features]

- Powerful magnetic force. Its effect lasts almost perpetually.
- No power source is required to generate the magnetic force.
- Robust construction and easy handling and installation.
- A high magnetic force type exceeding the surface max. magnetic flux density 1.3 T (13000 G) is also available. (KPR-H16 Series) This pulley can also be used to sort and collect weak magnetic substances such as stainless steel from raw materials.



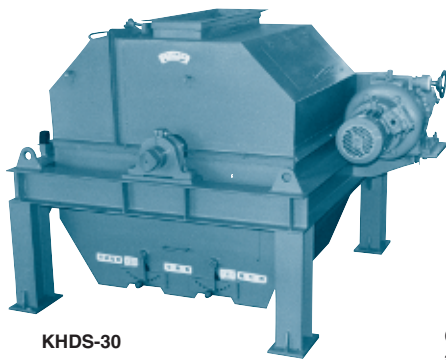
Model	Belt Width	Dimensions								Surface Max. Magnetic Flux Density	Mass
		ϕD	B	L	d_1	d_2	L ₁	L ₂	Keyway		
KPR-H1635	350 (13.7)	160 (6.29)	440 (17.3)	670 (26.3)	60 (2.36)	-	100 (3.93)	-	20 (0.78) x 10 (0.39)	1.3T (13000G) min.	80kg/ 176 lb
KPR-H1640	400 (15.7)		500 (19.6)	730 (28.7)							90kg/ 198 lb
KPR-H1645	450 (17.7)		550 (21.6)	780 (30.7)							95kg/ 209 lb
KPR-2230	300 (11.8)	214 (8.42)	350 (13.7)	660 (25.9)	40 (1.50)	35 (1.37)	130 (5.11)	50 (1.96)	10 (0.39) x 5 (0.19)	80mT (800G) min.	45kg/ 99 lb
KPR-2235	350 (13.7)		400 (15.7)	710 (27.9)							52kg/ 114 lb
KPR-2240	400 (15.7)		450 (17.7)	760 (29.9)							68kg/ 149 lb
KPR-2735	350 (13.7)	265 (10.4)	400 (15.7)	710 (27.9)	45 (1.77)	40 (1.50)	130 (5.11)	50 (1.96)	12 (0.47) x 5 (0.19)	80mT (800G) min.	77kg/ 169 lb
KPR-2740	400 (15.7)		450 (17.7)	760 (29.9)							86kg/ 189 lb
KPR-2745	450 (17.7)		500 (19.6)	810 (31.8)							100kg/ 220 lb
KPR-3240	400 (15.7)	315 (13.7)	450 (17.7)	780 (30.7)	50 (1.96)	45 (1.77)	135 (5.31)	60 (2.36)	14 (0.55) x 5.5 (0.21)	80mT (800G) min.	110kg/ 242 lb
KPR-3245	450 (17.7)		500 (19.6)	830 (32.6)							122kg/ 368 lb
KPR-3250	500 (19.6)		550 (21.6)	880 (34.6)							135kg/ 297 lb
KPR-3260	600 (23.6)	350 (13.7)	650 (25.5)	980 (38.5)	60 (2.36)	55 (2.16)	140 (5.51)	70 (2.75)	16 (0.62) x 6 (0.23)	300mT (3000G) min.	140kg/ 308 lb
KPR-3540C	400 (15.7)		450 (17.7)	790 (31.1)							190kg/ 418 lb
KPR-3545C	450 (17.7)		500 (19.6)	850 (33.4)							210kg/ 462 lb
KPR-3550C	500 (19.6)	400 (15.7)	550 (21.6)	900 (35.4)	55 (2.16)	50 (1.96)	140 (5.51)	80 (3.14)	18 (0.70) x 7 (0.27)	300mT (3000G) min.	230kg/ 507 lb
KPR-3560C	600 (23.6)		650 (25.5)	1000 (39.4)							260kg/ 573 lb
KPR-4045C	450 (17.7)		500 (19.6)	860 (33.8)							270kg/ 595 lb
KPR-4050C	500 (19.6)	500 (19.6)	550 (21.6)	920 (36.2)	60 (2.36)	55 (2.16)	145 (5.70)	80 (3.14)	20 (0.78) x 7.5 (0.29)	300mT (3000G) min.	300kg/ 661 lb
KPR-4060C	600 (23.6)		650 (25.5)	1020 (40.2)							355kg/ 782 lb
KPR-4075C	750 (29.5)		820 (32.2)	1200 (47.2)							450kg/ 992 lb
KPR-5060C	600 (23.6)	500 (19.6)	650 (25.5)	1040 (40.9)	70 (2.75)	65 (2.55)	150 (5.90)	90 (3.54)	18 (0.70) x 7 (0.27)	300mT (3000G) min.	480kg/ 1058 lb
KPR-5075C	750 (29.5)		820 (32.2)	1210 (47.6)							630kg/ 1388 lb
KPR-5090C	900 (35.4)		1000 (39.4)	1400 (55.1)							750kg/ 1653 lb
KPR-6075C	750 (29.5)	600 (23.6)	820 (32.2)	1300 (51.1)	75 (2.95)	70 (2.75)	190 (7.48)	100 (3.93)	20 (0.78) x 7.5 (0.29)	300mT (3000G) min.	900kg/ 1984 lb
KPR-6090C	900 (35.4)		1000 (39.4)	1500 (59.0)							1070kg/ 2358 lb
KPR-60105C	1050 (41.3)		1150 (45.2)	1670 (65.7)							1230kg/ 2711 lb
KPR-60120C	1200 (47.2)	750 (29.5)	1300 (51.1)	1820 (71.6)	90 (3.54)	85 (3.34)	200 (7.87)	150 (5.90)	25 (0.98) x 9 (0.35)	300mT (3000G) min.	1450kg/ 3196 lb
KPR-7575C	750 (29.5)		820 (32.2)	1370 (53.9)							1200kg/ 2645 lb
KPR-75105C	1050 (41.3)		1150 (45.2)	1700 (66.9)							1650kg/ 3637 lb
KPR-75120C	1200 (47.2)	800 (31.5)	1300 (51.1)	1950 (76.7)	110 (4.33)	95 (3.74)	250 (9.84)	200 (7.87)	28 (1.10) x 10 (0.39)	300mT (3000G) min.	1900kg/ 4188 lb
KPR-75140C	1400 (55.1)		1500 (59.0)	2150 (84.6)							2150kg/ 4739 lb

MAGNETIC TOOLS & EQUIPMENT FOR WELDING OPERATION
 LIFTING MAGNET
 MAGBONE
 CHIP & SLUDGE CONVEYANCE EQUIPMENT
 ENVIRONMENTAL EQUIPMENT
 MAGNETIZER AND DEMAGNETIZER
 MAGNETIC EQUIPMENT FOR CONVEYANCE
 MAGNETIC SEPARATORS
 POWERFUL MAGNETIC SEPARATORS
 MEASURING TOOLS
 MEASURING INSTRUMENTS
 MAGNETIC MATERIALS

MAGNETIC SEPARATORS

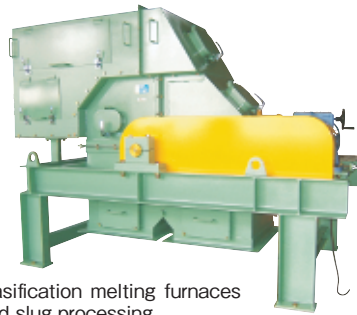
Model KHDS HIGH-SPEED DRUM TYPE MAGNETIC SEPARATOR

MAGNETIC TOOLS & EQUIPMENT FOR MAINTENANCE OPERATION
 LIFTING MAGNET
 MAGBORER
 CHIP & SLUDGE CONVEYANCE EQUIPMENT
 ENVIRONMENTAL MAGNETIZER AND DEMAGNETIZER
 MAGNETIC SEPARATORS
 POWERFUL MAGNETIC MEASURING INSTRUMENTS
 MAGNETIC MATERIALS



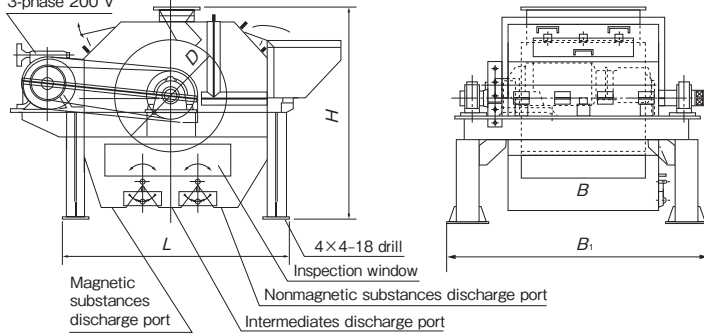
KHDS-30

An example of KHDS fabrication



Gasification melting furnaces and slug processing

Bayer cyclo variable speed changer
3-phase 200 V



Relation between amount to process and substances to process

In general, the processing amount varies depending on the specific gravity of substances to process and such processing conditions as the grain size, magnetized state, water content, etc.

Amount to process by KHDS-30 <Example>

Grain Size, etc.	Processing Amount
Grain size 15 - 6 mm	15-7 (t/h)
Grain size 6 - 2 mm	7-5 (t/h)
Grain size less than 2 mm	5-1 (t/h)
Separation of iron wastes from nonferrous metallic chips	1-2 (t/h)

These are high-performance magnetic separators designed to easily separate and collect magnetized fine powder and fine particles that are difficult to separate with other dry type magnetic separators.

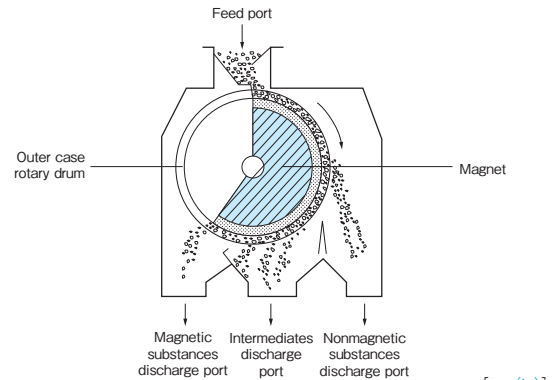
The effect of the magnetic force created by a unique pole layout together with adjustment of the centrifugal force by varying the rotation enables collection and separation of magnetized substances without taking in impurities.

[Application]

Suitable for separation of mine smalls, sorting of weak magnetic ores and separation of iron from aluminum, copper and brass chips. In addition, these separators are also useful for separation of dust, waste sand, casting sand and shots.

[Features]

- The unique pole construction enables separation without taking in impurities.
- The drum speed can be varied according to substances to separate, which enables these separators to be used under various conditions of separation.
- A type for slug is also available.



[mm (in.)]

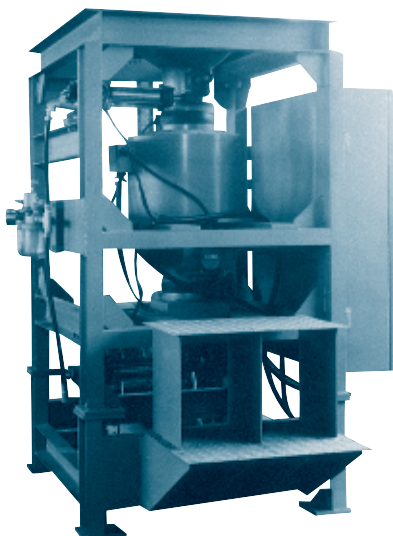
Model	Processing Capacity	Dimensions			Drum		Mass
		B ₁	L	H	φD	B	
KHDS-15	2.2-12.0t/h	900 (35.4)				150 (5.90)	1800kg/3968 lb
KHDS-30	4.5-24.0t/h	1000 (39.4)				300 (11.8)	2200kg/4850 lb
KHDS-45	6.7-36.0t/h	1150 (45.2)	1470 (57.8)	1500 (59.0)	930 (36.6)	450 (17.7)	2600kg/5732 lb
KHDS-60	9.0-48.0t/h	1300 (51.1)				600 (23.6)	3300kg/7275 lb
KHDS-75	11.0-60.0t/h	1500 (59.0)				750 (29.5)	3600kg/7937 lb
KHDS-90	13.0-72.0t/h	1700 (66.9)				900 (35.4)	4000kg/8818 lb

*The power source is 3-phase, 200 VAC.

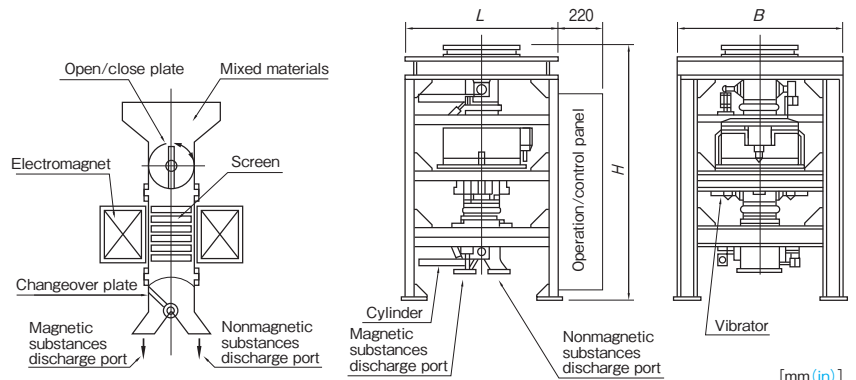
Model KIF ELECTROMAGNETIC FILTER

[Application]

These filters work well in removing fine iron powder from pigments, glass materials, foods, chemicals and other various kinds of powder materials.



KIF-30



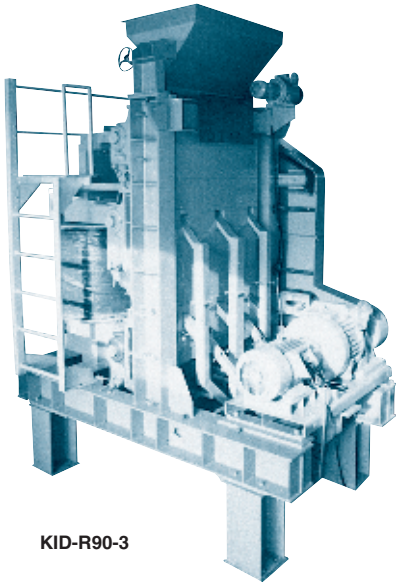
[mm (in.)]

Model	Processing Capacity	Dimensions			Electromagnet	Mass
		B	L	H		
KIF-16	1.0m³/h	800 (31.5)	800 (31.5)	1300 (51.1)	0.8kW	540kg/1190 lb
KIF-20	1.5m³/h	1100 (43.3)	1000 (39.4)	1550 (61.0)	1.0kW	1000kg/2205 lb
KIF-30	3.5m³/h	1200 (47.2)	1100 (43.3)	1850 (72.8)	1.5kW	1500kg/3307 lb

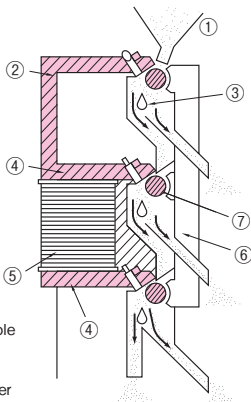
*Accessory: DC control unit (Input 3-phase 200 VAC)

The high magnetic force separators are designed to generate a magnetic force as large as 2.6 T (26000 G) for separation of weak magnetic substances. In addition to the "induction roll type KID-R" and "cross belt type KID-B" that have a large processing capacity, a relatively smaller capacity "induction type KID" and "electromagnetic filter KIF" are also available.

Model KID-R INDUCTION TYPE POWERFUL MAGNETIC SEPARATOR



KID-R90-3



<3-stage>

- ① Hopper
- ② Magnetic pole for rough separation
- ③ Branch plate
- ④ High magnetic force pole
- ⑤ Coil
- ⑥ Yoke
- ⑦ Induction magnetic roller

[Application]

These separators are suitable for separation of weak magnetic substances that exist in powder and granular materials of quartz sand (glass material), high grade casting sand and chromite sand. In addition, these separators are used to remove iron ores from such nonferrous minerals as tungsten, manganese ore, titanium ore, monazite, garnet and ilmenite, to remove weak magnetic oxides from casting sand (quartz sand) and to separate weak magnetic substances from other powder and granular materials.

[Features]

- The induction roller generates 2.6 T (Tesla) max. at a sharp gradient and high magnetic flux density.
- The magnetic force can easily be adjusted according to magnetic substances in raw materials.
- The roller revolution can be varied steplessly. According to properties of raw materials, the influence of the centrifugal force by the roller can be adjusted for optimum separation. (Optional)
- When the 2-stage or 3-stage type is used, highly efficient separation is possible.
- These separators are of dry type that does not need auxiliary equipment for pre- and post-treatment.
- These separators are designed to contain dust to prevent pollution by dust.

Processing conditions

Optimum substances to process are materials that are dry and flow freely and their grain size is 8 to 150 mesh.

Capacity

The amount to process is about 200 kg/h to 1000 kg/h per induction roller width 100 mm, though it varies according to kinds and grain sizes of substances to separate and required level of separation.

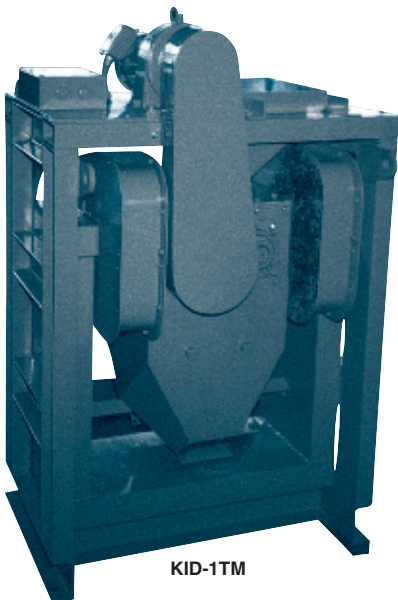
One-stage or 2-stage according to applications

Because a high magnetic force is required, the magnetomotive force is induced by the roller by use of a yoke so that weak magnetic substances can be separated from flowing raw materials. The figure shows the 3-stage type. One-stage, 2-stage and 3-stage are determined by the number of induction rollers.

Model	Induction Roller	Processing Capacity	Dimensions			Power Consumption			Mass
			Length	Width	Height	Electromagnet	Drive motor	Feeder motor	
KID-R35-1	1-stage	2.4m³/h	1650 (64.9)	1000 (39.4)	2300 (90.5)	1.5kW	3.7kW	250VA	2.5-3.0 ton 5512-6614 lb
KID-R35-2	2-stage								
KID-R35-3	3-stage								
KID-R60-1	1-stage	4.0m³/h	1700 (66.9)	2300 (90.5)	2500 (98.4)	5.5kW	7.5kW	750VA	7.0-7.5 ton 15430-16530 lb
KID-R60-2	2-stage								
KID-R60-3	3-stage								
KID-R90-1	1-stage	6.0m³/h	2600 (102.4)			10.0kW	11.0kW		9.0-10.0ton 19840-22050 lb
KID-R90-2	2-stage								
KID-R90-3	3-stage								

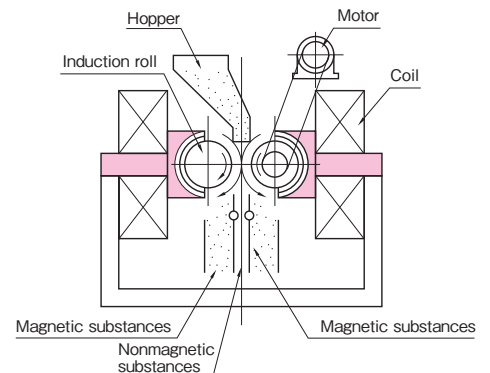
*These are magnetic separators designed specially for weak magnetic substances. If strong magnetic substances are mixed, they need to be removed at the preceding stage.

Model KID INDUCTION TYPE MAGNETIC SEPARATOR



KID-1TM

Suitable for removing weak magnetic substances from glass raw materials, ceramic raw materials and chemical products. In particular, these separators work best with fine particles smaller than 1 mm. Weak magnetic substances in granular materials are separated by a strong magnetic force.



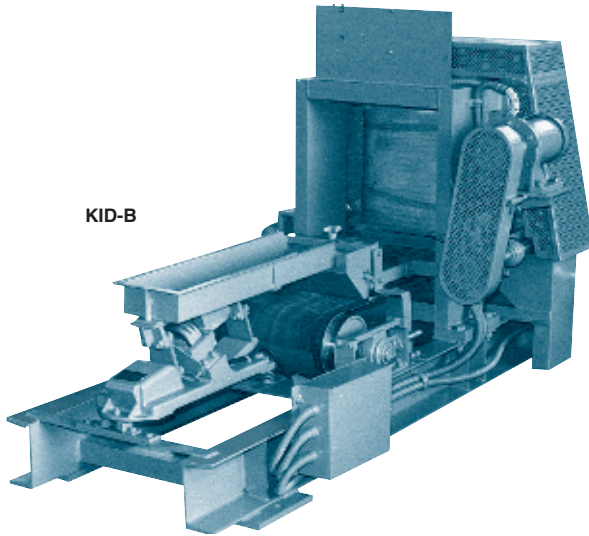
Model	Processing Capacity	Dimensions			Motor	Electromagnet	Mass	Substance to Separate
		Width	Depth	Height				
KID-250	0.15m³/h	665(26.1)	350(13.7)	750(29.5)	0.2 kW	0.2kW	300kg/ 661 lb	Sand & powder smaller than 1mm(0.03)
KID-1TM	1.0 m³/h	810(31.8)	650(25.5)	1300(51.1)	0.4 kW	0.6kW	900kg/1984 lb	Sand & powder smaller than 3mm(0.11)
KID-3TM	3.0 m³/h		850(33.4)	1500(59.0)	0.75kW	1.2kW	1700kg/3748 lb	Sand & powder smaller than 3mm(0.11)

MAGNETIC TOOLS & EQUIPMENT - FORMING OPERATION
 LIFTING - MAGNET
 MAGBONE -
 MAGNETIC EQUIPMENT - CONVEYANCE EQUIPMENT
 CHIP & SLUDGE - CONVEYANCE EQUIPMENT
 ENVIRONMENTAL - EQUIPMENT
 MAGNETIZER AND - ENVIRONMENTAL - EQUIPMENT
 MAGNETIZER AND - DEMAGNETIZER
 MAGNETIC EQUIPMENT - FOR CONVEYANCE
 MAGNETIC SEPARATORS
 POWERFUL MAGNETIC SEPARATORS
 MEASURING - MEASURING TOOLS
 MEASURING INSTRUMENTS
 MAGNETIC MATERIALS

MAGNETIC SEPARATORS

Model KID-B CROSS BELT TYPE POWERFUL MAGNETIC SEPARATOR

MAGNETIC TOOLS & EQUIPMENT FOR MINING OPERATION
LIFTING MAGNET
MAGBORER - CHIP & SLUDGE CONVEYANCE EQUIPMENT
ENVIRONMENTAL MAGNETIZER AND DEMAGNETIZER
MAGNETIC SEPARATORS
POWERFUL MAGNETIC MEASURING INSTRUMENTS
MAGNETIC MATERIALS



KID-B

[Application]

Suitable for separating weak magnetic substances from powder and granular materials such as glass raw materials, casting sand and ceramic raw materials at a high collection rate.

This model works well with dry materials of grain size 3 mm or less and the optimum grain size is about 20 mesh.

[Features]

- High magnetic force and sharp gradient for effective separation of weak magnetic substances from granular materials.
- The conveyor belt speed can be varied steplessly for efficient separation at an optimum speed.
- The mechanism that attracts magnetic substances in raw materials by a magnetic pole above the conveyor and then discharges them ensures a high collection rate. In particular, high-grade collection of useful magnetic substance is possible.
- By increasing the number of magnetic poles above the conveyor to make a multistage construction, separation can be carried out according to the magnetic properties of magnetic substances.
- Can be installed easily in existing lines.

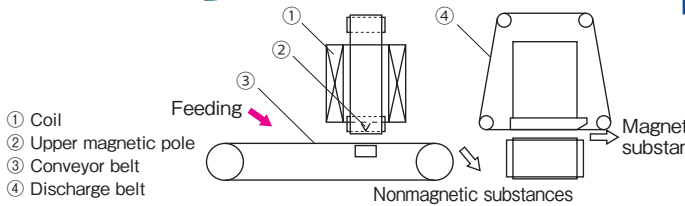
Examples of separation

Removal of iron oxide from lime stone (desiccating agent)

Removal rate 99.5%

Collection of biotite (weak magnetic substance) from feldspar

Collection rate 95% or over



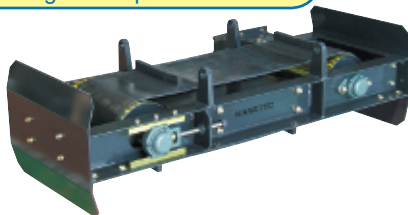
- ① Coil
- ② Upper magnetic pole
- ③ Conveyor belt
- ④ Discharge belt

Examples of fabrication of various recycling magnetic separators



Nonferrous metal separator

An example of fabrication of suspended permanent magnetic separator



An example of fabrication of high-magnetic force drum type magnetic separator



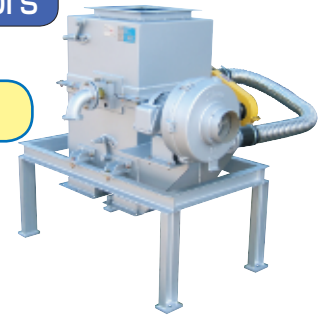
An example of fabrication of drum type magnetic separator



An example of fabrication of large electromagnetic drum



An example of fabrication of 2-stage drum type magnetic separator

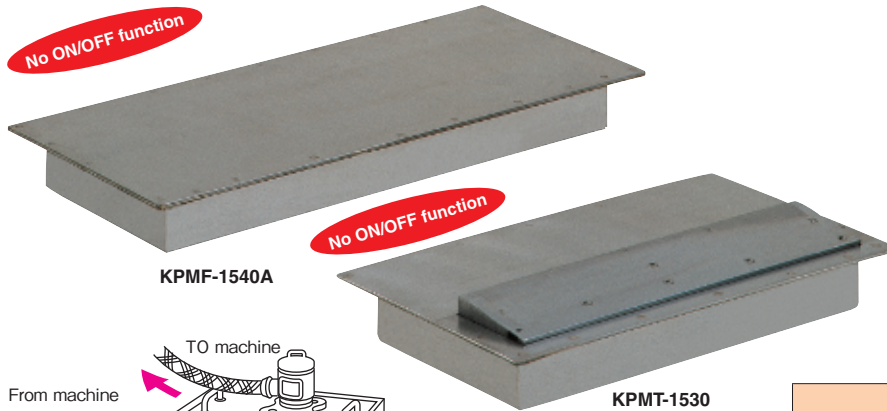


An example of fabrication of high-speed drum type magnetic separator

An example of fabrication of drum type magnetic separator



Model **KPM** PLATE MAGNET

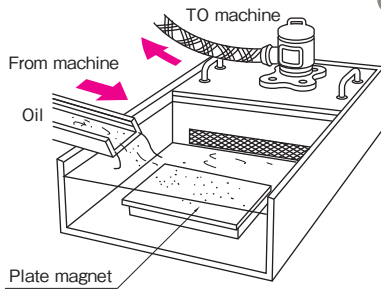


[Application]

These magnets are installed on chutes and hoppers to attract and separate magnetic substances such as iron powder from raw materials in chemical, drug and other fine particle industries.

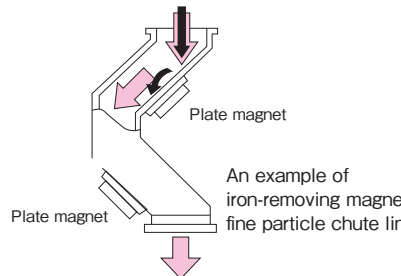
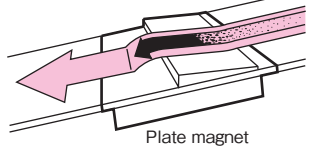
[Features]

- Strong attractive force. Compact and robust.
- Easy installation in any place as no power source is required.
- ※ Magnets with a grip and hinge are available optionally upon request.



Precautions for use
To use these magnets in liquids (e.g. water) other than oil, please specify "enclosed type."

Separated fine iron particles stopped against the flow of materials.



Model KPMF

- The whole surface is made of stainless steel (SUS304).
- Large attractive force over a long distance.
- The flange area can be worked on.
- ※ A type having a flange in a different position is also available.

Model KPMT

- An iron magnetic plate mounted on the attractive face of Model KPMF.
- The holding power is applied to the attracted iron pieces by the magnetic plate so that they will not be pushed forward by materials that follow.

Standard models

Flat type

Model	Dimensions				Attraction Capacity (Distance)			Mass					
	B	L	H	h	15-cm nail	M10 nut	M10×25 bolt						
KPMF-1515A	150 (5.90)	150 (5.90)	42.2 (1.66)	3.2 (0.12)	80-100 (3.15-3.93)	40- 60 (1.57-2.36)	60- 80 (2.36-3.15)	6kg/ 13.2 lb					
KPMF-1530A		300 (11.8)						11kg/ 24.2 lb					
KPMF-1535A		350 (13.7)						13kg/ 28.6 lb					
KPMF-1540A		400 (15.7)						15kg/ 33.0 lb					
KPMF-1545A		450 (17.7)						17kg/ 37.4 lb					
KPMF-1550A		500 (19.6)						18kg/ 39.6 lb					
KPMF-1560A		600 (23.6)						22kg/ 48.5 lb					
KPMF-2020A		200 (7.87)						55.5 (2.18)	3.5 (0.13)	100-130 (3.93-5.11)	60- 80 (2.36-3.15)	80-100 (3.15-3.93)	13kg/ 28.6 lb
KPMF-2030A		300 (11.8)											20kg/ 44.0 lb
KPMF-2040A		400 (15.7)											27kg/ 59.5 lb
KPMF-2050A	500 (19.6)	33kg/ 72.7 lb											
KPMF-2060A	600 (23.6)	40kg/ 88.1 lb											
KPMF-2080A	800 (31.5)	54kg/ 119.0 lb											
KPMF-3030A	300 (11.8)	120-160 (4.72-6.29)	70-100 (2.75-3.93)	100-120 (3.93-4.72)	29kg/ 63.9 lb								
KPMF-3040A	400 (15.7)				39kg/ 85.9 lb								
KPMF-3050A	500 (19.6)				49kg/ 108.0 lb								
KPMF-3060A	600 (23.6)				59kg/ 130.1 lb								
KPMF-3080A	800 (31.5)				79kg/ 174.2 lb								

※ Surface magnetic flux density 130 mT (1300 G) max.

With magnetic plate

Model	Dimensions				Attraction Capacity (Distance)			Mass					
	B	L	H	h	15-cm nail	M10 nut	M10×25 bolt						
KPMT-1515	150 (5.90)	150 (5.90)	43.5 (1.71)	3.2 (0.12)	80-100 (3.15-3.93)	40- 60 (1.57-2.36)	60- 80 (2.36-3.15)	7kg/ 15.0 lb					
KPMT-1530		300 (11.8)						12kg/ 26.4 lb					
KPMT-1540		400 (15.7)						16kg/ 35.2 lb					
KPMT-1550		500 (19.6)						20kg/ 44.0 lb					
KPMT-1560		600 (23.6)						24kg/ 52.9 lb					
KPMT-2020		200 (7.87)						56.5 (2.22)	3.5 (0.13)	100-130 (3.93-5.11)	60- 80 (2.36-3.15)	80-100 (3.15-3.93)	14kg/ 30.8 lb
KPMT-2040		400 (15.7)											29kg/ 63.9 lb
KPMT-2050		500 (19.6)											35kg/ 77.1 lb
KPMT-2060		600 (23.6)											42kg/ 92.5 lb
KPMT-3030		300 (11.8)											120-160 (4.72-6.29)
KPMT-3040	400 (15.7)	42kg/ 92.5 lb											
KPMT-3050	500 (19.6)	53kg/ 116.8 lb											
KPMT-3060	600 (23.6)	63kg/ 138.9 lb											
KPMT-3080	800 (31.5)	84kg/ 185.2 lb											

※ Surface magnetic flux density 250 mT (2500 G) max.

Powerful models Powerful plate magnets using rare earth magnet

Flat type

Model	Dimensions				Attraction Capacity (Distance)			Mass			
	B	L	H	h	15-cm nail	M10 nut	M10×25 bolt				
KPMF-H1510	150 (5.90)	100 (3.93)	25 (0.98)	3.2 (0.12)	100-130 (3.93-5.11)	60- 80 (2.36-3.15)	80-100 (3.15-3.93)	3.0kg/6.61 lb			
KPMF-H1515		150 (5.90)						4.5kg/9.92 lb			
KPMF-H1520		200 (7.87)						5.5kg/12.1 lb			
KPMF-H1530		300 (11.8)						8.5kg/18.0 lb			
KPMF-H2020		200 (7.87)						200 (7.87)	8.0kg/17.6 lb		
KPMF-H2025		250 (9.84)						120-160 (4.72-6.29)	70-100 (2.75-3.93)	100-120 (3.93-4.72)	10.0kg/22.0 lb
KPMF-H2030		300 (11.8)						11.5kg/25.0 lb			
KPMF-H2040		400 (15.7)						15.5kg/34.1 lb			

※ Surface magnetic flux density 300 mT (3000 G) max.

With magnetic plate

Model	Dimensions				Attraction Capacity (Distance)			Mass			
	B	L	H	h	15-cm nail	M10 nut	M10×25 bolt				
KPMT-H1510	150 (5.90)	100 (3.93)	25 (0.98)	3.2 (0.12)	100-130 (3.93-5.11)	60- 80 (2.36-3.15)	80-100 (3.15-3.93)	4.0kg/8.80 lb			
KPMT-H1515		150 (5.90)						6.0kg/13.2 lb			
KPMT-H1520		200 (7.87)						8.0kg/17.6 lb			
KPMT-H1530		300 (11.8)						12.0kg/26.4 lb			
KPMT-H2020		200 (7.87)						10.0kg/22.0 lb			
KPMT-H2025		250 (9.84)						120-160 (4.72-6.29)	70-100 (2.75-3.93)	100-120 (3.93-4.72)	12.5kg/27.5 lb
KPMT-H2030		300 (11.8)						15.0kg/33.0 lb			
KPMT-H2040		400 (15.7)						20.0kg/44.0 lb			

※ Surface magnetic flux density 500 mT (5000 G) max.

MAGNETIC TOOLS & EQUIPMENT
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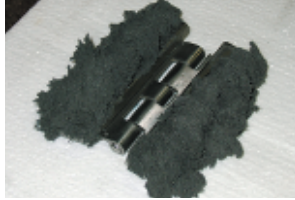
Model KPM-BW PLATE MAGNET FOR TANK CLEANING

Design registered



Efficient collection of sludge!

An example of collecting sludge

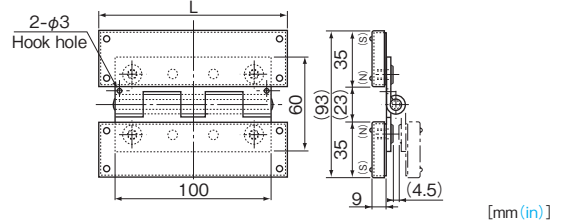


[Application]

Most suitable for collecting sludge in a circulating liquid tank.

[Features]

- This model is provided with a hinge to allow installation in various places such as a corner in a tank or overflow area of the partition plate.
- By attaching a wire or chain through a hook hole of the hinge, it becomes easy to take out the magnet from inside a tank.
- Not only deposited sludge but also floating sludge can be collected.



Can be installed in any place.

No ON/OFF function

Model	Dimensions (when opened)			Surface Max. Magnetic Flux Density	Face	Mass	Remarks
	L	Depth	Height				
KPM-BW12	120 (4.72)	93 (3.66)	23 (0.90)	150 mT (1500 G) or over	SUS304	0.75kg/1.65 lb	Working temperature: 60°C or below. Usable in liquid. (Except for chemicals other than neutral medical products)
KPM-BW18	180 (7.08)		1.1 kg/2.42 lb				
KPM-BW24	240 (9.44)		1.5 kg/3.30 lb				

※ If the hinge is removed, the warranty will become void. A string or chain to be passed through the hook hole must be nonmagnetic.

Model KPM SMALL PLATE MAGNET

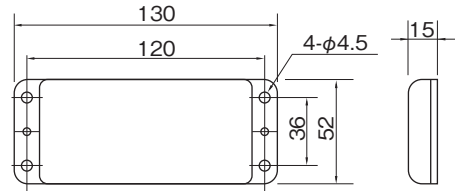
Simple type



KPM-1005

No ON/OFF function

Holding power 60N



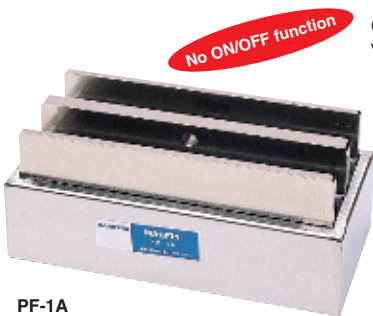
[Application]

This model can be used to catch and collect iron pieces as a small plate magnet or can also be used as a large magnetic holder. A powerful type using a rare earth magnet is also available.

Model	Type	Holding Power	Surface Max. Magnetic Flux Density	Mass
KPM-1005	Standard	60N (6kgf)	Approx. 100mT (1000G)	Approx. 350g/0.77 lb
KPM-H1005	Powerful	150N (15kgf)	Approx. 200mT (2000G)	

※ The holding power is based on a test piece of SS400, 6 mm thick, ground surface held on the whole face.

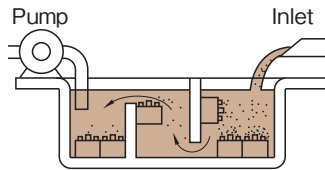
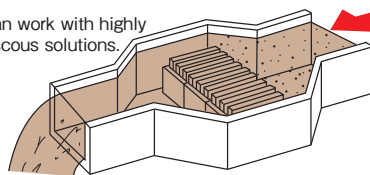
Model PF MAGFIN*



PF-1A

No ON/OFF function

Can work with highly viscous solutions.

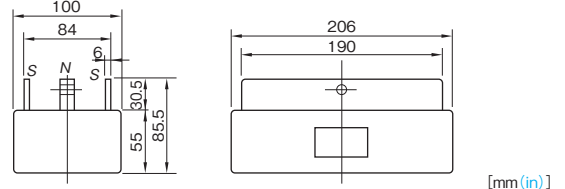


[Application]

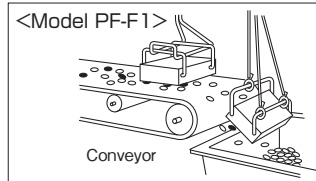
Suitable for removing iron from liquids (cooling liquid, electric discharge machining liquid, etc.) in tanks and passages and as an attracting plate for removing iron in granular materials. This can be used both dry and wet.

[Features]

- A magnet block of a construction to cause a strong magnetic force to be concentrated on the magnetic pole.



Model	Dimensions	Surface Max. Magnetic Flux Density	Mass
PF-1A	206 (8.11) × 100 (3.93) × 86 (3.38)	120mT (1200G)	5.7kg/12.6 lb



<Model PF-F1>

Not allowed in liquid

[Application]

Useful as a small magnet plate to catch and collect iron pieces. A powerful type using a rare earth magnet is also available.

Model	Dimensions	Surface Max. Magnetic Flux Density	Mass
PF-F1	120 (4.72) × 90 (3.54) × 30 (1.18)	120mT (1200G)	1.5kg/ 3.3 lb
PF-HF1	122 (4.80) × 90 (3.54) × 26 (1.02)	250mT (2500G)	1.4kg/ 3.1 lb
PF-HF2	122 (4.80) × 45 (1.77) × 26 (1.02)		0.7kg/ 1.5 lb

Carrying handle

MAGNETIC TOOLS & EQUIPMENT
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LIFTING
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MAGBONE*

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INSTRUMENTS

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MATERIALS

MAGNETIC SEPARATORS

Model KGM / KGM-VM MAGNETIC BAR (STANDARD/POWERFUL)



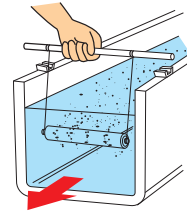
KGM-25

Caution:
To use these magnetic bars in liquids (e.g. water) other than oil, please specify "enclosed type."

Standard type

Model	Length	Diameter	Surface Max. Magnetic Flux Density	Working Temp. Upper Limit	Mass
KGM-20	194 (7.63)	φ25 (0.98)	130mT (1300G)	Approx. 60°C (140° F)	0.5 kg/1.10 lb
KGM-25	244 (9.60)				0.55kg/1.21 lb
KGM-30	295 (11.6)				0.65kg/1.43 lb
KGM-35	343 (13.5)				0.8 kg/1.76 lb
KGM-40	393 (15.4)				0.9 kg/1.98 lb
KGM-45	442 (17.4)				1.0 kg/2.20 lb
KGM-50	493 (19.4)				1.1 kg/2.42 lb
KGM-55	543 (21.3)				1.24kg/2.73 lb
KGM-60	592 (23.3)				1.34kg/2.95 lb

※The tapped holes are 2-M5, depth 6. ※Casing material: SUS304



A magnetic bar used in a grid type magnet. This bar is available individually also. A round bar type having a tapped hole on each end for mounting. Casing is made of stainless steel. These bars come in various lengths for use in a wide range of applications.

An example of usage in passage

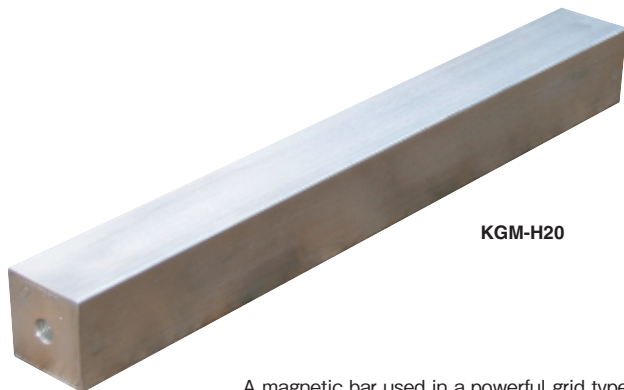
Powerful type

Usable in liquid

Model	Length	Diameter	Surface Max. Magnetic Flux Density	Working Temp. Upper Limit	Mass
KGM-VM10	95 (3.74)	φ25 (0.98)	500mT (5000G)	Approx. 80°C (176° F)	0.7kg/1.54 lb
KGM-VM15	145 (5.70)				0.9kg/1.98 lb
KGM-VM20	194 (7.63)				1.1kg/2.42 lb
KGM-VM25	244 (9.60)				1.2kg/2.64 lb
KGM-VM30	295 (11.6)				1.4kg/3.08 lb
KGM-VM35	343 (13.5)				1.6kg/3.52 lb
KGM-VM40	393 (15.4)				1.7kg/3.74 lb
KGM-VM50	493 (19.4)				1.9kg/4.18 lb
KGM-VM60	592 (23.3)				2.1kg/4.62 lb

※The tapped holes are 2-M6, depth 7. ※Casing material: SUS304

Model KGM-H POWERFUL SQUARE MAGNETIC BAR



KGM-H20

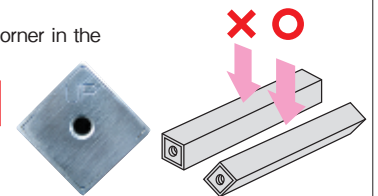
A magnetic bar used in a powerful grid type magnet. This bar is available individually also. Casing is made of stainless steel.

How to use

Set a square magnetic bar with its corner in the flow direction of materials as shown.

Not allowed in liquid

※The corner marked by "UP" must be up.

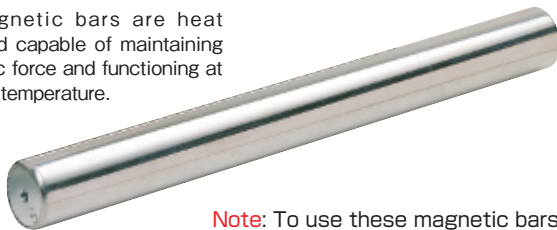


Model	Length	Side Length	Surface Max. Magnetic Flux Density	Working Temp. Upper Limit	Mass
KGM-H20	195 (7.67)	22 (0.86)	320mT (3200G)	Approx. 60°C (140° F)	0.6 kg/1.32 lb
KGM-H25	245 (9.64)				0.75kg/1.65 lb
KGM-H30	295 (11.6)				0.9 kg/1.98 lb
KGM-H35	345 (13.5)				1.1 kg/2.42 lb
KGM-H40	395 (15.5)				1.2 kg/2.64 lb

※The tapped holes are 2-M5, depth 6. ※Casing material: SUS304

Model KGM-T HEAT-RESISTANT MAGNETIC BAR

These magnetic bars are heat resistant and capable of maintaining the magnetic force and functioning at certain high temperature.

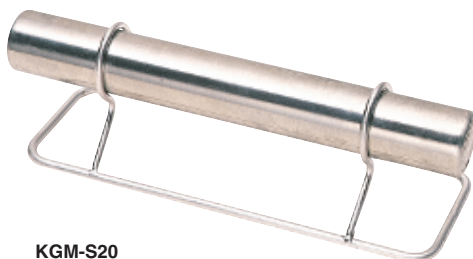


Model	Length	Diameter	Surface Max. Magnetic Flux Density	Working Temp. Upper Limit	Mass
KGM-T20	194 (7.63)	φ25 (0.98)	130mT (1300G)	Approx. 150°C (302° F)	0.5 kg/1.10 lb
KGM-T25	244 (9.60)				0.55kg/1.21 lb
KGM-T30	295 (11.6)				0.65kg/1.43 lb

※The tapped holes are 2-M5, depth 6. ※Casing material: SUS304

Note: To use these magnetic bars in liquids (e.g. water) other than oil, please specify "enclosed type."

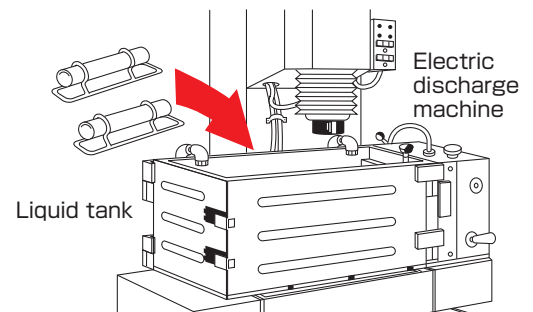
Model KGM-S MAGNETIC BAR WITH STAND



KGM-S20

[Application]

This magnetic bar is equipped with a stand which permits it to be placed in a tank to remove iron in liquid. We recommend that the bar be packed in a polyethylene or vinyl bag beforehand for convenience of removal of iron sticking to the bar.



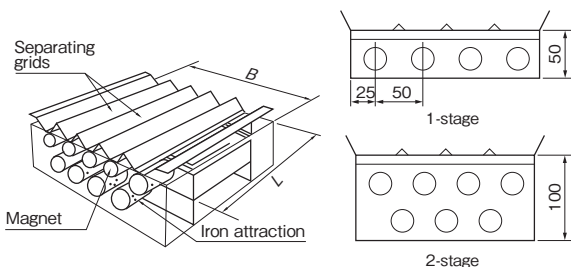
Model	Magnetic Bar			Stand			Mass
	Length	Dia.	Surface Max. Magnetic Flux Density	Height	Depth	Width	
KGM-S20	194 (7.63)	φ25 (0.98)	130mT (1300G)	54 (2.12)	60 (2.36)	170 (6.69)	約0.6kg/1.32 lb

※outer material : SUS304

Model KGM RECTANGULAR GRID TYPE MAGNETIC BAR UNIT



KGM-2025



A powerful type of 500 mT (5000 G) is also available.

[Application]

A unit consisting of powerful permanent magnets. These units are indispensable for removal of iron from granular materials in the fine particle and chemical industries to enhance the work efficiency.

[Features]

- The grid layout ensures the very high iron removal performance.
- Easy installation for a wide range of applications.
- The two-stage model having a higher iron removal capacity is also available.

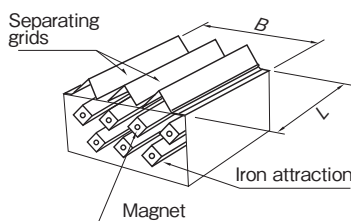
Model	Type	Surface Max. Magnetic Flux Density	Processing Capacity	No. of Magnets	Dimensions		Mass
					B	L	
KGM-2020	1-stage	130 mT (1300 G)	6m³/h	4	200 (7.87)	200 (7.87)	3.5kg / 7.7 lb
KGM-2020W	2-stage			7			6.0kg / 13.2 lb
KGM-2025	1-stage		8m³/h	4	250 (9.84)	250 (9.84)	4.2kg / 9.2 lb
KGM-2025W	2-stage			7			6.5kg / 14.3 lb
KGM-2525	1-stage		10m³/h	5	250 (9.84)	250 (9.84)	5.0kg / 11.0 lb
KGM-2525W	2-stage			9			8.4kg / 18.5 lb
KGM-2530	1-stage		12m³/h	5	300 (11.8)	300 (11.8)	5.6kg / 12.3 lb
KGM-2530W	2-stage			9			9.5kg / 21.0 lb
KGM-3030	1-stage		14m³/h	6	300 (11.8)	300 (11.8)	6.7kg / 14.7 lb
KGM-3030W	2-stage			11			11.2kg / 24.6 lb
KGM-3040	1-stage		18m³/h	6	400 (15.7)	400 (15.7)	9.0kg / 19.8 lb
KGM-3040W	2-stage			11			15.7kg / 34.6 lb
KGM-4040	1-stage		24m³/h	8	400 (15.7)	400 (15.7)	11.0kg / 24.2 lb
KGM-4040W	2-stage			15			19.8kg / 43.6 lb
KGM-4050	1-stage		30m³/h	8	500 (19.6)	500 (19.6)	13.1kg / 28.8 lb
KGM-4050W	2-stage			15			23.6kg / 52.0 lb

※Casing material: SUS304

Model KGM-H POWERFUL RECTANGULAR GRID TYPE MAGNETIC BAR UNIT



KGM-H2025



[Application]

Suitable for removing iron from granular materials by a strong magnetic force. The two-stage model having a higher iron-removal capacity is also available.

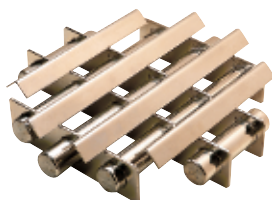
Model	Type	Surface Max. Magnetic Flux Density	Processing Capacity	No. of Magnets	Dimensions		Mass
					B	L	
KGM-H2020	1-stage	320 mT (3200 G)	4.5m³/h	4	200 (7.87)	200 (7.87)	3.5kg / 7.72 lb
KGM-H2020W	2-stage			7			6.5kg / 14.33 lb
KGM-H2025	1-stage		6.0m³/h	4	250 (9.84)	250 (9.84)	4.5kg / 9.92 lb
KGM-H2025W	2-stage			7			8.0kg / 17.67 lb

※Casing material: SUS304

Model KGM-C ROUND GRID TYPE MAGNETIC BAR UNIT



KGM-CF25 (With outer frame)



KGM-C25 (Without outer frame)

A powerful type of 500 mT (5000 G) is also available.

[Application]

A round type that can easily be installed at the feeding port of machines and hoppers or chutes as a gate for iron removal.

Model	Type	Surface Max. Magnetic Flux Density	Processing Capacity	No. of Magnets	Dimensions		Mass
					Frame dia.	Height	
KGM-C20	Without outer frame	130 mT (1300 G)	4.5m³/h	4	(φ 200 (7.87))	55 (2.16)	2.1kg / 4.63 lb
KGM-CF20	With outer frame				60 (2.36)	2.3kg / 5.07 lb	
KGM-C25	Without outer frame		7.0m³/h	5	(φ 250 (9.84))	55 (2.16)	3.3kg / 7.27 lb
KGM-CF25	With outer frame				60 (2.36)	3.6kg / 7.90 lb	

※Casing material: SUS304

Model KGM-HC POWERFUL ROUND GRID TYPE MAGNETIC BAR UNIT



KGM-HCF20 (With outer frame)



KGM-HC20 (Without outer frame)

A round type combined with powerful magnetic bars that can easily be set on hoppers and chutes.

Model	Type	Surface Max. Magnetic Flux Density	Processing Capacity	No. of Magnets	Dimensions		Mass
					Frame dia.	Height	
KGM-HC20	Without outer frame	320 mT (3200 G)	4.5m³/h	3	(φ 200 (7.87))	60 (2.36)	1.6kg / 3.52 lb
KGM-HCF20	With outer frame				2.0kg / 4.41 lb		
KGM-HC25	Without outer frame		7.0m³/h	4	(φ 250 (9.84))	60 (2.36)	2.0kg / 4.41 lb
KGM-HCF25	With outer frame				2.4kg / 5.29 lb		

※Casing material: SUS304

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