

# MAGNETIC TOOLS

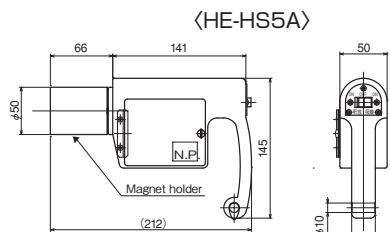
## Model HE-H HANDY HOLDER

Transportation assist tool by use of battery-generated magnetic force

Useful for transportation of cut-out plates or waste materials at room temperature and for taking out small products!  
Holding power and battery life improved significantly!



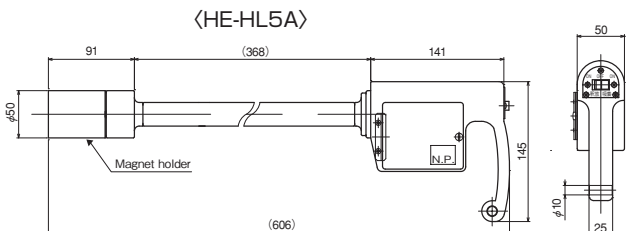
HE-HL5A



<HE-HS5A>



HE-HS5A



<HE-HL5A>

### [Application]

These holders are used as a holding tool for moving and transporting cut-out plates or waste materials and taking out small products, etc.

In addition, when cleaning areas around machine tools, if brushes are used, chips may be entangled and cleaning may not go smoothly. In such a case, these holders can be used to attract and remove them quickly.

### [Features]

- Only with a small amount of electricity supplied by two D size alkaline batteries, strong holding power is achieved.
- These holders are of handy type which can be operated by one hand. They also do not have cord and therefore can be used in any places.
- Since these holders are of hybrid type (complex structure of permanent magnet and electromagnet), the held workpiece does not drop instantly when the batteries become dead, thus enhancing safety.
- The batteries can be replaced easily without a tool. Also, commercially available rechargeable batteries can be used.

Not heat-resistant, not water-tight



| Model   | Type       | Max. Holding Power | Power Source                  | Working Rate | Mass          |
|---------|------------|--------------------|-------------------------------|--------------|---------------|
| HE-HS5A | Short type | 600N (60kgf)       | D size battery × 2 (included) | 50%ED        | 1.8kg/3.96 lb |
| HE-HL5A | Long type  |                    |                               |              | 2.5kg/5.51 lb |

※The max. holding power is based on a test piece of SS400, 15 mm thick, ground surface, vertical pulling under the most favorable conditions. Therefore, the lifting capacity is normally a third or less of the max. holding power. If workpiece are tilted or a force is applied to the magnet in a separating direction, the lifting capacity will drop. ※The mass includes the batteries. ※This holder, even when attraction off, constantly generates holding power that is a third of the max. holding power at attraction on. However, the max. holding power at attraction off drops to 200 N (20 kgf). Exercise caution when using the holder.

## Model SL TOUCHER



SL-1

### [Application]

A simple transportation tool by use of a magnet.

### [Features]

- Workpieces that are difficult to hold with hands can be carried by use of the quick attach/detach mechanism.
- Useful for temporarily holding down or positioning small pieces in welding work.
- Usable for a wide range of applications.

[mm (in)]

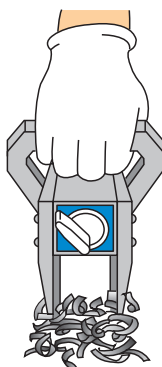
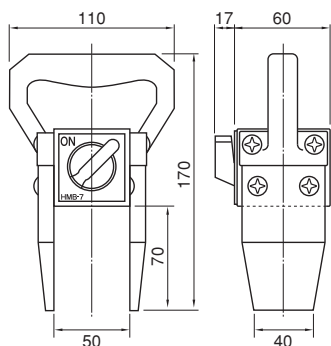
| Model | Holding Power | Dimensions |           |           | Max. Height | Mass       |
|-------|---------------|------------|-----------|-----------|-------------|------------|
|       |               | Width      | Length    | Height    |             |            |
| SL-1  | 500N (50kgf)  | 50 (1.96)  | 92 (3.62) | 32 (1.26) | 122 (4.80)  | 1kg/2.2 lb |

※The holding power is based on a test piece of SS400, 10 mm thick, pulled in the vertical direction.

## Model HMB HAND MAGNET



HMB-7



### [Application]

This product is useful in wide applications such as in machine shops, casting factories, food and chemical factories, etc. for collecting iron chips, sorting screws by materials, collecting chips in cast sand, etc.

### [Features]

- The magnetic force is turned ON/OFF easily with a handle.
- Compact and strong holding power.

### <Specifications>

- Capacity: Milling chips ..... about 0.2 kg
- M5 × 7 screws ... about 0.5 kg

| Model | Holding Power | Mass          |
|-------|---------------|---------------|
| HMB-7 | 250N (25kgf)  | 1.9kg/4.20 lb |

※The holding power is based on a test piece of SS400, 10 mm thick, ground surface.

ELECTROMAGNETIC CHUCKS  
ELECTROMAGNETIC CHUCKS CONTROLLERS  
PERMANENT MAGNETIC CHUCKS  
PERMANENT MAGNETIC CHUCKS  
BLOCKS FOR MC  
VACUUM CHUCKS  
PROMELTA\*  
SINE BAR CHUCKS  
BLOCKS, HOLDERS, MINI CHUCKS  
HOLDING TOOLS  
MEASURING TOOL HOLDERS  
MAGNETIC HOLDERS  
MAGNETIC TOOLS

Model **HMC** MAGHAND\*

Collect bolts, screws and nails scattered around on the floor!

**HMC-10A**

**HMC-50A**

**HMC-75A**

**HMC-T50A**

**HMC-T75A**

**HMC-K50**

ON OFF

Attracts powerfully. Releases when lever is pulled.

Parts available individually

case Heat-resistant case Separator + buffer Separator pressing spring

Heat-resistant Max. working temperature 150°C or below

Simple waterproof

Dimensions (mm):  $\phi D$ , H, h, W, 104, 84, 129, 27.3, 533, 131, 21, 51, 100, 22, 30, 26, 55

[Application]

The Maghand is suitable for collecting iron pieces that are scattered around on the floor or mixed in media. Since it can also be used to remove and collect iron pieces from powder materials, it has a wide range of applications including machining, forging and food processing. The Maghand is also useful in the household or as a teaching material.

[Features]

- The magnetic force can be turned on and off simply by one-hand operation.
- The Maghand employs a powerful magnet for powerful attraction and a wide attractive face.
- Model HMC-75A has a long arm to make it suitable for collecting iron pieces in pits and enclosures.
- Model HMC-T is cased with aluminum and therefore its strength and wear resistance have been improved from that of Model HMC-A. (High-temperature type up to 150°C)
- Model HMC-K50 has a rectangular body to make it best suitable for collecting chips from T grooves. It is also useful for collecting iron powder precipitated in coolant tanks as it is of simple waterproof type.

<Specifications>

- Capacity: M10 plain washers ... about 0.6 kg
- M4 × 10 screws ..... about 0.7 kg

| Model    | Dimensions [mm (in.)]  |            |           |               | Mass          |
|----------|--|------------|-----------|---------------|---------------|
|          | $\phi D$   | H          | h         | W             |               |
| HMC-10A  |  | 227 (8.93) |           |               | 0.9kg/1.98 lb |
| HMC-50A  | 114 (4.48)   | 500 (19.6) | 85 (3.34) | 104 (4.09)    | 1.5kg/3.30 lb |
| HMC-75A  |  | 750 (29.5) |           |               | 1.9kg/4.20 lb |
| HMC-T10A |  | 241 (9.48) |           |               | 1.2kg/2.60 lb |
| HMC-T50A | 112 (4.40)   | 514 (20.2) | 95 (3.74) |               | 1.8kg/3.96 lb |
| HMC-T75A |  | 764 (30.0) |           | 2.3kg/5.07 lb |               |
| HMC-K50  | (51 (2.00) × 26 (1.02) × 29 (1.14)) × 533 (20.9) (See dimension drawing) |            |           |               | 1.6kg/3.52 lb |

Ideal for removal of chips in liquid!

**HMW-FC90**

**HMW-NS90**

**HM-6LG**

Releasing Attracting

The magnetic force is present at the tip also, which makes it possible to efficiently collect screws and metallic pieces scattered around on the floor without changing the posture of the operator.

A powerful type that enables collection of a larger amount. The rectangular shape has increased a range of types of chips that can be collected.

Dimensions (mm):  $\phi 8$ ,  $\phi 14$ , 1.0, 4.8, 70, 82, 42.5

Model **HMW** WATERPROOF MAGHAND\*

[Application]

Suitable for removal of chips in liquid in coolant tanks. It can also be used to remove iron pieces in powder.

[Features]

- The long attractive part allows collection of a large volume of iron pieces.
- The small-dia. attractive part allows this model to be usable in limited space and grooves.

| Model    | Capacity  | Length     | Attractive Part Dimensions              | Mass          |
|----------|---|------------|---|---------------|
|          |   |            |   | [mm (in.)]    |
| HMW-FC90 | chip (dry) Approx. 200g/0.44 lb<br>shot blast balls Approx. 1.2kg/2.64 lb | 990 (38.9) | $\phi 26.5 (1.04) \times 210 (8.26)$    | 1.1kg/2.42 lb |
| HMW-NS90 | chip (dry) Approx. 400g/0.88 lb<br>shot blast balls Approx. 1.9kg/4.18 lb | 993 (39.0) | $\square 28.6 (1.12) \times 230 (9.05)$ | 1.7kg/3.74 lb |

Model **HM** HAND MAGNET WITH GRIP

[Application]

Suitable for removing iron in liquid tanks and collecting iron pieces in small areas. This is also helpful for picking up tools that fell in a complicated machine room in ships.

[Features]

- Powerful permanent magnet.
- Light weight for easy operation.
- The rod can be divided to two for easy storage.

<Specifications>

- Capacity: M10 plain washers ... about 0.5 kg
- M4 × 10 screws ..... about 0.6 kg

| Model  | Holding Power | Mass          |
|--------|---------------|---------------|
| HM-6LG | 250N (25kgf)  | 1.5kg/3.30 lb |

\*The holding power is based on a test piece of SS400, 10 mm thick, ground surface.

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# MAGNETIC TOOLS

A cleaning device to collect nails, needles, iron pieces, etc. scattered around on the floor and road.

## Model RS ROAD SWEEPER

### [Application]

This is suitable for collection of such iron pieces as nails, needles and chips scattered around on floors in machining places, warehouses and event sites or on road. In addition, this device works well for collection of dust mixed with fine iron powder. This device protects people and tires of vehicles and is also useful for recycling purposes.

### [Features]

- The attractive part extends up to the end to enable attraction in deep corners.
- The simple construction by use of plate magnet type to facilitate maintenance such as changing wheels and covers.
- Self-standing and small storage space.
- Easy operation; pull the hand lever to release attracted pieces.

| Model    | Capacity                              | Dimensions |                       | Wheel Dia.   | Height (Self-standing) | Mass       |
|----------|---------------------------------------|------------|-----------------------|--------------|------------------------|------------|
|          |                                       | Width      | Attractive part width |              |                        |            |
| RS-P0930 | 1kg/2.20 lb<br>(ø 1 shot blast balls) | 466 (18.3) | 308 (12.1)            | φ 100 (3.93) | 1090 (42.9)            | 7kg/15.4lb |



An example of dust collection

An example of special fabrication of RS (Road Sweeper)

## Model S MAGNETIC SWEEPER

This sweeper employs a powerful permanent magnet and is capable of collecting iron pieces even in mud. This sweeper collects harmful iron pieces such as needles and nails to protect people and tires of vehicles and is also useful for recycling purposes.

### [Application]

Suitable for collecting iron pieces on floors in sewing factories, machine shops and woodworking mills.

Useful for cleaning warehouses and truck terminals.

Useful for preparatory work of race tracks and stadiums.

Suitable for cleaning floors after constructing and demounting displays in exhibition events.

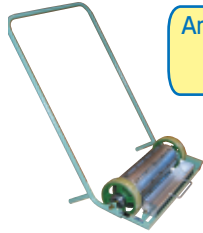
### [Features]

- Powerful permanent magnet.
- Easy operation; pull the hand lever to release attracted pieces.
- Self-standing and small storage space.

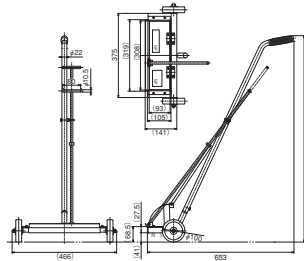
| Model | Capacity                                   | Dimensions |                       | Height      | Mass              |
|-------|--|------------|-----------------------|-------------|-------------------|
|       |  | Width      | Attractive part width |             |                   |
| S-05A | 3cm (1.18) nails<br>approx. 0.3 kg/0.66 lb | 254 (9.99) | 145 (5.70)            | 919 (36.1)  | 3.8kg/<br>8.39 lb |
| S-1D  | 3cm (1.18) nails<br>approx. 0.45kg/0.99 lb | 461 (18.1) | 362 (14.2)            | 1050 (41.3) | 4.5kg/<br>9.92 lb |



RS-P0930



ON/OFF function provided



S-05A

S-1D

ON/OFF function provided

## Model K MAGNETIC HOLE CLEANER

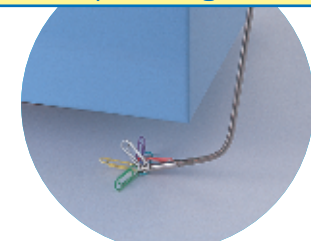
### [Application]

Useful for removing iron chips after drilling and tapping and removing iron pieces from holes.

### [Features]

- This cleaner, small diameter having a separator incorporated, is constructed to have the magnetic poles concentrated on the same attractive face.

An example of usage of K-5F

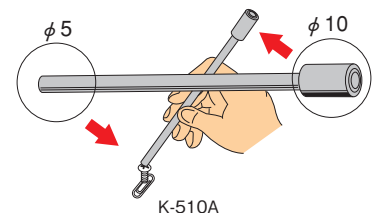
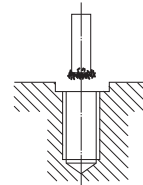


K-5F/10F/15F have a flexible rod.



| Model   | Capacity         |                 | Dimensions              | Length     | Mass          |
|---------|------------------|-----------------|-------------------------|------------|---------------|
|         | M3 × 6           | M3 plain washer |                         |            |               |
| K-510A  | φ 5 (0.19) side  | 4g/0.008 lb     | φ 5 (0.19) × 30 (1.18)  | 250 (9.84) | 32g/0.070 lb  |
|         | φ 10 (0.39) side |                 |                         |            |               |
| K-1015A | φ 10 (0.39) side | 7g/0.0015 lb    | φ 15 (0.59) × 18 (0.70) | 257 (10.1) | 45g/0.098 lb  |
|         | φ 15 (0.59) side |                 |                         |            |               |
| K-2025A | φ 20 (0.78) side | 21g/0.046 lb    | φ 20 (0.78) × 18 (0.70) | 232 (9.13) | 135g/0.297 lb |
|         | φ 25 (0.98) side |                 |                         |            |               |
| K-5F    | 4g/0.008 lb      | 3g/0.006 lb     | φ 5 (0.19) × 30 (1.18)  | 217 (8.54) | 26g/0.573 lb  |
| K-10F   | 7g/0.015 lb      | 4g/0.008 lb     | φ 10 (0.39) × 15 (0.59) |            | 35g/0.077 lb  |
| K-15F   |                  |                 | φ 15 (0.59) × 15 (0.59) |            | 46g/0.101 lb  |

| [mm (in)] |               |  |              |
|-----------|---------------|--|--------------|
| Model     | Holding Power | Dimensions   | Mass         |
| K-N       | 10N (1kgf)    | φ 8 (0.31) × 145 (5.70)<br>(6-step full length 660 (25.9)) | 26g/0.057 lb |



K-510A

ELECTROMAGNETIC CHUCK CONTROLLERS; PERMANENT MAGNETIC CHUCKS; PERMANENT MAGNETIC CHUCKS; BLOCKS FOR MC; VACUUM CHUCKS; PROMELTA\*; SINE BAR CHUCKS; BLOCKS, HOLDERS, MINI CHUCKS; HOLDING TOOLS; MEASURING TOOL HOLDERS; MAGNETIC HOLDERS; MAGNETIC TOOLS

**Model KF STEEL PLATE SEPARATOR "FLOATER"\***

**- Common specifications of KF types -**

**[Application]**

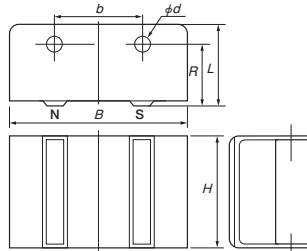
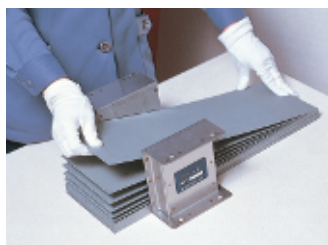
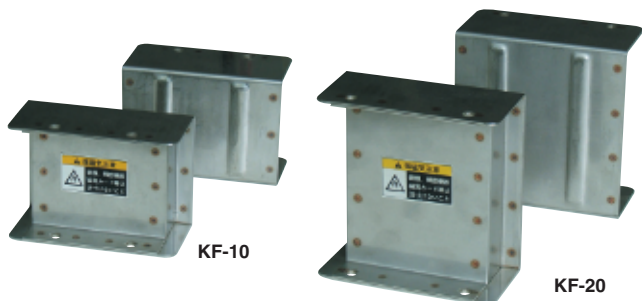
Suitable for separating stacked iron plates one by one and feeding them to machines (presses, shearing machines, etc.) and for installation as a separator at the take-out side for feeding steel plates one by one in the steel plate automatic feeding line.

For an example of usage, see page 87. 

**[Features]**

- The two rails on the magnetic polar surface automatically separate steel plates without requiring mechanical separating work.
- Not only steel plates but also semi-finished pressed workpieces, circular workpieces and irregularly shaped workpieces can be separated at certain intervals by use of several units of Floater.
- One set consists of two units. (KF-HC/KF-Q excluded)

**Model KF STANDARD FLOATER\***



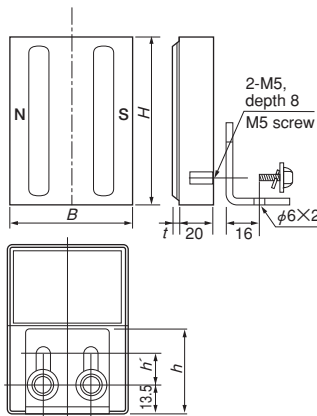
**[Features]**

- Standard type using a high-performance ferrite magnet. Can be mounted on machines easily and several units can be coupled according to size, shape and weight of steel plates.

A magnetic force ON/OFF type (electrical or air cylinder), which can separate steel plates one by one more smoothly than the standard type is also available. Please contact us.

| Model | Dimensions    |               |                |                | Mounting     |             |              | Mass               |                   |
|-------|---------------|---------------|----------------|----------------|--------------|-------------|--------------|--------------------|-------------------|
|       | B             | H             | L              | R              | No. of holes | $\phi d$    | b            |                    |                   |
| KF-5B | 65<br>(2.55)  | 87<br>(3.42)  | 55.5<br>(21.8) | 45.5<br>(1.79) | 4            | 8<br>(0.31) | 40<br>(1.57) | 1.0kg/<br>2.2 lb×2 |                   |
|       |               | 56<br>(2.20)  | 61.5<br>(2.42) | 51.5<br>(2.02) |              |             | 80<br>(3.15) | 2.0kg/<br>4.4 lb×2 |                   |
| KF-10 | 125<br>(4.92) | 127<br>(5.00) | 66.5<br>(2.61) | 56.5<br>(2.22) |              |             | 11<br>(0.43) | 150<br>(5.90)      | 7.0kg/<br>15 lb×2 |
|       |               | 254<br>(10.0) | 71.5<br>(2.81) | 59.5<br>(2.34) |              |             |              | 12.0kg/<br>26 lb×2 |                   |

**Model KF-T THIN FLOATER\***



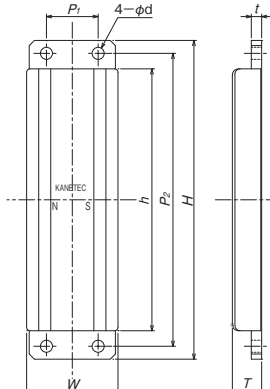
**[Features]**

- Thinner and smaller than the standard type, 20mm thick. This type can be mounted in a wide variety of locations, for example, direct mounting on a wall face or mounting with an L-shaped attachment.
- The mounting position is vertically adjustable when mounted with the included L-shaped attachment.

| Model  | Dimensions    |               |               |              |              |               | Mass               |
|--------|---------------|---------------|---------------|--------------|--------------|---------------|--------------------|
|        | D             | H             | b             | h            | h'           | t             |                    |
| KF-T5A | 62<br>(2.44)  | 87<br>(3.42)  | 25<br>(0.98)  | 30<br>(1.18) | 10<br>(0.39) | 1.0<br>(0.03) | 0.7kg/<br>1.5 lb×2 |
| KF-T10 | 102<br>(4.01) | 127<br>(5.00) | 50<br>(1.96)  | 40<br>(1.57) | 15<br>(0.59) | 1.5<br>(0.05) | 1.1kg/<br>2.4 lb×2 |
|        |               |               | 127<br>(5.00) | 40<br>(1.57) | 15<br>(0.59) | 1.5<br>(0.05) | 1.6kg/<br>3.5 lb×2 |

**Model KF-S SLIM POWERFUL FLOATER\***

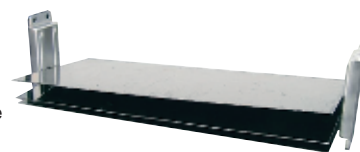
**Very slim and light weight!**



**[Features]**

- The employment of a powerful rare earth magnet has significantly reduced the thickness to only 17 mm and the weight, but offers the separating performance equivalent to that of the standard type.
- This type can be mounted in various places such as direct mounting on a wall face and mounting in a very narrow place.

An example of steel plate separation by KF-S10



| Model  | Dimensions   |               |                |                |             |               |             | Mass         |                      |
|--------|--------------|---------------|----------------|----------------|-------------|---------------|-------------|--------------|----------------------|
|        | W            | h             | P <sub>1</sub> | P <sub>2</sub> | $\phi d$    | H             | t           |              | T                    |
| KF-S10 |              | 98<br>(3.86)  |                | 115<br>(4.52)  |             | 130<br>(5.12) |             |              | 0.56kg/<br>1.23 lb×2 |
| KF-S15 | 53<br>(2.09) | 152<br>(5.98) | 30<br>(1.18)   | 170<br>(6.69)  | 7<br>(0.28) | 185<br>(7.28) | 6<br>(0.24) | 17<br>(0.66) | 0.8 kg/<br>1.76 lb×2 |
|        |              |               |                | 225<br>(8.86)  |             | 240<br>(9.45) |             |              |                      |

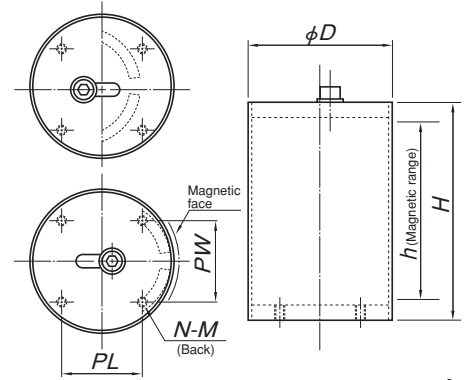
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MAGNETIC TOOLS

## Model KF-HC POWERFUL ROUND FLOATER\*



KF-HC1218

An example of usage



**[Application]**

Designed for separation of irregularly shaped workpieces (steel plates) that do not have a straight part of sufficient length.

**[Features]**

- The magnetic force can be adjusted by changing the internal magnet position.
- Small but powerful.

| Model     | Dimensions      |                 |               |              |              |   | Mass                           |                          |
|-----------|-----------------|-----------------|---------------|--------------|--------------|---|--------------------------------|--------------------------|
|           | D               | H               | h             | PL           | PW           | N |                                |                          |
| KF-HC0813 | 76.3<br>(3.00)  | 130.0<br>(5.11) | 100<br>(3.93) | —            | 60<br>(2.36) | 2 | M 8 (0.31),<br>Depth 10 (0.39) | Approx. 2kg/<br>4.4 lb   |
| KF-HC1218 | 114.3<br>(4.50) | 175.0<br>(6.89) | 140<br>(5.51) | 65<br>(2.55) | 65<br>(2.55) | 4 | M 8 (0.31),<br>Depth 12 (0.47) | Approx. 7kg/<br>15.4 lb  |
| KF-HC1424 | 139.8<br>(5.50) | 235.0<br>(9.25) | 195<br>(7.67) | 80<br>(3.15) | 80<br>(3.15) |   | M10 (0.39),<br>Depth 15 (0.59) | Approx. 14kg/<br>30.8 lb |

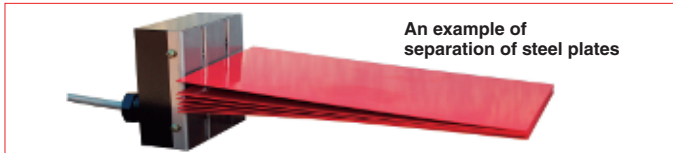
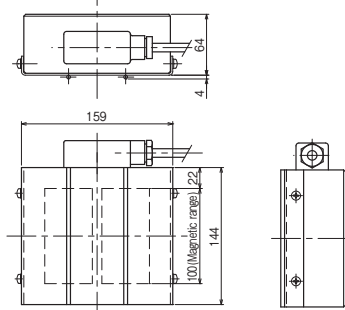
## Model KF-Q PERMANENT ELECTROMAGNETIC FLOATER\*



Rectifier required additionally



KF-Q10  
(An example of special fabrication)



An example of separation of steel plates

## Permanent electromagnetic type introduced to FLOATER Series! Patent pending

**[Application]**

Most suitable for remote control of ON and OFF of separation of steel plates.

**[Features]**

- Compared with the electromagnetic type, this type has a wider magnetic force effective width.
- Compared with the permanent magnetic cylinder changeover type that can be controlled remotely, this type requires much less space.
- Compared with the electromagnetic type, this type consumes less electricity since electricity is supplied momentarily only for ON/OFF operation.

A special size is available also.

| Model  | Dimensions                             | Source Capacity | Mass          | Applicable Rectifier |
|--------|--|-----------------|---------------|----------------------|
|        |  |                 |               | Rectifier            |
| KF-Q10 | W159 (6.25) × D64 (2.51) × H144 (5.66) | 1.5kVA          | 2.3kg/5.07 lb | ※KFQR-260A           |

※When the magnetization operation or demagnetization operation is performed five times successively per minute on the control unit, the unit will be brought into an alarm state and will not accept further operation for safety. To reset the alarm state, turn off the source power once and then turn it on again.

**An example of usage**

**(1) <Delivery of large steel plates>**

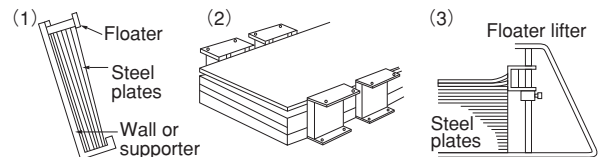
Stand large plates vertically against a wall, etc. This way, you can make good use of the separating force since part of the separating force required to support the weight of plates can be reduced.

**(2) <Separation of closely stuck plates>**

Large steel plates and plates that are stuck closely by oil or grease can be separated effectively by using several units of the Floater coupled.

**(3) <Separation of plates stacked high>**

When steel plates are stacked high, mount the Floater on a lifter. (The suitable height of the Floater is slightly higher than the top of plates.)



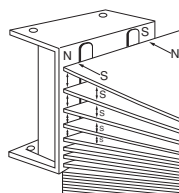
**■ Principle of the Floater**

The Floater induces the same type of magnetic poles in steel plates stacked opposing the magnetic pole face to separate the plates by the repelling force of the same poles.

**■ Floating distance**

When a pair of Floaters are positioned on each side of stacked plates in the longitudinal direction, the distance the top plate is floated from the second one is as shown in the table.

This distance applies when the Floater is positioned 50 mm away from the edge of plates and the initial position of the first plate is 50 mm below the top end of the Floater. Note, however, that if plates are warped or oil is sticking to them, the distance will become shorter.



| Model  | Test Plate    |               |               |               | Size                    |
|--------|---------------|---------------|---------------|---------------|-------------------------|
|        | Thickness 1.0 | Thickness 1.6 | Thickness 2.0 | Thickness 3.2 |                         |
| KF-5B  | 18 (0.70)     | 14 (0.55)     | 10 (0.39)     | 5 (0.19)      | 150 (5.90) × 450 (17.7) |
| KF-10  | 14 (0.55)     | 12 (0.47)     | 6 (0.23)      | —             | 300 (11.8) × 900 (35.4) |
| KF-20  | 26 (1.02)     | 17 (0.66)     | 9 (0.35)      | —             |                         |
| KF-30  | 33 (1.29)     | 26 (1.02)     | 18 (0.70)     | 7 (0.27)      | 80 (3.15) × 200 (7.87)  |
| KF-40  | 34 (1.33)     | 28 (1.10)     | 20 (0.78)     | 10 (0.39)     |                         |
| KF-T5A | 5 (0.19)      | 3 (0.11)      | 2 (0.07)      | —             | 160 (6.29) × 300 (11.8) |
| KF-T10 | 12 (0.47)     | 10 (0.39)     | 9 (0.35)      | 6 (0.23)      |                         |
| KF-T20 | —             | —             | —             | —             |                         |

ELECTROMAGNETIC CHUCKS, CHUCKS, CONTROLLERS, PERMANENT CHUCKS, PERMANENT CHUCKS, BLOCKS FOR MC, VACUUM CHUCKS, PROMELTA\*, SINE BAR CHUCKS, BLOCKS, HOLDERS, MINI CHUCKS, HOLDING TOOLS, MEASURING TOOL HOLDERS, MAGNETIC HOLDERS, MAGNETIC TOOLS