

## Square Pole Electropermanent Magnet Chuck



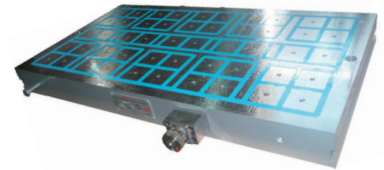
- Square pole pattern Electropermanent magnets available in standard construction of 50mm & 75mm squares. Alternative patterns of 47mm, 65mm, 100mm squares also can be constructed to cater to specific requirements.
- Holding force above 80 MT/SqM for the 50mm square pole version and 110 MT/SqM for the 75mm Square pole version.
- Perfect safety in case of power failure. No electricity needed to keep the Magnetic chuck ON.
- Uniform clamping over entire area, no chattering of tools, improves finish and tool life.
- High and uniform magnetic power, with choice to vary and control strength.
- Modular and sturdy construction.
- Easily integrated with pallet changing and FMS systems.
- Unobstructed movement of cutters during machining as all five faces of the job can be machined in the same setting.
- Drastically reduces the loading, unloading and controlling the work pieces.
- Better machining accuracy - as the chattering of tools reduces, the finish and tool life is improved.



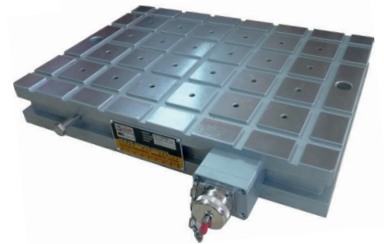
Magna Mill with Standard Round Extensions



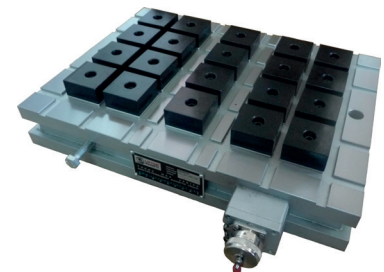
Magna Mill with on-demand Square Extensions



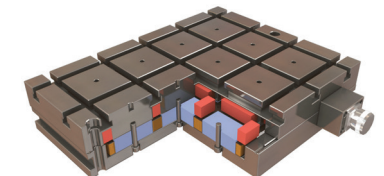
Magna Mill with earlier resin design



Magna Mill bare metal w/o extension blocks



Magna Mill with a reduced density

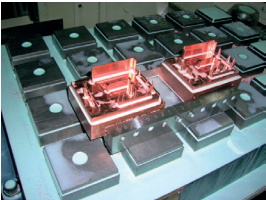
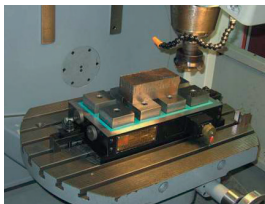


Magna Mill all metal waterproof construction



### APPLICATIONS

- For heavy duty roughing, milling and finishing applications on large and tall parts from 30mm to 600mm thickness and beyond, choose the 75mm type. For milling and finishing applications on parts from 7mm to 100mm, choose the 50mm type.
- A minimum contact of 4 alternate poles is required for the 75mm type and 8 for the 50mm type. In case of reduced contact, increase coverage by placing parallel bar side supports to simulate wider contact.
- Easily integrated with Pallet changing and FMS Systems.
- AUTOMATIC SHIMMING : Sliding pole extensions allow to clamp and to support uniformly work pieces even with bent surfaces achieving high accuracies of planarity.



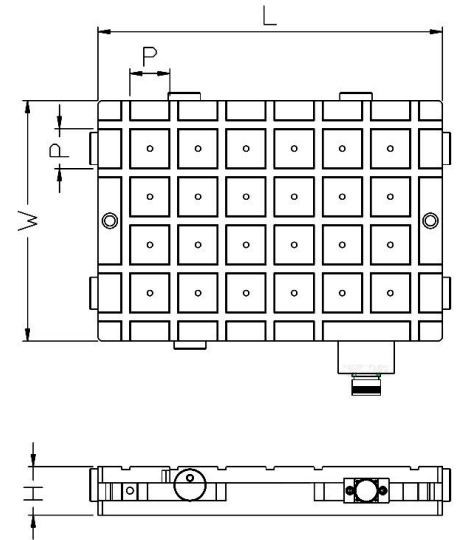
Typical application scenarios



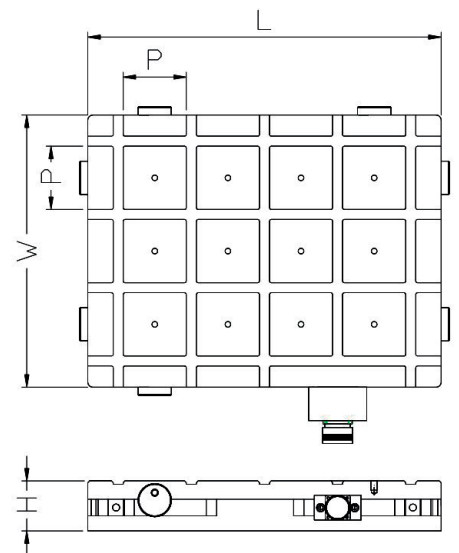
Square Pole Electropermanent Magnet Chuck

Due to continuous upgradation in design there could be changes in specification. Other sizes on request. Before ordering, contact Supreme Magnets or your nearest dealer to confirm the suitability of this model for your application.

Model No.	'X' = 50MM SQUARE							
Standard Resin (S) or Patented all Solid Metal (M)	L	W	H	N (HD)	N (RD)	P	Voltage (VAC)	WT (Kgs)
MM'X'3020 - YZ	310	240	55	12	10	50	220	33
MM'X'4020 - YZ	430			18	14			46
MM'X'5020 - YZ	500			21	16			58
MM'X'6020 - YZ	590			24	20			71
MM'X'8020 - YZ	750			30	24			85
MM'X'3030 - YZ	310	300		16	12			52
MM'X'4030 - YZ	430			24	20			59
MM'X'6030 - YZ	590			32	26			91
MM'X'8030 - YZ	750			40	32			108
MM'X'10030 - YZ	990			56	44			142
MM'X'4040 - YZ	430	420	36	28	84			
MM'X'5040 - YZ	480		42	34	92			
MM'X'6040 - YZ	590		48	38	129			
MM'X'8040 - YZ	750		60	48	154			
MM'X'10040 - YZ	990		80	64	202			
MM'X'5050 - YZ	500	480	49	38	130			
MM'X'6050 - YZ	590		56	44	162			
MM'X'8050 - YZ	750		70	56	193			
MM'X'10050 - YZ	990		98	78	253			
MM'X'6060 - YZ	590		600	72	58	200		
MM'X'8060 - YZ	750	90		72	239			
MM'X'10060 - YZ	990	126		100	313			



Model No.	'X' = 75MM SQUARE							
Standard Resin (S) or Patented all Solid Metal (M)	L	W	H	N (HD)	N (RD)	P	Voltage (VAC)	WT (Kgs)
MM'X'3020 - YZ	337	239	55	6	4	75	220	44
MM'X'4020 - YZ	425			8	6			56
MM'X'5020 - YZ	513			10	8			68
MM'X'6020 - YZ	601			12	10			80
MM'X'8020 - YZ	815			16	14			124
MM'X'3030 - YZ	337	327		9	6			62
MM'X'4030 - YZ	425			12	10			77
MM'X'6030 - YZ	601			18	16			111
MM'X'8030 - YZ	815			24	20			145
MM'X'10030 - YZ	1029			30	24			178
MM'X'4040 - YZ	425	415	16	12	99			
MM'X'5040 - YZ	513		20	16	120			
MM'X'6040 - YZ	601		24	20	145			
MM'X'8040 - YZ	815		32	26	182			
MM'X'10040 - YZ	1029		40	30	228			
MM'X'12040 - YZ	1205	48	36	266				
MM'X'5050 - YZ	513	503	25	20	149			
MM'X'6050 - YZ	601		30	24	160			
MM'X'8050 - YZ	815		40	30	226			
MM'X'10050 - YZ	1029		50	40	278			
MM'X'15050 - YZ	1469		75	60	439			
MM'X'20050 - YZ	1960	100	80	585				
MM'X'6060 - YZ	601	591	36	30	204			
MM'X'8060 - YZ	815		48	36	266			
MM'X'10060 - YZ	1029		60	48	328			
MM'X'15060 - YZ	1469		90	72	518			
MM'X'20060 - YZ	1960		120	96	691			



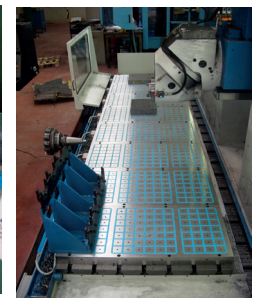
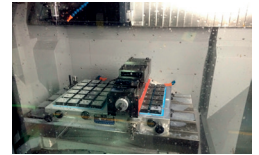
Instructions to select your Model:  
 Replace X for the Square Pole size. Choices are either 50 or 75mm.  
 Replace Y for S (Standard Resin type) or M (Patented all Metal type). Y indicates Construction technique.  
 Replace Z for HD (High Density) or RD (Reduced Density). Z indicates Pole density.  
 N: Number of Poles for High Density (HD) model and Reduced Density (RD) model.  
 Eg. EPMM506040-MHD: Indicates a 50mm 600x400 Solid Metal with High Density.  
 EPMM754030-SRD: Indicates a 75mm Sq 400x300 Standard Model with Reduced Density.

All dimensions in metric units

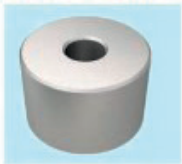


## Square Pole Electropermanent Chuck

### APPLICATION POSSIBILITIES OF MAGNA MILL



## EPM Chuck top tooling to increase productivity



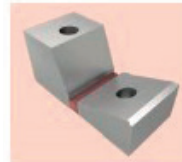
- Fixed Block.
- Dia 32 / 50 / 75 mm.
- Available in various heights.
- Available soft or hardened.



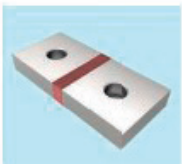
- Fixed V Block.
- V Angle 90°.
- Suitable for Angle milling.
- Available soft or hardened.



- Mobile Pole Extension.
- Suitable for 32 / 50 / 75 mm square pole chucks
- Special mobile pole extensions with extra height or with multiples available.



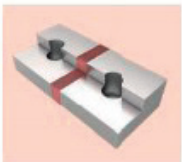
- Fixed V Block.
- V Angle 120°.
- Suitable for Angle milling.
- Available soft or hardened.



- Joint Rectangular Pole Extension.
- Designed for all pole sizes.
- Designed for any grid size with multiple number of poles.
- Available from 10 to 70 mm thickness.



- Fixed V Block.
- V Angle 160°.
- Suitable for Angle milling.
- Available soft or hardened.



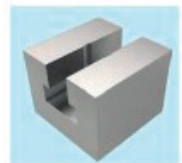
- L-type Pole Extension.
- Designed for all pole sizes.
- Designed for any grid size with multiple number of poles.
- Available from 10 to 70 mm thickness.



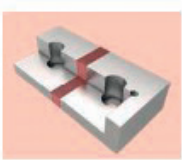
- S-type Pole Extension.
- Designed for all pole sizes.
- Linear length is available for multiple number of poles.
- Various thickness available from 10 to 70 mm.



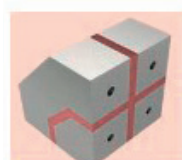
- L-type ext. with right end stop.
- Designed for all pole sizes.
- Designed for any grid size with multiple number of poles.
- Available from 10 to 70 mm thickness.



- T-Slot Pole Extension.
- Suitable for easy variation of setting.
- Quick adjusting.
- Available soft or hardened.



- L-type ext. with left end stop.
- Designed for all pole sizes.
- Designed for any grid size with multiple number of poles.
- Available from 10 to 70 mm thickness.



- Combo Transfer Block.
- Heavy Metal Removable.
- Perfect 90° Squaring.
- Milling at 45° possible.