MANUAL PERMANENT MAGNETIC CHUCK

Manual permanent magnetic chuck is a traditional permanent magnetic chuck. It has a simple structure, convenient operation and low cost, which makes it widely used in the current machining industry. It is especially suitable for small-scale processing workshops with low automation.

There are three models of the permanent magnetic chuck, Grid pole(PMQC series) is generally for milling and CNC. Parallel Pole has two models(GX and SX series): milling and grinding, with different pole pitch. Sine plate is generally for angle grinding.

Grid Permanent Magnetic Table

Grid permanent magnetic table has strong magnetic holding force, the force can be more than 180N/cm^2 . It applies to CNC, milling machine and facing machine, it is suitable for processing of high precision workpiece, sheet workpiece and mould.

The permanent magnetic table has constant, even and foreseeable magnetic holding force, which meets the requirements of the high clamping precision and short adjustment time in CNC and milling machine. The workpiece is allowed to exceed the area of working table, bring about 5 sides machining. The magnetic table is available to change it simply and quickly, generally, it can reduce the assistant time more than 70%-80%, improve efficiency observably.

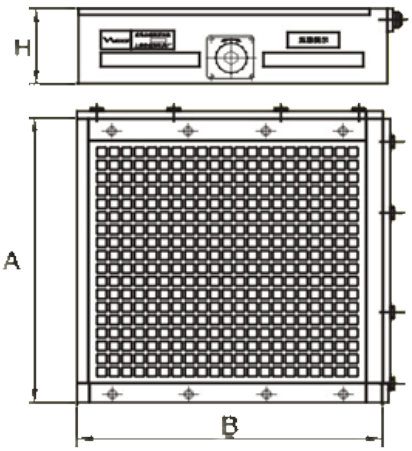
Features

1 The magnetic chuck has high precision itself; it can guarantee the precision of workpiece from 2um/100mm.

2 Distinctive design of magnetic circuit produces strong and even attractive force;
high-performance quality magnetic steel holds attractive force for long time stability.

3 The strong magnetic holding force is from the combination of square or strip magnetic units. The units distributes intensively, powerful strength of magnetic fields. It can release the internal stress of workpiece in machining, get the high precision product

4 Poles combined as grids, magnetic bundles are mutually perpendicular, interweave densely, permeate into the bottom of workpiece equality, magnetic bundles are shallow and magnetic circuit densely, it can attract more than 2mm thickness sheet for grinding or milling process.



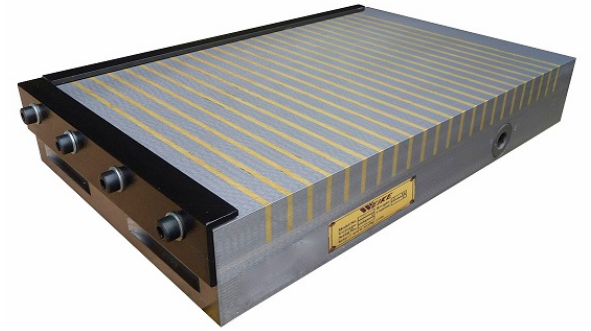
Model	Overall Size mm			Square size mm	Pole numbers	Weight KG	Total Holding force KN
	A	B	H				
PMQC-2040	200	400	72	18x18	105	30	> 25
PMQC-3030	300	300	72	18x18	132	35	> 25.6

PMQC-3040	300	400	72	18x18	180	45	> 35
PMQC-3060	300	600	90	18x18	288	72	> 55
PMQC-4040	400	400	72	18x18	240	65	> 46.6
PMQC-4050	400	500	90	18x18	304	86	> 58.2
PMQC-4060	400	600	90	18x18	384	105	> 69.8
PMQC-5050	500	500	90	18x18	420	113	> 77.6
PMQC-4080	400	800	110	18x18	528	134	> 93
PMQC-50100	500	1000	110	18x18	840	220	>155.2
PMQC-6080	600	800	110	18x18	792	205	> 139.6

Parallel Pole Permanent Magnetic Chuck

There are two models of this type permanent magnetic chuck: SX and GX. SX series is the milling chuck, its holding force is 160N/cm² . Its pole pitch is 4+12mm. GX series is the fine pole type, it is for milling and edm. The holding force is 120N/cm² , the pole pitch is 1+3mm or 0.5+1.5mm.

SX SERIES

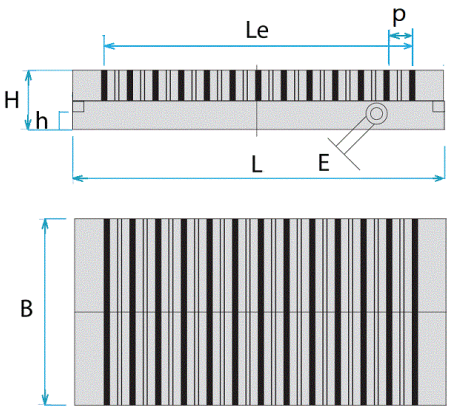


GX SERIES

The permanent magnetic chuck are made of neodymium magnet whose main advantage compared with other magnetic materials are high magnetic properties with substantially smaller dimensions and weight. The force of the magnetic field remains unchanged in the magnetized state, thus maintaining high precision grinding. Due to the small pole distance can be processed very small and fine details.

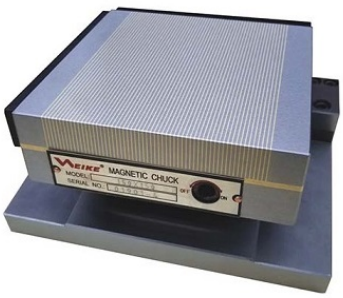
Compared with electromagnetic tables, the GX permanent magnetic chuck has the following features.

- Provide absolute reliability and safety of operation without energy supplying;
- Retain the basic specifications for the entire service life. Cross-location advantages;
- A layer thickness of 1.5 mm and 3 - steel; 1 and 0.5 mm - brass;
- Ideal for very small parts due to small pole distance;
- Have holes for attaching eye bolts for transportation.



Model	Length mm L	Le	Width B mm	Height mm H	h	Holding Force	Handle Hole E	Pole Pitch P mm	Weight kg
GX0716	160	140	70	45	15				4
GX1515	150	130	150	48	16				8
GX1530	300	280	150	48	16			0.5+1.5	16.8
GX1535	350	330	150	48	16				19.6
GX1540	400	380	150	53	17			Or	23.8
GX1545	450	430	150	53	17	10	8		26.5
GX2020	200	180	200	48	16	kg/cm²	mm	1+3	15
GX2040	400	380	200	53	17				31.8
GX2045	450	430	200	53	17			optional	39.5
GX2550	500	480	250	58	18				53.5
GX3060	600	580	300	58	18				77
SX3030	300	280	300	60	20				50
SX3060	600	580	300	70	20				80
SX4040	400	380	400	70	23				75
SX4060	600	580	400	70	23				115
SX4080	800	780	400	80	26	15	9	4+12	200
SX5050	500	480	500	80	26	kg/cm²	mm		113
SX6080	800	780	600	80	26				270
SX50100	1000	970	500	80	28				246
SX60120	1200	1160	600	80	28				345

Magnetic Sine Plate

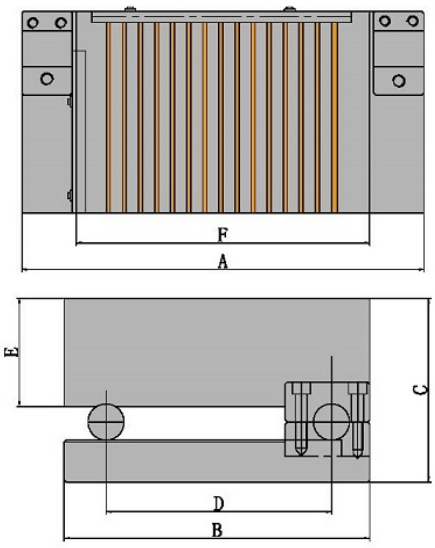


Permanent magnetic sine plate are suitable for all kinds of surface grinders and EDM machines for precision grinding of single-sided angles. The process has been specially treated to make it more accurate in adjustment. Selection of high quality materials, strong holding force, small residual magnetism, uniform distribution of magnetic force.
The minimum magnetic pole is 0.5+1.5mm, the maximum holding

force can reach 120N/cm² , and the angle range 0-45°. It is able to hold smaller parts. Integral base is heat-treated to HRC60 hardness, good rigidity.

Bearing cover and gasket can lock the sine plate to keep it stable.

Maximum accuracy ±5μm, the plane accuracy of the magnetic surface remains unchanged when switching on/off.



Model	B	F	A	C	E	D	Weight kg
SPX 1017	100	175	226	80	45	75	10
SPX 1515	150	150	201	80	45	100	13
SPX 1225	125	250	301	80	45	100	22
SPX 1530	150	300	351	80	45	100	26

Technical Changes
The data and illustrations in this catalogue are not binding and only provide an approximate description. We reserve the right to make changes to the product delivered compared with the data and illustrations in this catalogue, e.g. in respect of technical data, design, fittings, material and external appearance.

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