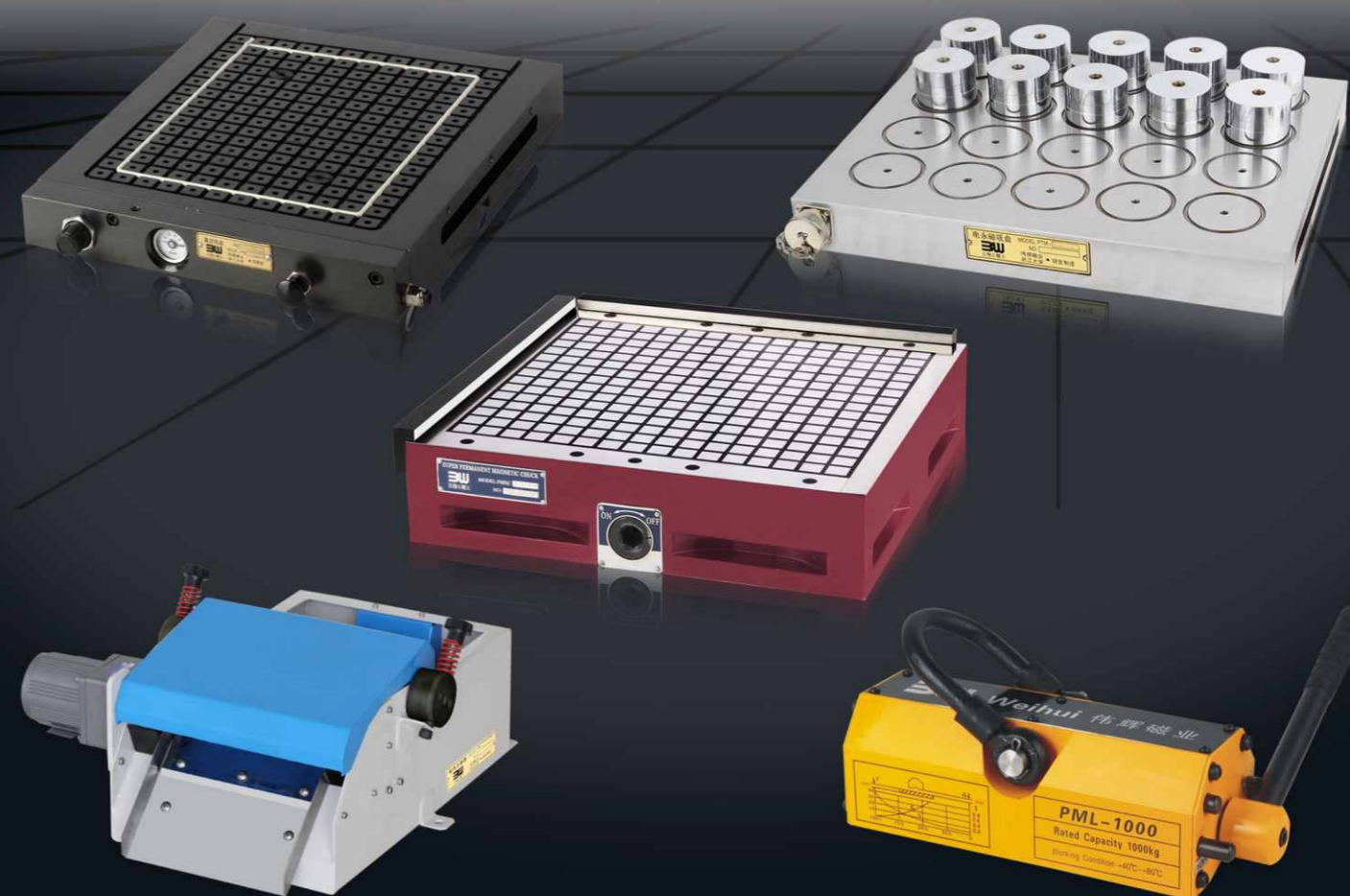


www.nbwhcy.com



NINGBO WEI HUI MAGNETIC INDUSTRY CO., LTD.



NINGBO WEIHUI MAGNETIC INDUSTRY CO., LTD

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Company capability



Company profile

NINGBO WEIHUI MAGNETIC INDUSTRY CO., LTD founded in 1998 is located in coastal city Ningbo, China, covering an area of 12,000 square meters.

With 20 years of experience in the design and manufacture of high performance magnetic systems, we supply critical magnetic equipment to some of the leading names in the most demanding industries, such as powerful magnetic chuck, electro permanent magnetic chuck, pneumatic vacuum chuck, permanent lifting magnets, magnetic separator and so on. Our magnetic technology is widely used at leading worldwide companies and in major development projects, all requiring a guarantee of equipment performance.

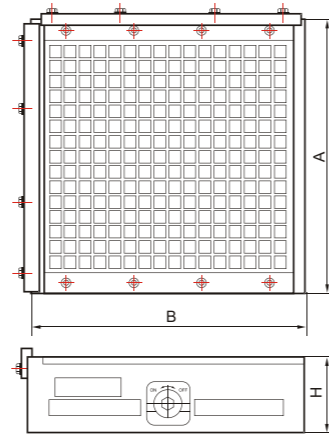
We have a track record of producing high quality products backed by a commitment to total customer service. Our technical application teams have a wealth of experience, thus ensuring many of our products are market leading innovations. All manufacturing is carried out under an ISO 9001 certified quality management system.

We offer worldwide support through our offices in China and Canada. We also have numerous employees in various territories and a network of technically trained partners to provide local product support.

ISO9001:2008 Quality Management System



PMSC powerful permanent magnetic chuck 18*18mm



The handle

Application

Be suitable for CNC machining center, CNC engraving, milling machine, grinding machine, drilling machine and metal cutting.

Features

- ◆ Neodymium iron material, no time limited, no energy consumption, no heating, simple operation and environmental.
- ◆ Strong magnetism, the attraction will change according to the contact area between workpiece and chuck, the bigger area, the stronger magnetism.
- ◆ High precision, the chuck won't be deformation in process, because of good stability and strong rigidity.
- ◆ ON/OFF switch, no need power supply, when power off, the workpiece will work incessantly and won't falls off suddenly.
- ◆ Rapid replacement clamping, shorten time and improve work efficiency.
- ◆ 5 sides machining, increased productivity.

Specification

Model No.	Product dimension(mm)			Magnetic block (pcs)	Magnetic force for one block (kgf)	Total suction (kgf)
	A	B	H			
PMSC-2025B	200	256	50	56	25	1400
PMSC-2525A	253	252	90	90		2250
PMSC-2040A	200	400	80	136		3400
PMSC-3030A	300	300	90	132		3300
PMSC-3040A	300	400	90	176		4400
PMSC-3040B	293	376	60	132		3300
PMSC-30100A	300	1000	90	352		8800
PMSC-3060A	300	600	90	275		6875
PMSC-3535A	350	350	90	183		4575
PMSC-4040A	400	400	90	240		6000
PMSC-4050A	400	500	90	300		7500
PMSC-4060A	400	600	90	375		9375
PMSC-4080A	400	800	90	480		12000
PMSC-5050A	500	500	110	400		10000
PMSC-50100A	500	1000	110	800		20000

Application image



Example 1:
Tool model: EMR C32-5R35-150 Z3
Feed: 200, blade: SanlingR5

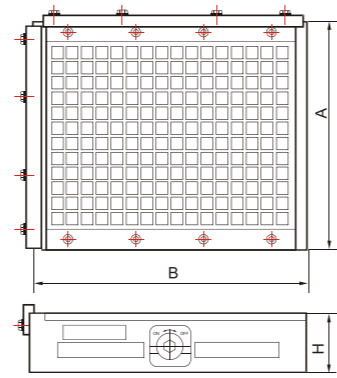


Example 2:
Tool model: SE45 50-22 Z4
Feed: 200, blade: Sekt1204



Example 3:
Can process five surface and form at one time.

PMSC powerful permanent magnetic chuck 12*12mm



Application

Be suitable for CNC machining center, CNC engraving, milling machine, grinding machine, drilling machine and metal cutting.

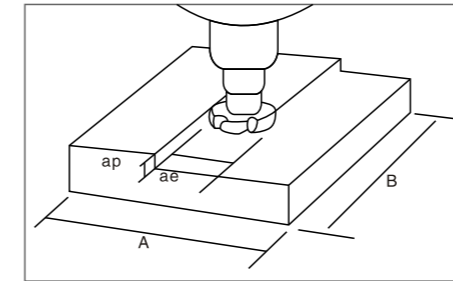
Features

- ◆ Neodymium iron material, no time limited, no energy consumption, no heating, simple operation and environmental.
- ◆ Strong magnetism, the attraction will change according to the contact area between workpiece and chuck, the bigger area, the stronger magnetism.
- ◆ High precision, the chuck won't be deformation in process, because of good stability and strong rigidity.
- ◆ ON/OFF switch, no need power supply, when power off, the workpiece will work incessantly and won't falls off suddenly.
- ◆ Rapid replacement clamping, shorten time and improve work efficiency.
- ◆ 5 sides machining, increased productivity.

Specification

Model No.	Product dimension(mm)			Magnetic block (pcs)	Magnetic force for one block (kgf)	Total suction (kgf)
	A	B	H			
PMSC-1530X	150	300	55	116	15	1750
PMSC-2040X	200	400	65	207		3105
PMSC-3040X	300	400	65	368		3105

The calculation of workpiece magnetic force



(18x18)

For example: a piece of A45 steel item(the holding surface has been processed), the contact area A(22cm)*B(22cm) is 22*22cm, 2cm thickness, provide 19400 magnet force, the tangential force takes 33%, the resistant force is 6500, can meet the cutting speed requirement of 283m/min, the tooth 0.05mm, the depth 5mm, the width 8mm.

Workpiece holding force calculation
The difference between super magnet sucker and other magnet sucker is that the magnet force of super magnet sucker can be predicted. Before cutting, can according to workpiece size to calculate the holding force of super magnet sucker to workpiece.

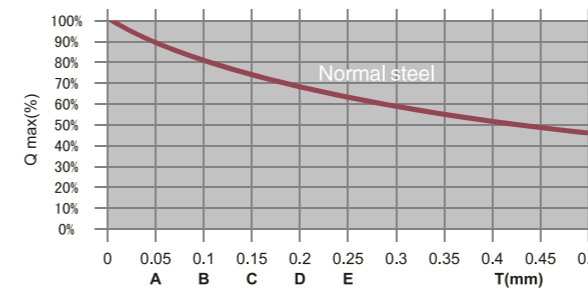
As shown in the picture:

Holding force $N \geq AxB/1936x90(\text{kgf})$
1936=44x44(four magnetic blocks area)

Among: AxB is the contact area between workpiece and sucker(the unit is mm^2)
90kgf(four magnetic force for all the vertical surface of the standard)

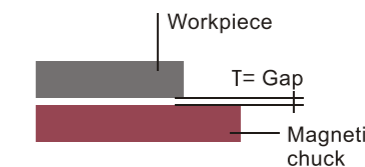
The factors of impacting the workpiece holding force

The relationship between total suction and surface roughness



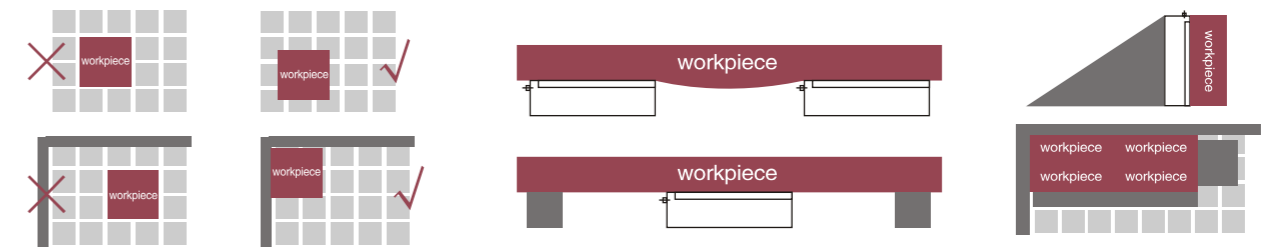
The material of workpiece impact forming a complete magnetic circuit and total suction

Steel material	Low carbon steel	Alloy steel	Cast iron
The influence of material for total suction	100	80	50
The minimum workpiece thickness formed the complete circuit	6	6	6



- A: grinding surface
- B: machining surface
- C: unprocessed surface
- D: precision casting surface
- E: sand casting surface

Notice



1. When the work piece is placed should take the magnetic pole as far as possible, by obtains a bigger suction, but do not aline the magnetic pole.
2. Mangetic chuck is a set of magnetic clamping tool, it consists of sucker and other optional accessories. Should use accessories as much as possible, so as to realize clamping precisely and quickly. For small parts, should choose secondary block appropriately.
3. For workpiece with large and irregular shape bottom surface, can select sucker combinations to complete the clamping.
4. For lager and flat bottom piece can be used to complete the clamping auxiliary booster blocks.
5. For horizontal milling or drilling machine, can be used with a side tripod suction, thus completing the clamping.
6. For the smaller work piece, can clamp multiple parts, so as to achieve the purpose of improving work efficiency.(As a result of the work piece is too small, the most outer workpiece which is placed requests matching secondary block)
7. In order to guarantee the suckers flatness and Parallel of machines platform surface, when the suckers are installed in place, users can conduct precision milling for the sucker surface.

PTK pneumatic power vacuum chuck



Material: A5052
Finishing: Oxidized aluminum

Application

Widely used in metal cutting processing, grinding machine, engraving machine, milling machine, CNC machine. It is a smart chuck by pneumatic power, can absorb any flat non-magnetic work piece(plastic, stainless steel, copper, aluminum, aleck board and so on).

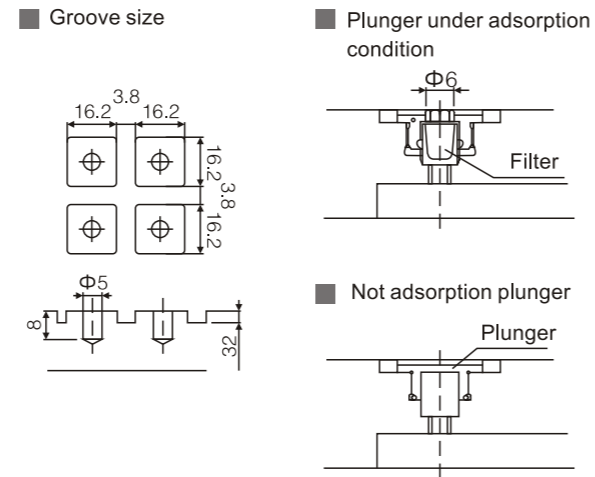
Features

- ◆ The vacuum chuck adopts "localization" principle, no need vacuum pump for working and just supply air by compressor.
- ◆ Powerful magnetic, can store the pneumatic power after cut off electricity.
- ◆ Fast start, 4 to 6 seconds can work.
- ◆ Widely used for flat surface.
- ◆ Simply operate.
- ◆ The work piece size is 60mm*60mm at least.
- ◆ Size can be customized.

Specification

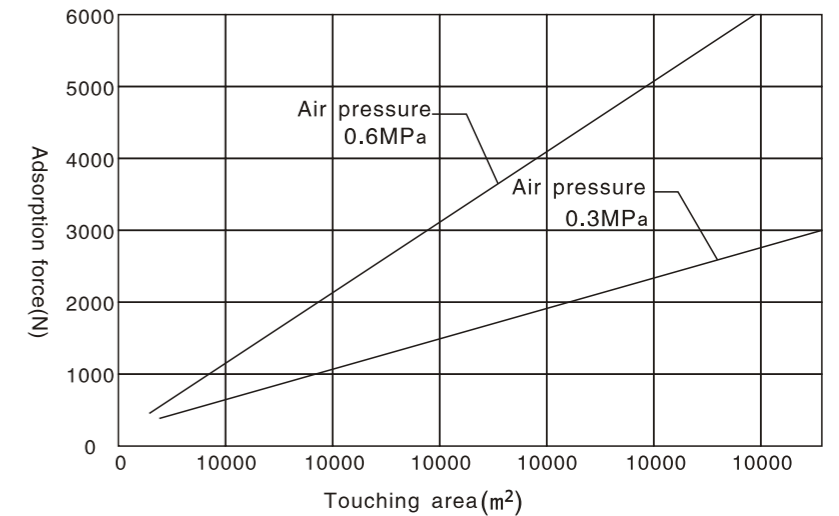
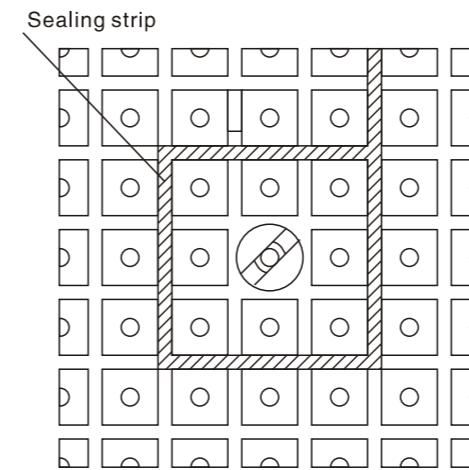
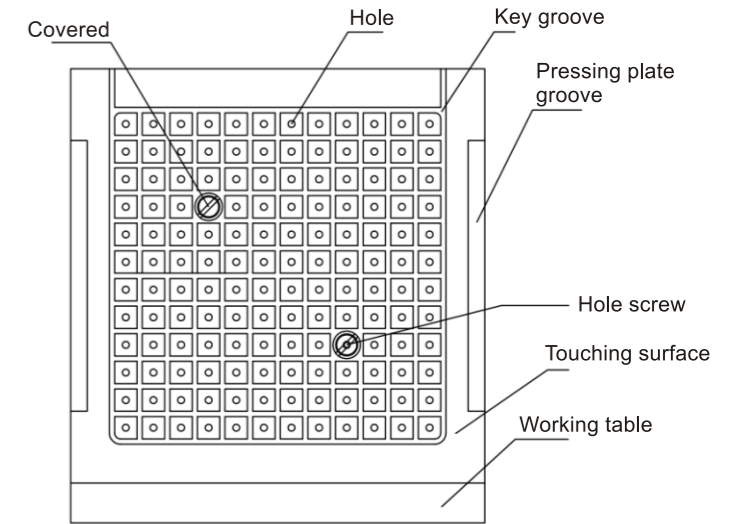
Model NO.	Product size	Groove size	Net weight
PTK-3030	300 × 300 × 45	16.2 × 16.2	10.00
PTK-3040	300 × 400 × 45	16.2 × 16.2	14.00
PTK-4040	400 × 400 × 45	16.2 × 16.2	18.00
PTK-4060	400 × 600 × 45	16.2 × 16.2	28.00

Size can be customized according to your requirement.

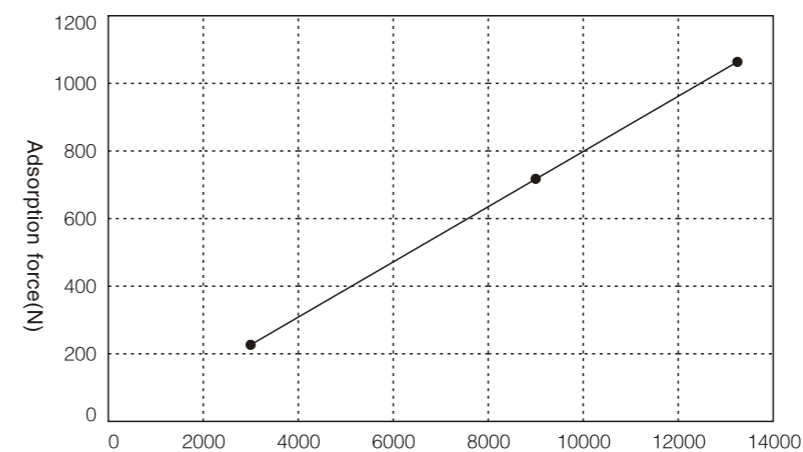


Method of application

Clearing the chuck and putting on machine platform, through the clamp pressure clamp slots on both side, the suction cup since (8mm) a connection with the trachea to chuck jack, on the other end connection in the workshop or equipment of air. Then embedding seals sucker mesa key way (less than the bottom surface of workpiece) into the product shape (according to the size of the largest operations, no more than product size) . Then place the required machining chuck mesa, cover sealing strip, gently press the workpiece products, air switch is open.

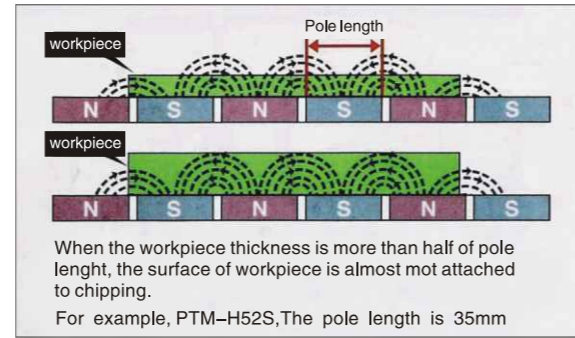


When air pressure is 0.5mpa the change of adsorption force



Please refer to the graph on the left. The adsorption capacity will decrease according the surface roughness of workpiece.

PTM electro permanent magnetic chuck



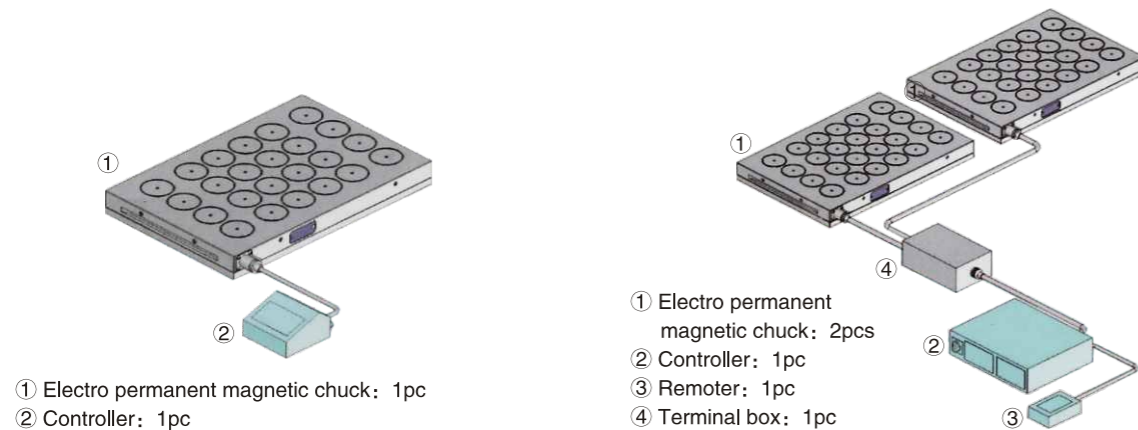
Application

Using neodymium magnet material and create a full metal seal electric permanent magnet of the clamping tools, used in metal cutting processing, such as CNC vertical machining centers, horizontal machining center, gantry processing machine, five axes machine and other mechanical processing equipment.

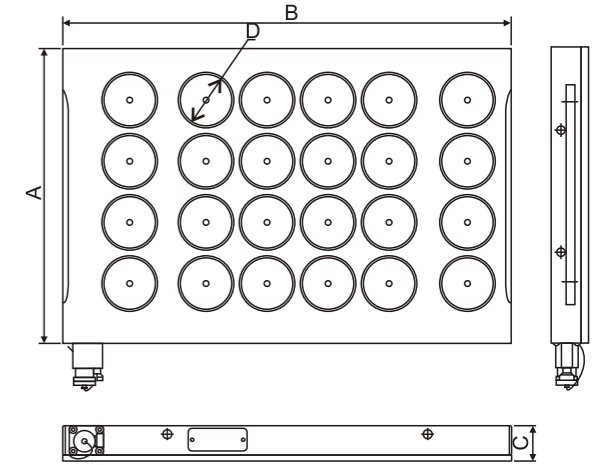
Features

- ◆ A pole $\phi 70\text{mm}$, generating 6200N magnetic force.
- ◆ Super magnetic force, little residual magnetism, working steadily after power off.
- ◆ Metal surface and waterproof structure, preventing the cutting fluid coming.
- ◆ Easy to connect the controller.
- ◆ Improving production efficiency.
- ◆ Fast magnetize and demagnetize about 0.5 to 1 second.
- ◆ All in one structure design, strong stability and high precision.

According to the machine table size, you can choose the chucks.



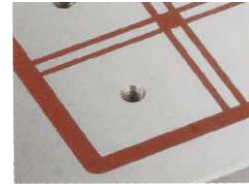
PTM electro permanent magnetic chuck



Specification

Model No.	Product size	Pole size	Quantity of poles	Magnetic force (KN)(a pole)	Total suction (KN)	N.W (KG)
PTM $\Phi 250 \times 55\text{S}$	$\Phi 320 \times 55$	$\Phi 70$	4	6.1	23	28
PTM 3040H55S	$320 \times 425 \times 55$		12		73	50
PTM 3060H55S	$320 \times 600 \times 55$		18		110	78
PTM 3080H55S	$320 \times 750 \times 55$		24		146	87
PTM 4040H55S	$400 \times 400 \times 55$		16		98	70
PTM 4050H55S	$400 \times 500 \times 55$		20		122	86
PTM 4060H55S	$400 \times 600 \times 55$		24		146	105
PTM 4080H55S	$400 \times 800 \times 55$		32		195	138
PTM 5050H55S	$500 \times 500 \times 55$		25		153	108
PTM 5080H55S	$500 \times 800 \times 55$		40		244	135
PTM 50100H55S	$500 \times 1000 \times 55$		50		305	150
PTM 6060H55S	$600 \times 600 \times 55$		36		220	155
PTM 60120H55S	$600 \times 1200 \times 55$		72		439	310

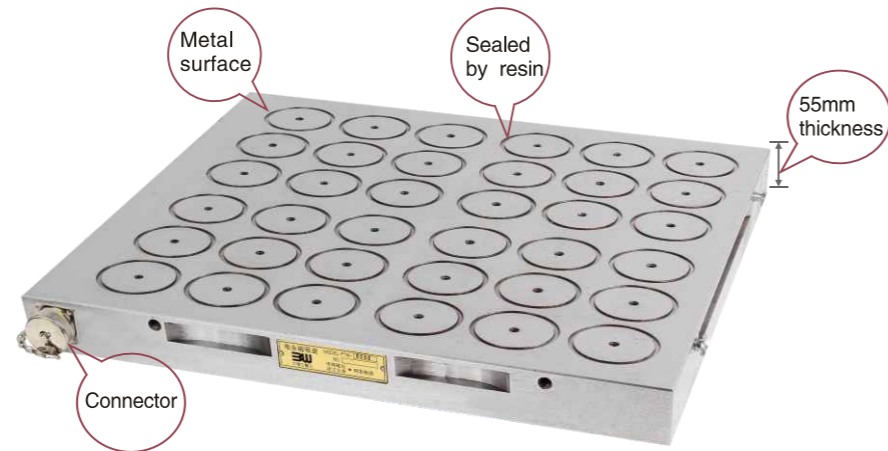
■ The advantages of electro permanent magnetic chuck



The traditional chuck using glue



Overed by resin, to prevent cutting fluid to enter.



■ Easy operation



MYCS-1/50H
Power:220V AC,
Cable length: 2.5m



MYCS-2/50H
Power:380V AC,
Cable length: 2.5m

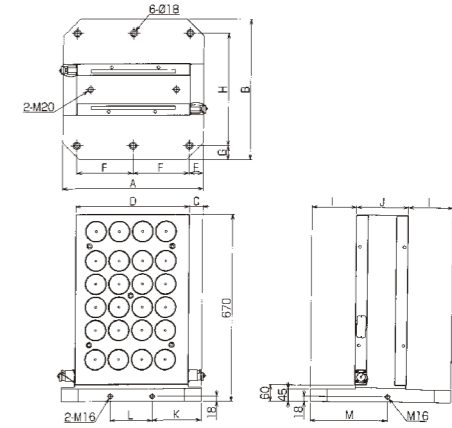


Accessory

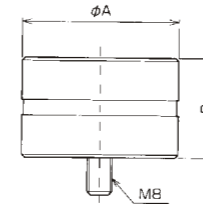


Remote controller

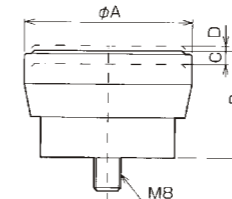
■ Electro permanent magnetic chuck with base



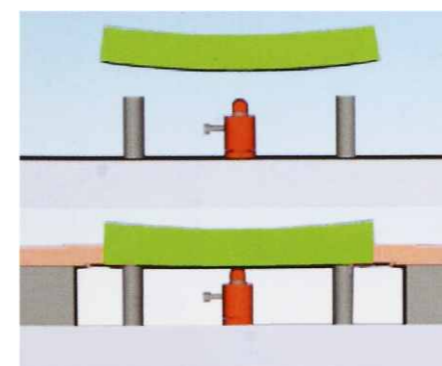
■ Permanent magnetic chuck accessories



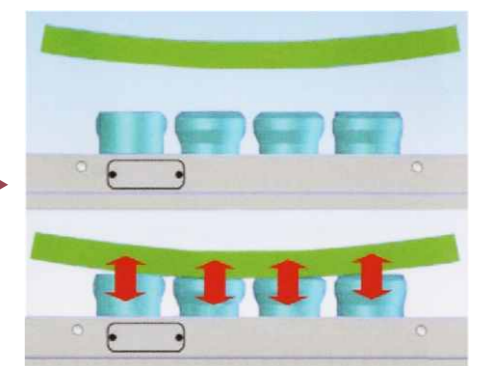
Function:
To protect magnetic chuck on the surface
Check on the surface of the magnetic chuck on precision cut (since)



Function:
The deformation of supporting artifacts
Bearing vibration generating artifacts



Clamping tool



Electro permanent magnetic chuck

Application

Vertical machining



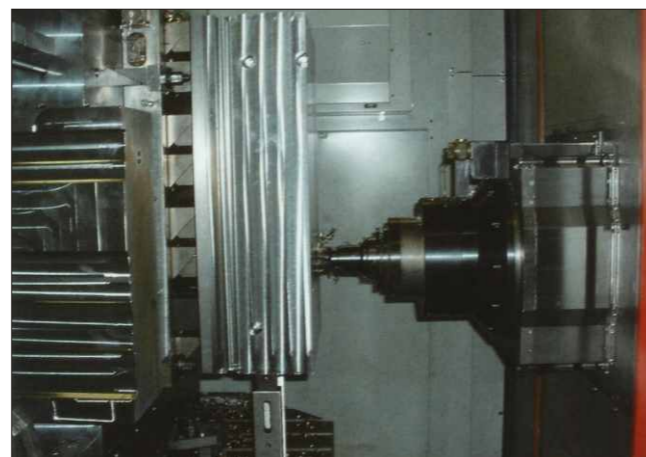
Horizontal machining



Vertical machining



Horizontal machining



Vertical machining



Gantry milling machining



PMCC precision permanent magnetic chuck



Unit:mm

Model No.	Dimension			
	L	W	H	P
PMCC-1530	300	150	48	0.5+1.5 or 1+3
PMCC-1535	350	150	48	
PMCC-1540	400	150	52	
PMCC-2040	400	200	52	

Sine plate with fine magnetic chuck



Model No.	L	W	Tilting degree	P
PMCC-10175	175	100	0-60°	0.5+1.5 or 1+3
PMCC-1515	150	150		
PMCC-1530	300	150		
PMCC-12525	250	125		

Circular permanent magnetic chuck



Unit:mm

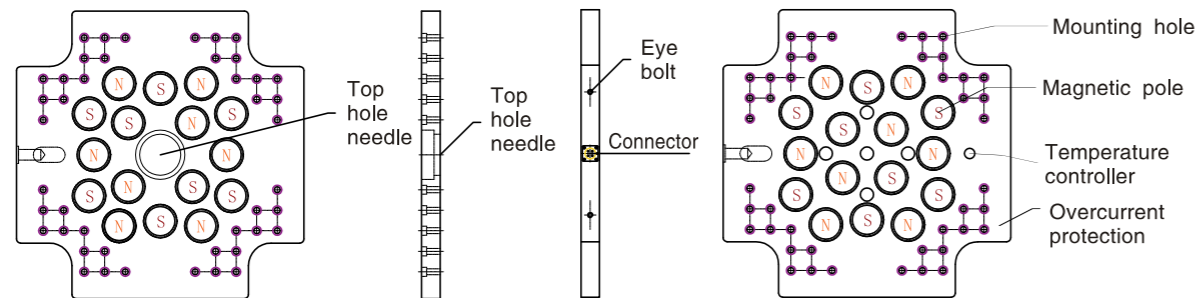
Model No.	D	H	C	M	P
PMCC-150	150	48	100	M6	0.5+1.5 or 1+3 or 0.5+1
PMCC-160	150	48	100	M8	
PMCC-200	200	52	120	M8	
PMCC-250	250	52	160	M8	
PMCC-300	300	58	220	M8	
PMCC-500	500	65	408	M12	

Precision don chuck



Model No.	A	B	C	D	E	P
PMCC-125 x 250	125	250	95	145	350	0.5+1.5 or 1+3 or 0.5+1
PMCC-150 x 300	150	300	105	160	400	
PMCC-150 x 350	150	350	105	160	450	
PMCC-150 x 450	150	450	105	160	550	

PTM quick mold change system



Application

Widely used in machining center, mold industry, injection industry for quick die clamping.

Features

- ◆ Powerful magnetism, can generate 6200N power per pole, small residual magnetism.
- ◆ Reduced mold change time.
- ◆ Easy changeover for small batches.
- ◆ Increased productivity.
- ◆ Reduced labor cost.
- ◆ Increased safety.
- ◆ Reduced stock holding.

Specification

Model No.	Dimension	Maximum weight of mold	Quantity of poles
PTM-ZH-130	620x620x40	12000	24
PTM-JX-140	700x700x40	16000	32
PTM-HDX388	1000x1000x45	24000	48
PTM-HDX438	1130x1130x45	26000	52
PTM-HDX538	1150x1170x45	28000	56
PTM-MA-3600	900x980x50	25000	50
PTM-MA-4700	1210x1180x50	36000	72

Dynamic mould and static mould are same, according to the customer's requirement, our factory can make different sizes.

The controller of quick mold change system



The condition of magnetization, demagnetization and all operation will display on the touch screen. The temperature will be automatic detection through the controller. If the temperature is above at the safe temperature, the controller will raise the alarm and magnetization again, to ensure the security of processing.

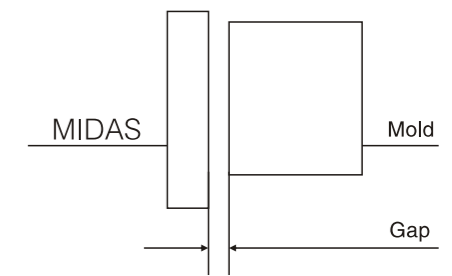
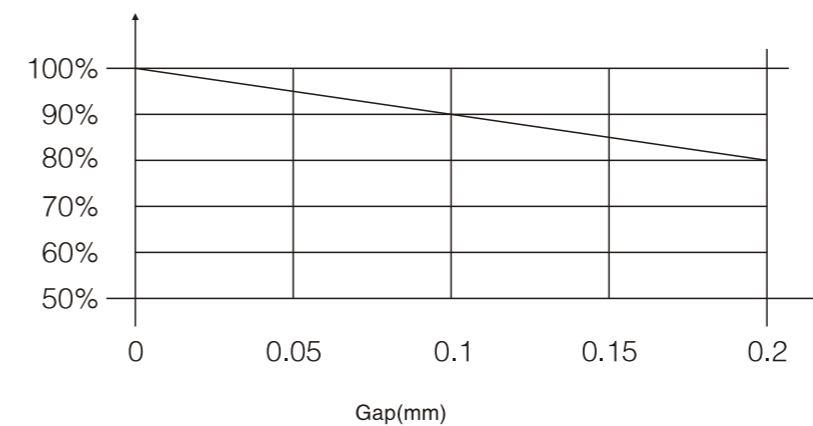
Specification

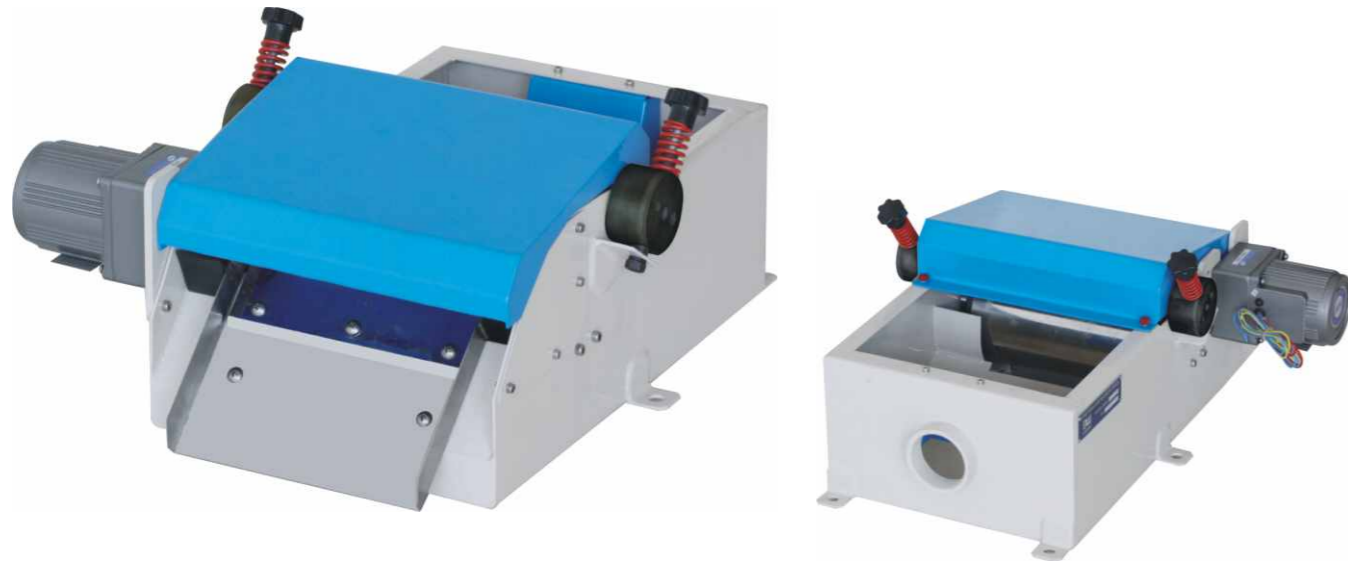
Input voltage	AC380V/AC220V
Magnetization time	0.4s
Output current	≤DC40A
Limit induction value	0.2mm
Magnetic force penetration	20mm

Specification

Magnetic force	500kgf
Pole size	Φ70 (mm)
Thickness	45mm
Highest temperature	within 88°C

The graph between holding force and clamping





Application

Suitable for grinding, lapping, wire drawing, electrical and mechanical processing equipment such as cooling fluid purification. In the process of machining, metal grinding coolant in under the action of centrifugal force, through strong magnetic drum to separate automatically the cutting fluid and iron fillings, purification equipment, improve product quality, reduce cost, improve production efficiency.

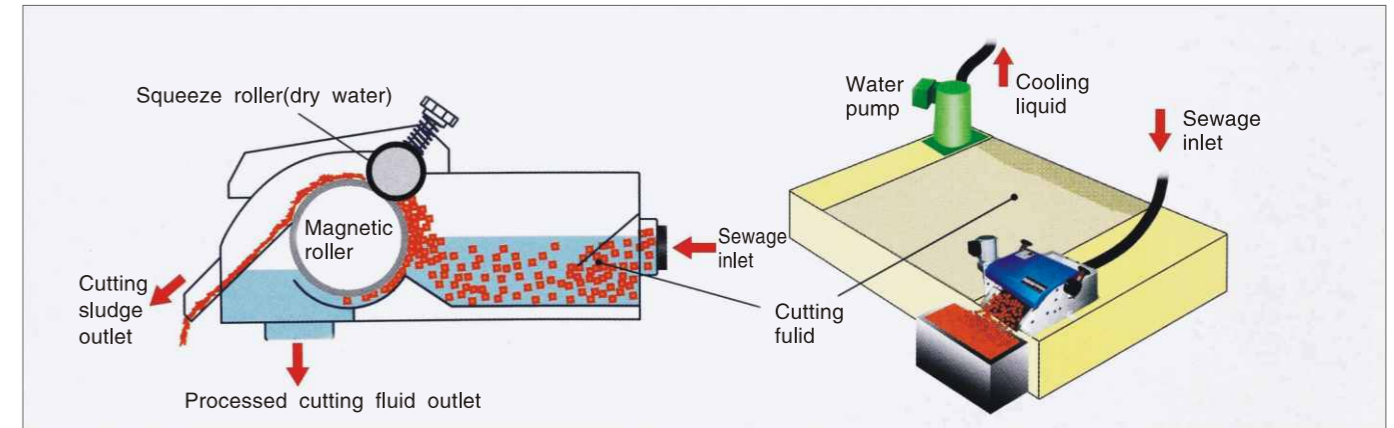
Features

- ◆ Cutting fluid recycling, can prolong the service life of equipment.
- ◆ Use of the machine is isolated from the residual iron and impurities, to improving machining high progress.
- ◆ Extend the service life of cutting tools, reduce the cost of precision machining.
- ◆ Transmission system and body separation, cleaning and maintenance is convenient.
- ◆ Small volum, easy to install and use.

Specification

Model No.		Processing L/min	Power supply Three phase electric	The motor	Rotate speed
Standard	Super magnetic				
PMC-20F	PMC-20H	20	200V/380V 50Hz/60Hz	25W	6
PMC-40F	PMC-40H	40	200V/380V 50Hz/60Hz	25W	6
PMC-60F	PMC-60H	60	200V/380V 50Hz/60Hz	25W	6
PMC-80F	PMC-80H	80	200V/380V 50Hz/60Hz	25W	6
PMC-120F	PMC-120H	120	200V/380V 50Hz/60Hz	25W	6
PMC-240F	PMC-240H	240	200V/380V 50Hz/60Hz	60W	5
PMC-360F	PMC-360H	360	200V/380V 50Hz/60Hz	120W	5
PMC-500F	PMC-500H	500	200V/380V 50Hz/60Hz	240W	5

The graph of cutting fluid circulation

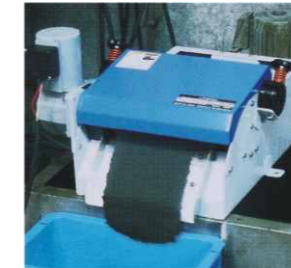


Safe and convenient structure

It is very considerate that the motor, roller and the whole machine easily operate and maintain.

Making a full use of recycled chipping

Our machine can recycle mini cuttings and our factory can produce 1200mT magnetic drum.



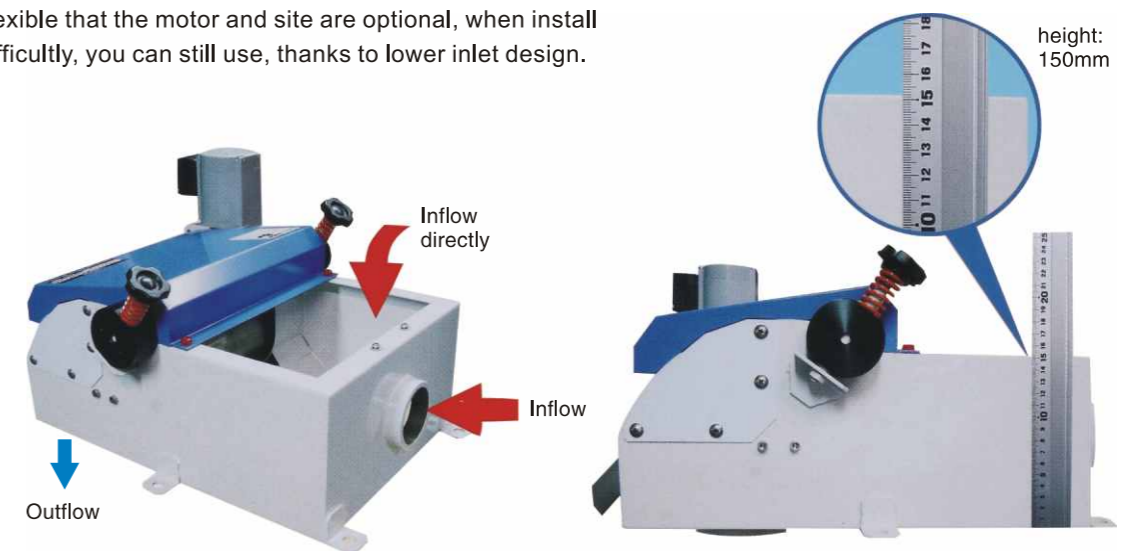
Permanent improvement

The material, hardness and performance of rubber drum are perfect with the most scientific and reasonable magnet array, the cutting are recycled with same speed and same array way.



Making a full use of recycled chipping

It is very flexible that the motor and site are optional, when install the pipe difficultly, you can still use, thanks to lower inlet design.





Safety factor 3.0 times

Application

Widely used for hanging iron objects, such as mechanical processing, machinery, mould industry.

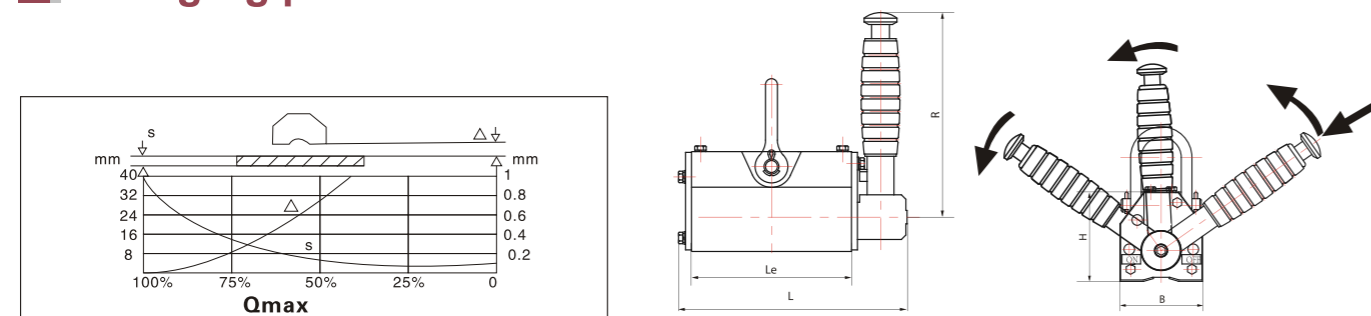
Features

- ◆ Compact structure, light weight, easy to operate.
- ◆ Without electricity, magnetic permanent, use safety, workable in outside.
- ◆ The safety factor is 3 times, maximum pulled off force 3-3.5times, insurance device, to prevent wrong operation.
- ◆ Maintenance-free design, long life.
- ◆ "V" groove design, can hang flat or circular work piece.

Specification

Model No.	Rated capacity (kg)	Dimension (mm)					Max pulled off (N)	Cylindrical work limits (mm)		Self-weight (KG)
		L	B	H	R	Le		diameter	weight	
PML-300	300	192	92	91	150	154	10500	≥60	≤100	9.6
PML-600	600	314	120	92	216	267	18000	≥70	≤200	18
PML-1000	1000	363	142	118	307	342	30000	≥90	≤300	37
PML-2000	2000	537	165	164	367	482	60000	≥120	≤600	120
PML-3000	3000	542	234	212	451	368	90000			200

Hanging parameters



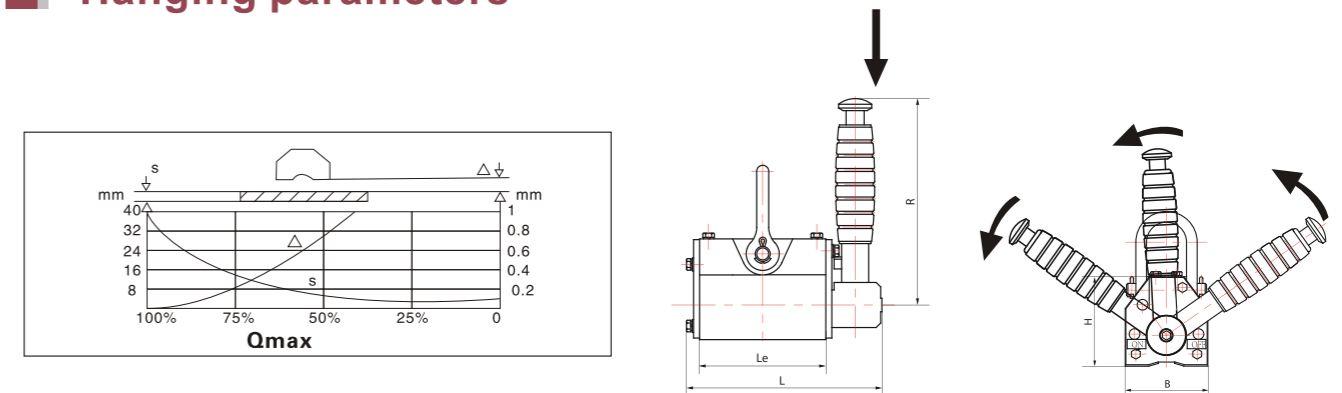
Safety factor 3.5 times



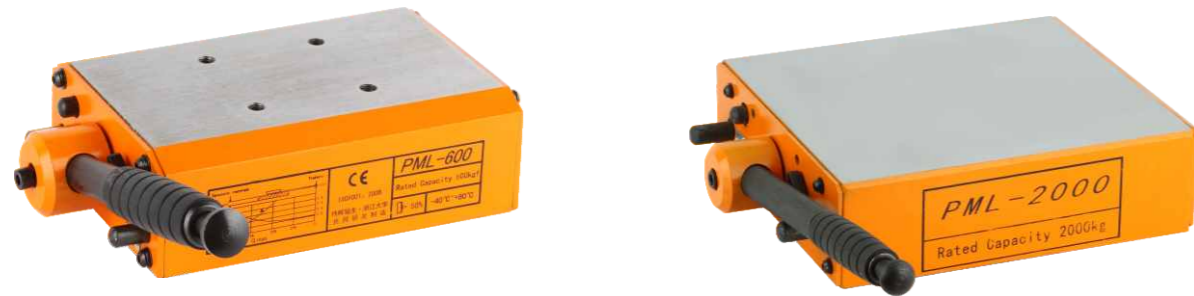
Specification

Model No.	Rated capacity (kg)	Dimension (mm)					Max pulled off (N)	Cylindrical work limits (mm)		Self-weight (KG)
		L	B	H	R	Le		diameter	weight	
PML-1	100	116	62	67	106	84	3500	≥50	≤30	2.6
PML-3	300	192	92	91	150	154	10500	≥60	≤100	9.6
PML-6	600	271	122	117	196	224	21000	≥70	≤200	23
PML-600	600	328	120	92	216	267	21000	≥70	≤200	20
PML-10	1000	305	176	163	264	250	35000	≥90	≤300	54
PML-1000	1000	412	142	118	307	342	35000	≥90	≤300	42
PML-20	2000	452	234	212	426	368	70000	≥120	≤600	130
PML-30	3000	550	286	264	521	448	105000			249
PML-60	6000	686	430	360	520	550	210000			420

Hanging parameters



PML magnetic base for tapping machine



Application

Widely used in iron objects, mechanical processing, engineering machinery, mould manufacturing industry.

Features

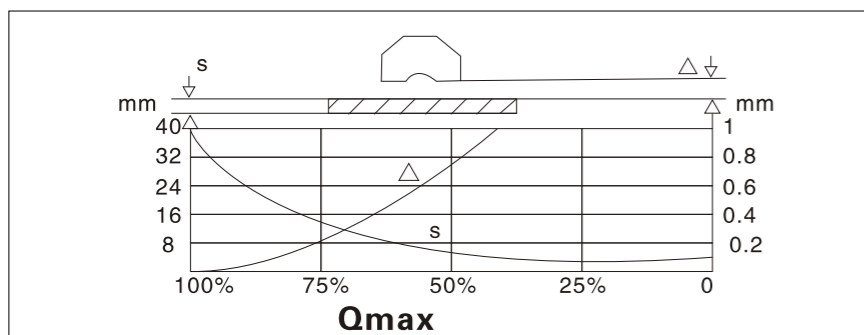
- ◆ Compact structure, light weight, easy to operate.
- ◆ Without electricity, magnetic permanent, use safety, can be in field operation.
- ◆ High safety coefficient, maximum pulled off force in 3-3.5 times, insurance device, to prevent wrong operation.
- ◆ Maintenance for free, long life time.
- ◆ "V" shape, hanging flat or "V" workpiece.

Specification

Model No.	Rated capacity (kg)	Dimension(mm)				Max pulled off (N)	Self-weight (KG)
		L	B	H	R		
PML-400	400	153	122	65	106	1050	9
PML-600	600	195	162	74	216	2100	18
PML-1000	1000	300	265	88	451	3500	48
PML-2000	2000	300	265	88	451	6000	52

Size can be customized.

Hanging parameters

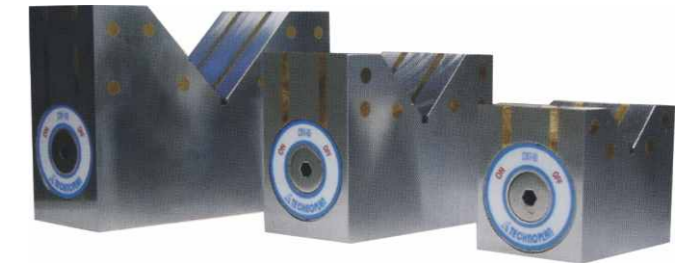


The handle



Magnetic V-shaped blocks

Exclusively for long and circular work piece



Magnetic stand

