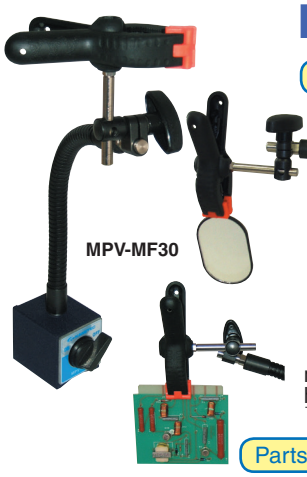
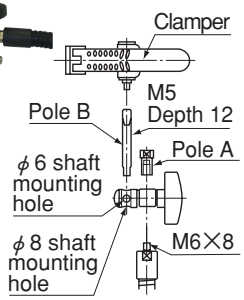
Model MPV-MF MULTI-PURPOSE FLEXIBLE HOLDER

Flexible usage! Convenient multi-clamper!! Design registered



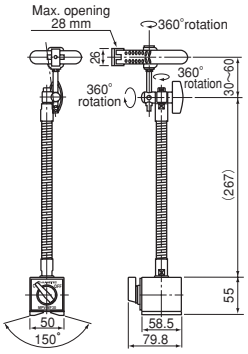
An example of usage



Parts available individually

[Application]
Suitable for auxiliary clamping of parts or tools during machining or assembling work.
Also usable for holding a mirror, penlight, sensor, etc.

[Features]
- A diversified design of metal parts at the tip makes this holder usable in a very wide range of application.
  In addition to the main clamper, a ϕ6 shaft and ϕ8 shaft are mountable.
  Tip of flexible tube: M6 male thread, tip of pole: M5 female thread
  Parts replaceable with other parts that match these thread sizes.
- The use of a magnetic holder base that is equipped with an ON/OFF function facilitates mounting and demounting.



Model	Holding Power	Allowable Weight to Hold (Ref.)	Mass
MPV-MF30	784N (80kgf)	0.6kg/1.32 lb	1.4kg/3.08 lb

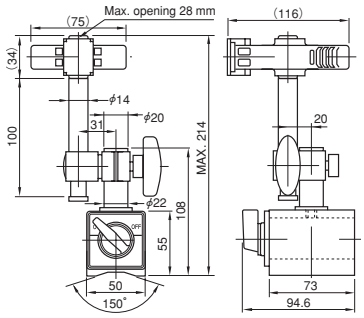
※The clamper is sold with pole B also.
※The clamper can clamp workpieces of 28 mm or less in width.

Model MPV-CL FLEXIBLE CLAMP

Parts available individually

[Application]
Suitable for soldering of circuit boards of electric parts.
Suitable for holding parts during assembly.
Suitable for wiring as it can clamp electric cables.

[Features]
- The employment of a powerful ON/OFF selectable magnetic holder facilitates mounting on an iron work table and work table of machine tools.
- The clamp part is equipped with a tough plastic clamper and can be tilted freely.
- The clamper opens 28 mm maximum and can be moved up and down in a range of about 90 mm.



Model	Holding Power	Mass
MPV-CL30	1000N (100kgf)	2.7kg/6.0 lb

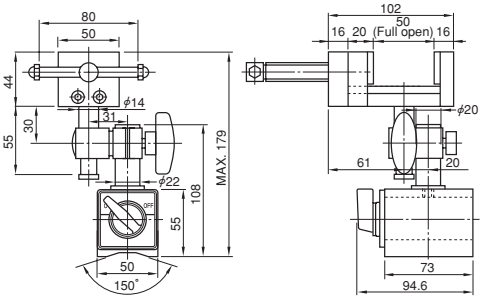
※The holding power is based on a test piece of SS400, 10 mm thick, ground surface.

Model MPV-F FLEXIBLE VICE

Parts available individually

[Application]
Suitable for temporarily holding workpieces during assembly. Also suitable for such jobs as hand filing and drilling and tapping of nonmagnetic materials.

[Features]
- The employment of a powerful ON/OFF selectable magnetic holder facilitates mounting on an iron work table and work table of machine tools.
- The vice can be tilted freely to secure workpieces according to their shapes and machining directions.
- The plates on the workpiece clamping parts are made of nylon to hold non-flat workpieces strongly.



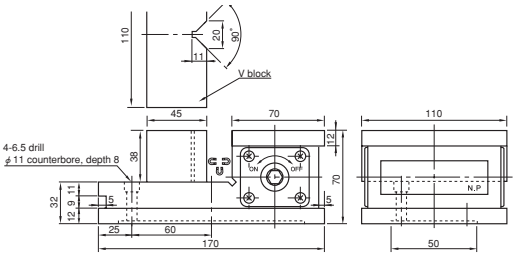
Model	Holding Power	Mass
MPV-F50A	1000N (100kgf)	2.7kg/6.0 lb

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

Model MPV MAGVICE*

[Application]
Suitable for securing irregularly shaped workpieces or tapered workpieces and for machining end faces of round bars and flat workpieces.

[Features]
- The force to secure a workpiece is generated by a magnetic force. Thus, unlike mechanical clamping, no undue force is applied.
  (Nonmagnetic workpieces cannot be held.)
- The select handle can be operated on both sides.
- Can be mounted on a magnetic chuck on a machine tool.



■Magnetic force: Side slip resistance is 575 N (57.5 kg) for iron square bars of 30 mm × 30 mm × 130 mm and 480 N (48 kgf) for iron round bars of ϕ30 × 130 mm thanks to the powerful built-in permanent magnet. Thus, the MAGVICE works well in grinding operations also.
■Mass: 7.3 kg/ 16.01 lb

Model NH MAGNETIC TYPE NOZZLE HOLDER

An example of NH-M1 usage

[Application]

This holder is used to supply cutting fluid or air to machine tools. This can also be used to remove chips and particles produced during electric discharge machining by injecting cutting liquid.

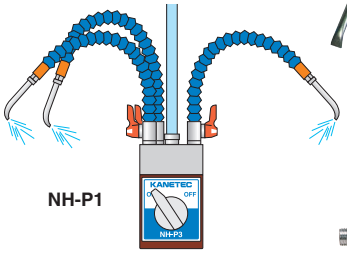
[Features]

- Compared with conventional products, flexibility has been extremely improved. The flexible part can be bent freely. (NH-M1, M3)
- By employing a metallic flexible part, the holding posture is maintained stably even when releasing high pressure air or a large amount of cutting fluid. In addition, it is highly resistant to thermal damage by chips and its durability has been improved. (NH-M1, M3)
- The powerful magnet enables the holder to be mounted in any position easily.
- The nozzle tip cab be positioned in any posture and at any angle.
- The holder is equipped with a valve to enable adjustment of the flow rate.
- The adjustable hose can be adjusted in length by removing or adding joints. (NH-P)
- The employment of a copper pipe flexible part has increased the holding power twice as large as the conventional model (NH-M1). The posture of the flexible part can be maintained even when releasing high pressure air. (NH-SH1)
- The flow rate can be adjusted at the nozzle tip. (NH-SH1)
- The flexible part can be mounted on a conventional magnet by using a screw conversion joint. (NH-SH1)

NH-P3

NH-M3

Parts available individually

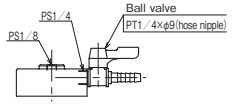


NH-P1

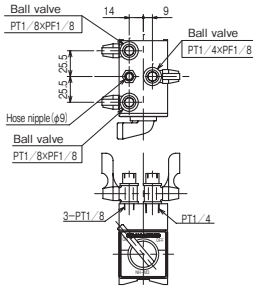
An example of usage

NH-P1

<Tip nozzle>
(Available separately)



NH-P1/NH-M1 Details of thread size



NH-P3/NH-M3 Details of thread size

[mm(in)]

Model	Holding Power	Nominal Size	Inlet Dia.	Hose Length	No. of Outlets	Mass
NH-P1	245N(25kgf)	φ70(2.75)×27(1.06)	φ9 (0.35)	390(15.3)	1 pc	0.95kg/2.1 lb
NH-P3	490N(50kgf)	48(1.89)×73(2.87)×54(2.12)		420(16.5)	3 pcs	1.65kg/3.6 lb
NH-M1	245N(25kgf)	φ70(2.75)×31(1.22)		400(15.7)	1 pc	0.9kg/1.9 lb
NH-M3	490N(50kgf)	48(1.89)×73(2.87)×54(2.12)		400(15.7)	3 pcs	1.9kg/4.1 lb
NH-SH1	245N(25kgf)	φ70(2.75)×31(1.22)		412(16.2)	1 pc	1kg/2.2 lb

※Upper limit of pressure ···Adjustable hose (NH-P1, P3) : Air pressure 0.34 MPa, liquid pressure 0.2 MPa
Metallic flexible hose (NH-M1, M3, SH1): 0.6 MPa max. (Upper limit of flow rate: 10 liters/min. max. for NH-M1 & M3 and 3 liters/min. max. for NH-SH1) However, depending on releasing angles, the posture of the hose may be changed by a jetting pressure even when the air/liquid pressure is below the upper limit. In such a case, turn the valve to reduce the flow rate.

※The hose length includes the stainless steel nozzle part (NH-P: 70 mm) at the tip.
※The holding power is based on a test piece of SS400, 10 mm thick, ground surface.
※The magnet section of NH-M and NH-P is common. Therefore the upper section is interchangeable for mounting between NH-M and NH-P.
※The magnet section of NH-SH1 is common with NH-M1 and NH-P1 and therefore, the upper section is interchangeable for mounting. However, for installation of NH-SH1 flexible hose on NH-P1 and M1, a screw conversion joint needs to be procured separately.
※NH-M1, M3 flexible part dia.: φ11 mm, NH-SH1 flexible part dia.: φ9 mm
※Copper pipe is used for the NH-SH1 flexible part and therefore this model must not be used in liquids containing components that corrode copper.
※The NH-SH1 flexible part cannot be used in applications where it is bent more than 90 degrees or flexed repeatedly in the same point as such operations will damage the copper pipe.

Model MDR MAGNETIC DRESSER

MDR-1C

The dresser is not included.

Holding power 800N

[Application]

A dressing tool for grinding wheels.
The dresser can be held firmly on a powerful magnetic holder base. Setting up is easy and reliable.

[Features]

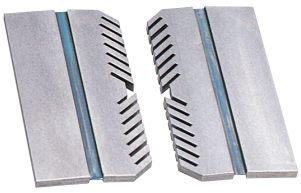
- The magnetic force can be turned on and off with the lever to facilitate mounting to and demounting from the machine table.(For setting on a magnetic chuck, power OFF the chuck and power ON this Dresser.)
- The dresser can be mounted at any angles.
- The dresser mounting clamp can be secured to either the side or the top of the magnetic holder base. (The photo shows the clamp mounted on the side.)

[mm(in)]

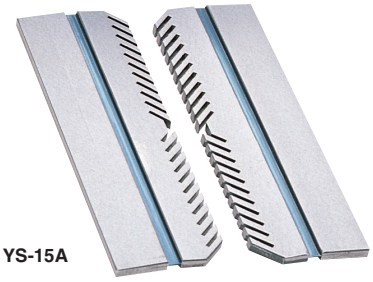
Model	Holding Power	Dimensions			Dresser Shaft Dia.	Mass
		Width	Length	Height		
MDR-1C	800N(80kgf)	50(1.96)	58.5(2.30)	55(2.16)	φ11(0.43) and φ12(0.47)	1.2kg/2.64 lb

Model YS WORK SUPPORTER*

Nonmagnetic workpiece supporter



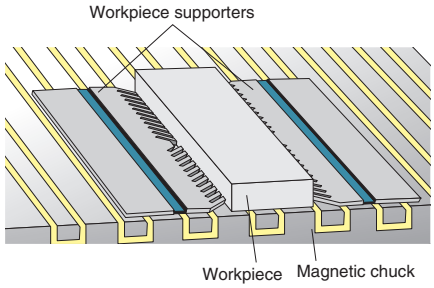
YS-10



YS-15A

[Application]
These supporters can hold materials having weak magnetic properties such as carbide and materials such as aluminum, brass and stainless steel which cannot be held by magnetic chucks. They are held by a strong spring force on both sides and secured to the magnetic chuck.

[Features]
- These supporters are thin and therefore can be used for relatively thin workpieces.
- One set consists of two supporters.

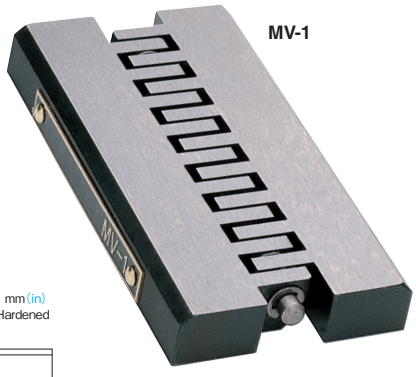


[mm (in)]

Model	Dimensions			Mass
	Length	Width	Thickness	
YS-10	100 (3.93)	45 (1.77)	4 (0.15)	100g/0.22 lb×2
YS-15A	150 (5.90)			165g/0.36 lb×2

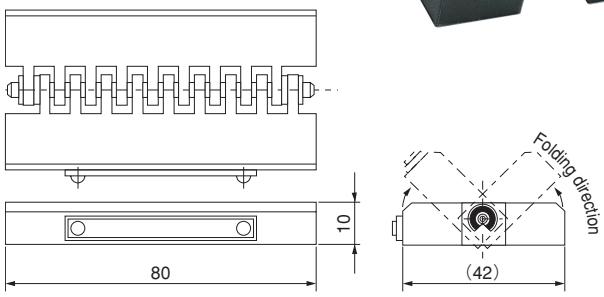
※For all models, two pieces make one set.

Model MV MINI V-ADAPTER



MV-1

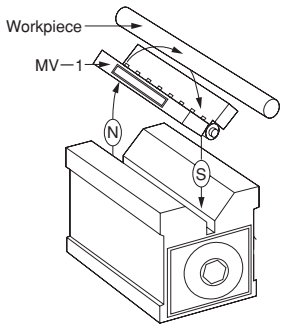
■Model:MV-1
■Dimensions:80 (3.14) ×(42) (1.65) ×10 (0.39) mm (in)
■Mass:250 g/ 0.55 lb ■Parallelism:0.006 ■Hardened



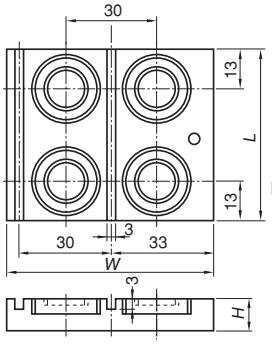
[Application]
This adapter itself is not magnetic, but when it is placed on a V-holder having the N pole and S pole on separate sides like Model KVA, it induces magnetism to hold small diameter workpieces that cannot be physically mounted directly. (See the figure below.) This adapter is recommended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

An example of usage

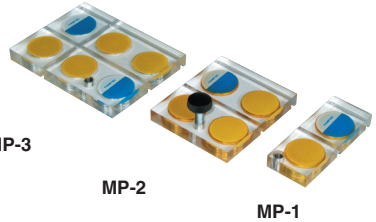


Model MP MAGPAD*



MP-3

M5 screws can be used to detach the Magpad from the workpiece.



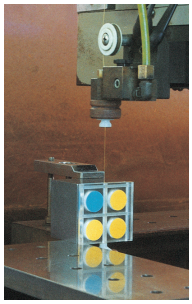
MP-2

MP-1

[mm (in)]

Model	Holding Power	Dimensions			Mass
		Width	Length	Height	
MP-1	80N (8kgf)	66 (2.59)	26 (1.02)	9 (0.35)	35g/0.07 lb
MP-2	200N (20kgf)		56 (2.20)		70g/0.15 lb
MP-3	250N (25kgf)		86 (3.38)		110g/0.24 lb

※The holding power is based on a test piece of SS400, 20 mm thick, ground surface.



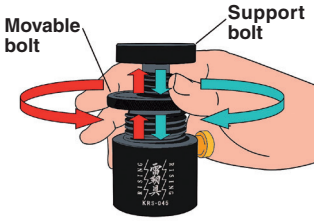
[Application]
The Magpad is a device to prevent wire breakage by heat due to aerial discharge. It protects wire electrodes of wire electric discharge machines from scattering of coolant which is likely to occur at the start of discharging. This Magpad can also be used to prevent dislocation or falling of cut-out pieces at the start or end of cutting.

[Features]
- The Magpad is made of transparent acrylic plate incorporating powerful magnets. The Magpad has strong holding power and enables it to set a wire while monitoring its position visually.
- No mechanical clamp is required. Attaching and detaching can be done efficiently and without a fear of damaging workpieces.
- Various models are available to suit any workpiece shapes.
- There is no fear of rusting and the magnetic force is semi-permanent. The Magpad withstands repeated use and therefore is very economical.

Model KRS HANDY SUPPORT JACK "RISING"

Patented

KRS-045



[Application]

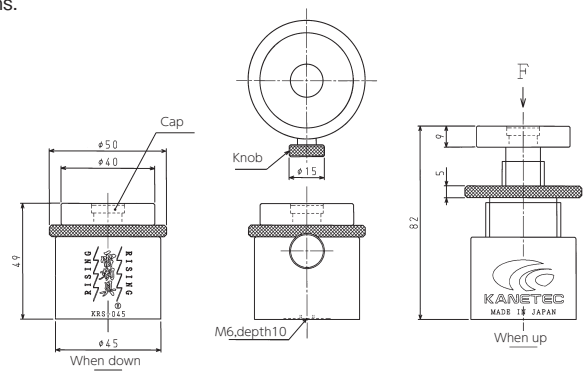
Suitable for supporting the overhanging portion of workpieces during machining and measurement.

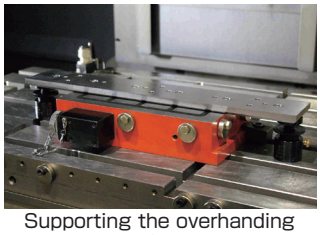
[Features]

- The support bolt moves up and down as the movable bolt is turned. This design enables expansion/contraction or up/down movement quickly by one hand.
- Since the support bolt does not rotate, it does not damage workpieces when it contacts them.
- The movable/support bolts can be locked simultaneously by tightening the knob to enhance the work efficiency.

※ If the knob is likely to be loosened by vibrations, use the included grub screw.

- The use of top and bottom two types of attachments (optional) expands the applications.





Supporting the overhanding portion of workpiece

Supporting the hollow portion during grinding

Main unit

[mm(in)]

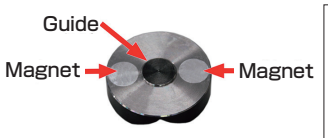
Model	Main Unit	Height	Allowable Load in F Direction	Mass
KRS-045	ϕ45(1.77)	49-82(1.92-3.22)	9.81kN	0.48kg/1.05 lb

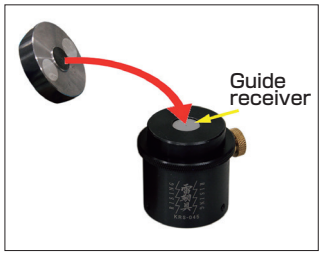
※ A grub screw is included.

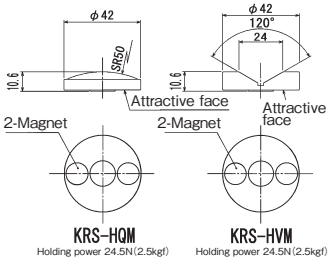
<Top workpiece supporter(Optional)>

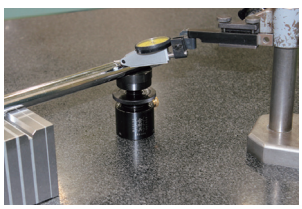
KRS-HQM

KRS-HVM









Measuring round bar by use of V-groove attachment

Top workpiece supporter(Optional)

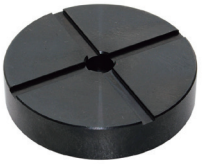
[mm(in)]

Model	Shape	Dimensions	Mass
KRS-HQM	Sphere(SR50)	ϕ42(1.65)×10.6(0.41)	0.13kg/0.28 lb
KRS-HVM	V-groove(120°)		

<Magnets for bottom part mounting(Optional)>

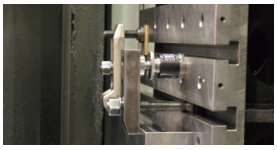
KRS-M2 KRS-M4

- When secured by using the magnet 2-pole type, slippage of the body when operated by one hand can be prevented.
- The use of the magnet 4-pole type together enables mounting on the vertical face of horizontal machining centers, etc. or reverse mounting.

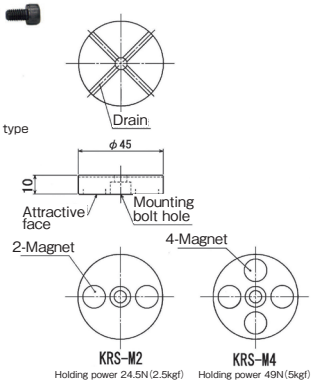


<Drain>

A drain is provided on the mating surface with the body of the bottom part mounting magnet to discharge machining liquid that has entered the inside.



An example of use on horizontal machining center



Magnets for bottom part mounting(Optional)

[mm(in)]

Model	No.of Poles	Holding Power	Dimensions	Mass
KRS-M2	2	24.5N(2.5kgf)	ϕ45(1.77)×10(0.39)	0.13kg/0.28 lb
KRS-M4	4	49N(5kgf)		

※One hex. socket head bolt (M6 × 10) is included.