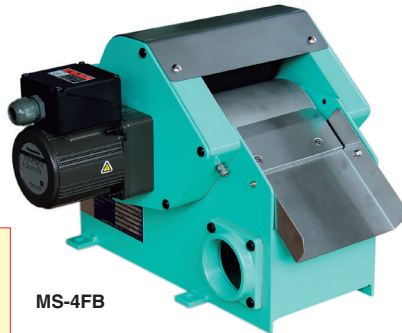


CHIP & SLUDGE CONVEYANCE EQUIPMENT

Model MS-F·FH·FHP MAGCLEAN*

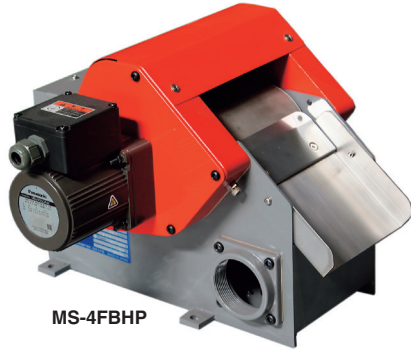
Magnetic coolant separator



MS-4FB

A type having a motor on the right side (MS-F-R) is also available.

Maintenance parts available



MS-4FBHP

[Application]

This unit is incorporated in the grinding fluid purification and circulation system for grinders to remove iron powder, a major part of purification. When this is used together with a tank in which particles other than iron powder such as abrasive grains are separated by floating and precipitation, repurified and regenerated grinding fluid can be supplied to grinders again.

[Features]

- The construction of a stationary magnet and a rotary outer drum shell has no magnet in the area of the rake plate to allow smooth discharge of sludge. (The life of the rake plate is also prolonged.)
- The magnetic drum rotation drive construction has been modified to improve durability significantly.
- The squeezing roller tensioning mechanism has been designed anew to improve the squeezing performance.
- The squeezing roller and inlet areas are covered to enhance safety as well as to prevent grinding fluid from splashing/scattering.
- The outlet location can be selected by the user, right, left or bottom, to allow flexible change of the circulation system layout.
- The high magnetic force type (MS-FaH: drum surface max. flux density 0.3T (3000G))/super high magnetic force type (MS-FHP: 0.5T (5000G)) are most suitable for collection of weak magnetic and minute sludge.
- A type having a motor on the right side (MS-F-R) is also available.



Precaution for use

This is dedicated to grinding fluid (water soluble) only. If you plan to use the Magclean under the following conditions or if you cannot decide a suitable model, please fill the Magclean inquiry sheet at the end of this catalog and consult with us in advance.

- Grinding fluid is oil based.
- Liquid other than grinding fluid is used (such as fresh water and chemical liquid).
- The squeezing roller forced drive type is used.
- KANETEC MS-D type is to be updated.
- Liquid to use is not at normal temperature.

※ Please see the Facsimile Communication Form (Selection Data) on page 173 also.

Applications of Magclean

Machine Tools and Equipment	Iron Powder (Sludge) and Chips	Magclean	Chip Magclean	Paper Filter after Treatment by Magclean	Magclean after Separation and Collection by Chip Conveyor	(Ref.) Chip Conveyor
Precision grinding machine Honing machine	Sludge Fine iron powder	△	×	*1 △	—	×
Cylindrical grinding machine Surface grinding machine Rotary grinding machine	Flocculent fine iron powder Fine iron powder	*3 ○	△	*1 ○	—	×
Machining center Milling machine Lathe Gear cutting machine Broaching machine Drilling machine Special machine	Crushed chips End milling Spiral helical shape 60 mm or less Cylindrical helical shape 60 mm or less Tangled chips 60 mm or less	×	○	×	*2 ○	○
Washing machine	Fine iron powder about 100 μm	○	△	*1 ○	—	×
Hardening equipment	Fine iron particles of various shapes	△	△	*1 △	×	×

○: Effectively functions and high collection rate.

△: Functions but collection rate and processing amount expected to drop.

×: Not suitable.

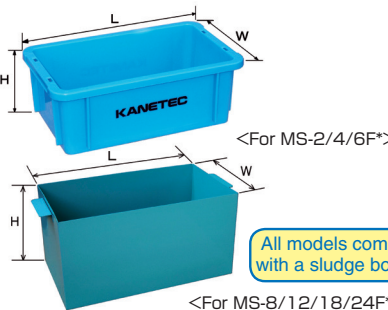
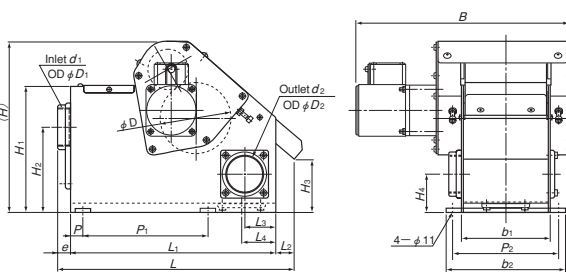
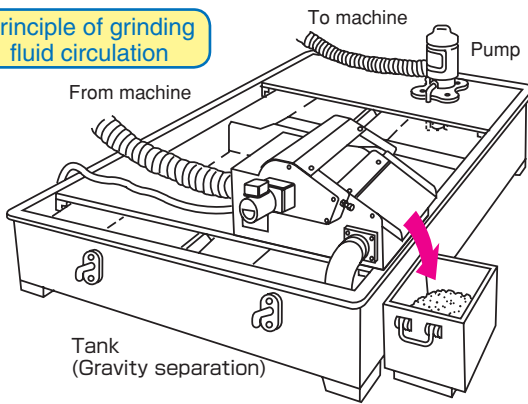
*1: Nonmagnetic fine particles such as abrasives can be collected.

*2: Two steps of chip collection and fine iron powder collection are possible.

*3: May not be collected by the standard type. Please contact us.

Drum surface max. flux density 0.5T!

Principle of grinding fluid circulation



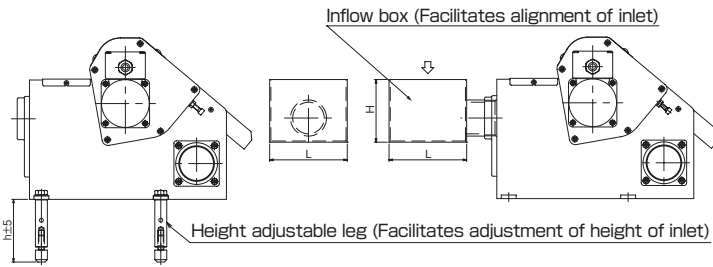
All models come with a sludge box.

Model	Dimensions [mm (in)]		
	L	W	H
MS-2F*	193 (7.59)	148 (5.82)	82 (3.22)
MS-4F*	267 (10.5)	165 (6.49)	95 (3.74)

Model	Dimensions [mm (in)]		
	L	W	H
MS-8F*	308 (12.1)	170 (6.69)	210 (8.26)
MS-12F*	410 (16.1)	230 (9.05)	
MS-18F*	460 (18.1)		
MS-24F*	510 (20.0)		

Standard	Model			Processing Capacity	Power Source	Motor	Dimensions																Mass					
	High mag. force	High mag. force	Super high mag. force				L	B	H	L ₁	L ₂	L ₃	L ₄	e	P	P ₁	P ₂	b ₁	b ₂	H ₁	H ₂	H ₃		H ₄	D	D ₁	d ₁	D ₂
MS-2FB	MS-2FBH	MS-2FBHP	20L/min	3-phase 200 VAC/ 220 VAC, 50/60 Hz	25W	375 (14.7)	278 (10.9)					15 (0.59)												57 (2.24)	PS-1* 1/2		15kg/ 33 lb	
MS-4FB	MS-4FBH	MS-4FBHP	40L/min			380 (14.9)	328 (12.9)	271 (10.6)	330 (12.9)			50 (1.96)	55 (2.16)			200 (7.87)	170 (6.69)	141 (5.55)	191 (7.52)	200 (7.87)	135 (5.31)	84 (3.30)		60 (2.36)	70 (2.75)	PS-2	70 (2.75)	18kg/ 39 lb
MS-6FB	MS-6FBH	MS-6FBHP	60L/min									20 (0.78)			220 (8.66)	191 (7.52)	241 (9.48)									21kg/ 46 lb		
MS-8FB	MS-8FBH	MS-8FBHP	80L/min							30 (1.18)	65 (2.55)	65 (2.55)		20 (0.78)	270 (10.6)	320 (12.6)	291 (11.4)	341 (13.4)	215 (8.46)	142 (5.59)	60 (2.36)	67 (2.63)	114 (4.48)		85 (3.34)	PS-2/ 1/2	32kg/ 70 lb	
MS-12FB	MS-12FBH	MS-12FBHP	120L/min								86 (3.38)	86 (3.38)			420 (16.5)	391 (15.3)	441 (17.3)									102 (4.01)	PS-3	38kg/ 83 lb
MS-18FB	MS-18FBH	MS-18FBHP	180L/min									25 (0.98)		400 (15.7)	470 (18.5)	441 (17.3)	491 (19.3)	250 (9.84)	165 (6.49)	95 (3.74)	77 (3.03)					102 (4.01)	PS-3	45kg/ 99 lb
MS-24FB	MS-24FBH	MS-24FBHP	240L/min												520 (20.4)	491 (19.3)	541 (21.3)											50kg/ 110 lb

Model MS MAGCLEAN* HEIGHT ADJUSTABLE LEGS/INFLOW BOX (Optional)



[Application]

An optional unit to enable the Magclean to be mounted on a machine easily.

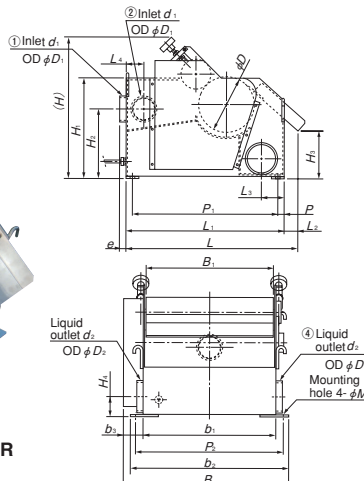
Model			Dimensions		
Standard	High mag. force	Super high mag. force	h	L	H
MS- 2FB	MS- 2FBH	MS- 2FBHP	105 (4.13)	110 (4.33)	105 (4.13)
MS- 4FB	MS- 4FBH	MS- 4FBHP		130 (5.11)	
MS- 6FB	MS- 6FBH	MS- 6FBHP		150 (5.90)	
MS- 8FB	MS- 8FBH	MS- 8FBHP	155 (6.10)	170 (6.69)	115 (4.52)
MS-12FB	MS-12FBH	MS-12FBHP		190 (7.48)	

※For MS-18FB/FBH/FBHP and MS-24FB/FBH/FBHP, please contact us.

Model MS-BS MAGCLEAN*



MS-24BS-BR



[Application]

Suitable for removal of iron powder from grinding fluid.

If you plan to use this model for washing purpose (fresh water and other liquids), please contact us.

Model designation of MS-BS

When ordering MS-BS Series, be sure to specify the direction of the inlet and liquid outlet in the model designation as follows:

MS-24BS-B L

Direction of liquid outlet

L: Left when viewed from the sludge discharge direction. (Liquid outlet ③ in the following figure)

R: Right when viewed from the sludge discharge direction. (Liquid outlet ④ in the following figure)

Direction of the inlet

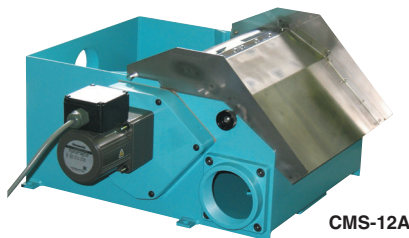
B: Backside (Inlet ① in the following figure)

R: Right when viewed from the sludge discharge direction. (Inlet ② in the following figure)

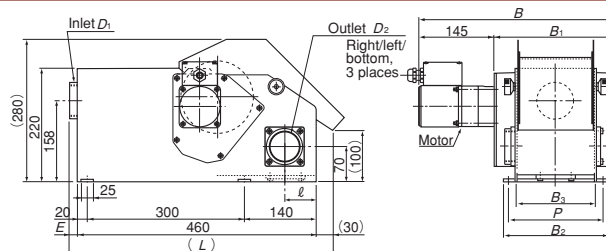
Model	Inlet Direction	Liquid Discharge Direction	Processing Capacity	Power Source	Motor	Dimensions																				Mass												
						L	B	H	L ₁	L ₂	L ₃	L ₄	e	P	P ₁	P ₂	B ₁	b ₁	b ₂	b ₃	H ₁	H ₂	H ₃	H ₄	M		D	D ₁	d ₁	D ₂	d ₂							
MS-24BS-BL	①	③	240L/min	3-phase 200 VAC, 50/60 Hz	90W	670	645	534	620		90	—	25	570	572	495	515	615	80	386	268	189	77	17	214	102	PS-3	127	PS-4	115kg/253 lb								
MS-24BS-BR	②	④				70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
MS-24BS-RL	①	③				839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
MS-24BS-RR	②	④				70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
MS-36BS-BL	①	③	360L/min	3-phase 200 VAC, 50/60 Hz	100W	830	839	670	780		50	105	—	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
MS-36BS-BR	②	④				80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
MS-36BS-RL	①	③				830	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
MS-36BS-RR	②	④				70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
MS-50BS-BL	①	③	500L/min	3-phase 200 VAC, 50/60 Hz	100W	1139	—	—	—		120	—	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
MS-50BS-BR	②	④				90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
MS-50BS-RL	①	③				1030	930	968	1090	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MS-50BS-RR	②	④				70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

※The numbers in "Inlet Direction" and "Liquid outlet" correspond to No. ① to ④ in the figures above. Be sure to check the directions.

Model CMS CHIP MAGCLEAN*



CMS-12A



[Application]

This Chip Magclean is designed to remove/collect chips in coolant that is discharged from cutting operations by machine tools.

[Features]

- The employment of a magnetic drum with special magnetic pole array ensures a high rate of collection.
- The newly designed scrapper improves performance to separate and remove chips from the magnetic drum.
- The expanded discharge space helps stable discharge. The higher side wall helps prevent overflowing.
- The overall height has been reduced by 80 mm by changing the motor mounting position, enabling the Chip Magclean to be mounted in places where it could not be mounted.

Model	Processing Capacity	Power Source	Motor	Dimensions										Mass
				L	B	E	ℓ	B ₁	B ₂	B ₃	P	D ₁	D ₂	
CMS-4A	40L/min	3-phase 200 VAC	25W	505 (19.8)	380 (14.9)	20 (0.78)	70 (2.75)	234 (9.21)	200 (7.87)	152 (5.98)	180 (7.08)	PS-2	PS-2	22kg/ 48 lb
CMS-8A	80L/min	220 VAC, 50/60 Hz		515 (20.2)	430 (16.9)	25 (0.98)	60 (2.36)	284 (11.1)	250 (9.84)	202 (7.95)	230 (9.05)	PS-2-1/2	PS-2-1/2	27kg/ 59 lb
CMS-12A	120L/min	220 VAC, 50/60 Hz		515 (20.2)	580 (22.8)	25 (0.98)	60 (2.36)	434 (17.0)	400 (15.7)	352 (13.8)	380 (14.9)	PS-2-1/2	PS-3	41kg/ 90 lb

CHIP & SLUDGE CONVEYANCE EQUIPMENT

Model FMS SUPER MAGCLEAN*



FMS-240



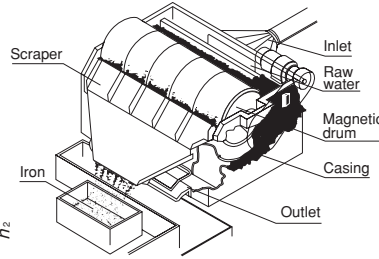
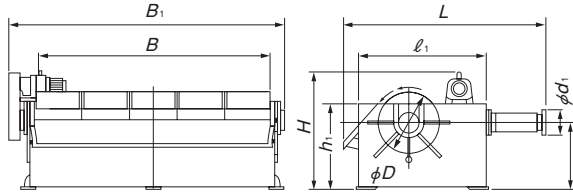
[Application]

Suitable for removing iron from waste water in ironworks and cooling water for steel rolling. This model is also used to remove/collect iron from washing water from blast furnaces, sintering furnaces, dust collectors and other industrial waste water.

[Features]

- A large capacity ranging from 60 t/h to 360 t/h and a wide variety of types. Highly economical.
- A high rate of collection of iron from waste water for economical operations. A collection rate of 94.5% from waste water of 5% concentration (mixture ratio) of rolled scales of 0.02 to 2 mm in grain size.
- The simple mechanism is likely to cause less trouble. The magnetic effect is unchanging and lasts long.
- Smooth inflow and outflow of raw water. As a secondary effect, part of oily substances is also removed.

[mm (in)]



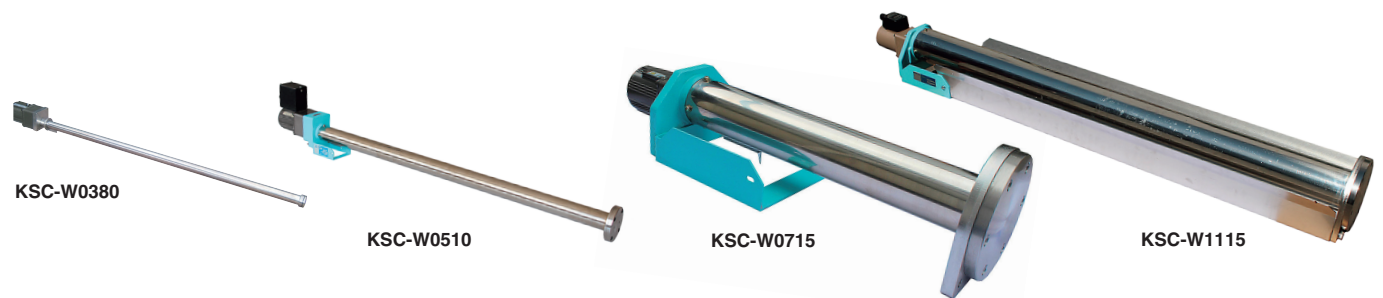
Model	Processing Capacity	Power Source	Motor	Drum Revolution	Dimensions								Mass	
					D	B	B ₁	L	l ₁	h ₂	d ₁	H		h ₁
FMS-60	60t/h	3-phase 200 VAC/ 220 VAC, 50/60 Hz	0.4 kW	4.1/4.8rpm (50/60Hz)	800 (31.5)	650 (25.5)	1130 (44.4)	2020 (79.5)	1700 (66.9)	900 (35.4)	280 (11.0)	1450 (57.1)	1150 (45.2)	2100kg/ 4630 lb
FMS-120	120t/h		0.75kW	4.2/5.0rpm (50/60Hz)		1300 (51.2)	1780 (70.0)	2300 (90.5)			305 (12.0)	1530 (60.2)		3500kg/ 7716 lb
FMS-180	180t/h		1.5 kW	4.3/5.2rpm (50/60Hz)		1950 (76.7)	2470 (97.2)	2600 (102.4)	330 (12.9)		1591 (62.6)	5300kg/11685 lb		
FMS-240	240t/h		2.2 kW	3.9/4.7rpm (50/60Hz)	2600 (102.4)	3140 (123.6)	2800 (110.2)	1800 (70.9)	350 (13.7)	7350kg/16204 lb				
FMS-300	300t/h		3900 (153.5)	4490 (176.8)	2900 (114.2)	9450kg/20834 lb								
FMS-360	360t/h									11300kg/24912 lb				

Examples of data

Liquid to Process	Iron Scale Grain Size (mm)	Super Magclean	Amount of Processing Water	Raw Water Concentration	Processing Water Concentration	Collection Rate
Rolling cooling water	0.04 -5	FMS-240 (4000L/min)	3000L/min	20000P.P.M.	909P.P.M.	95.5%
Continuous casting cooling water	0.04 -0.3	FMS-180 (3000L/min)	1500L/min	14800P.P.M.	784P.P.M.	94.7%
Sand filter backwash water	0.005-0.04	FMS-120 (2000L/min)	200L/min	41600P.P.M.	1780P.P.M.	95.7%

*The collection rate varies according to the concentration of raw water and grain size distribution.

Model KSC-W SPIRAL MAGNETIC CONVEYOR



A guide for selection of models

Machine Tool	Drilling machine		Lathe		Milling machine		Gear cutting machine		Broaching machine	Special machine		Grinding machine
Shape of Chips	Ribbon shaped	Tangled	Flat and helical	Skew and helical	Long cylindrical and helical	Short cylindrical and helical	Spiral and helical	Spiral	Curled	Crushed	Fine iron powder	
Magnetic Chip Conveyor MCO · MCOL	○	○	○	○	○	○	○	○	○	○	○	
Spiral Magnetic Conveyor KSC · KSCT							○	○	○	○		
Magclean MS-F · MS-BS											○	
Chip Magclean CMS						○	○	○	○	○		

*Applicable range: Chips longer than 60 mm cannot be handled regardless of their shapes. * For selection, sample tests are required.

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

[Application]

Widely used as a means to transfer chips produced from machining by machine tools to a point of collection. If oil is sticking to chips, they can be degreased by letting oil drop naturally when chips are being transferred. In particular, this model is suitable for transferring chips from gear cutting machines, end milling machines and milling machines.

This model can also be used for continuous transfer of granular parts.

[Features]

■ Superb durability and safety

Simple construction and practically no maintenance required. Since the mechanically moving (rotating) parts are housed in the enclosed cylinder, there is no fear of accidents due to collision.

■ Economical functions

High processing capacity and high transfer efficiency. As chips are carried by the spiral slide movement, their movement causes sticking oil to drop off effectively. There is no place where oil stays and therefore oil natural drop is ideal to improve the efficiency of collection of liquid.

■ Low running cost

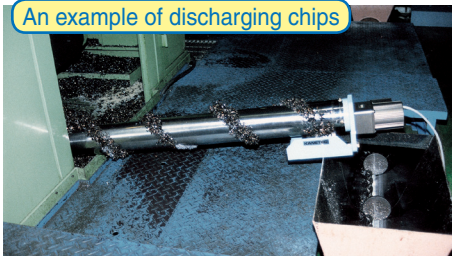
Only a slight amount of power is required to drive the rotation. Most of the work is handled by the permanent magnets.

※For other special lengths, please contact us. The length can be increased in units of 100 mm.

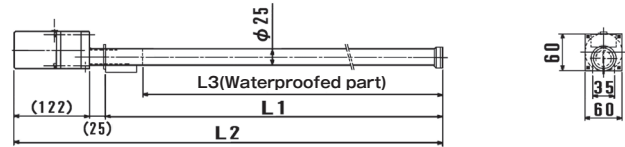
■ The waterproof feature enables collection of chips in liquid.

※The motor is not waterproofed. Keep it away from water.

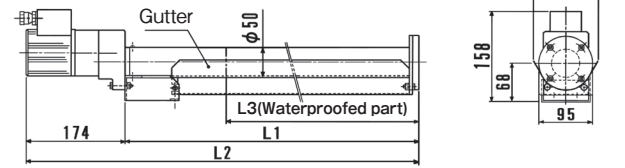
An example of discharging chips



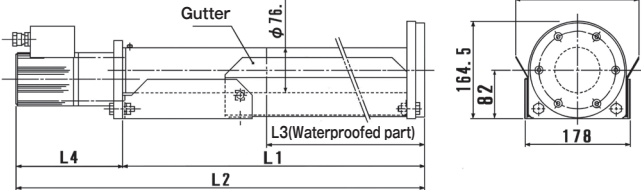
<Super Small Size Series>



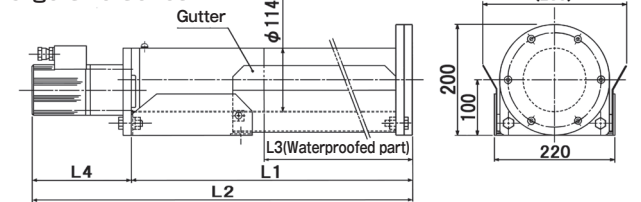
<Small Size Series>



<Medium Size Series>



<Large Size Series>



<Construction>

The spiral magnetic conveyor motor slowly rotates the internal shaft with spirally arranged magnets inside the nonmagnetic stainless steel cylinder. Magnetic chips/pieces attracted on the outside of the cylinder are transferred in a sliding motion.

■ Super Small Size Series

Model	Nominal Size	Dimensions			Processing Capacity	Power Source	Motor	Revolution	Mass
		L ₁	L ₂	L ₃					
KSC -W0340	φ25 (1.96) × 400 (15.7)	400 (15.7)	547 (21.5)	315 (12.4)	2kg/h	100 VAC (50/60Hz)	6W	10/12rpm (50/60Hz)	Approx. 3.0kg/ 6.61 lb
KSC -W0360	φ25 (1.96) × 600 (23.6)	600 (23.6)	747 (29.4)	515 (20.2)					Approx. 3.5kg/ 7.71 lb
KSC -W0380	φ25 (1.96) × 800 (31.5)	800 (31.5)	947 (37.2)	715 (28.1)					Approx. 4.0kg/ 8.82 lb

■ Small Size Series

Model	Type	Nominal Size	Dimensions			Processing Capacity	Power Source	Motor	Revolution	Mass
			L ₁	L ₂	L ₃					
KSC -W0505	Standard	φ50 (1.96) × 500 (19.6)	551 (21.6)	725 (28.5)	350 (13.7)	60kg/h	3-phase 200/220 VAC	25W	30/36rpm (50/60Hz)	Approx. 6.0kg/ 13.2 lb
KSCT -W0505	Gutter included									Approx. 7.0kg/ 15.4 lb
KSC -W0510	Standard	φ50 (1.96) × 1000 (39.4)	1041 (40.9)	1215 (47.8)	840 (33.0)					Approx. 10.0kg/ 22.0 lb
KSCT -W0510	Gutter included									Approx. 11.0kg/ 24.2 lb
KSC -W0515	Standard	φ50 (1.96) × 1500 (59.0)	1531 (60.2)	1705 (67.1)	1330 (52.3)					Approx. 14.0kg/ 30.8 lb
KSCT -W0515	Gutter included									Approx. 16.0kg/ 35.2 lb

■ Medium Size Series

Model	Type	Nominal Size	Dimensions				Processing Capacity	Power Source	Motor	Revolution	Mass
			L ₁	L ₂	L ₃	L ₄					
KSC -W0705	Standard	φ76.3 (3.00) × 500 (19.6)	514 (20.2)	656 (25.8)	270 (10.6)	142 (5.59)	90kg/h	3-phase 200/220 VAC	25W	30/36rpm (50/60Hz)	Approx. 15.0kg/ 33.0 lb
KSCT -W0705	Gutter included		Approx. 17.0kg/ 37.4 lb								
KSC -W0710	Standard	φ76.3 (3.00) × 1000 (39.4)	1014 (39.9)	1156 (45.5)	770 (30.3)	180 (7.08)					Approx. 21.0kg/ 46.3 lb
KSCT -W0710	Gutter included		Approx. 26.0kg/ 57.3 lb								
KSC -W0715	Standard	φ76.3 (3.00) × 1500 (59.0)	1514 (59.6)	1694 (66.6)	1270 (49.9)	180 (7.08)					Approx. 25.0kg/ 55.0 lb
KSCT -W0715	Gutter included		Approx. 33.0kg/ 72.7 lb								
KSC -W0720	Standard	φ76.3 (3.00) × 2000 (78.7)	2014 (79.2)	2194 (86.3)	1770 (69.6)	180 (7.08)	Approx. 30.0kg/ 66.1 lb				
KSCT -W0720	Gutter included		Approx. 41.0kg/ 90.4 lb								

■ Large Size Series

Model	Type	Nominal Size	Dimensions				Processing Capacity	Power Source	Motor	Revolution	Mass
			L ₁	L ₂	L ₃	L ₄					
KSC -W1110	Standard	φ114.3 (4.49) × 1000 (39.4)	1021 (40.1)	1201 (47.2)	770 (30.3)	180 (7.08)	250kg/h	3-phase 200/220 VAC	40W	30/36rpm (50/60Hz)	Approx. 35.0kg/ 77.1 lb
KSCT -W1110	Gutter included		Approx. 40.0kg/ 88.2 lb								
KSC -W1115	Standard	φ114.3 (4.49) × 1500 (59.0)	1516 (59.6)	1696 (66.7)	1270 (49.9)	180 (7.08)					Approx. 46.0kg/ 101.4 lb
KSCT -W1115	Gutter included		Approx. 54.0kg/ 119.0 lb								
KSC -W1120	Standard	φ114.3 (4.49) × 2000 (78.7)	2011 (79.1)	2191 (86.2)	1770 (69.6)	202 (7.95)					Approx. 56.0kg/ 123.4 lb
KSCT -W1120	Gutter included		Approx. 67.0kg/ 147.7 lb								
KSC -W1125	Standard	φ114.3 (4.49) × 2500 (98.4)	2506 (98.6)	2708 (106.6)	2260 (88.9)	202 (7.95)	Approx. 81.0kg/ 178.6 lb				
KSCT -W1125	Gutter included		Approx. 78.0kg/ 171.9 lb								
KSC -W1130	Standard	φ114.3 (4.49) × 3000 (118.1)	3001 (118.1)	3203 (126.1)	2760 (108.6)	202 (7.95)	Approx. 95.0kg/ 209.4 lb				
KSCT -W1130	Gutter included										

※The processing capacity is a value measured in conveying SS400 chips from a gear cutting machine in a horizontal posture.

※The drive posture is allowed up to an inclination of 60 degrees with the motor on top. (However, the capacity drops as the inclination angle increases.)

※Model KSCT is equipped with a gutter to receive oil that drops from chips during conveyance. ※For other special lengths, please contact us. The length can be increased in units of 100 mm.

MAGNETIC TOOL & EQUIPMENT FOR MIDDING OPERATION
LIFTING MAGNET
MAGBORE™
CHIP & SLUDGE CONVEYANCE EQUIPMENT
MAGNETIZER AND ENVIRONMENTAL EQUIPMENT
MAGNETIZER AND DEMAGNETIZER
MAGNETIC EQUIPMENT FOR CONVEYANCE
MAGNETIC SEPARATORS
POWERFUL MAGNETIC SEPARATORS
MEASURING INSTRUMENTS
MAGNETIC MATERIALS

CHIP & SLUDGE CONVEYANCE EQUIPMENT

Model **KSCL** Magnetic Transfer Unit "TRANSFERLESS CONVEYOR" (CREEPER MAG)

Flexible chip transfer! Lean layout to keep work environment neat! Shapes that fit installation space!

[Application]

This model is suitable for places where the linear type KSC is difficult to install.

[Features]

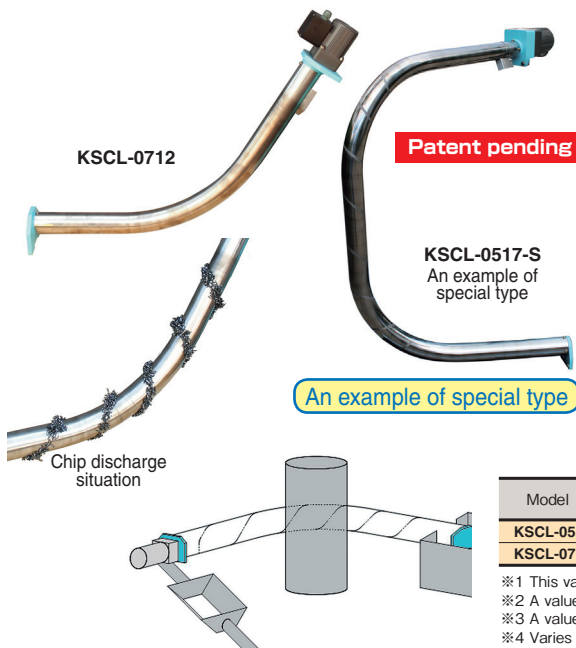
- The bending shape has been realized by a special construction to allow setting of the bending direction and angle according to installation conditions.
- This model can be installed in a very small space such as inside a machine.
- The layout where two linear type units are used to circumvent the existing facilities can be replaced by one unit.
- Special treatment of the pipe surface ensures reliable transfer. (Model KSCL-05)



Precaution for use

If you want to use the main unit immersed in liquid, please consult with us.

[mm (in)]



An example of special type

Model	Max. Length	Applicable Pipe Dia.	Min. Bending Radius	Max. No. of Bending Times	Processing Capacity	Power Source	Motor #4	Mass
KSCL-05	Max. 4m	50 (1.96)	250 (9.84)	2 times ※1	18kg/h ※2	3-phase 200/220 VAC 50/60Hz	25W	12kg/26.4 lb
KSCL-0712	Max. 3m	76.3 (3.00)	500 (19.6)		25kg/h ※3		40W	25kg/55.1 lb

※1 This varies according to shapes. Please contact us in advance.
 ※2 A value obtained with SS400 chips using the KSCL-0517-S spec.
 ※3 A value obtained with SS400 chips using the KSCL-0712 spec.
 ※4 Varies according to specifications such as length.

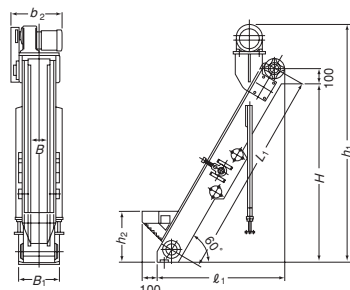
Model **MCO** MAGNETIC CHIP CONVEYOR

[Application]

This model is designed to effectively attract, convey and remove chips produced from machine tools by a magnetic force while letting oil sticking to chips drop naturally. (This model is suitable for chips shorter than 60 mm.)

[Features]

- As chips are held by magnets, they can be conveyed on a sharp inclination. This feature enables it to shorten the line and reduce the floor area, thus contributing to effective three-dimensional utilization of factory space.
- Fine chips can be attracted and oil can be removed efficiently.
- The optimum design by use of high-performance permanent magnets and little attenuation of the magnetic force. Simplified mechanism for trouble-free operation.



Model	Conveying Speed	Power Source	Motor	Dimensions							Mass	
				B	L	H	B ₁	b ₂	ℓ ₁	h ₁		h ₂
MCO-1515A	Approx. 8/9.5 m/min (50/60Hz)	3-phase 200VAC	400W	150 (5.90)	1500 (59.0)	1270 (50.0)	284	375	925 (36.4)	1620 (63.7)	350 (13.7)	140kg/308 lb
MCO-1520A					2000 (78.7)	1700 (66.9)						1180 (46.4)
MCO-1530A					3000 (118.1)	2570 (101.2)	(11.1)	(14.7)	1675 (65.9)	2905 (114.4)		190kg/418 lb
MCO-2015A					1500 (59.0)	1270 (50.0)	334	425	925 (36.4)	1620 (63.7)		150kg/330 lb
MCO-2020A					2000 (78.7)	1700 (66.9)						1180 (46.4)
MCO-2030A					3000 (118.1)	2570 (101.2)	(13.1)	(16.7)	1675 (65.9)	2905 (114.4)		210kg/463 lb
MCO-2515A				1500 (59.0)	1270 (50.0)	394	475	925 (36.4)	1620 (63.7)	160kg/352 lb		
MCO-2520A				2000 (78.7)	1700 (66.9)					1180 (46.4)	2060 (81.0)	190kg/418 lb
MCO-2530A				3000 (118.1)	2570 (101.2)	(15.5)	(18.7)	1675 (65.9)	2905 (114.4)	230kg/507 lb		

[mm (in)]

Model **MCOL** MAGNETIC CHIP CONVEYOR



Powerful type is added to the series. For special sizes, please contact us.

[Application]

This model is installed in front of a tank to which cutting fluid flows from a machine tool to attract (pick up) chips by a magnetic force in cutting fluid to remove and convey them. (This model is suitable for chips shorter than 60 mm.)

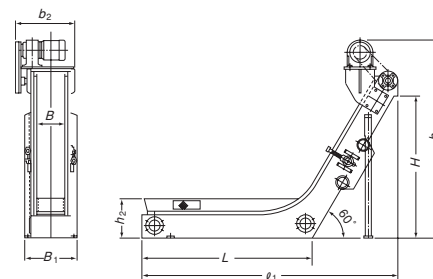
[Features]

- A model that plays two roles of horizontal conveyor and inclined conveyor by one unit.
- Can be installed directly on an oil tank or machine tool.

MCOL-2515A

Model	Conveying Speed	Power Source	Motor	Dimensions							Mass				
				B	L	H	B ₁	b ₂	ℓ ₁	h ₁		h ₂			
MCOL-1510A	Approx. 8/9.5 m/min (50/60Hz)	3-phase 200 VAC	400W	150 (5.90)	1000 (39.7)	1000	284	375	1600 (62.9)	1390	275	160kg/352 lb			
MCOL-1515A					1500 (59.0)							2100 (82.6)	190kg/418 lb		
MCOL-2010A					2000 (78.7)	1000 (39.7)	334	425	1600 (62.9)	1390	275	175kg/385 lb			
MCOL-2015A					1500 (59.0)	(39.7)	(13.1)	(16.7)	2100 (82.6)			(54.7)	(10.8)	220kg/485 lb	
MCOL-2510A					260 (10.2)	1000 (39.7)	394	475	1600 (62.9)	1565	283	200kg/440 lb			
MCOL-2515A					1500 (59.0)	(15.5)	(18.7)	2100 (82.6)	250kg/551 lb						
MCOL-H2010A				Approx. 10/12 m/min (50/60Hz)			200 (7.87)	1000 (39.7)	1050 (41.3)	348	473	1664 (65.5)	1565	283	180kg/396 lb
MCOL-H2015A								1500 (59.0)	(13.7)	(18.6)	2164 (85.1)	(61.6)	(11.1)	225kg/496 lb	

[mm (in)]



MAGNETIC TOOL & EQUIPMENT FOR MACHINE OPERATION
 LIFTING MAGNET
 MAGBORE*
 CHIP & SLUDGE CONVEYANCE EQUIPMENT
 ENVIRONMENTAL MAGNETIZER AND DEMAGNETIZER
 MAGNETIC EQUIPMENT FOR CONVEYANCE
 SEPARATORS, SEPARATORS
 POWERFUL MAGNETIC TOOLS
 MEASURING INSTRUMENTS
 MAGNETIC MATERIALS

Model CS FILTRATION SYSTEM WITH CYCLONE SEPARATOR



CS-MS-4T

Increased rate of removing impurities in coolant by magnet & cyclone!

[Application]

Suitable for efficiently collecting valuable sludge of weak magnetic and nonmagnetic materials.

[Features]

- The cyclone separator enables it collect nonmagnetic materials.
- Collected materials can be dehydrated by the dehydration function.
- A filter collection type dehydration container that is easy to handle is employed.
- The twin-tub type tank construction reduces the amount of impurities that enter the clean tank.

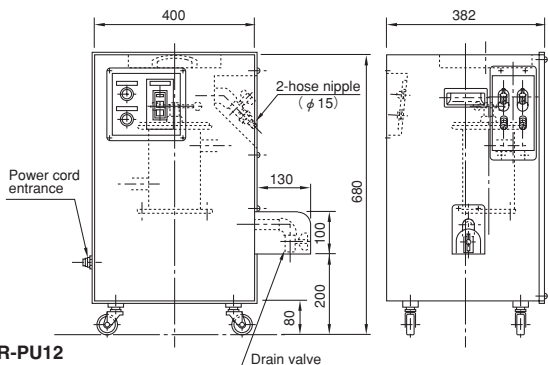
Model	Processing Capacity	Dimensions			Tank Capacity	Power Source	Output			Remarks
		Width	Depth	Height			Cyclone pump	Supply pump	Magclean	
CS-MS-4T	40L/min	1200	800	1300	180L	3-phase 200 VAC, 50/60 Hz 3-phase 220 VAC, 60 Hz	200/220VAC 0.75kW	3-phase 200 VAC 50/60Hz 100W	3-phase 200 VAC 50/60Hz 25W	Magclean included
CS-4T		(47.2)	(31.5)	(51.1)			—		Magclean not included	

Model HSR-PU MAGNETIC PREFILTER WITH PUMP

Extended Life! Revolution in Filtering for Wire Electric Discharge Machines!



HSR-PU12



[Application]

This prefilter collects fine iron powder in machining fluid during fluid circulation inside the machining liquid tank of wire electric discharge machines to prolong the service life of filters. This can also be used for honing machines and hydraulic circuits (under no pressure).

[Features]

- This prefilter has a pump and therefore can be started simply by connecting hoses (two hoses) to a machining liquid tank. This can be installed in any place and handled easily.
- The powerful magnetic force of a rare earth magnet improves the sludge collecting rate.
- The safe construction with the powerful magnet section secured firmly facilitates cleaning.
- The built-in integrating timer tells when to clean.

■ Model : HSR-PU12 ■ Processing amount: Approx. 1.5 liters/min.
■ Pump rating: 3-phase, 200/220 VAC, 50/60 Hz, 200W ■ Weight: Approx. 60 kg

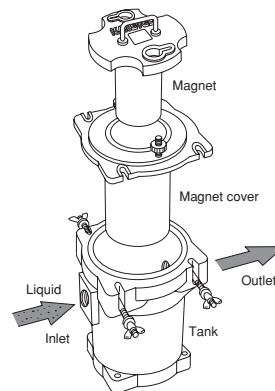
Caution: For use of the prefilter for kerosene machining fluids, please contact us.

Model HS MAGNETIC PREFILTER



HS-17

Magnet unit with sludge adhering pulled out of the tank.



[Application]

This prefilter removes fine iron powder from machining liquid discharged from a wire electric discharge machine (WEDM). This can also be used for honing machines and hydraulic circuits (under no pressure). Install this prefilter at a point between a wire electric discharge machine and a pump unit.

[Features]

- By roughly removing fine iron powder from machining fluid with the powerful magnet as a pretreatment, the service life of the paper filter, for example, becomes two times longer.
- The prefilter collects impurities as well as fine iron powder. Consequently, the paper filter to use may be of coarser type than that of the straight inflow.
- The duplex construction facilitates removal of fine iron powder.

Model	Dimensions	Hose Connection	Mass
HS-17	175 (6.88) D x 200 (7.87) W x 230 (9.05) H	1 1/2	12kg/26 lb

※Hose nipple 1-1/2 (telescopic, OD φ38) is optional.

MAGNETIC TOOLS & EQUIPMENT FOR MIDD 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