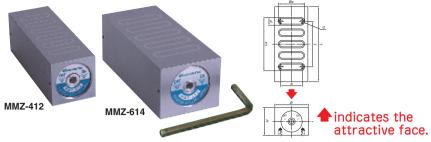
# Model MMZ

# ONE-FACE HOLDING RECTANGULAR PERMANENT MAGNETIC MINI CHUCK



#### [Application]

These chucks are used in combination with a magnetic chuck as an auxiliary holding tool for irregularly shaped workpieces in grinding and light duty cutting.

These chucks are of drip-proof construction enabling them to hold workpieces in electric discharge machining fluid. [Features]

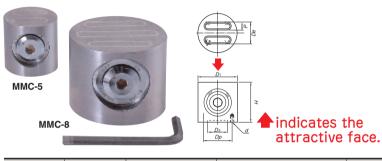
- The magnetic force can be turned ON and OFF from either the front side or the rear side.
- The chucks can be used in fluid.

[mm (in)]

Model	Holding Power		Attracti	ve Face		Pole Pitch		Мо	unting Face	Height	Handle Hole	Mass
Wiodei	Triolani ig Tower	В	L	Be	Le	P	b	l	d	Н	Tiariaic Tioic	IVIGOS
MMZ-412	105N (10.5kgf)	40(1.57)	115 (4.52)	29(1.14)	84 (3.30)	7.5(1.5+6) 0.29(0.05+0.23)	30(1.18)	75 (2.95)	4-M5(0.19) depth 7(0.27)	40(1.57)	Nominal 6	1.3kg/2.8 lb
MMZ-614	400N( 40kgf)	60 (2.36)	135 (5.31)	47 (1.85)	92 (3.62)	10 (2 +8) 0.39(0.07+0.31)	40(1.57)	80 (3.15)	4-M6 (0.23) depth 10 (0.39)	50(1.96)	(0.23)	3.1kg/6.8 lb

#### \*The holding power is based on a test piece of □50 × t25, S15C

# ONE-FACE HOLDING ROUND PERMANENT MAGNETIC MINI CHUCK



#### [Application]

These chucks are used in combination with a magnetic chuck as an auxiliary holding tool for irregularly shaped workpieces in grinding and light duty cutting. (These chucks cannot be used in wet operations.) They can also be used for such applications as holding workpieces in advance to reduce the setup time. Thus they can be used for continuous grinding of small and thin workpieces.

#### [Features]

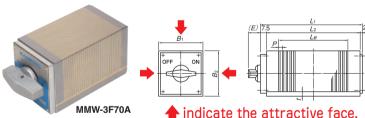
- ●These chucks are of powerful type having a special construction using Alnico magnet steel.
- Small, but the magnetic force can be turned on and off.

[mm (in)]

ı	Model	Holding Power	Attracti	ve Face	Pole Pitch		Mour	nting Face	Height	Handle	Mass
	Woder	Tiolding Tower	D1	De	P	Dp	D2	d	Н	Hole	IVIGOS
Ī	MMC-5	85N (8.5kgf)	50(1.96)	29(1.14)	9.5(1.5+8) 0.37(0.06+0.31)	35 (1.37)	25 (0.98)	4-M5 (0.19) depth 7 (0.27)	50 (1.96)	Nominal 8	0.7kg/1.5 lb
	MMC-8	500N (50kgf)	80 (3.15)	54(2.12)	10(2 +8) 0.39(0.08+0.31)	60 (2.36)	50 (1.96)	4-M6 (0.23) depth 10 (0.39)	65 (2.55)	(0.31)	2.2kg/4.8 lb

<sup>%</sup>The holding power is based on a test piece of □50  $\times$  t25, S15C

# THREE-FACE HOLDING PERMANENT MAGNETIC MINI CHUCK



#### [Application]

These chucks have three attractive faces and can be used in combination with a magnetic chuck. They are suitable for setting angles of small workpieces and angle grinding.

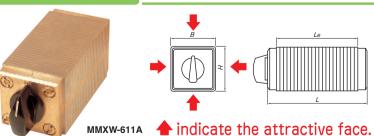
- Since these chucks have three attractive faces, one face may be used for mounting the chuck and other faces for holding workpieces.
- They have magnetic poles arranged at micro pitches to hold small workpieces.
- Drip-proof construction.

[mm(in)]

Model	Nominal Size	Holding			Di	mensions				Pole Pitch	Squareness	Parallelism	Mass
Wiodei	Nominal Gizo	Power	B <sub>1</sub>	B2	L1	L2	E	Le	t	P	Oqual cricos	T Granchom	IVIGOS
MMW-3F50A	55 (2.16) × 115 (4.52)	600N (60kgf)	55 (2.16)	55(2.16)	125.5	115	20.5(0.80)	90.5	10	1.5(0.5+1.0)	0.01	0.02	2.8kg/6.2 lb
MMW-3F70A	70 (2.75) × 115 (4.52)	900N (90kgf)	70 (2.75)	70 (2.75)	(4.94)	(4.52)	25.5(1.00)	(3.56)	(0.39)	0.05(0.02+0.03)	0.01	0.02	4.0kg/8.8 lb

st The holding power is based on a test piece of  $\Box$ 50 imes t25, S15C, ground surface, with nothing held on other faces

# FOUR-FACE HOLDING PERMANENT MAGNETIC MINI CHUCK



								[111111(111/)]
	Holding	Power	D	imensio	าร		Height	
Model	2nd face after holding on one whole face	4th face after holding on three whole faces	В	Le	L	Pole Pitch	Н	Mass
MMXW-611A	400N (40kgf) or over.	60N (6kgf) or over.	64 (2.52)	112 (4.40)	136 (5.35)	4(2+2) 0.15(0.07+0.07)	64 (2.52)	3.5kg/ 7.7 lb

#### ※ The holding power is based on a test piece of □50 × t25, S15C, ground surface, with nothing held on other faces \*Note that when workpieces are held on two or more faces simultaneously, the holding power of

#### [Application]

These chucks are suitable for holding workpieces in such operations as grinding, boring, cutting, welding and assembly. Since four faces can hold workpieces simultaneously, they can be used as a magnet vice in a wide range of applications.

#### [Features]

- ■These are unique universal mini chucks capable of holding workpieces on four faces.
- They can be used in such a way as to hold workpieces on the bed of a machine tool or holding workpieces on the top and side faces simultaneously. They can also be used as a guide stopper to secure workpieces.
- ●The accuracy is as follows: flatness 0.01 mm, parallelism 0.02 mm, squareness 0.03 mm.

CHUCK ELECTROMAGNETIC CONTROLLERS CHUCKS

PERMANENT

ELECTROMAGNETIC CHUCKS | MAGNETIC CHUCKS

BLOCKS FOR MC

VACUUM

PROMELTA\* SYSTEM

SINE BAR CHUCKS

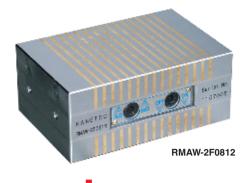
HOLDING TOOLS

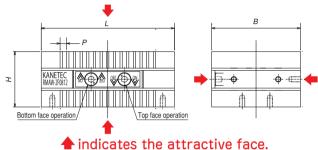
MEASURING TOOL HOLDERS

MAGNETIC HOLDERS

MAGNETIC TOOLS

# Model RMAW-2F TWO-FACE HOLDING BLOCK FOR SMALL WORKPIECE





# Most powerful 2-face holding block!

#### [Application]

Suitable for holding workpieces in various operations such as grinding and light duty cutting, measurement and assembly work.

#### [Features]

- ●The strongest holding power among small permanent magnetic types. Furthermore, by making the pole pitch finer, this model holds small and thin workpieces firmly. This model is also effective for holding relatively large workpieces that cover the whole attractive face.
- ●The top and bottom faces can be turned on and off individually. It can be set easily on the machine table or work table to shorten the setup time.
- Since a workpiece can be held on its side face, workpieces can be held vertically or on three faces. \*When a workpiece is held on the top face or bottom face and the side face simultaneously, the holding power of each face
- By using tapped holes on three side faces and bottom face, stoppers and fixtures can be mounted.

						[mm(in)]
Model	Holding		Dimensions	3	Pole Pitch	Mass
Woder	Power	В	L	Н	P	IVIGOS
RMAW-2F0812	785N (80kgf)	80 (3.15)	120 (4.72)	50 (1.96)	6(2+4) 0.23(0.07+0.15)	3.7kg/ 8.15 lb

 $\Re$  The holding power is the largest value obtained using a test piece of □50 × t25, S15C.

ELECTROMAGNETIC | CHUCK | PERMANENT | CHUCKS | CONTROLLERS | MAGNETIC CHUCKS

PERMANENT ELECTROMAGNETIC OHUCKS

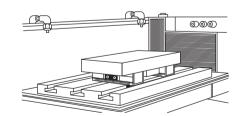
BLOCKS FOR MC

# Model KPB DOUBLE-FACE/SINGLE-FACE HOLDING PERMANENT MAGNETIC BLOCK

[mm(in)]



#### An example of using double-face holding block



# Single face type

Mod	lal	Nominal Size	Holding		Dimer	nsions		Pole Pitch	Mass
IVIOU	iei	Norminal Size	Power	В	L	Н	L1	P	IVIdSS
KPB-1	F13	50(1.96)×125(4.92)	250N (25kgf)		125(4.92)		85 (3.34)	. = (0 = 0)	1.5kg/3.3 lb×2
KPB-1	F18	50(1.96)×180(7.08)	350N (35kgf)	52 (2.04)	180(7.08)	35	110(4.33)	1.5(0.5+1.0) 0.05(0.02+0.03)	2.2kg/4.8 lb×2
KPB-1	F25	50(1.96)×250(9.84)	500N (50kgf)	(2.04)	250 (9.84)	(1.07)	150(5.90)	0.00 (0.02 1 0.00)	3.1kg/6.8 lb×2

\*The holding power is based on a test piece of SS400, 20 mm thick (ground surface) held on the whole face.

#### Double face type [mm(in)] Dimensions Pole Pitch Nominal Size Power KPB-2F13 50(1.96) ×125(4.92) 250N(25kgf) 125(4.92 1.5(0.5+1.0) 50(1.96)×180(7.08) 350N (35kgf) 180(7.08 3.6kg/ 8.0 lb×2 KPB-2F25 50(1.96) ×250(9.84) 500N(50kgf) 250(9.84)

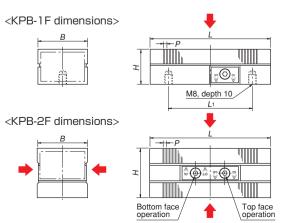
#### \*The holding power is based on a test piece of SS400, 20 mm thick (ground surface) held on the whole face

#### [Application]

These blocks can hold workpieces during electric discharge machining and grinding. They can also be used as holding tools for assembly and light duty machining.

#### [Features]

- The both sides can hold workpieces and can be turned on and off individually. (2F type)
- They are secured to the work table by turning on and off the magnet. (2F type)
- ■The side faces (ON/OFF switchover face) can also hold workpieces. (2F type)
- They are secured to the work table using tapped holes provided on the mounting face. They can also be secured by having them held by a magnetic chuck. (1F type)
- The operation part is provided on both side faces to facilitate on/off operation.
- Light weight for easy positional adjustment.
- The operating handle is detachable and does not hinder the work
- One set of two blocks has been machined and finished together.
- They are of drip-proof and oil-resistant construction to allow them to be used in fluid.



MEASURING TOOL HOLDERS

# Model KM-IB SWITCHABLE PERMANENT MAGNETIC HOLDER

# Suitable as exclusive fixing jig for round steel bars and irregularly shaped workpieces!

# KM-JB0812 KM-JB0709

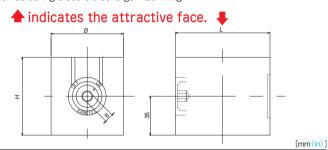


\* However, avoid making a hole in the pin and counterbore areas.

#### [Application]

In addition to using these holders as a fixing jig for small workpieces, they can be used as a block to support 3 points of a workpiece during grinding.

- Each face can be worked additionally for up to 10mm. (The on/off operation face and rear face are excluded.)
- By using these holders as exclusive jigs for a particular workpiece, the work efficiency is improved.
- ●As these holders are of drip-proof construction, they can be used in liquid such as during electric discharge machining.



Model	Holding		Dimensions		Mass
Model	Power	В	L	Н	iviass
KM-JB0709	392N (40kgf)	65 (2.55)	85 (3.34)	70 (2.75)	2.5kg/ 5.5 lb
KM-JB0812	883N (90kgf)	80(3.14)	120 (4.72)	90 (3.54)	5.5kg/12.1 lb

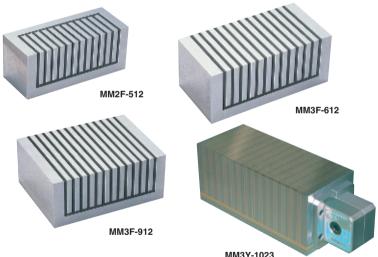
# Model MM FREE BLOCK

# Freely workable permanent magnetic block

Pin

Counterbore

KM-JB side face



# MM3Y-1023





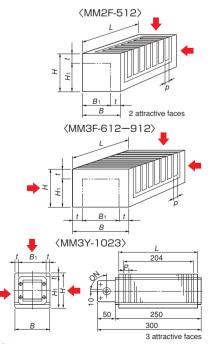
												[mm(in)]
ĺ	Model	Nominal	Holding		Di	imensio	ns		Pole Pitch	Work Allowance	Mag. Force	Mass
ı	Model	Size	Power	В	L	Н	B <sub>1</sub>	H1	P	t	ON/OFF	IVIASS
	MM2F- 512	50(1.96) × 120(4.72)	200N (20kgf)	50 (1.96)			40		2 (2 : =)			2kg/ 4.4 lb
	MM3F- 612	60 (2.36) × 120 (4.72)	400N (40kgf)	60 (2.36)	120 (4.72)	50 (1.96)	(1.57)	40 (1.57)	8(3+5) 0.31 (0.11+0.19)	Max.10	Not provided	2.5kg/ 5.5 lb
	MM3F- 912	90 (3.54) × 120 (4.72)	600N (60kgf)	90 (3.54)			70 (2.75)		(0.1110.10)	(0.39)		3.5kg/ 7.7 lb
	MM3Y-1023	100 (3.93) × 230 (9.05)	750N (75kgf)	100 (3.93)	230 (9.05)	100 (3.93)	80 (3.15)	90 (3.54)	15.2 (0.59)		Provided	20kg/ 44 lb

#### \*The holding power is a reference value obtained using a test piece of S15C, $\Box$ 50 imes t25, ground surface \*Note that when workpieces are held on two or more faces simultaneously, the holding power of each face drops

These blocks are designed to allow deep engraving such as grooves and steps on the attractive face to fit workpiece shapes when holding workpieces.

#### [Features]

- The attractive face can be removed up to 10 mm deep from the surface of the new block.
- As workpieces can be fitted in grooves, a large machining pressure can be used. Also cemented carbide workpieces, which are difficult to hold by a magnetic chuck, can be secured by using these blocks to enable grinding.
- These blocks can be mounted on the magnetic chuck work face.
- ●There are two types; a magnetic force ON-OFF type and a type not equipped with an ON-OFF function.



indicates the attractive face.

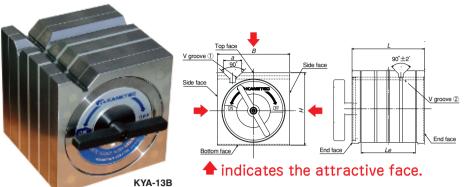
PENIMINITY PERMANENT CHUCK ELECTROMAGNETIC ELECTROMAGNETIC CHUCKS CONTROLLERS CHUCKS

BLOCKS FOR MC

VACUUM

PROMELTA\* SYSTEM SINE BAR CHUCKS

# Model KYA SQUARE TYPE BLOCK



#### [Application]

Holding tools for marking and light duty machining. Holding tools for three-dimensional measuring instruments and various measuring systems.

#### [Features]

- •Workpieces can be held on three faces of the top (V face) and both side faces.
- ●The ON/OFF lever is detachable. (The length of the opposite sides of the hex hole is 8 mm.)
- Drip-proof and oil-resistant construction.
- An M8 tapped hole is provided on the top for lifting (KYA-18 and 20B only).
- OUltra-precision finishing is also available. Please contact us.

[mm(in)]

Model	Holdi	ng Power	Applicable	Diameter			Dimensions			Mass
Wodel	V groove①	V groove@	V groove1)	V groove2	В	Н	L	Le	а	IVIGSS
KYA- 8B	120N (12kgf)	100N (10kgf)	$\phi 10 (0.39) - \phi 25 (0.98)$	$\phi$ 8(0.31) $-\phi$ 15(0.59)	80 (3.14)	80 (3.14)	80 (3.14)	60 (2.36)	20 (0.78)	3.5kg/ 7.7 lb
KYA-10B	200N (20kgf)	120N (12kgf)	$\phi 10 (0.39) - \phi 35 (1.37)$	$\phi 10 (0.39) - \phi 30 (1.18)$	100 (3.93)	100 (3.93)	100 (3.93)	72 (2.83)	26 (1.02)	7kg/ 15 lb
KYA-13B	300N (30kgf)	250N (25kgf)	$\phi 10(0.39) - \phi 40(1.57)$	$\phi$ 10 (0.39) $-\phi$ 26 (1.02)	125 (4.92)	125 (4.92)	125 (4.92)	85.5 (3.36)	30 (1.18)	14kg/ 30 lb
KYA-15B	400N (40kgf)	400N (40kgf)	$\varphi 10(0.39) - \varphi 40(1.57)$	$\phi 10 (0.39) - \phi 38 (1.49)$	150 (5.90)	150 (5.90)	150 (5.90)	107 (4.21)	32 (1.25)	23kg/ 50 lb
KYA-18B	400IN (40KgI)	300N (30kgf)	+14(0 FE) +F0(1 06)	+14(0.5E) +50(1.06)	180 (7.08)	180 (7.08)	180 (7.08)	123 (4.84)	38 (1.49)	37kg/ 81 lb
KYA-20B	650N (65kgf)	650N (65kgf)	$\phi 14(0.55) - \phi 50(1.96)$ $\phi$	$\phi 14(0.55) - \phi 50(1.96)$	200 (7.87)	200 (7.87)	200 (7.87)	155 (6.10)	30 (1.49)	51kg/112 lb

<sup>\*</sup>The holding power is based on the V face and φ20 round steel bar. \*For accuracy, see the table below.

### KYA accuracy

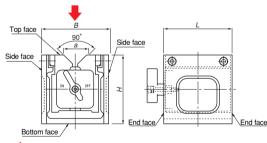
 $(\mu m)$ 

	Model · Accuracy	KYA	\-8B	KYA	-10B	KYA	-13B	KYA	-15B	KYA	-18B	KYA	-20B
Item		Standard	Special										
	Bottom face to top face					15		15		20			
Parallelism	Bottom face to V face	10		10		15		15		20		20	
raialielisili	End face to end face		7		7	12	8	12	8	15	9		9
	Side face to V face	20		20		25		25		30		30	
Flatness	s of bottom face	10		10		15		15		20		20	
Squareness	Bottom face to side face	20	10	20	10	25	12	25	12	30	14	30	14

#### **SQUARE TYPE BLOCK** Model KYB



KYB-13A



indicates the attractive face.

#### [Application]

Holding tools for marking and light duty machining. Holding tools for three-dimensional measuring instruments and various measuring systems.

#### [Features]

- A workpieces can be held on one face of the top (V face).
- ●The ON/OFF lever is detachable. (The length of the opposite sides of the hex hole is 8 mm.)
- Drip-proof and oil-resistant construction.
- Ultra-precision finishing is also available. Please contact us.

_								[mm(in)]
	Model	Holding Power	Applicable Diameter		Dimer	nsions		Mass
	WIOGEI	Tiolaling Fower	Applicable Diameter	В	Н	L	а	IVIGOS
	KYB- 8A	180N (18kgf) or over.	$\phi$ 10 (0.39) $-\phi$ 32 (1.25)	80 (3.14)	80 (3.14)	80 (3.14)	29 (1.02)	2.5kg/5.5 lb
	KYB-10A	343N (35kgf) or over.	$\phi 13(0.51) - \phi 50(1.96)$	100 (3.93)	100 (3.93)	100 (3.93)	40 (1.57)	6kg/13 lb
	KYB-13A	400N (40kgf) or over.	$\varphi 13(0.51) - \varphi 50(1.96)$	125 (4.92)	125(4.92)	125 (4.92)	40(1.57)	8kg/17 lb
	KYB-15A	589N (60kgf) or over.		150 (5.90)	150 (5.90)	150 (5.90)		12kg/26 lb
	KYB-18A	600N (60kgf) or over.	$\phi 14(0.55) - \phi 66(2.59)$	180 (7.08)	180 (7.08)	180 (7.08)	50 (1.96)	16kg/35 lb
	KYB-20A	785N (80kgf) or over.	r.	200 (7.87)	200 (7.87)	200 (7.87)		22kg/48 lb

\*The holding power is based on the V face and φ20 round steel bar, \*For accuracy, see the table below.

# KYB accuracy

 $(\mu m)$ 

	Model · Accuracy	KYE	3-8A	КҮВ	-10A	KYB	-13A	КҮВ	-15A	KYB	-18A	KYB	-20A
Item		Standard	Special										
	Bottom face to top face					15		15		20		20	
Parallelism	Bottom face to V face	10		10		15		15		20		20	
Parallelisiii	End face to end face		7		7	12	8	12	8	15	9	15	9
	Side face to V face	20		20		25		25		30		30	
Flatnes	s of bottom face	10		10		15		15		20		20	
Squareness	Bottom face to side face	20	10	20	10	25	12	25	12	30	14	30	14

Top face

Bottom face

End face



#### [Application]

Holding tools for round bar marking, drilling, tapping and grinding of irregularly shaped workpieces.

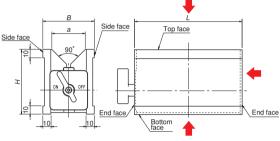
Holding tools for three-dimensional measuring instruments and various measuring systems.

#### [Features]

- •Workpieces can be held on the top face (V face), bottom face and rear
- ■The ON/OFF lever is detachable. (The length of the opposite sides of the hex hole is 8 mm.)
- Drip-proof and oil-resistant construction.
- OUltra-precision finishing is also available. Please contact us.

Model	Holding Power	Applicable Diameter		Mass				
Woder			В	Н	L	а	IVIGOS	
KVA-1A	300N (30kgf) or over.	$\phi 8 (0.31) - \phi 50 (1.96)$		73(2.87)	80 (3.14)	-	2kg/4.4 lb	
KVA-2A	450N (45kgf) or over.		60 (2.36)		125 (4.92)		3kg/6.6 lb	
KVA-3A	700N (70kgf) or over.				180 (7.08)		4.5kg/10 lb	

\*The holding power is based on the V face and φ20 round steel bar. \*For accuracy, see the table below \*Note that when workpieces are held on two or more faces simultaneously, the holding power of each face drops



indicates the attractive face.

# Model KVA-2F TWO-FACE HOLDING V-HOLDER

# First in the industry!

# The top and bottom faces can be turned **ON/OFF** independently!

# An example of usage

[Application] A holding tool in a wide range of applications such as round bar marking

Also usable as a holding tool for measurement on an iron surface plate. [Features]

- Only the workpiece can be mounted/demounted without changing the holder fixing position, improving the work efficiency.
- ●The ON/OFF lever is detachable. (The length of the opposite sides of the hex hole is 8 mm.)

Side face

Drip-proof and oil-resistant construction.

105

OUltra-precision finishing is also available. Please contact us.

	Model	Holding Power	Applicable Diameter		Mass				
			Applicable Diameter	Width	Height	Length	IVIGOS		
ľ	KVA-2F1A	392N (40kgf) or over	$\phi 8(0.31) = \phi 50(1.96)$	60 (2.36)	105 (4 13)	80(314)	3.2kg/7.0 lb		

\*The holding power is based on the V face and  $\phi$ 20 round steel bar. \*For accuracy, see the table below

KVA-2F1A

# KVA accuracy

	_		
♠ indicates th	e attractive	face.	( µ m)

Model · Accura		KVA-1A		KVA-2A		KVA-3A		KVA-2F1A	
Item		Standard	Special	Standard	Special	Standard	Special	Standard	Special
Parallelism	Bottom face to top face			15	8	20	9	10	
	Bottom face to V face	10	7						
	End face to end face			12		15			7
	Side face to V face	20		25		30		20	1
Flatnes	s of bottom face	10		15	1 [	20		10	
Squareness	Bottom face to side face	20	10	25	12	30	14	20	10

Bottom face

# Model KVS MAGNETIC V-HOLDER



#### [Application]

Suitable for securing irregularly shaped workpieces for grinding and light duty cutting such as drilling and tapping.

#### [Features]

- ●The special construction exerts a strong magnetic force on three faces of top, bottom and end.
- ■Usable for inspection also. Two accuracy grades; standard and special are available
- The magnetic force can be turned on and off easily by turning the lever.
- Drip-proof construction.

B a yo' (VC groove)  Side face  N 15 15 90  Side face	Top face  End face  Bottom face
(VE groove)	-

# indicates the attractive face.

#### [mm (in)] Holding Power Applicable Diameter Dimensions Model Mass Steel bar KVS-1B 0.7kN( 70kgf) 100(3.93 4.5kg/ 9.9 lb 105 $\phi 8(0.31)$ 50 9.0kg/19.8 lb KVS-2B 1.0kN (100kgf) 200 (7.87

\*The holding power is based on  $\phi$  20 round steel bar. \*For accuracy, see the table below. Note that when workpieces are held on two or more faces simultaneously, the holding power of each

## KVS accuracy

 $(\mu m)$ 

	Model · Accuracy	KVS-1B		KVS-2B		
Item		Standard	Standard Special		Special	
Parallelism	Bottom face to top face					
	Bottom face to VC groove	12	7	20	12	
	Top face to VE groove					
	Side face to side face					
Squareness	Bottom face to side face	21	10	21	15	

#### Model KMV **MAGNETIC V-BLOCK**

indicate the attractive face.



#### [Application]

Holding tools for round bar marking and drilling. Holding tools for three-dimensional measuring instruments and various measuring systems.

### [Features]

- ■Workpieces can be held on the top face (V face) and end face.
- The ON/OFF lever is detachable. (The length of the opposite sides of the hex hole is 8 mm.)
- Drip-proof and oil-resistant construction.
- Two blocks make one set.
- OUltra-precision finishing is also available. Please contact us.

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Model	Holding Power	Applicable Diameter		Dimer	Mass			
lviodei Holding Power Applicat		Applicable Diameter	B B		L	а	ividSS	
KMV- 50D	150N (15kgf) or over.	$\phi$ 8(0.31) $-\phi$ 50(1.96)	40 (1.57)	50 (1.96)	70 (2.75)	36 (1.41)	1kg/2.2 lb×2	
KMV- 80D	200N (20kgf) or over.	$\phi$ 8(0.31) $-\phi$ 80(3.14)	50	80 (3.14)	100 (3.93)	60 (2.36)	3kg/6.6 lb×2	
KMV-125D	230N (23kgf) or over.	$\phi$ 8(0.31) - $\phi$ 125(4.92)	(1.96)	100 (3.93)	150 (5.90)	90 (3.54)	5kg/ 11 lb×2	

%The holding power is based on the V face and  $\phi$  20 round steel bar. %For accuracy, see the table below. %Note that when workpieces are held on two or more faces simultaneously, the holding power of each face drops.

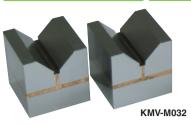
# KMV accuracy

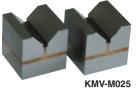
 $(\mu m)$ 

Model · Accuracy		KMV-50D		KMV	/-80D	KMV-125D	
Item		Standard	Special	Standard	Special	Standard	Special
	Bottom face to top face		7	15	8	20	9
Parallelism	Bottom face to V face	10					
	Side face to side face			12		15	
	End face to V face	20		25		30	
Flatness of bottom face		10		15		20	
Squareness	Bottom face to end face	20	10	25	12	30	14
Difference in height of	V faces of one set of blocks		7			3	

<sup>\*</sup>If you require higher accuracy, specify the required grade. \*If you require special accuracy on areas not listed in the table, please contact us.

# Model KMV-M PERMANENT MAGNETIC MINI V-BLOCK







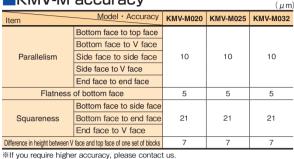
(Bottom face)

#### [Application]

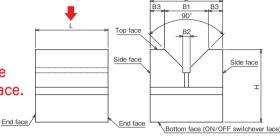
These blocks are used to hold small-diameter round bars on optical measuring equipment. (Non-watertight type)

One set consists of two blocks. The attractive faces and other work faces have been finished precisely. The blocks can be turned ON and OFF by 90° turning using a screwdriver on the bottom face.

# KMV-M accuracy

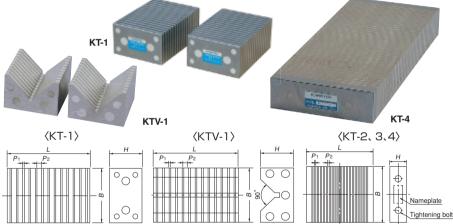


indicates the attractive face.



Model	Applicable		Dimensions						Mana
	Holding Power	Diameter	В	B <sub>1</sub>	B <sub>2</sub>	Вз	Н	L	Mass
KMV-M020	9.8N (1kgf)	φ 15 (0.59)	20(0.78)	12 (0.47)	2.0(0.07)	4(0.15)	20 (0.78)	20(0.78)	0.06kg/0.13 lb×2
KMV-M025	19.6N (2kgf)	φ20 (0.78)	25(0.98)	15 (0.59)	2.5(0.09)	5 (0.19)	25 (0.98)	25 (0.98)	0.13kg/0.28 lb×2
KMV-M032	49 N (5kgf)	φ25 (0.98)	32(1.25)	20 (0.78)	3.0(0.11)	6 (0.23)	32 (1.25)	32(1.25)	0.24kg/0.53 lb×2

# CHUCK BLOCK



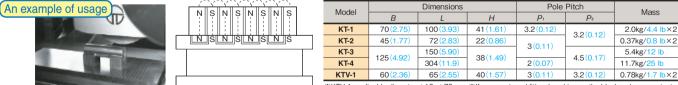
#### [Application]

These blocks are used in combination with a magnetic chuck as an auxiliary tool to hold round bars and sheet-like workpieces that are difficult to hold on the work face alone.

#### [Features]

- Since these blocks are not magnetized themselves, they are placed on a magnetic chuck to induce magnetism to hold workpieces. Magnetism can be induced on two faces of the top face and side face or the V face and side face.
- Workpieces of special shapes can also be held by use of chuck blocks, thus making it possible to utilize your chucks in stock.
- One set of two blocks has been finished together. (KT-3 and -4 are available individually.)

[mm(in)]



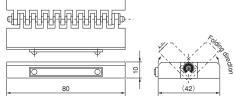
\*KTV-1 applicable diameter: φ10-φ70 mm \*If you require additional working on the blocks, please contact us.

#### **MINI V-ADAPTER** Model MV



#### [Application]

This adapter itself is not magnetic, but when it is placed on a V-holder having the N pole and S pole on separate sides like Model KVA, it induces magnetism to hold small diameter workpieces that cannot be physically mounted directly. (See the figure below.) This adapter is recommended for holding workpieces during grinding, drilling and measurement.



#### [Features]

- The attractive face can be set to any angle between 90 and 180 degrees.
  - The hinge part acts as a separator to divide magnetic poles.