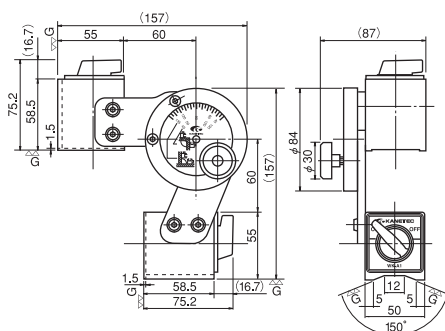


MAGNETIC TOOLS FOR WELDING OPERATION

Model MT-A MAGSUPPORTER*

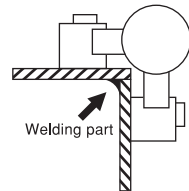


MT-A-2

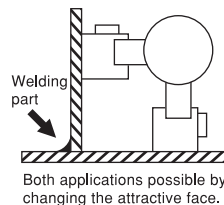


<Note 1>

<Inside welding>



<Outside welding>



Both applications possible by changing the attractive face.

[Application]

Suitable for mating and keeping stationary jointing parts of iron sheets and members during welding work.

[Features]

Powerful holding by use of a high performance permanent magnet.

MT-A-2

- Both inside and outside welding are possible.

<Note 1>

- Any desired holding angle can be set in a range of 45° and 135° (angle scale provided).
- ON/OFF switchover function and V-groove provided.

MT-A-4

- Any desired holding angle can be set in a range of 30° and 90° (angle scale provided).
- Angle adjustment with a handle.
- ON-OFF switchover function provided.

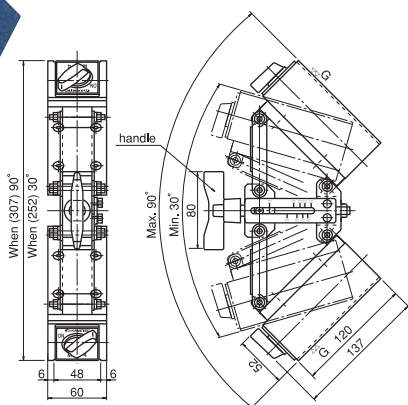
[mm (in.)]

Model	Holding Power	Holder Dimensions			Angle	Mass
		Width	Length	Height		
MT-A-2	800N (80kgf) × 2	50 (1.96)	60 (2.36)	55 (2.16)	45°—135°	3.5kg/ 7.71 lb
MT-A-4	1500N (150kgf) × 2	60 (2.36)	120 (4.72)	52 (2.04)	30°—90°	5kg/ 11.0 lb

※ The holding power applies to SS400, thickness 10mm and ground surface.



MT-A-4



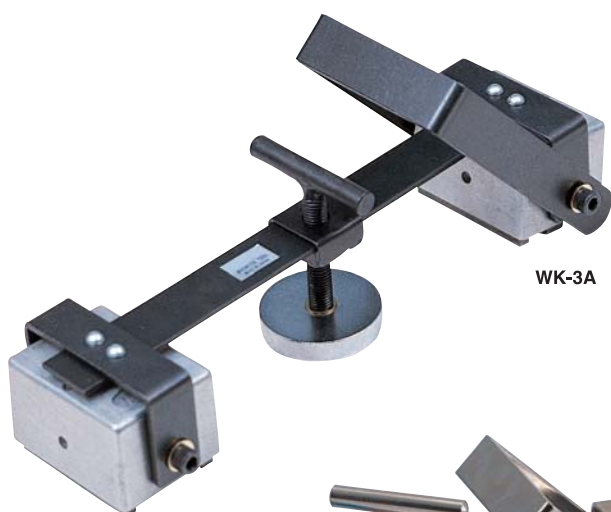
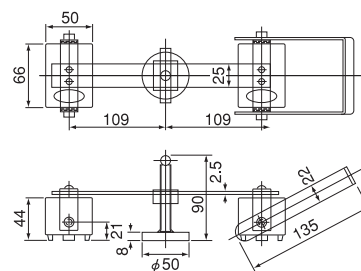
Model WK WELDING CLAMPER

[Application]

Suitable as holding tools for tentative installation and tack welding on such work sites of construction, bridge, ship building and piping.

[Features]

- The magnet part has a minimum but enough free rotating angle range for easy mounting on workpieces.
- The exterior of the magnet holder part is made of aluminum to prevent adhesion of iron powder on the top and side faces.
- Model WK-T3A has a construction that is highly resistant to heat.
- These clampers have an enough mechanical strength to withstand rough handling.



WK-3A

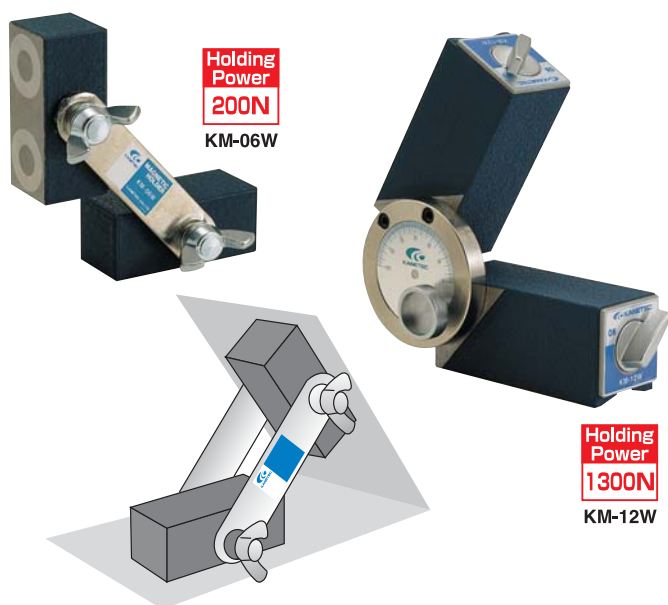


WK-T3A

Model	Maximum Temperature	Holding Power	Mass
WK-3A	60°C	1000N (100kgf) × 2	2.3kg/5.07 lb
WK-T3A	180°C		

※ The holding power applies to SS400, thickness 10mm and ground surface.

Model KM-W MAGNETIC HOLDER



Usable as a hinge of thin plates and simple jig for welding operations.

[Application]

Suitable for tentative holding during drilling and assembly.

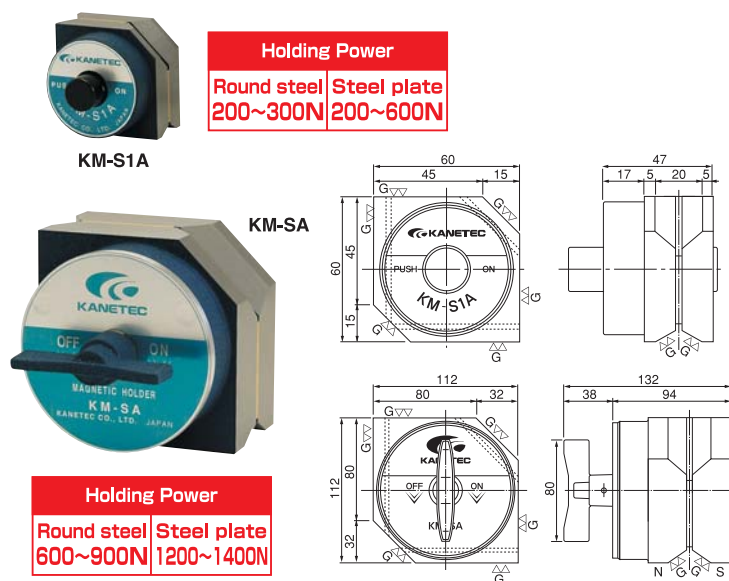
[Features]

- Two magnets as a pair for easy angle setting.
- An angle scale provided. (KM-12W)
- The magnetic force can be turned on and off by operating the lever. (KM-12W)
- The V-groove allows the holder to be attached to certain poles and curved surfaces in addition to the flat surface. (KM-12W)

Model	Holding Power	Holder Dimensions			Length	Angle	Mass
		Width	Length	Height			
KM-06W	200N (20kgf)	26 (1.02)	60 (2.36)	25 (0.98)	129 (5.07)	Free	0.7kg/1.54 lb
KM-12W	1300N (130kgf)	50 (1.96)	117 (4.60)	55 (2.16)	273 (10.75)		4.5kg/9.92 lb

※ The holding power applies to SS400, thickness 10mm and ground surface.

Model KM-SA HEXAGONAL MAGNETIC HOLDER



[Application]

These holders provide a strong holding power for tentative holding during welding and tentative assembly. These holders can also be used as a block.

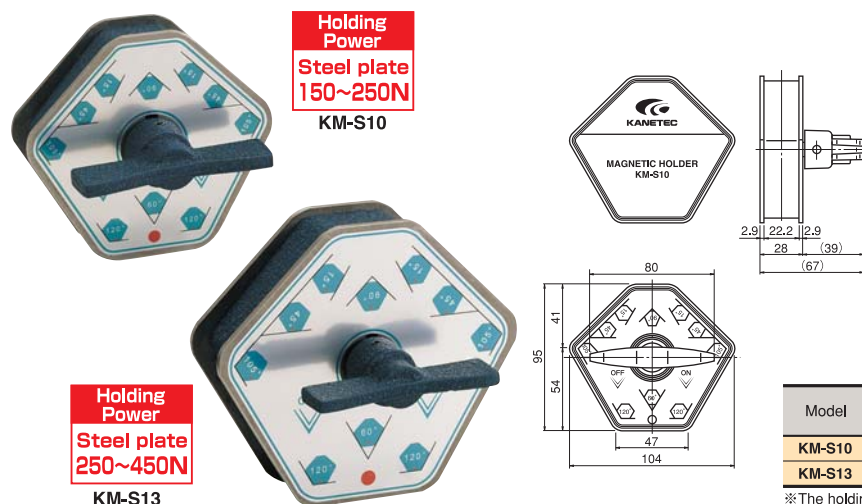
[Features]

- The holding angle can be set to 45°, 90° and 135°.
- The small type is equipped with a pushbutton and the large type with a rotary handle for turning on and off the magnetic force.
- The V-groove enables the work attractive face to be located not only on the flat surface but on the curved surface.

Model	Holding Power		Dimensions	Mass
	Round Steel	Steel Plate		
KM-SA	600—900N (60—90kgf) {150—200N (15—20kgf)}	1200—1400N (120—140kgf) { 800—1000N (80—100kgf) }	112 (4.40) × 112 (4.40) × 94 (3.70)	6.0kg/ 13.2 lb
KM-S1A	200—300N (20—30kgf) { 50— 70N (5— 7kgf) }	200— 600N (20— 60kgf) { 100— 350N (10— 35kgf) }	60 (2.36) × 60 (2.36) × 42 (1.65)	0.85kg/ 1.87 lb

※ The holding power applies to iron plate, SS400, 10mm thickness, and ground-surface.
Note : The holding power in { } is for attraction on one face in the case of double-face attraction.

Model KM-S HEXAGONAL MAGNETIC HOLDER



[Application]

Usable to temporarily hold and assemble workpieces during welding. These holders hold workpieces firmly.

[Features]

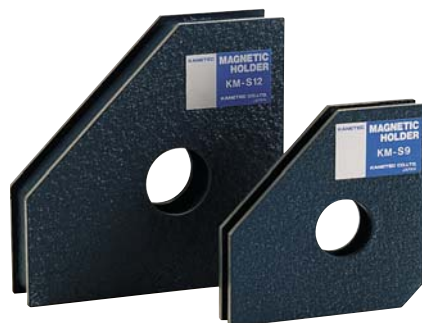
- The workpiece holding angle can be selected from 15°, 45°, 60°, 90°, 105° and 120°.
- The magnetic force can be turned on and off.
- The holding power on steel plates is about the same as when both faces of KM-S9 and S12 are used and at angles other than 105°, the holding power does not drop when two faces are used.

[mm (in.)]

Model	Holding Power	Dimensions	Mass
	Steel Plate		
KM-S10	150—250N (15—25kgf)	104 (4.09) × 95 (3.74) × 67 (2.63)	0.9kg/1.98 lb
KM-S13	250—450N (25—45kgf)	132 (5.19) × 120 (4.72) × 73 (2.87)	1.6kg/3.52 lb

※ The holding power applies to iron plate, SS400, 10mm thickness, and ground-surface.

Model KM-S SIMPLE HEXAGONAL HOLDER



KM-S12

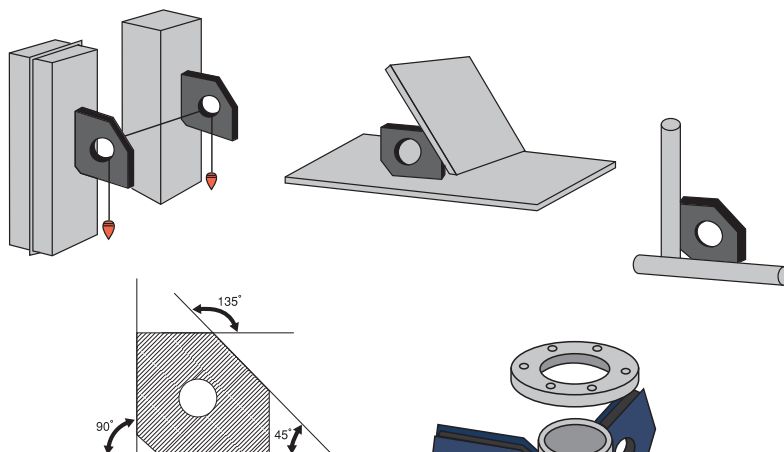
KM-S9

Holding Power

Round steel	Steel plate
250~400N	250~700N

Holding Power

Round steel	Steel plate
100~200N	150~500N



[Application]

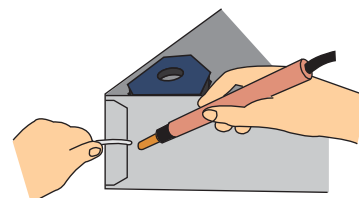
These holders are used for tack welding and tentative assembly during welding and assembly work. They can be used in wide applications as they hold round pipes and round steel.

[Features]

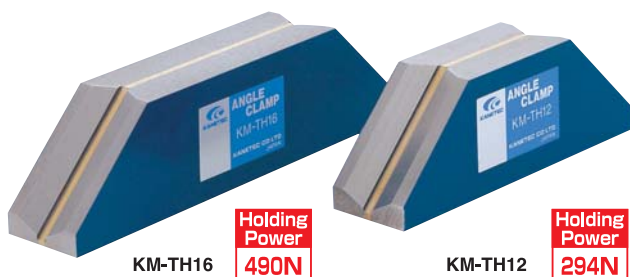
- The holding angle can be set to 45°, 90° and 135°.
- Compact and handy. Lower cost and simpler than the hexagonal holder KM-S.
- The concave attractive face can hold certain round steel.

Model	Holding Power		Dimensions	Dia of round Steel	Mass
	Round Steel	Steel Plate			
KM-S9	100—200N (10—20kgf)	150—500N (15—50kgf)	90 (3.54) × 90 (3.54)	minφ10 (0.39)	0.5kg/1.10 lb
	{ 50—100N (5—10kgf) }	{ 100—300N (10—30kgf) }	×14 (0.55)		
KM-S12	250—400N (25—40kgf)	250—700N (25—70kgf)	120 (4.72) × 120 (4.72)	minφ24 (0.94)	1.2kg/2.64 lb
	{ 150—250N (15—25kgf) }	{ 200—500N (20—50kgf) }	×26 (1.02)		

※The holding power applies to iron plate, SS400, 10mm thickness, and ground-surface.
Note : The holding power in { } is for attraction on one face in the case of double-face attraction.



Model KM-TH ANGLE CLAMP

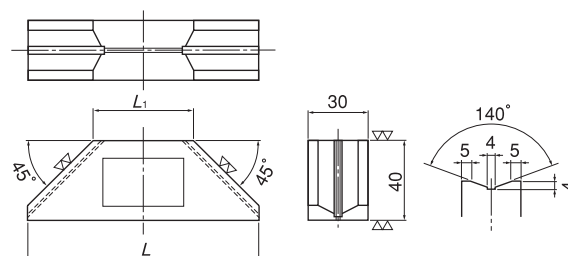


KM-TH16

Holding Power
490N

KM-TH12

Holding Power
294N



[Application]

Usable to temporarily hold workpieces during tack welding and assembly or to hold gages and rulers.

[Features]

- The all inclined sides provide strong magnetic force. Angles of 45°, 90° and 135° can be used.

Model	Holding Power	Dimensions		Mass
		L	L ₁	
KM-TH12	294N (30kgf)	115 (4.52)	50 (1.96)	0.8kg/1.76 lb
KM-TH16	490N (50kgf)	155 (6.10)	90 (3.54)	1.2kg/2.64 lb

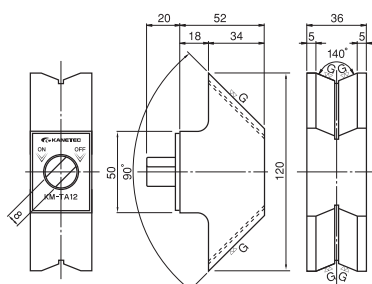
※The holding power applies to SS400, thickness 10mm and ground surface.

Model KM-TA ANGLE CLAMP



Holding Power
400N

KM-TA12



[Application]

This clamp can be used for tentative holding and tentative assembly during welding to hold workpieces strongly. It can also be used as a block.

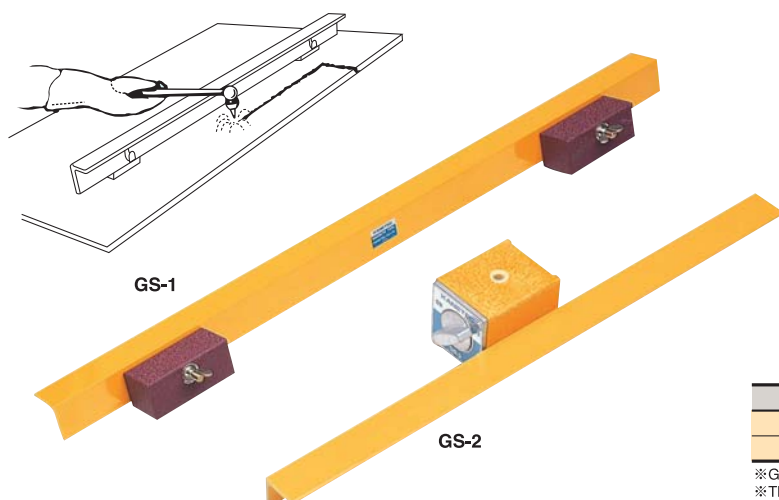
[Features]

- The V-groove on the attractive face enables this clamp to be used for materials having curved surfaces such as round steel and pipe in addition to flat materials.
- ON-OFF switchover function provided.
- Holding angle 90° only.

Model	Holding Power	Dimensions			Mass
		Length	Width	Height	
KM-TA12	400N (40kgf)	72 (2.83)	36 (1.41)	120 (4.72)	1kg/2.20 lb

※The holding power applies to SS400, thickness 10mm and ground surface.

Model GS GUIDE SCALE



[Application]

Special guide tools for moving the torch while maintaining the height of the nozzle during gas welding.

[Features]

- A high performance permanent magnet holds the scale strongly.
- Model GS-1 allows scale up-down adjustment according to the height of the nozzle.
- Model GS-2 allows its magnetic force to be turned on and off with a lever for easy mounting and dismounting.

[mm (in)]

Model	Holding Power	Length	Width	Height	Mass
GS-1	350N (35kgf)	500 (19.6)	85 (3.34)	70 (2.75)	1.1kg/2.42 lb
GS-2	1000N (100kgf)	400 (15.7)	68 (2.67)	40 (1.57)	2.3kg/5.07 lb

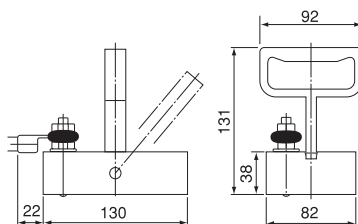
※ GS-2 can be mounted and dismounted easily with a select lever.

※ The holding power applies to SS400, thickness 10mm and ground surface.

Model HL-E EARTH CLAMP



HL-10E



[Application]

Capable of connecting earth terminals on a wide variety of faces.

[Features]

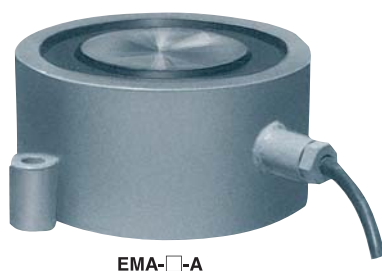
- A high performance permanent magnet is used for easy mounting and dismounting by "one-touch" operation.

[mm (in)]

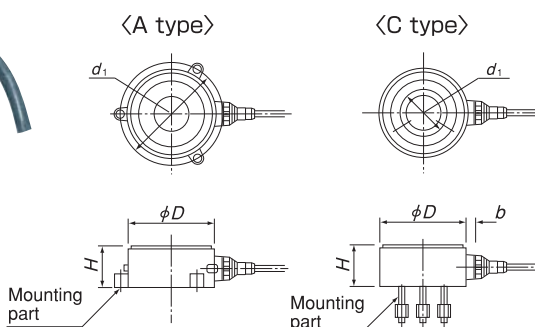
Model	Holding Power	Current Capacity	Mass
HL-10E	1600N (160kgf)	300A	1.5kg/3.30 lb

※ The holding power applies to 16 mm thick mill scale steel plates.

Model EMA WELDING JIG



EMA-□-A



[Application]

Jigs developed for automatic welding of steel plates to hold steel plates and backing materials. These jigs can be used to hold cut-out pieces during EPM welding operations, to straighten workpieces and to secure stacked steel plates during fusing of stacked steel plates.

[Features]

- Holding and releasing can be controlled electrically.
- Workpieces are secured to a welding frame by a strong magnetic force and therefore warping of steel plates due to welding heat can be prevented.
- Waterproof construction for use for outdoor operations. Highly resistant to impact and heat.

[mm (in)]

Model	Holding Power		Dimensions					Power Source		Mass
	Steel Plate 20mm thick	Steel Plate 50mm thick	D	H	d ₁	b	Clamp Hole	Voltage	Current	
EMA-25-A	18kN (1800kgf)	24kN (2400kgf)	245 (9.64)	100 (3.93)	290 (11.4)	70 (2.75)	3 (0.11) - φ21 (0.82)	200 VDC	1.0 A	30kg/66.1 lb
EMA-25-C					150 (5.90)		3 (0.11) - M16 (0.62)			
EMA-26-A	20kN (2000kgf)	36kN (3600kgf)	255 (10.0)	120 (4.72)	305 (12.0)		4 (0.15) - φ26 (1.02)		1.4 A	40kg/88.1 lb
EMA-30-A					340 (13.3)		3 (0.11) - φ23 (0.90)			
EMA-30-C	25kN (2500kgf)	50kN (5000kgf)	296 (11.6)	150 (5.90)	200 (7.87)		3 (0.11) - M20 (0.78)		1.75A	65kg/143 lb

MAGNETIC
HOLDERS

MAGNETIC
TOOLS

MAGNETIC TOOLS FOR
WELDING OPERATION

LIFTING
MAGNET

MAGBORE

CHIP & SLUDGE
TRANSPORTERS

ENVIRONMENTAL
EQUIPMENT

MAGNETIZERS AND
DEMAGNETIZERS

MAGNETIC EQUIPMENT
FOR TRANSPORTATION

MAGNETIC
SEPARATORS

HIGH GRADE MAGNETIC
SEPARATORS

MEASURING
INSTRUMENTS

MAGNETIC
MATERIALS