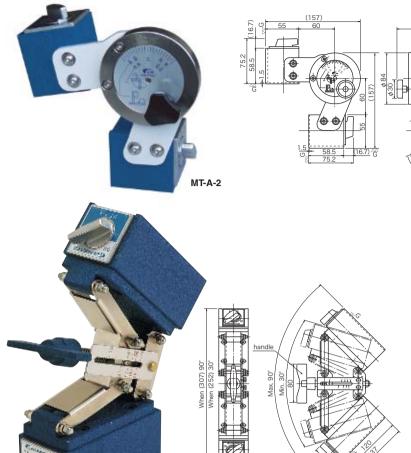
## Model MT-A MAGSUPPORTER\*



# ⟨Note 1⟩ (Inside welding) Welding pa

Weldir

(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	Halding Dames	Holder Dimensions		sions	Amala	Mass	
	Model	Holding Power	Width	Length	Height	Angle	IVIASS	
ĺ	MT A 2	1T-A-2 800N(80kgf)×2	50	60	55	45°—135°	3.5kg/	
	IVI I-A-2		(1.96)	(2.36)	(2.16)	45 -155	7.71 lb	
ĺ	MT-A-4	1500N (150kgf) ×2	60	120	52	30°— 90°	5kg/	
	WI 1-A-4	1500N(150kgi) ×2	(2.36)	(4.72)	(2.04)	30 — 90	11.0 lb	

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

## Model WK WELDING CLAMPER

MT-A-4



## [Application]

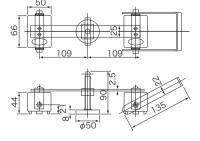
Suitable as holding tools for tentative installation and tack welding on such work sites of construction, bridge, ship building and piping.

### [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.

## An example of usage





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

## 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)





### [mm(in)]

Model	Holding Dower	Holder Dimensions			A m ml m	Length	Mass
Model	Holding Power	Width	Length	Height	Angle	Lengui	IVIASS
KM-06W	200N( 20kgf)	26	60	25	129		0.7kg/1.54 lb
KIVI-UU VV		(1.02)	(2.36)	(0.98)	(5.07)	E	
KM 40W	1300N (130kgf)	50	117	55	273	Free	4 Fly = (0,000 lb
KM-12W		(1.96)	(4.60)	(2.16)	(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
- The small type is equipped with a pushbutton and the arge type with a rotary handle for turning on and off the magnetic force.

[mm (in)]

Model	Model Holding Power		Dimensions	Mass
Round Steel Steel Plate		Dimensions	IVIASS	
KM CA	600-900N (60-90kgf)	1200—1400N(120—140kgf)	112(4.40) ×112(4.40)	6.0kg/
KM-SA	{150—200N(15—20kgf)	{ 800—1000N( 80—100kgf)}	×94(3.70)	13.2 lb
KM C4A	200-300N (20-30kgf)	200— 600N( 20— 60kgf)	60 (2.36) × 60 (2.36)	0.85kg/
KM-S1A	{ 50— 70N( 5— 7kgf)	{ 100— 350N( 10— 35kgf)}	×42(1.65)	1.87 lb

\*The holding power applies to iron plate, SS400, 10mm thickness, and groundsurface.

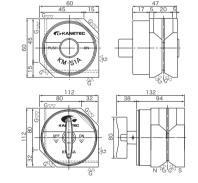
Note: The holding power in { } is for attraction on one face in the case of

WESTERNIE THE	i ioidii ie	,
- T	Round steel 200~300N	

KM-S1A



Holding Power			
Round steel	Steel plate		
600~900N	1200~1400N		



## Model KM-S HEXAGONAL MAGNETIC HOLDER

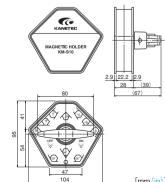


## [Application]

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

## [Features]

- ●The workpiece holding angle can be selected from  $15^{\circ}$  ,  $45^{\circ}$  ,  $60^{\circ}$  ,  $90^{\circ}$  ,  $105^{\circ}$  and  $120^{\circ}$  .
- 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.





			+	[[[[[[]
	Model	Holding Power	Dimensions	Mass
	Model	Steel Plate	Dimensions	IVIASS
	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

## Model KM-S SIMPLE HEXAGONAL HOLDER



Holding Power			Holding	Power
Round steel	Steel plate		Round steel	Steel plate
250~400N	250~700N		100~200N	150~500N

## [Application]

Model

KM-S12

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.

Round Steel

100-200N(10-20kgf)

{ 50-100N( 5-10kgf)} 250-400N (25-40kgf)

-250N(15-25kgf)

#### [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.

Dimensions

 $90(3.54) \times 90(3.54)$ 

×14(0.55)

 $120(4.72) \times 120(4.72)$ 

Dia ofround

 $\min \phi 10(0.39)$ 

 $\min \phi 24(0.94)$ 

mm (in)]	
Mass	
0.5kg/	
1.10 lb	
1.2kg/	
2.64 lb	

{200-500N(20-50kgf)} 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.

Steel Plate

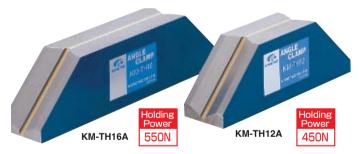
150-500N(15-50kgf)

{100-300N(10-30kgf)}

250-700N (25-70kgf)

## Model KM-TH ANGLE CLAMP

Holding Power

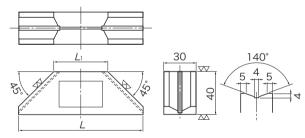


## [Application]

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

## [Features]

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



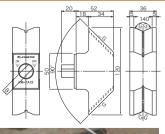
[mm (in)]

Model	Halding Dawer	Dimen	Mass	
iviodei	Holding Power	L	L <sub>1</sub>	IVIASS
KM-TH12A	450N (45kgf)	115 (4.52)	50 (1.96)	0.8kg/1.76 lb
KM-TH16A	550N (55kgf)	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







## [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.

[mm(in)]

					2
Madal	Lialdiaa Dawar		Dimension	s	Mana
Model	Holding Power	Length	Width	Height	Mass
KM-TA12	400N (40kgf)	72	36	120	1kg/
NW-1A12		(2.83)	(1.41)	(4.72)	2.20 lb

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

## [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	200N (20kgf)	500 (19.6)	85 (3.34)	70 (2.75)	1.1kg/2.42 lb
GS-2	800N (80kgf)	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



#### [Application]

Model

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

[Features]

Holding Power

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

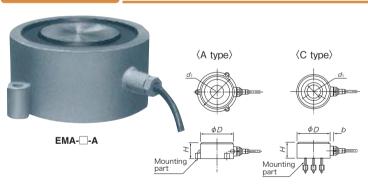
	[mm(in)]
ty	Mass

HL-10E 1600N(160kgf) 300A 1.5kg/3.30 lb

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

Current Capaci

## Model EMA WELDING JIG



## [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 elec-trically.
- Workpieces are secured to a welding frame by a strongmagnetic force and therefore warping of steel plates due to welding heat can be prevented.
- Waterproof construction for use for outdooroperations.
   Highly resistant to impact and heat.

[mm (in)]

ı	Model	Holding Power		Dimensions					Power Source		
		Steel Plate 20mm thick	Steel Plate 50mm thick	D	Н	d <sub>1</sub>	b	Clamp Hole	Voltage	Current	Mass
	EMA-25-A	20kN (2000kgf)	24kN (2400kgf) 245	245 (9.64)	100 (3.93)	290 (11.4)		3(0.11) - \phi 21(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	21kN (2100kgf)	36kN (3600kgf)	255(10.0	120 (4.72)	305 (12.0)	70 (2.75)	4(0.15) -φ26(1.02)		1.4 A	40kg/88.1 lb
	EMA-30-A	25kN (2500kgf)	25kN (2500kgf) 50kN (5000kgf) :	296 (11.6) 1	150 (5.90)	340 (13.3)		3(0.11) - \phi 23(0.90)		1.75A	65kg/ 143 lb
	EMA-30-C					200 (7.87)		3(0.11) -M20(0.78)			

## Model WKS WELDING JIG

## [Application]

Electromagnetic device, which can easily adjust positioning during temporary welding work of iron plates. [Features]

- •It can be attracted at the meeting point by a turn of the switch.
- Amending work can be done easily by inserting an arrow end point.
- Series of WKS-26 and 30 is supplied with wheel for its easy moving.
- •WKS-15 type is handy type which is easily to move or handled manually at working site.
- Supplied with a rectifier.

[mm (in)]

	Holding Power			nsions	Power Source				
Model	Steel Plate 20mm thick	Steel Plate 50mm thick	D	Н	В	Но	Voltage	Current	Mass
WKS-16BA	8kN (800kgf)	10kN (1000kgf)	162 (6.37)	186 (7.32)	_	_		0.5 A	Approx16kg/35.2 lb
WKS-26BA	20kN (2000kgf)	36kN (3600kgf)	258(10.1)	185(7.28)	435(17.1)	813(32.0)	AC200V	1.5 A	Approx50kg/110 lb
WKS-30BA	25kN (2500kgf)	50kN (5000kgf)	296 (11.6)	220(8.66)	473 (18.6)	828 (32.5)		1.5 A	Approx70kg/154 lb



AGNETIC TOOLS FOR ELDING OPERATION

LIFTING MAGNET

ORE LI

MAGBORE

IAL CHIP & SLUDGE TRANSPORTERS

MAGNETIZERS AND ENVIRONMENTAL DEMAGNETIZERS EQUIPMENT

MAGNETIC MAGNETIC EQUIPMENT SEPARATORS FOR TRANSPORTATION

HIGH GRADE MAGNETIC N SEPARATORS