Model MS-F·FH·FHP MAGCLEAN*

Magnetic coolant separator

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

MS-4Fa

Maintenance parts available

MS-4FHP

Drum surface max. flux density 0.5T!

[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 can be located on the 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.

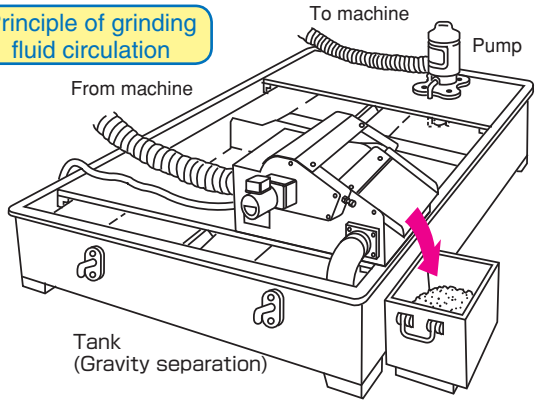
Precaution for use

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 171 also.

Principle of grinding fluid circulation

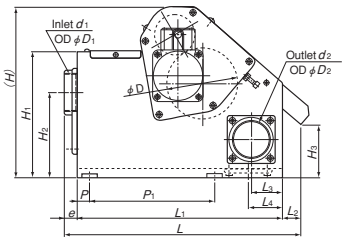


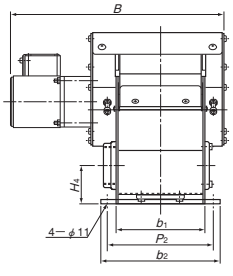
Applications of Magclean

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 Centerless grinding machine Surface grinding machine Rotary grinding machine	Flocculent fine iron powder	※3 ○	△	※1 ※3 ○	–	×
	Fine iron powder	○	△	※1 ○	–	×
Machining center Milling machine Lathe Gear cutting machine Broaching machine Drilling machine Special machine	Crushed chips End milling	×	○	×	※2 ○	○
	Spiral helical shape 60 mm or less	×	×	×	※2 ○	○
	Cylindrical helical shape 60 mm or less	×	×	×	※2 ○	○
	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 △	×	×

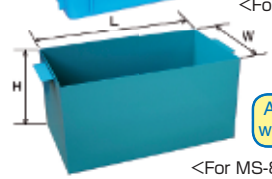
○: Effectively functions and high collection rate.
△: Functions but collection rate and processing amount expected to drop.
×: Not suitable.

※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.





<For MS-2/4/6F*>



All models come with a sludge box.

<For MS-8/12/18/24F*>

[mm(in)]

Model	Dimensions 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)
MS-6F*			

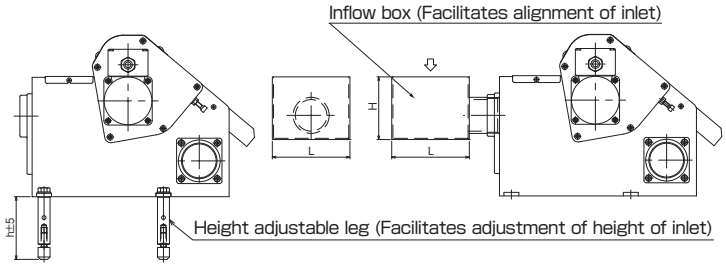
[mm(in)]

Model	Dimensions 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)		

[mm(in)]

Model			Processing Capacity	Power Source	Motor	Dimensions																					Mass
Standard	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	d_2	
MS- 2Fa	MS- 2FaH	MS- 2FHP	20L/min	3-phase 200 VAC/ 220 VAC, 50/60 Hz	25W	375 (14.7)	278 (10.9)	271 (10.6)	330 (12.9)	30 (1.18)	50 (1.96)	55 (2.16)	15 (0.59)	20 (0.78)	200 (7.87)	120 (4.72)	91 (3.58)	141 (5.55)	200 (7.87)	135 (5.31)	84 (3.30)	60 (2.36)	114 (4.48)	57 (2.24)	PS-1・1/2	70 (2.75)	PS-2	15kg/ 33 lb
MS- 4Fa	MS- 4FaH	MS- 4FHP	40L/min			380 (14.9)	328 (12.9)									170 (6.69)	141 (5.55)	191 (7.52)									18kg/ 39 lb
MS- 6Fa	MS- 6FaH	MS- 6FHP	60L/min				378 (14.8)									220 (8.66)	191 (7.52)	241 (9.48)						70 (2.75)	PS-2		21kg/ 46 lb
MS- 8Fa	MS- 8FaH	MS- 8FHP	80L/min		40W	510 (20.0)	505 (19.8)	286 (11.2)	460 (18.1)		65 (2.55)	65 (2.55)			270 (10.6)	320 (12.6)	291 (11.4)	341 (13.4)	215 (8.46)	142 (5.59)	60 (2.36)			85 (3.34)	PS-2・1/2		32kg/ 70 lb
MS-12Fa	MS-12FaH	MS-12FHP	120L/min			515 (20.2)	605 (23.8)				86 (3.38)	86 (3.38)	25 (0.98)			420 (16.5)	391 (15.3)	441 (17.3)		151 (5.94)	67 (2.63)			85 (3.34)	PS-2・1/2	102 (4.01)	PS-3	38kg/ 83 lb
MS-18Fa	MS-18FaH	MS-18FHP	180L/min			655 (25.7)	655 (25.7)	321 (12.6)	600 (23.6)		80 (3.14)	95 (3.74)			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	—	PS-4	45kg/ 99 lb
MS-24Fa	MS-24FaH	MS-24FHP	240L/min			705 (27.7)										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.

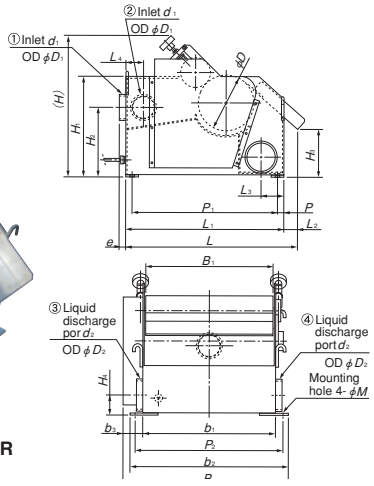
[mm(in)]

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

※For MS-18Fa/FaH/FHP and MS-24Fa/FaH/FHP, 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 discharge port in the model designation as follows:

MS-24BS-B L

Direction of liquid discharge port
L: Left when viewed from the sludge discharge direction. (Liquid discharge port ③ in the following figure)
R: Right when viewed from the sludge discharge direction. (Discharge port ④ in the following figure)

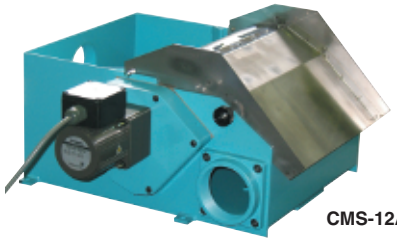
Direction of the inlet
B: Backside (Inlet ① in the following figure)
R: Right when viewed from the sludge discharge direction. (Inlet ② in the following figure)

[mm(in)]

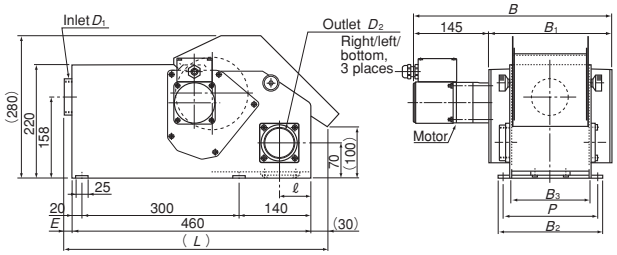
Model	Inlet Direction	Liquid Discharge Direction	Processing Capacity	Power Source	Motor	Dimensions L	B	H	L1	L2	L3	L4	e	P	P1	P2	B1	b1	b2	b3	H1	H2	H3	H4	M	D	D1	d1	D2	d2	Mass
MS-24BS-BL	①	③	240L/min	3-phase 200 VAC, 50/60 Hz	90W	670(26.3)	645(25.3)	534(21.0)	620(24.4)		90(3.54)	—	25(0.98)	25(0.98)	570(22.4)	572(22.5)	495(19.8)	515(20.2)	615(24.2)	80(31.5)	386(15.2)	268(10.5)	189(7.44)	77(3.03)	17(0.66)	214(8.42)	102(4.01)	PS-3	127(5.00)	PS-4	115kg/253 lb
MS-24BS-BR		④																													
MS-24BS-RL	②	③										70(2.75)	—																		
MS-24BS-RR		④																													
MS-36BS-BL	①	③	360L/min		100W	830(32.6)	839(33.0)	670(26.3)	780(30.7)	50(1.96)	105(41.3)	—	35(1.37)	30(1.18)	720(28.4)	730(28.7)	630(24.8)	668(26.3)	790(31.1)	110(4.33)	500(19.6)	345(13.5)	264(10.4)	100(3.93)	22(0.86)	317(12.4)	127(5.00)	PS-4	154(6.06)	PS-5	292kg/643 lb
MS-36BS-BR		④																													
MS-36BS-RL	②	③										80(3.15)	—																		
MS-36BS-RR		④																													
MS-50BS-BL	①	③	500L/min				1139(44.8)				120(3.54)	—	35(1.37)			1030(40.5)	930(36.6)	968(38.1)	1090(42.9)			358(14.0)		115(4.52)		154(6.06)	PS-5	182(7.16)	PS-6	375kg/826 lb
MS-50BS-BR		④																													
MS-50BS-RL	②	③										90(3.54)	—																		
MS-50BS-RR		④																													

※The numbers in "Inlet Direction" and "Liquid Discharge Direction" 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.

[mm(in)]

Model	Processing Capacity	Power Source	Motor	Dimensions L	B	E	ℓ	B1	B2	B3	P	D1	D2	Mass
CMS-4A	40L/min	3-phase 200 VAC/220 VAC, 50/60 Hz	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				430(16.9)			284(11.1)	250(9.84)	202(7.95)	230(9.05)		PS-2・1／2	27kg/59 lb
CMS-12A	120L/min			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*

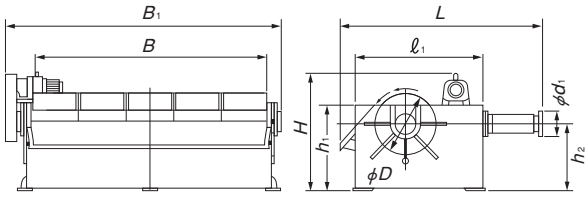
FMS-240

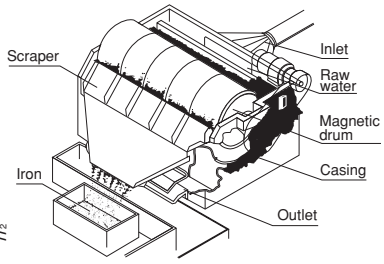
[Application]

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)]

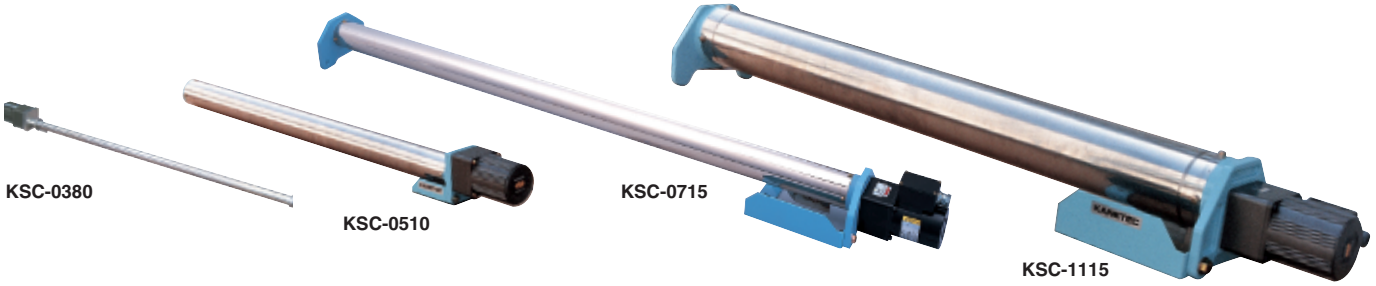
Model	Processing Capacity	Power Source	Motor	Drum Revolution	Dimensions									Mass
					D	B	B1	L	ℓ1	h2	d1	H	h1	
FMS- 60	60t/h	3-phase 200 VAC/ 220 VAC, 50/60 Hz	0.4 kW	4.1/4.8rpm (50/60Hz)	800 (31.5)	650 (25.5)	1130 (44.4)	2020 (79.5)	1700 (66.9)	900 (35.4)	280 (11.0)	1450 (57.1)	1150 (45.2)	2100kg/ 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					1950 (76.7)	2470 (97.2)				330 (12.9)			5300kg/11685 lb
FMS- 240	240t/h		1.5 kW	4.3/5.2rpm (50/60Hz)		2600 (102.4)	3140 (123.6)	2600 (102.4)	1800 (70.9)			1591 (62.6)		7350kg/16204 lb
FMS- 300	300t/h					3250 (128.0)	3820 (150.4)	2800 (110.2)			350 (13.7)			9450kg/20834 lb
FMS- 360	360t/h		2.2 kW	3.9/4.7rpm (50/60Hz)		3900 (153.5)	4490 (176.8)	2900 (114.2)						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 SPIRAL MAGNETIC CONVEYOR



KSC-0380

KSC-0510

KSC-0715

KSC-1115

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 Conveyorr **MCO · MCOL**	○	○	○	○	○	○	○	○	○	○	
Spiral Magnetic Conveyor **KSC · KSCT**							○	○	○	○	
Magclean **MS–F · MS–BR**											○
Chip Magclean **CMS**						○	○	○	○	○	

※Applicable range: Chips longer than 60 mm cannot be handled regardless of their shapes.

[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.

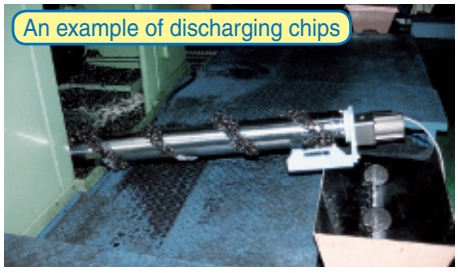
Low running cost

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.

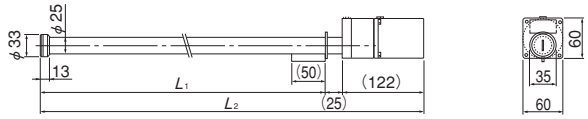
Precaution for use

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

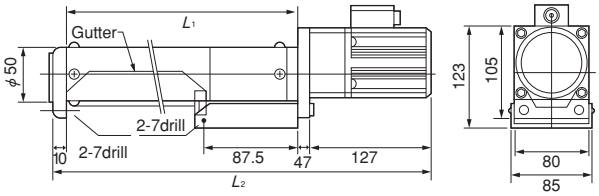


Unit : mm

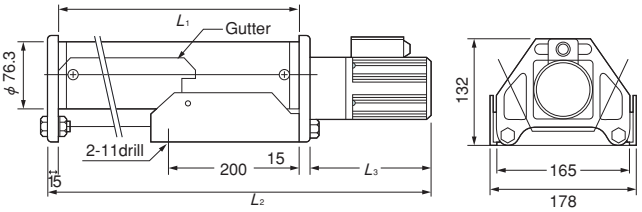
<Super Small Size Series>



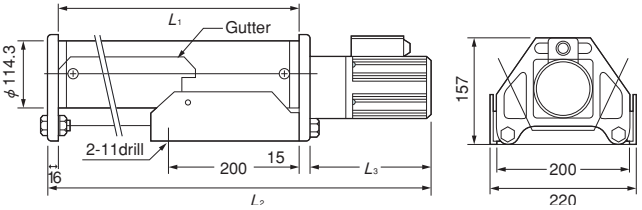
<Small Size Series>



<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

[mm(in)]

Model	Nominal Size	Dimensions L_1	Dimensions L_2	Processing Capacity	Power Source	Motor	Revolution	Mass
KSC -0340	φ25(1.96)× 400(15.7)	400(15.7)	547(21.5)	2kg/h	100 VAC (50/60Hz)	6W	10/12rpm (50/60Hz)	Approx. 3.0kg/ 6.61 lb
KSC -0360	φ25(1.96)× 600(23.6)	600(23.6)	747(29.4)					Approx. 3.5kg/ 7.71 lb
KSC -0380	φ25(1.96)× 800(31.5)	800(31.5)	947(37.2)					Approx. 4.0kg/ 8.82 lb

Small Size Series

[mm(in)]

Model	Type	Nominal Size	Dimensions L_1	Dimensions L_2	Processing Capacity	Power Source	Motor	Revolution	Mass
KSC -0505	Standard	φ50(1.96)× 500(19.6)	538(21.1)	722(28.4)	60kg/h	3-phase 200/220 VAC	25W	30/36rpm (50/60Hz)	Approx. 5.0kg/ 11.0 lb
KSCT -0505	Gutter included								Approx. 6.0kg/ 13.2 lb
KSC -0510	Standard	φ50(1.96)×1000(39.4)	1028(40.4)	1212(47.7)					Approx. 9.0kg/ 19.8 lb
KSCT -0510	Gutter included								Approx.10.0kg/ 22.0 lb
KSC -0515	Standard	φ50(1.96)×1500(59.0)	1518(59.7)	1702(67.0)					Approx.13.0kg/ 28.6 lb
KSCT -0515	Gutter included								Approx.15.0kg/ 33.0 lb

Medium Size Series

[mm(in)]

Model	Type	Nominal Size	Dimensions L_1	Dimensions L_2	Dimensions L_3	Processing Capacity	Power Source	Motor	Revolution	Mass
KSC -0705	Standard	φ75(2.95)× 500(19.6)	499 (19.6)	656 (25.8)	127 (5.0)	90kg/h	3-phase 200/220 VAC	25W	30/36rpm (50/60Hz)	Approx. 6.5kg/ 14.3 lb
KSCT -0705	Gutter included									Approx. 8.5kg/ 18.7 lb
KSC -0710	Standard	φ75(2.95)×1000(39.4)	999 (39.3)	1156 (45.5)						Approx.12.5kg/ 27.5 lb
KSCT -0710	Gutter included									Approx.17.5kg/ 38.5 lb
KSC -0715	Standard	φ75(2.95)×1500(59.0)	1499 (59.0)	1694 (66.6)	165 (6.49)			40W		Approx.19.0kg/ 41.8 lb
KSCT -0715	Gutter included									Approx.27.0kg/ 59.4 lb
KSC -0720	Standard	φ75(2.95)×2000(78.7)	1999 (78.7)	2194 (86.3)						Approx.25.0kg/ 55.0 lb
KSCT -0720	Gutter included									Approx.36.0kg/ 79.2 lb

Large Size Series

[mm(in)]

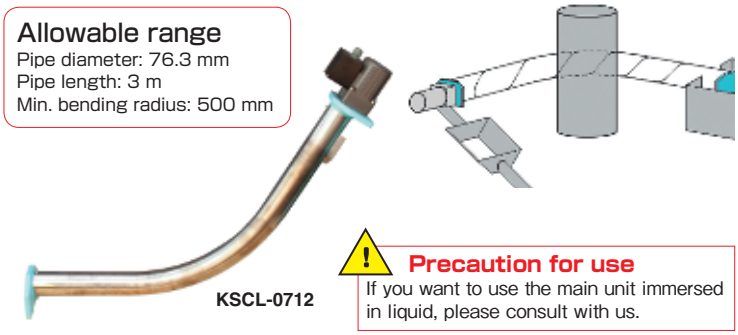
Model	Type	Nominal Size	Dimensions L_1	Dimensions L_2	Dimensions L_3	Processing Capacity	Power Source	Motor	Revolution	Mass
KSC -1115	Standard	φ115(4.52)×1500(59.0)	1500 (59.0)	1696 (66.7)	165 (6.49)	250kg/h	3-phase 200/220 VAC	40W	30/36rpm (50/60Hz)	Approx.38.0kg/ 83.6 lb
KSCT -1115	Gutter included									Approx.46.0kg/101.2 lb
KSC -1120	Standard	φ115(4.52)×2000(78.7)	1995 (78.5)	2191 (86.2)						Approx.48.0kg/105.6 lb
KSCT -1120	Gutter included									Approx.59.0kg/129.8 lb
KSC -1125	Standard	φ115(4.52)×2500(98.4)	2490 (98.0)	2708 (106.6)	187 (7.36)			60W		Approx.73.0kg/160.6 lb
KSCT -1125	Gutter included									Approx.70.0kg/154.0 lb
KSC -1130	Standard	φ115(4.52)×3000(118.1)	2985 (117.5)	3203 (126.1)						Approx.87.0kg/191.4 lb
KSCT -1130	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.

Model KSCL NONLINEAR SPIRAL MAGNETIC CONVEYOR

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

Allowable range
Pipe diameter: 76.3 mm
Pipe length: 3 m
Min. bending radius: 500 mm



KSCL-0712

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

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

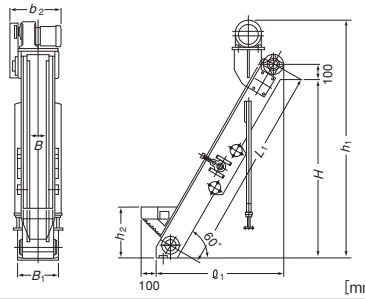
[Features]
- The bending shape has been realized by a special construction.
- This model can be installed in a very small space such as inside a machine.
- The layout where two linear type units are used to circumvent the existing facilities can be replaced by one unit.

■KSCL-0712 specifications
Applicable pipe diameter : 76.3 mm, Min. bending radius: 500 mm
Max. pipe length : 3 m
Power source : 3-phase 200 VAC/220 VAC, 50/60 Hz, 40 W

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.



[mm(in)]

Model	Conveying Speed	Power Source	Motor	Dimensions B	L1	H	B1	b2	ℓ1	h1	h2	Mass
MCO-1515A	Approx. 8/9.5 m/min (50/60Hz)	3-phase 200 VAC	400W	150 (5.90)	1500 (59.0)	1270 (50.0)	284 (11.1)	375 (14.7)	925 (36.4)	1620 (63.7)	350 (13.7)	140kg/308 lb
MCO-1520A					2000 (78.7)	1700 (66.9)			1180 (46.4)	2060 (81.0)		155kg/341 lb
MCO-1530A					3000 (118.1)	2570 (101.2)			1675 (65.9)	2905 (114.4)		190kg/418 lb
MCO-2015A				200 (7.87)	1500 (59.0)	1270 (50.0)	334 (13.1)	425 (16.7)	925 (36.4)	1620 (63.7)		150kg/330 lb
MCO-2020A					2000 (78.7)	1700 (66.9)			1180 (46.4)	2060 (81.0)		175kg/385 lb
MCO-2030A					3000 (118.1)	2570 (101.2)			1675 (65.9)	2905 (114.4)		210kg/463 lb
MCO-2515A				260 (10.2)	1500 (59.0)	1270 (50.0)	394 (15.5)	475 (18.7)	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)			1675 (65.9)	2905 (114.4)		230kg/507 lb

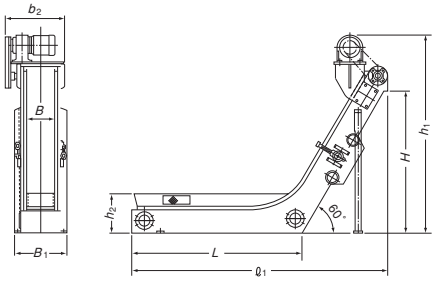
Model MCOL MAGNETIC CHIP CONVEYOR

MCOL-2515A

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.



[mm(in)]

Model	Conveying Speed	Power Source	Motor	Dimensions B	L1	H	B1	b2	ℓ1	h1	h2	Mass
MCOL-1510A	Approx. 8/9.5m/minn (50/60Hz)	3-phase 200 VAC	400W	150 (5.90)	1000 (39.7)	1000 (39.7)	284 (11.1)	375 (14.7)	1600 (62.9)	1390 (54.7)	275 (10.8)	160kg/352 lb
MCOL-1515A					1500 (59.0)				2100 (82.6)			190kg/418 lb
MCOL-2010A				200 (7.87)	1000 (39.7)		334 (13.1)	425 (16.7)	1600 (62.9)			175kg/385 lb
MCOL-2015A					1500 (59.0)				2100 (82.6)			220kg/485 lb
MCOL-2510A				260 (10.2)	1000 (39.7)		394 (15.5)	475 (18.7)	1600 (62.9)			200kg/440 lb
MCOL-2515A					1500 (59.0)				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 (13.7)	473 (18.6)	1664 (65.5)	1565 (61.6)	283 (11.1)	180kg/396 lb
MCOL-H2015A					1500 (59.0)				2164 (85.1)			225kg/496 lb

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]

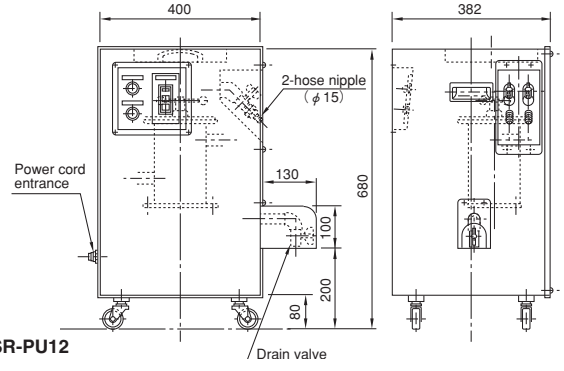
- The cyclone separator enables it collect nonmagnetic materials.
- Collected materials can be dehydrated by the dehydration function.
- A filter collection type dehydration container that is easy to handle is employed.
- The twin-tub type tank construction reduces the amount of impurities that enter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

[mm(in)]

Model	Processing Capacity	Dimensions			Tank Capacity	Power Source	Output			Remarks
		width	Depth	Height			Cyclone pump	Supply pump	Magclean	
CS-MS-4T	40L/min	1200 (47.2)	800 (31.5)	1300 (51.1)	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									–	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.

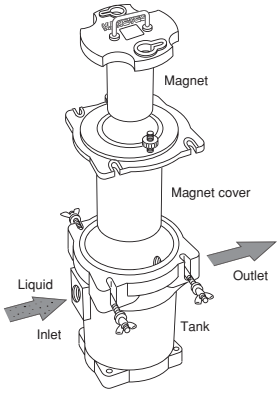
■Model : HSR-PU12 ■Processing amount: Approx. 1.5 liters/min.
■Pump rating: 3-phase, 200/220 VAC, 50/60 Hz, 200W ■Weight: Approx. 60 kg

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.

[mm(in)]

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

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

[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.