

# MAGNETIC HOLDERS

## Model KM PERMANENT MAGNETIC HOLDER

### List of permanent magnetic holders

Size	Height	OD "h" Tolerance	Plating	Painting	Peripheral Knurling	Stainless Steel Spec.	Heat-Resistance Spec.
φ 5	× 8	KM-0005					
	× 13		KM-0005L				
φ 7	× 8	KM-0007					
	× 13		KM-0007L				
φ 10	× 8		KM-0010H		KM-0010J	KM-0010H-SUS	
	× 15	KM-H001	KM-001				
	× 18		KM-T001				
φ 15	× 15	KM-H0015	KM-0015				
	× 18		KM-T0015				
φ 18	× 8		KM-0018H		KM-0018J	KM-0018H-SUS	
φ 20	× 15	KM-H002	KM-002				
	× 18		KM-T002				
φ 25	× 10		KM-0025H		KM-0025J	KM-0025H-SUS	
φ 26	× 25	KM-H0025		KM-025C			
	× 30		KM-T0025				
φ 30	× 25			KM-03C			
	× 33			KM-T003			
φ 40	× 30			KM-04C			
φ 40	× 40						KM-T004T
φ 50	× 40			KM-05C			
φ 50	× 45						KM-T005T
φ 70	× 40			KM-07C			
φ 80	× 45			KM-08C			
26×26	× 25			KM-025S			
26×60	× 25			KM-06S			

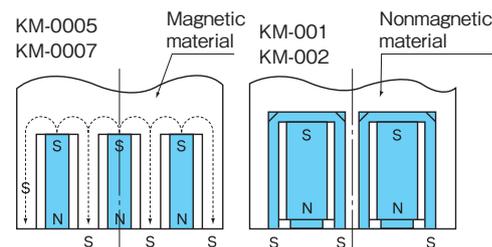
### [Application]

Can be used to hold down drawings, rules and paper patterns. The holders with a tapped hole on the back can be used widely by installing them on jigs. Can be incorporated in press dies. Can hold workpieces during wire cutting.

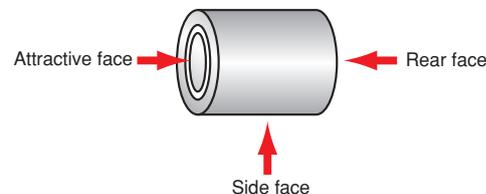
### [Features]

- Six types of specifications; OD tolerance, plating, painting, peripheral knurling, stainless steel spec. and heat-resistance spec. are available for selection according to applications.
- By matching the OD "h" tolerance, the holders can be incorporated in dies.
- A tapped hole on the back makes the holders useful in various applications.

### Embedded in a jig (Example)



### Names of faces



### Upper limit of working temperature

The holding power drops as body temperature rises. The following types are available. The original holding power returns to the original level when the temperature drops to normal temperature.

#### ■ Type A (Alnico magnet used)

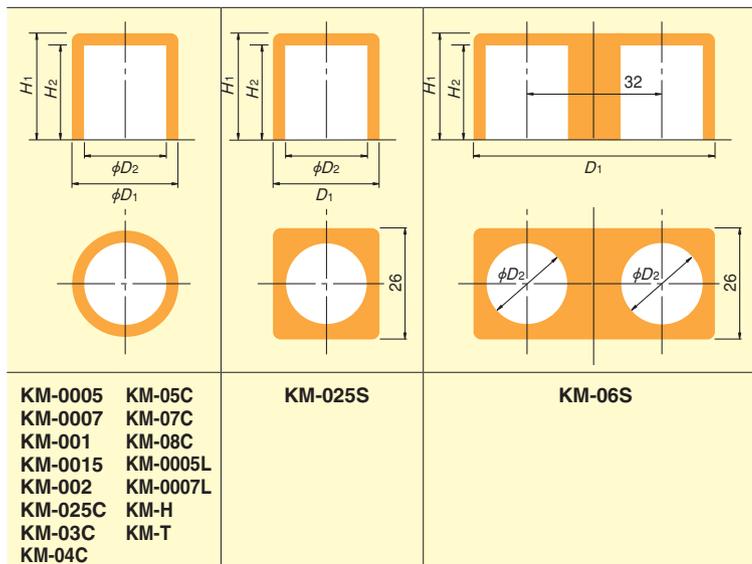
Superior in terms of temperature. The holding power as high as 85% can be maintained at 350°C when the holding power at 20°C is 100%. This type can be used up to 400°C intermittently for a short period of time.

#### ■ Type B (Samarium-cobalt type rare earth magnet used)

The holding power drops to about 95% at 100°C and to about 85% at 200°C when the holding power at 20°C is 100%. For continuous use, the upper limit is 150°C and for intermittent use for a short period of time, this type may be used up to 200°C.

#### ■ Type C (Neodymium rare earth magnet used)

The holding power drops to about 85% at 50°C and to about 70% at 100°C when the holding power at 20°C is 100%. The upper limit for continuous use is 100°C.



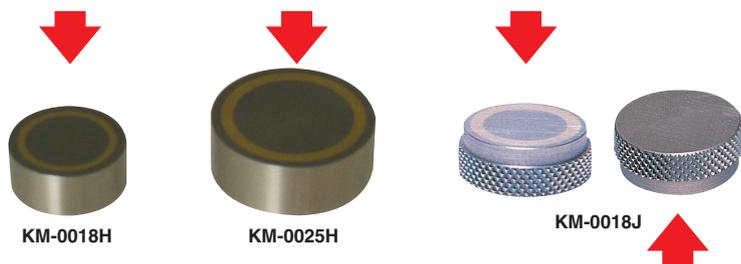
※ The holding power may drop when the holder is worked on additionally. In particular, additional work in the radial direction has large influence on the holding power and therefore, must be limited to a minimum necessary scope.

■ area:.....Additionally workable.

↑ indicates the attractive face.



↑ indicates the attractive face.



An example of application



These holders can be used to hold pieces cut out by wire cutting to prevent them from moving or falling from the securing area.

### OD "h" tolerance specification

Model	Dimensions			Holding Power	Surface Treatment	Mounting Tapped Hole	Workable Range				Upper Limit of Working Temp.	Tapping	Mass
	OD × Height	"h" tolerance	Height tolerance				D <sub>1</sub>	D <sub>2</sub>	H <sub>1</sub>	H <sub>2</sub>			
KM-0005	φ5(0.19)h7(0.27) × 8(0.31)	$-\frac{0}{-0.012}$	0 -0.1	0.3N (0.03kgf)	None	None	5(0.19)	4.5(0.17)	—	—	Type B	Not allowed.	1.5g/0.003 lb
KM-0007	φ7(0.27)h7(0.27) × 8(0.31)	$-\frac{0}{-0.015}$		0.4N (0.04kgf)			7(0.27)	6.5(0.25)					2.5g/0.005 lb
KM-H001	φ10(0.39)h9(0.35) × 15(0.59)	$-\frac{0}{-0.036}$		8N (0.8kgf)			10(0.39)	9.5(0.37)	11g/0.024 lb				
KM-H0015	φ15(0.59)h9(0.35) × 15(0.59)	$-\frac{0}{-0.043}$		20N (2kgf)			15(0.59)	14(0.55)	20g/0.044 lb				
KM-H002	φ20(0.78)h9(0.35) × 15(0.59)	$-\frac{0}{-0.052}$		40N (4kgf)			20(0.78)	18(0.70)	40g/0.088 lb				
KM-H0025	φ26(1.02)h9(0.35) × 25(0.98)	$-\frac{0}{-0.052}$	100N (10kgf)	26(1.02)	24(0.94)	25(0.98)	21(0.82)	100g/0.222 lb					

※The holding power is based on a test piece of SS400, 10 mm thick, ground surface. ※The holding power may drop when the holder is worked on additionally. In particular, additional work in the radial direction has large influence on the holding power and therefore, must be limited to a minimum necessary scope.

### Plating specification

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Workable Range				Upper Limit of Working Temp.	Tapping	Mass		
					D <sub>1</sub>	D <sub>2</sub>	H <sub>1</sub>	H <sub>2</sub>					
KM-0005L	φ5(0.19) × 13(0.51)	1.8N (0.18kgf)	Nickle plating	None	—	—	13(0.51)	12(0.47)	Type A	Not allowed.	2g/0.004 lb		
KM-0007L	φ7(0.27) × 13(0.51)	4N (0.4kgf)			7(0.27)	6.5(0.25)	15(0.59)	12(0.47)	Type A		3.8g/0.008 lb		
KM-0010H	φ10(0.39) × 8(0.31)	3N (0.3kgf)			—	—	—	—	Type B		5g/0.011 lb		
KM-001	φ10(0.39) × 15(0.59)	8N (0.8kgf)			10(0.39)	9.5(0.37)	15(0.59)	12(0.47)	Type A		Prepared hole up to 3.0 deep on the rear face allowed.	11g/0.024 lb	
KM-T001	φ10(0.39) × 18(0.70)				M5(0.19) Depth5(0.19) pitch0.8(0.03)	18(0.70)	12g/0.026 lb						
KM-0015	φ15(0.59) × 15(0.59)	20N (2kgf)			None	15(0.59)	14(0.55)	15(0.59)	Type A		Prepared hole up to 3.0 deep on the rear face allowed.	20g/0.044 lb	
KM-T0015	φ15(0.59) × 18(0.70)				M5(0.19) Depth5(0.19) pitch0.8(0.03)	18(0.70)	23g/0.051 lb						
KM-0018H	φ18(0.70) × 8(0.31)	50N (5kgf)			None	—	—	—	Type B		Not allowed.	16g/0.035 lb	
KM-002	φ20(0.78) × 15(0.59)	40N (4kgf)			M5(0.19) Depth5(0.19) pitch0.8(0.03)	20(0.78)	18(0.70)	15(0.59)	12(0.47)		Type A	Prepared hole up to 3.0 deep on the rear face allowed.	40g/0.088 lb
KM-T002	φ20(0.78) × 18(0.70)				18(0.70)	45g/0.100 lb							
KM-0025H	φ25(0.98) × 10(0.39)	90N (9kgf)	None	—	—	—	Type B	Not allowed.	38g/0.083 lb				
KM-T0025	φ26(1.02) × 30(1.18)	100N (10kgf)	M6(0.23) Depth10(0.39) pitch1.0(0.03)	26(1.02)	24(0.94)	30(1.18)	21(0.82)	Type A	Provided.	120g/0.266 lb			
KM-T003	φ30(1.18) × 33(1.29)	150N (15kgf)	M6(0.23) Depth8(0.31) pitch1.0(0.03)	30(1.18)	27(1.06)	33(1.29)	28(1.10)			180g/0.400 lb			

※The holding power is based on a test piece of SS400, 10 mm thick, ground surface. ※The holding power may drop when the holder is worked on additionally. In particular, additional work in the radial direction has large influence on the holding power and therefore, must be limited to a minimum necessary scope.

### Peripheral knurling specification

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Upper Limit of Working Temp.	Feature	Mass
KM-0010J	φ10(0.39) × 8(0.31)	3N (0.3kgf)	Nickle plating	None	Type B	Peripheral knurling	5g/0.011 lb
KM-0018J	φ18(0.70) × 8(0.31)	50N (5kgf)					16g/0.035 lb
KM-0025J	φ25(0.98) × 10(0.39)	90N (9kgf)					38g/0.083 lb

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

**First in the industry!** Stainless steel to resist rusting.

↑ indicates the attractive face.



Working up to 0.5 mm allowed on the attractive face.



Comparison in pure water (Left: Made of stainless steel)

### Stainless steel specification

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Upper Limit of Working Temp.	Tapping	Mass
KM-0010H-SUS	φ10(0.39) × 8(0.31)	3N (0.3kgf)	None	None	Type B	Not allowed.	5g/0.011 lb
KM-0018H-SUS	φ18(0.70) × 8(0.31)	50N (5kgf)					16g/0.035 lb
KM-0025H-SUS	φ25(0.98) × 10(0.39)	90N (9kgf)					38g/0.083 lb

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

# MAGNETIC HOLDERS

## Model **KM** PERMANENT MAGNETIC HOLDER

↑ indicates the attractive face.



### Painting specification

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Workable Range				Upper Limit of Working Temp.	Tapping	Mass
					D <sub>1</sub>	D <sub>2</sub>	H <sub>1</sub>	H <sub>2</sub>			
KM-025C	φ26 (1.02) × 25 (0.98)	100N (10kgf)	Painting	M 6 (0.23), depth 8 (0.31) pitch 1.0 (0.03)	26 (1.02)	25 (0.98)	25 (0.98)	17 (0.66)	Type C (See page 81)	Provided.	90g/0.19 lb
KM-03C	φ30 (1.18) × 25 (0.98)	150N (15kgf)			30 (1.18)	27 (1.06)					20 (0.78)
KM-04C	φ40 (1.57) × 30 (1.18)	300N (30kgf)		M 8 (0.31), depth 12 (0.47) pitch 1.25 (0.04)	40 (1.57)	36 (1.41)	30 (1.18)	20 (0.78)			260g/0.57 lb
KM-05C	φ50 (1.96) × 40 (1.57)	500N (50kgf)			50 (1.96)	46 (1.81)					545g/1.20 lb
KM-07C	φ70 (2.75) × 40 (1.57)	700N (70kgf)		M12 (0.47), depth 15 (0.59) pitch 1.75 (0.06)	70 (2.75)	60 (2.36)	40 (1.57)	25 (0.98)			1000g/2.20 lb
KM-08C	φ80 (3.14) × 45 (1.77)	1000N (100kgf)		M12 (0.47), depth 18 (0.70) pitch 1.75 (0.06)	80 (3.14)	66 (2.59)	45 (1.77)	27 (1.06)			1600g/3.52 lb
KM-025S	26 (1.02) × 26 (1.02) × 25 (0.98)	100N (10kgf)		None	26 (1.02)	25 (0.98)	25 (0.98)	15 (0.59)			118g/0.26 lb
KM-06S	26 (1.02) × 60 (2.36) × 25 (0.98)	200N (20kgf)	M6 (0.23), depth 10 (0.39) pitch 1.0 (0.03)	60 (2.36)	25 (0.98)	25 (0.98)	15 (0.59)	Prepared hole up to 11 deep on the rear face allowed.	275g/0.60 lb		

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

## Model **KM-T-T** HEAT-RESISTANT PERMANENT MAGNETIC HOLDER

↑ indicates the attractive face.

### A heat-resistant type introduced to permanent magnetic holders!

#### [Application]

Most suitable as a securing fixture in workplaces where heat is generated such as ship building and welding sites. These holders can also be used to hold down drawings, rulers and small parts.

#### [Features]

- Heat resistance up to 350°C
- The tapped hole provided on the back widens a scope of use by assembling these holders to fixtures.

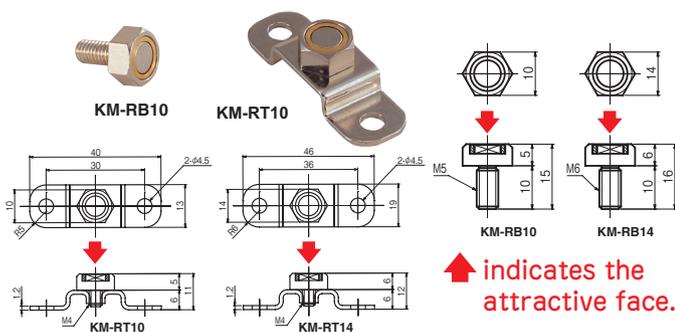
[mm (in)]

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Upper Limit of Working Temp.	Tapping	Mass
KM-T004T	φ40 (1.57) × 40 (1.57)	300N (30kgf)	Painting	M8 (0.31) depth 10 (0.39) pitch 1.25 (0.04)	Max. 350°C	Provided.	0.4kg/0.88 lb
KM-T005T	φ50 (1.96) × 45 (1.77)	500N (50kgf)					0.67kg/1.47 lb

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

## Model **KM-RB** HEXAGONAL PERMANENT MAGNETIC HOLDER (WITH MALE THREAD)

## Model **KM-RT** HEXAGONAL PERMANENT MAGNETIC HOLDER (WITH PLATE)



#### [Application]

Used as a jig. Used for operations of conveying light weight workpieces in lines, etc.

#### [Features]

- The tip of the permanent magnetic holder is threaded, which enables the holder to be mounted in any place easily.
- When used in combination with the included plate, the holder can be mounted in places where a tapped hole cannot be made. (Model KM-RT)
- Since this holder has been nickel plated, it can be used under various circumstances.

Model	Holding Power	Mass	Model	Holding Power	Mass
KM-RB10	10N (1kgf)	5g/0.011 lb	KM-RT10	10N (1kgf)	10g/0.022 lb
KM-RB14	40N (4kgf)	10g/0.022 lb	KM-RT14	40N (4kgf)	18g/0.039 lb

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