



**EARTH-CHAIN**

**Power that works.**

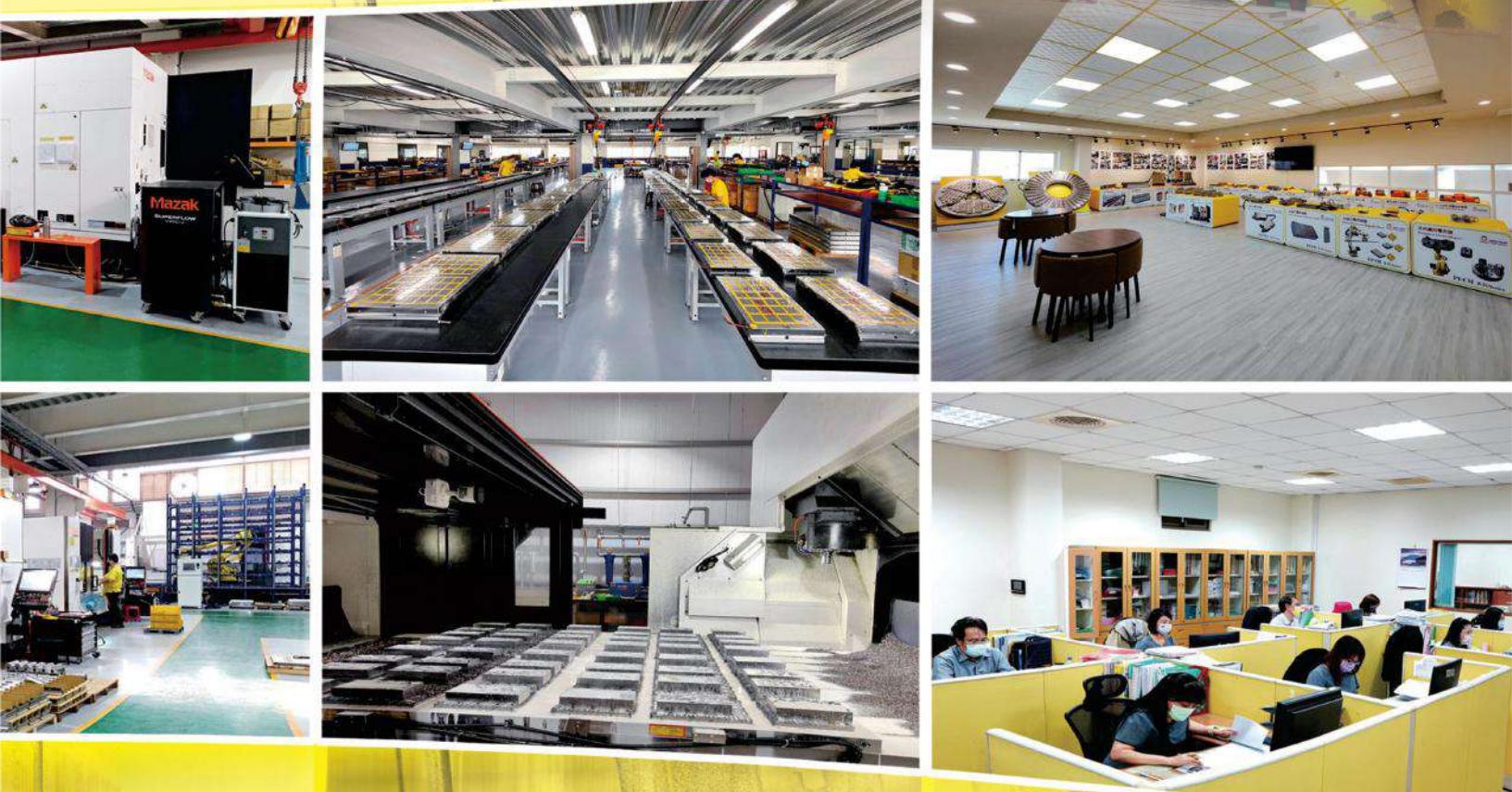
Earth-Chain Enterprise was established in 1988, we commit to be the professional magnetic application products manufacturer in past 35 years. We also market all over the world with own brand ECE, our agents /distributors located in more than 40 countries on five continents around the world. With ISO9001 2015 and CE certification, and more than 30 product patents and multiple magnetic application key technologies, we can not only offer products for greatly improving customer's machine operation efficiency and market competitiveness, but also bring different application concepts and magnetic chuck system application technologies for our customers.

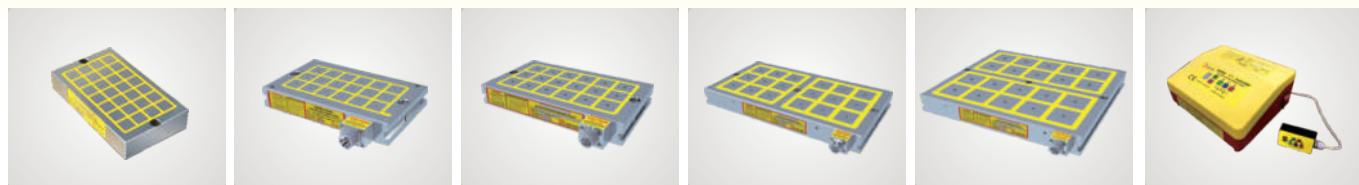
In recent years, as the CNC machine tool industry responds to Industry 4.0 intelligent automation, technology is constantly improving with each passing day. Earth-Chain's R&D energy focuses on the field of sustainable development. Based on the market and customer's requirements, as well as own core professional technologies, we continuously improve and bring new application concepts and innovations in the of magnetic clamping system application technology.



In 2022, Earth-Chain expand and completed the intelligent plant with internet of machines & magnetic systems, which integrates CNC machine tools, robotic arms, magnetic clamping systems, monitoring and sensing software systems and other automated peripheral equipment in series. With intelligent process optimization, IoT, and big data collection, the new Earth-Chain plant not only has intelligent functions, such as fault prediction, precision compensation, automatic parameter setting and automatic scheduling, but also has the core key technology of energy saving and carbon reduction by combining permanent magnetic chuck and electronic control system.

Based on the experience while building our intelligent plant, Earth-Chain have the abilities to provide total magnetic solution for machine tool manufacturers and customers, creating a new era of “Automated machine-magnet intelligent manufacturing process” and “Digitization for smart energy saving” is our target.





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**Electro-Permanent Magnetic Chuck EEPM-M Series** Pole Size 20x20 mm, Flux Line 10 mm

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**Electro-Permanent Magnetic Chuck EEPM-A Series** Pole Size 35x35 mm, Flux Line 15 mm  
Suitable for thin, small and medium workpiece on light duty machining.

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**Electro-Permanent Magnetic Chuck EEPM-B Series** Pole Size 50x50 mm, Flux Line 25 mm  
Suitable for small and medium workpiece machining.

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**Electro-Permanent Magnetic Chuck EEPM-D Series** Pole Size 70x70 mm, Flux Line 40 mm  
Suitable for medium and large workpiece on heavy duty machining.

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**Electro-Permanent Magnetic Chuck EEPM-E Series** Pole Size 92x92 mm, Flux Line 50 mm  
Suitable for medium and large workpiece on heavy duty machining.

8

**Controller**  
Option controller available for control multi-EEPML chuck.

9

**Human Machine Interface controller EEPM-HMI Series(Option)**  
Suitable for use on EEPM Series of Electro-Permanent Magnetic Chuck.

11

**Induction Block EEPM-IB Series**  
Suitable for Increased using life of magnetic chuck

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**Induction Block EEPM-IBT & EEPM-IBV Series**  
Suitable for slope finishing of workpeice machining

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**Spring Block EEPM-SP Series**  
Suitable for clamping on iron cast, irregular form and flexuous workpieces

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**Induction Sub Plate EEPM-ISP Series**  
Suitable for quantity of irregular and smaller workpiece

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**Other Option Accessories**  
Can be use together with mechanical clamping tools

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**Electro-Permanent Magnetic Chuck EEPM-SL/TA Series**  
Can be use together with mechanical clamping tools

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**Electro-Permanent Magnetic Chuck EEPM-V Series**  
 Suitable for CNC horizontal machining center

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**Electro-Permanent Magnetic Chuck EEPM-IT Series**  
 Suitable for horizontal milling & boring machine on precision machining of divison.

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**Electro-Permanent Magnetic Chuck EEPM-CIT Series**  
 Suitable in use for combine with CNC 4 Axis Index Device

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**Electro-Permanent Magnetic Chuck EEPM-CIRA & EEPM-CIR Series**  
 Suitable for use on Vertical Lathe, CNC 5 Axis Machining Center ...etc

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**Electro-Permanent Magnetic Chuck EEPM-CIRSA & EEPM-CIRS Series**  
 Suitable in use for combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.

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**Electro-Permanent Magnetic Chuck-Connection Type EEPM-C Series**  
 Suitable for use on large Vertical Lathe, Double Column Machining Center and CNC Machining Center ...etc.

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**Custom-Made EEPML Chucks**  
 Custom-chucks built to your specification

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**Electro-Permanent Magnetic Chuck EEPML Series (Custom-made)**  
 Used on Linear Guideway high precision or high accuracy long strip workpiece drilling, grinding machining...etc.

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**Electro-Permanent Magnetic Chuck EEPML-PiM Series (Custom-made)**  
 Quick Mold Change Systems for Plastic Injection Machine

47

**Electro-Magnetic ECM Series**  
 Suitable for Automatic Robotic Arm clamping

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**Electro-Permanent Magnetic Chuck EPSM Series**  
 Suitable for Automatic Robotic Arm clamping

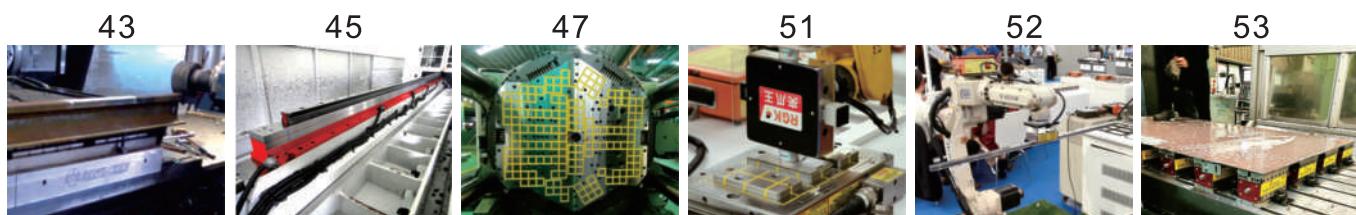
52

**Permanent Magnetic Clamping Block ECB Series**  
 Suitable for use on large Vertical Lathe, Double Column Machining Center and CNC Machining Center ...etc.

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**Permanent Magnetic Clamping Block ECB-120V12 Series**  
 Suitable for use on CNC Horizontal Machining Center.

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**Mag Vise**

Magnetic Workholding

Latest News, Catalogs, Application Photos, Videos, Service, and More.



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LINE Service



■ Suitable for CNC Vertical machining center (Can do 5 sides machining)

### Magnetic force of EEPMA Chucks

The Magnetic forces will changes depending on the thickness, attractive face roughness and quality of material and clearance between the workpiece with EEPMA Chucks.  
 (See as the graphs as below)

Chart of difference in Magnetic force by thickness

	Thickness		Percentage of Magnetic force			
	mm	inch	EEPMA	EEPMB	EEPMD	EEPME
T1	up 50	up 1.97"	100%	100%	100%	
T2	45	1.77"			90%	
T3	40	1.57"			80%	
T4	35	1.38"			70%	
T5	30	1.18"			55%	
T6	25	0.98"			65%	
T7	20	0.79"			45%	
T8	15	0.59"			70%	
T9	10	0.39"	85%	40%	—	
T10	5	0.20"	35%			

Chart of difference in Magnetic force by attractive face roughness.  
 For all EEPMA Series

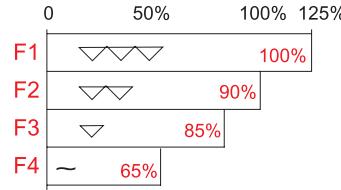
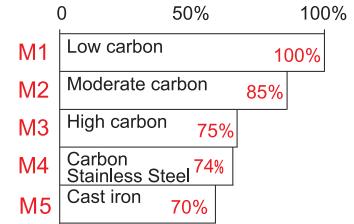


Chart of difference in Magnetic force by material quality.  
 For all EEPMA Series



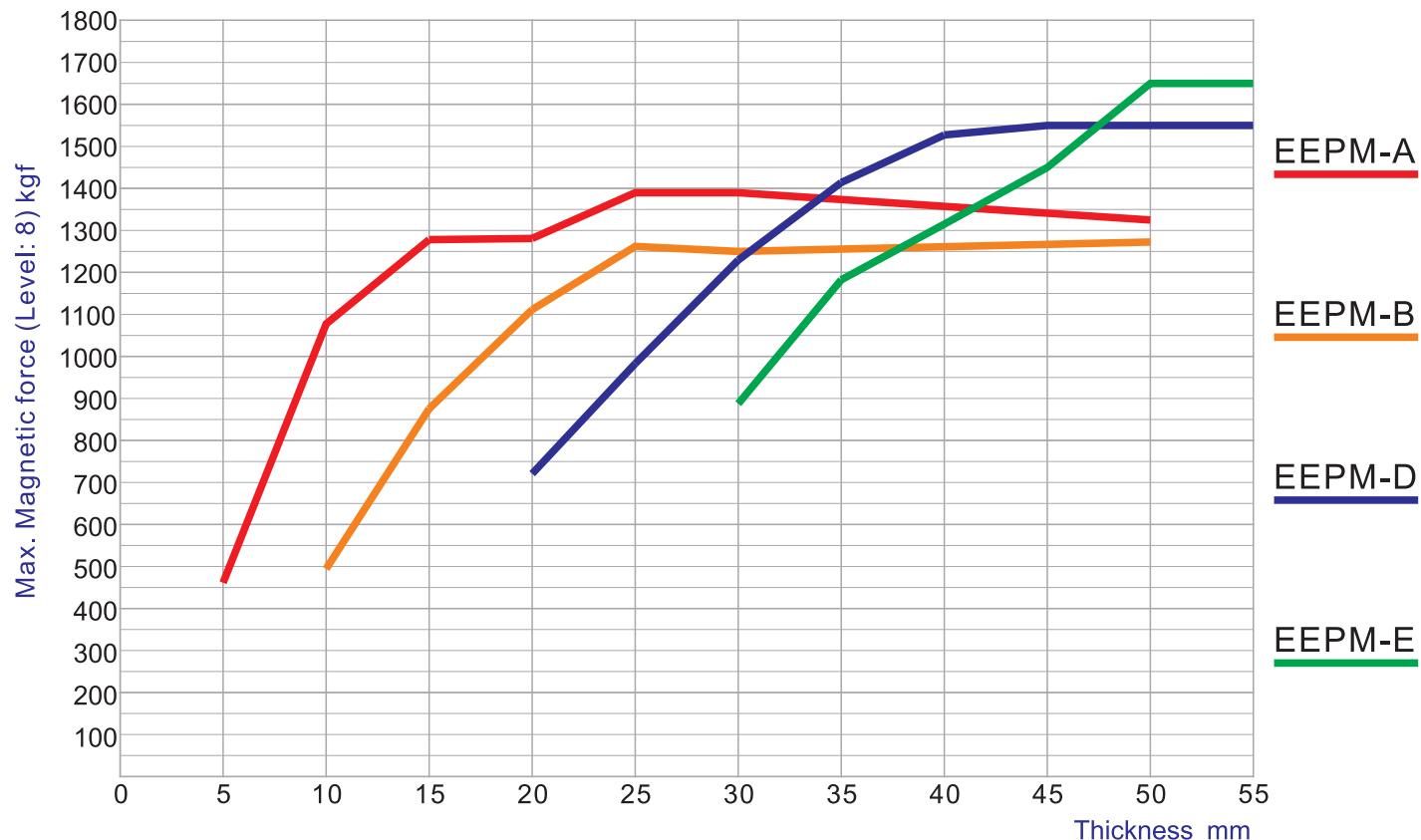
Calculating Formula for "Magnetic force" → (TxFxMxCapacity of Magnetic force)

Example of EEPMD Series:

Terms of workpiece: T4, F2 and M2

90% x 90% x 85% x 2800±5% kgf/4 Poles = 1928±5% Kgf/4 Poles

Comparison chart of Maximum magnetic forces and workpiece thickness



1. Test workpiece: Maximum magnetic force of workpiece of 120X120 mm<sup>2</sup> area

2. EEPMA Series: Flux line: 15mm, Workpiece thickness suggestion: 25mm ↓

EEPMB Series: Flux line: 25mm, Workpiece thickness suggestion: 15~50mm

EEPMD Series: Flux line: 40mm, Workpiece thickness suggestion: 30mm ↑

EEPME Series: Flux line: 50mm, Workpiece thickness suggestion: 40mm ↑



■ Suitable for CNC Vertical machining center (Can do 5 sides machining)

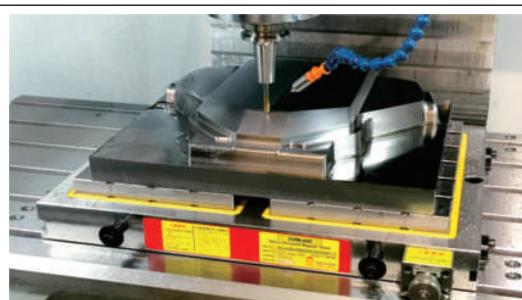
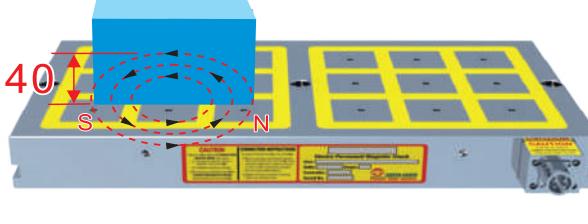
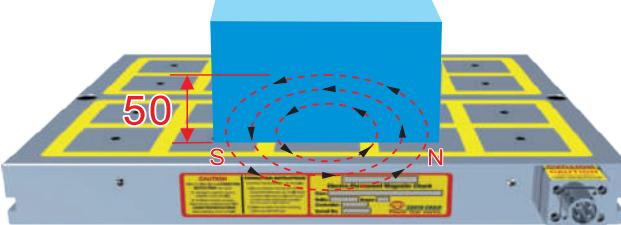
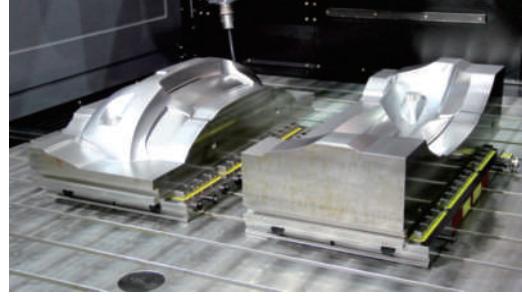
**Features:**

1. 1-2 seconds control for power ON & OFF. No electric power supply required to keep magnetic chuck ON and provides maximized safety in case of power failure. Never get temperatures to affect the accuracy of workpieces.
2. With 8 Magnetic levels for different workpiece size and application to avoid sticking the iron chip.
3. The waterproof level of the EEPM chuck is IP67 (the chuck cable or connector cover need to be locked on the connector correctly)
4. Capable for 5 sides machining and un-obstructed cutter movement during machining. Allow workpiece machining finished in one cycle, while still achieving best machining accuracy and highly increased working efficiency.
5. Easy and convenient to clamp a workpiece, shortens clamping time.
6. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is necessary for optimum clamping.
7. More functions for cooperate with Induction Block and Spring Block. (See the detail of Option Accessories)

**Specification of poles size & Height of magnetic field (Flux Line):**

EEPMS Chucks are designed for different mold thickness. Specify the mold to be Large, Medium and Small sizes make 4 poles sizes, bigger pole size with higher flux line. Different pole sizes have different magnetic field height (flux line) to ensure mold clamping safety.

**Notice:** The temperature of usage environment and the workpiece to be processed should not exceed 80°C, otherwise the magnetic force will be eternally reduced.

<p>EEPMA Series Flux Line 15 mm, Pole Size 35x35 mm Magnetic force: 580 ±5% Kgf/4 poles</p> 	
<p>EEPMB Series Flux Line 25 mm, Pole Size 50x50 mm Magnetic force: 1250 ±5% Kgf/4 poles</p> 	
<p>EEPMD Series Flux Line 40 mm, Pole Size 70x70 mm Magnetic force: 2800 ±5% Kgf/4 poles</p> 	
<p>EEPME Series Flux Line 50 mm, Pole Size 92x92 mm Magnetic force: 4800 ±5% Kgf/4 poles</p> 	



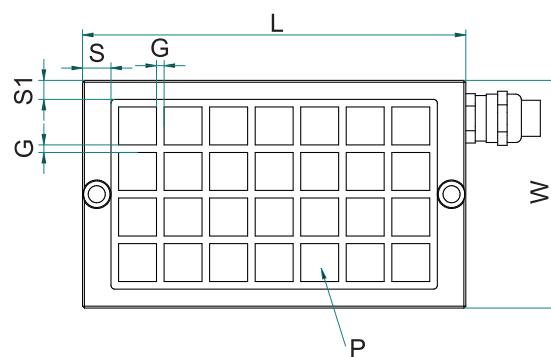
Patent Protected violators will be prosecuted: Patented Taiwan M605144



Pole 20X20 mm, Flux Line 10 mm, Magnetic Force 88±5% kgf/4 Poles

### Applications:

1. Suitable for clamping workpieces which need high precision, ex: Surface Grinding.
2. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is necessary for optimum clamping.
3. More functions for cooperate with induction block. (See the detail of Option Accessories)



Unit:mm

MODEL NO.	DIMENSION					PITCH G	POLE P	NO. OF POLE	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (Included)
	W	L	S	S1	M								
EEP-1020M	120	202	15	10	35			28	616	7kg	CHUCK DC 220V	12A	C1
EEP-1030M	120	298	15	10	35			44	968	10kg	CONTROLLER AC 220V~480V	15A	C1
EEP-2020M	192	202	15	10	35	4	20×20	49	1078	11kg		13A	C2
EEP-2030M	192	298	15	10	35			77	1694	16kg		17A	C4

Customization is available.



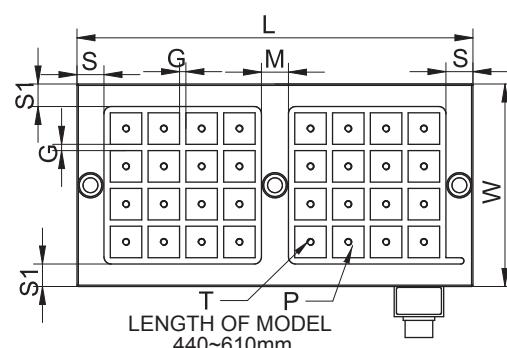
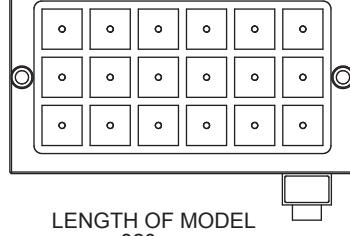
Standard accessories (No screws, T-caps)  
  
 4 pressure plates  
 Center circle diameter: 17mm  
 Thickness: 30mm

Pole 35X35 mm, Flux Line 15 mm,  
 Magnetic Force 580±5% kgf/4 Poles



### Applications:

1. Suitable for thin, small and medium workpiece on light duty machining.
2. Suitable for thin, small and medium workpiece of the drilling and finishing machining.
3. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is necessary for optimum clamping.
4. More functions for cooperate with Induction Block and Spring Block. (See the detail of Option Accessories)



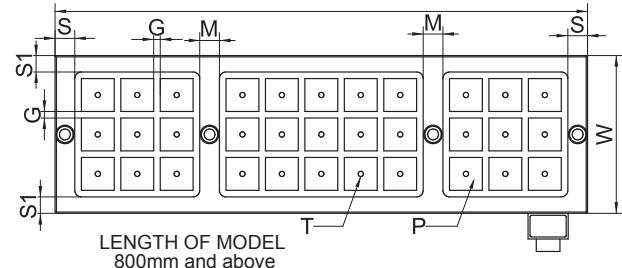
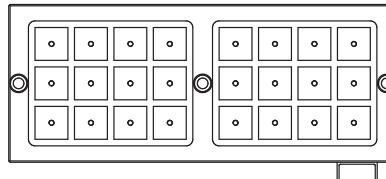
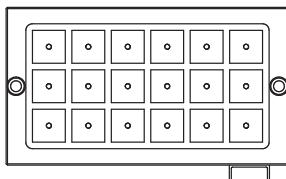
MODEL NO.	DIMENSION								PITCH G	POLE P	NO. OF POLE	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	Unit:mm
	W	L	S	S1	M	T	H										
EEPMA-1530A	185	320	30.5	26	-						18	2610	23kg		18A	C1	
EEPMA-2540A	225	440	30	25	30						32	4640	39kg	CHUCK DC 220V	30A	C1	
EEPMA-2560A	225	610	31	25	30						48	6960	54kg		26A	C2	
EEPMA-3030A	310	320	30.5	25.5	-						36	5220	39kg	CONTROLLER AC 220V	26A	C1	
EEPMA-3040A	310	440	30	25.5	30	M6	50		7	35×35	48	6960	53kg		25A	C2	
EEPMA-3060A	310	610	31	25.5	30						72	10440	74kg		31A	C2	
EEPMA-4040A	435	440	30	25	30						72	10440	75kg	480V	31A	C2	
EEPMA-4050A	435	525	30.5	25	30						90	13050	90kg		24A	C4	
EEPMA-4060A	435	610	31	25	30						108	15660	104kg		26A	C4	

Customization is available.



Standard accessories (No screws, T-caps)  
  
 4 pressure plates  
 Center circle diameter: 17mm  
 Thickness: 30mm

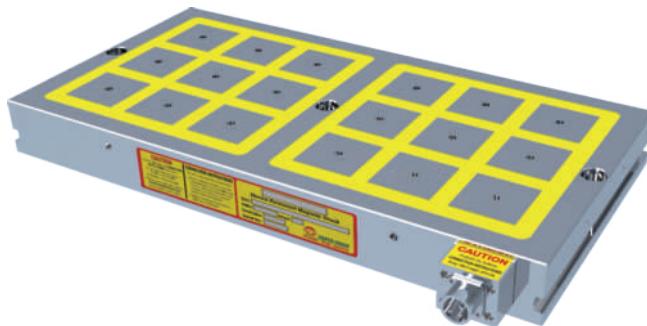
Pole 50X50 mm, Flux Line 25 mm,  
 Magnetic Force 1250±5% kgf/4 Poles



Unit:mm

MODEL NO.	DIMENSION							PITCH G	POLE P	NO. OF POLE	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	W	L	S	S1	M	T	H								
EEPMB-2540B	240	430	30	25	--					18	5600	50kg		18A	C1
EEPMB-2560B	240	590	30	25	30					24	7500	69kg		30A	C1
EEPMB-2580B	240	810	30	25	30					33	10300	92kg		30A	C1
EEPMB-2590B	240	870	30	25	30					36	11200	98kg		18A	C2
EEPMB-25100B	240	990	30	25	30					42	13100	111kg		26A	C2
EEPMB-3030B	300	310	30	25	--					16	5000	44kg		20A	C1
EEPMB-3040B	300	430	30	25	--					24	7500	61kg		30A	C1
EEPMB-3060B	300	590	30	25	30					32	10000	82kg		30A	C1
EEPMB-3080B	300	810	30	25	30					44	13700	116kg		25A	C2
EEPMB-3090B	300	870	30	25	30					48	15000	123kg		30A	C2
EEPMB-30100B	300	990	30	25	30					56	17500	138kg	CHUCK DC	35A	C2
EEPMB-4040B	420	430	30	25	--					36	11200	84kg	220V	18A	C2
EEPMB-4050B	420	490	30	25	--					36	11200	95kg	CONTROLLER AC	26A	C2
EEPMB-4060B	420	590	30	25	30			M8	60	48	15000	100kg	480V	30A	C2
EEPMB-4080B	420	810	30	25	30					66	20600	159kg		30A	C2
EEPMB-4090B	420	870	30	25	30					72	22500	169kg		18A	C4
EEPMB-40100B	420	990	30	25	30					84	26200	193kg		26A	C4
EEPMB-5060B	480	590	30	25	30					56	17500	129kg		35A	C2
EEPMB-5080B	480	810	30	25	30					77	24000	185kg		30A	C4
EEPMB-5090B	480	870	30	25	30					84	26200	196kg		26A	C4
EEPMB-50100B	480	990	30	25	30					98	30600	219kg		30A	C4
EEPMB-6060B	600	590	30	25	30					72	22500	165kg		18A	C4
EEPMB-6080B	600	810	30	25	30					99	30900	215kg		30A	C4
EEPMB-6090B	600	870	30	25	30					108	33700	240kg		27A	C4
EEPMB-60100B	600	990	30	25	30					126	39300	274kg		32A	C4
EEPMB-8080B	755	810	30	25	30					121	37800	271kg		33A	C4

Customization is available.



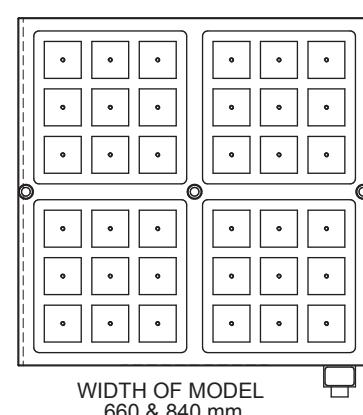
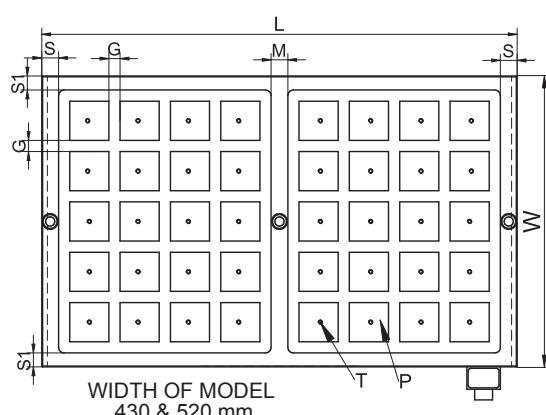
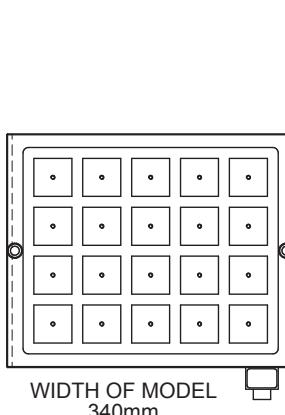
Standard accessories (No screws, T-caps)  
  
 4 pressure plates  
 Center circle diameter: 17mm  
 Thickness: 30mm

Pole 70X70 mm, Flux Line 40 mm,  
 Magnetic Force 2800±5% kgf/4 Poles



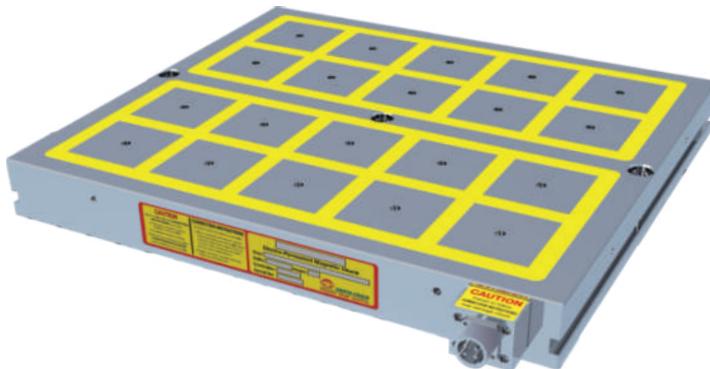
### Applications:

1. Suitable for medium and large workpiece on heavy duty machining.
2. Suitable for medium and double column machining center.
3. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is necessary for optimum clamping.
4. More functions for cooperate with Induction Block and Spring Block. (See the detail of Option Accessories)



MODEL NO.	DIMENSION							PITCH G	POLE P	NO. OF POLE	TOTAL HOLDING POWER kgf±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	W	L	S	S1	M	T	H											
EEP-3060D	340	670	30	25	30					18	12600	126kg	CHUCK DC 220V	24A	C2	CHUCK DC 380V	25A	C1H
EEP-4050D	430	530	30	25	--					20	14000	126kg	CONTROLLER	13A	C2	CONTROLLER	22A	C1H
EEP-4060D	430	670	30	25	30					24	16800	159kg	AC 220V	24A	C2	AC 380V	29A	C1H
EEP-4080D	430	850	30	25	30					32	22400	202kg	~	16A	C4	~	27A	C2H
EEP-5060D	520	670	30	25	30	M10	70	20	70x70	30	21000	193kg	CONTROLLER	19A	C2	CONTROLLER	17A	C2H
EEP-5080D	520	850	30	25	30					40	28000	244kg	AC 220V	13A	C4	AC 380V	22A	C2H
EEP-6060D	660	670	30	25	30					36	25200	245kg	~	15A	C4	~	25A	C2H
EEP-6080D	660	850	30	25	30					48	33600	310kg	480V	24A	C4	440V	29A	C2H
EEP-8080D	840	850	30	25	30					64	44800	395kg		32A	C8		27A	C4H

Customization is available.



Standard accessories (No screws, T-caps)



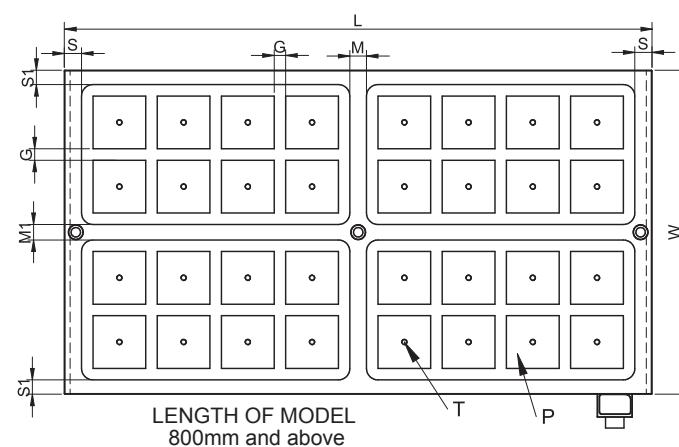
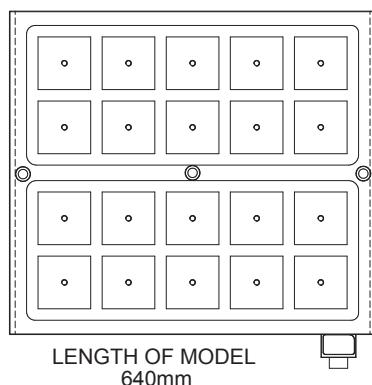
4 pressure plates  
Center circle diameter: 17mm  
Thickness: 30mm

Pole 92X92 mm, Flux Line 50 mm,  
Magnetic Force  $4800 \pm 5\%$  kgf/4 Poles



### Applications:

1. Suitable for large and high-thickness workpiece
2. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is necessary for optimum clamping.
3. More functions for cooperate with Induction Block and Spring Block. (See the detail of Option Accessories)



MODEL NO.	DIMENSION									PITCH G	POLE P	NO. OF POLE	TOTAL HOLDING POWER kgf $\pm 5\%$	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	Unit:mm
	W	L	S	S1	M	M1	T	H										
EEP-6060E	565	640	30	25	--	27						20	24000	214kg	CHUCK DC 380V	24A	C2H	
EEP-60100E	565	1025	30	25	29	27						32	38400	343kg	CONTROLLER AC 380V~440V	13A	C4H	
EEP-60120E	565	1250	30	25	30	27						40	48000	418kg		24A	C4H	
EEP-8080E	790	800	30	25	28	28						36	43200	374kg		26A	C4H	
EEP-80100E	790	1025	30	25	29	28						48	57600	480kg		19A	C4H	
EEP-80120E	790	1250	30	25	30	28						60	72000	585kg		15A	C8H	

Customization is available.

## Controller

■ Option controller available for control multi-EEPM chuck



### Features:

1. SCR1600 volts/ 70 amps more safety and durability.
2. Built-in transformer 220V~480V full voltage is applicable.
3. Intelligent Precision IC Chip Modification Program.
4. Communication Modbus connection function, can be automated with CNC machine and robot arm.
5. Clock rate up to 20Mhz (generally 8 Mhz), sensitive and increased operation reliability.

### Magnetism level:

The magnetism is designed with an adjustable function and divided into 8 levels to meet with the client requirements in sizes and applications.

Relative magnetic force strength percentage table

Magnetism level	1	2	3	4	5	6	7	8
%	16	28	40	52	64	76	88	100



- a. The maximum magnetic force of cubic pole 50mm square can reach up to  $1,250 \pm 5\% \text{ kgf}/100\text{cm}^2$  (4 poles).
- b. Level 8 represents maximum magnetic force.

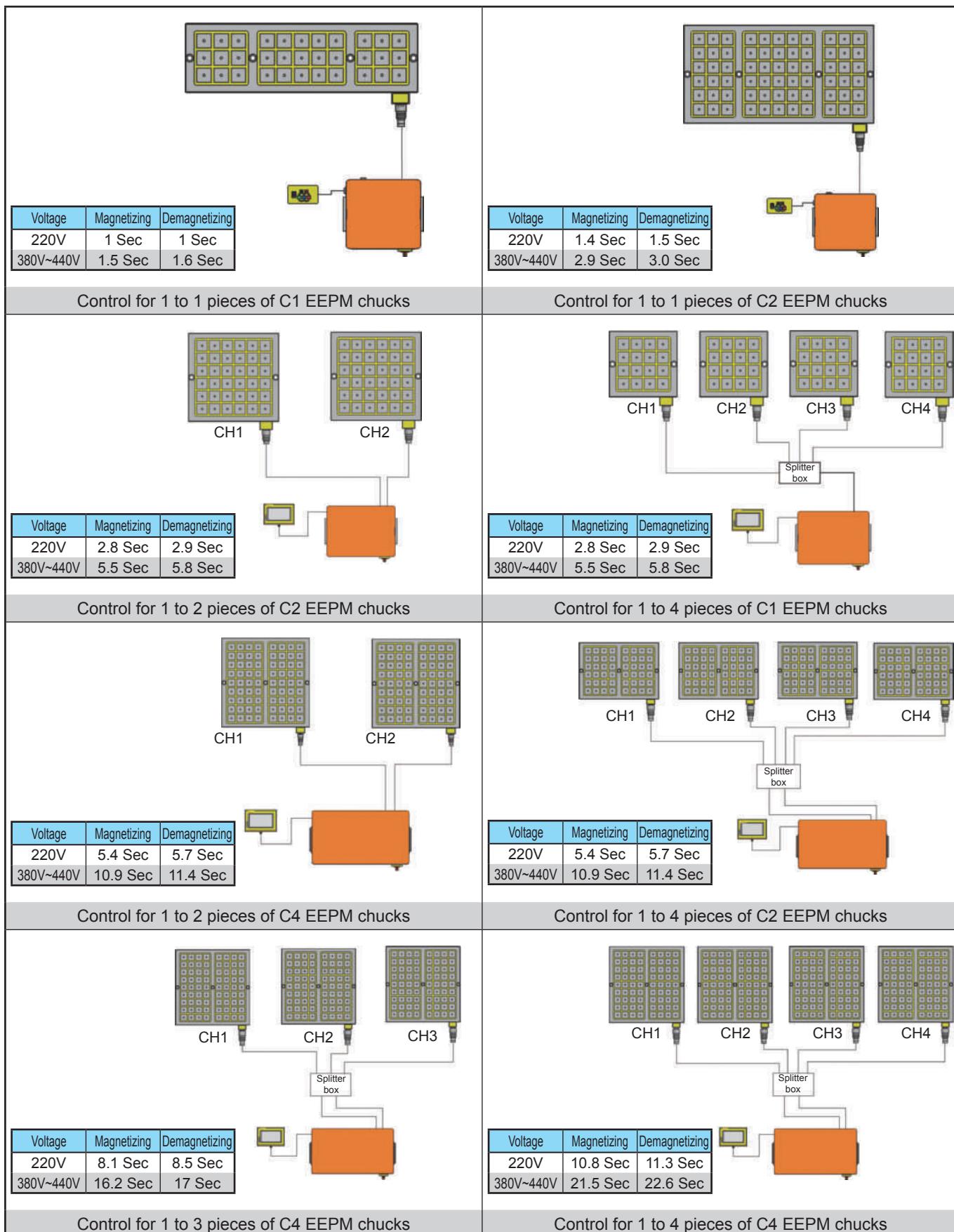
Signal line can be connected with the machine and the robot arm



■ Option controller available for control multi-EEPM chuck.



Please advise the voltage of EEPM chucks are AC220V or AC380V~AC440V when purchased. (Depending on the controller specification the junction box is option product.)



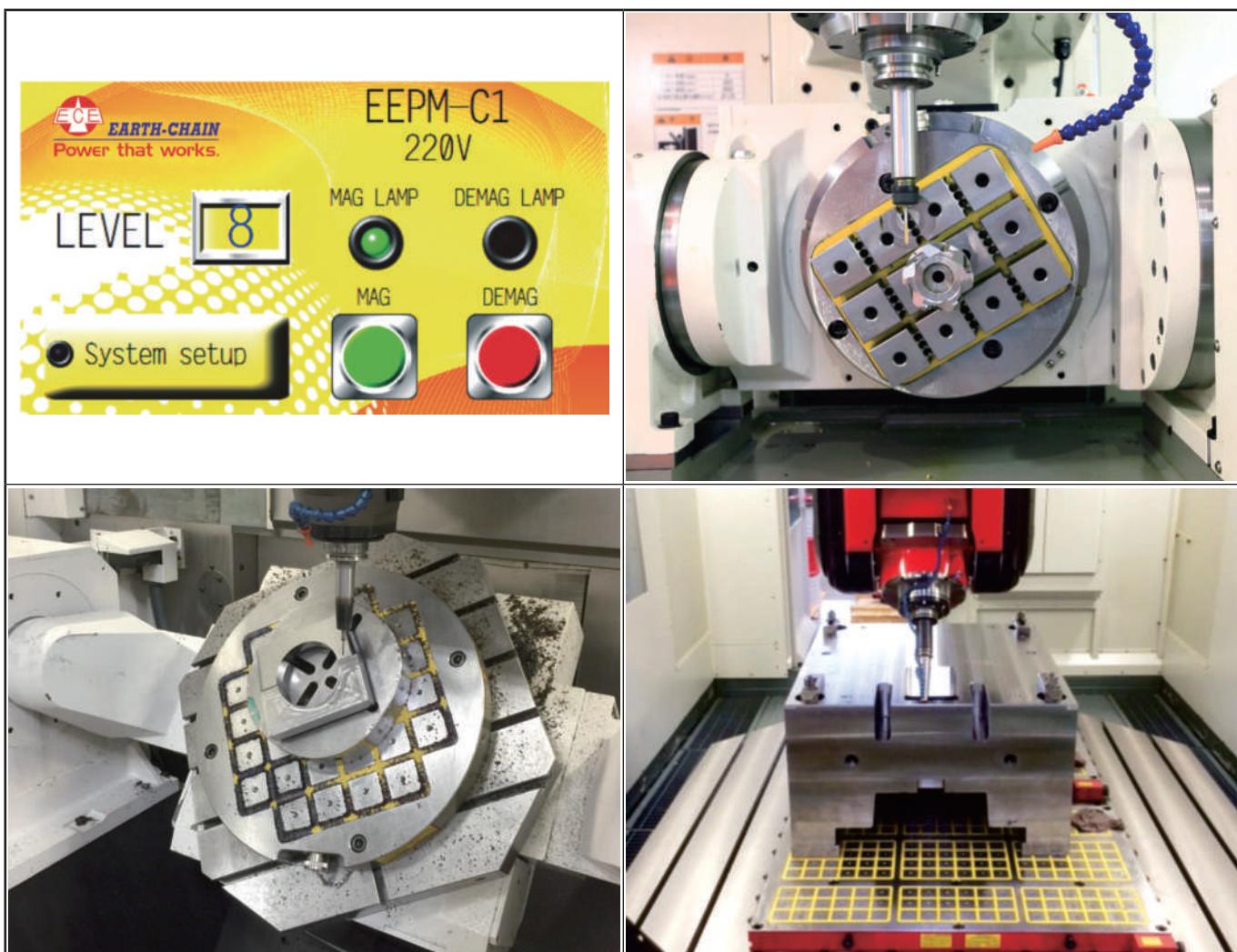


### Features:

1. HMI touch screen - can be set the screen brightness, key sound, language...etc.
2. Display the abnormal status, such as the chuck cable unconnected, and instruction the troubleshooting.
3. Can detect low voltage abnormal situation, to avoid the insufficient magnetic force situation.

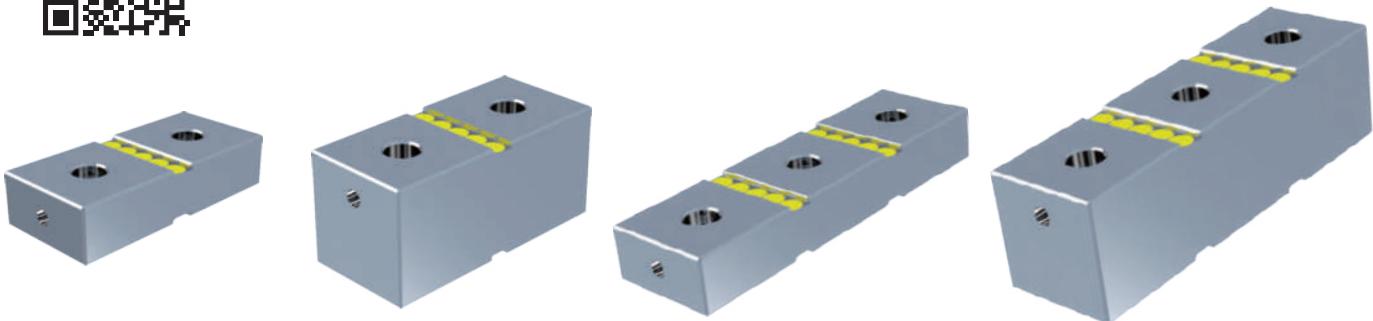
### Example description:

Develop Human Machine Interface touch screen system, feedback operation status from screen page, and the devices could be drive by pre-set program and parameter.





■ Suitable for use on EEPM Series of Electro-Permanent Magnetic Chuck.

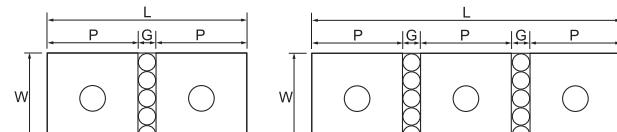


### Features:

1. Induction Block EEPM-IB series are use with EEPM chucks, can be increased to more functions on workholding.
2. Increased using life of magnetic chuck: We suggest always use induction block to clamp workpieces, due to workpiece will not touch to the surface of chucks it can be keep chucks always be new.
3. Convenience and Accuracy: Induction Block are interchanging & consuming accessories, you can machining surface or forming induction blocks for the workpiece required by the machine directly, so the parallelism of induction block will always 100% match to the machine.

■ EEPM-IBM Suitable for use on EEPM-M Series Chucks.

Unit:mm						
MODEL NO.	NO. OF POLE	W	L	HEIGHT	P	G
EEPM-IB210M	2	20	44	10	20	4
EEPM-IB310M	3	20	68	10	20	4



NO. OF POLE : 2      NO. OF POLE : 3

■ EEPM-IBA Suitable for use on EEPM-A Series Chucks.

Unit:mm						
MODEL NO.	NO. OF POLE	W	L	HEIGHT	P	G
EEPM-IB215A	2	35	77	15	35	7
EEPM-IB315A	3	35	119	15	35	7

Relative magnetic force to height of EEPM-IB :

MODEL NO.	Height	Holding Power (Kgf)
EEPM-IB215A	15 mm	80 %
EEPM-IB315A	15 mm	64 %

MODEL NO.	Height	Holding Power (Kgf)
EEPM-IB225B	25 mm	82 %
EEPM-IB325B	25 mm	68 %

MODEL NO.	Height	Holding Power (Kgf)
EEPM-IB250B	50 mm	72 %
EEPM-IB350B	50 mm	58 %

\*50mm height induction block with lower holding power that suitable for stopping block only.

MODEL NO.	Height	Holding Power (Kgf)
EEPM-IB225D	25 mm	86 %
EEPM-IB325D	25 mm	70 %

MODEL NO.	Height	Holding Power (Kgf)
EEPM-IB225E	25 mm	86 %
EEPM-IB325E	25 mm	70 %

Example:

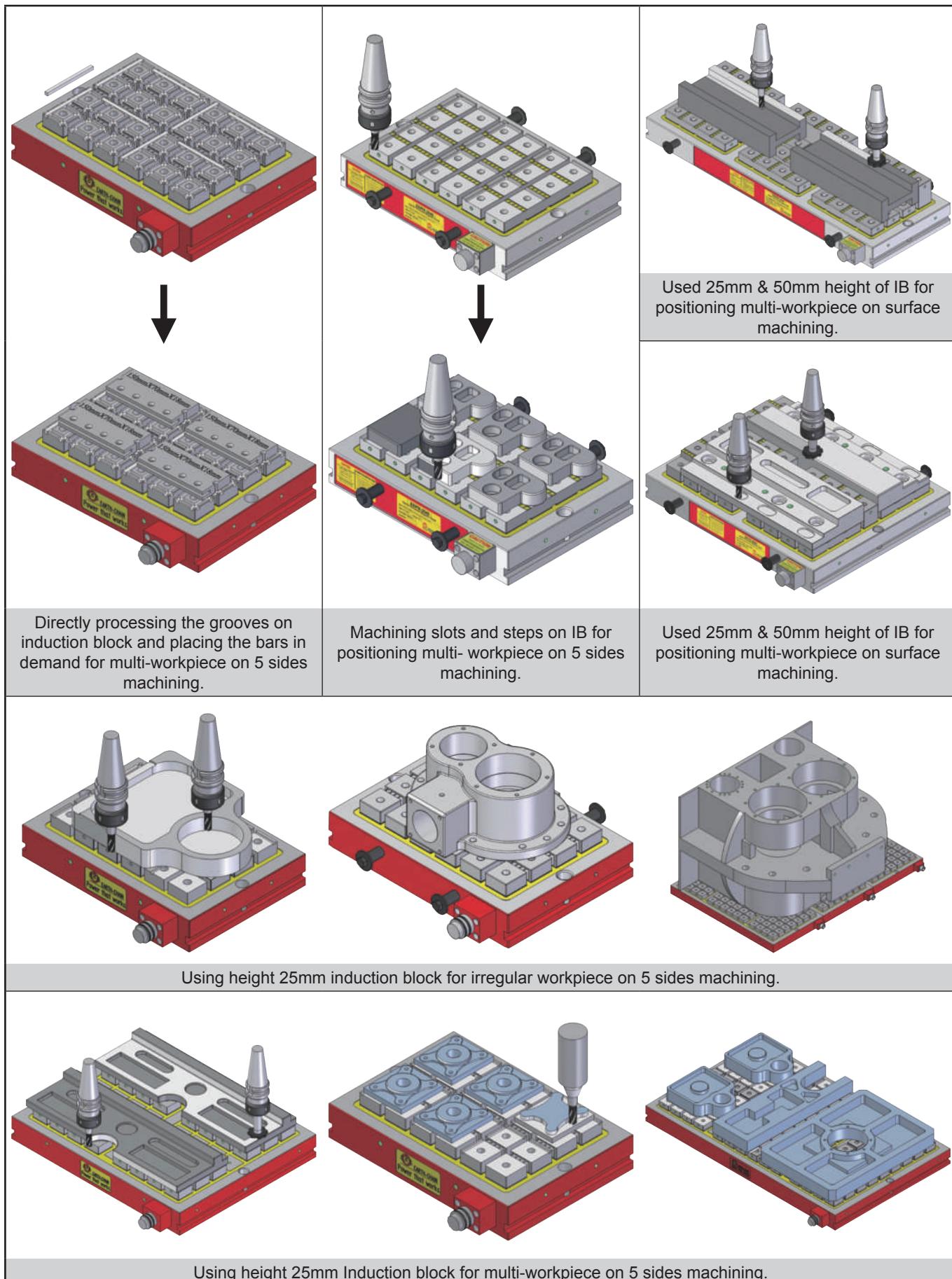
EEPML chuck	Induction Block	Total Holding Power
EEPML-2560B	None	7,500±5% kgf
EEPML-2560B	IB225B x 24pcs	6,150±5% kgf (7,500x82%)

■ EEPM-IBD Suitable for use on EEPML-D Series Chucks.

Unit:mm						
MODEL NO.	NO. OF POLE	W	L	HEIGHT	P	G
EEPML-IB225D	2	70	160	25	70	20
EEPML-IB325D	3	70	250	25	70	20

■ EEPML-IBE Suitable for use on EEPML-E Series Chucks.

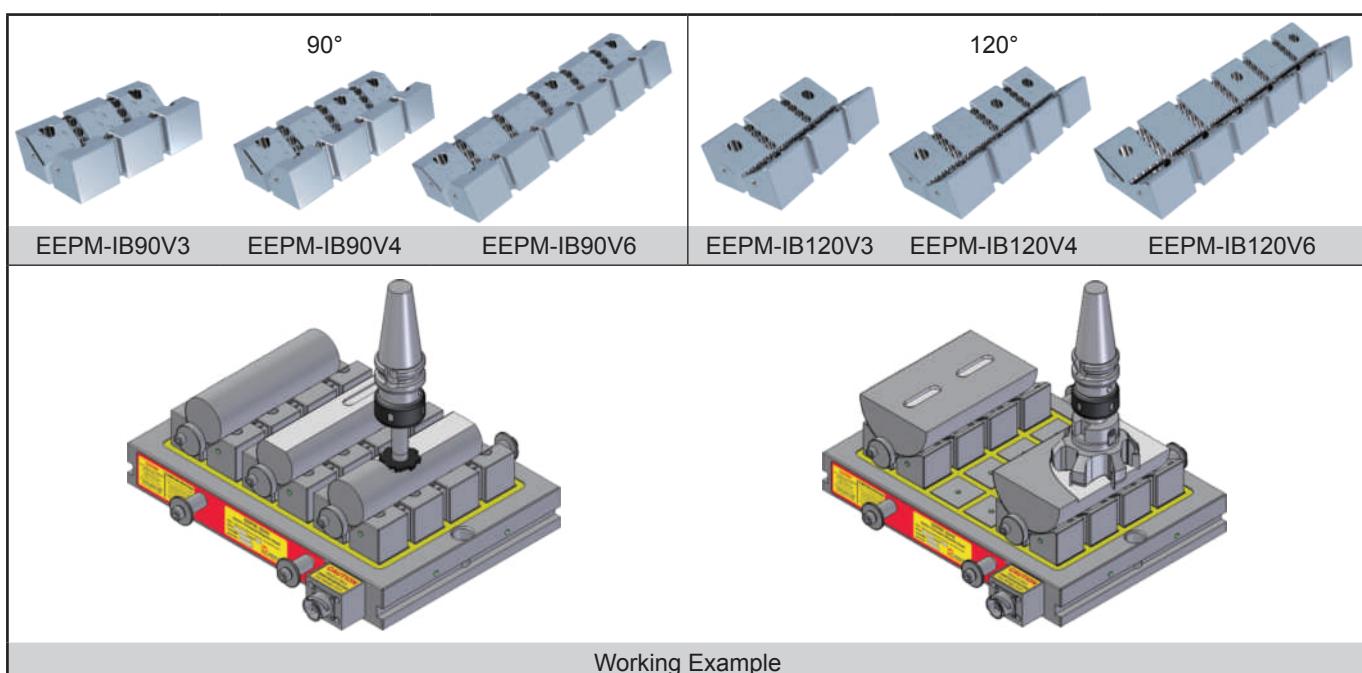
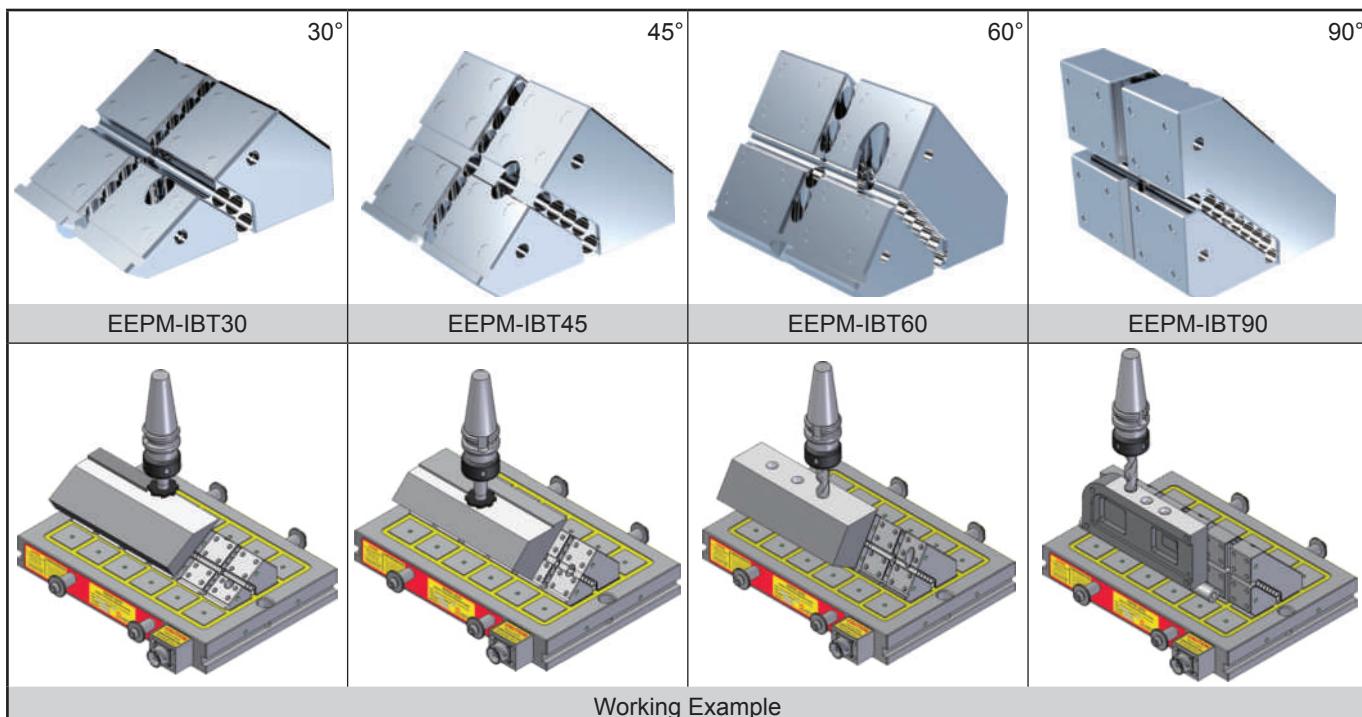
Unit:mm						
MODEL NO.	NO. OF POLE	W	L	HEIGHT	P	G
EEPML-IB225E	2	92	204	25	92	20
EEPML-IB325E	3	92	316	25	92	20

**Working Example**


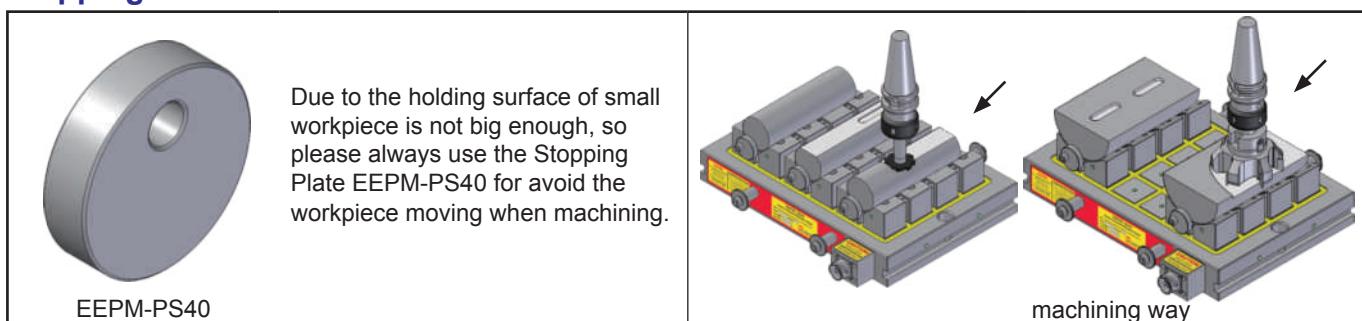


■ Suitable for use on EEPM Series of Electro-Permanent Magnetic Chuck.

### Induction Block EEPM-IBT Series



### Stopping Plate EEPM-PS40

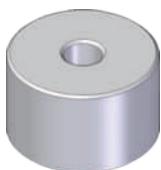




■ Suitable for use on EEPM Series of Electro-Permanent Magnetic Chuck.

### Spring Block EEPM-SP Series

Patent Protected violators will be prosecuted: Patented Taiwan M605141  
 ■ Suitable for clamping on iron cast, irregular form and flexuous workpieces, it will not be out of shape the workpiece after machining.



Fixed Block  
EEPMS-SPF Series



Spring Block  
EEPMS-SP Series

#### Features:

1. Suitable for clamping on iron cast, irregular form and flexuous workpieces, it will not be out of shape of the workpiece after machining.
2. 3 Fixed Blocks is necessary for each workpiece clamping, it could be makes a basic surface for the workpiece touch to the Spring Blocks.

Relative magnetic force to  
Fixed block and Spring block:

	Spring Block
Holding Power (Kgf)	43%

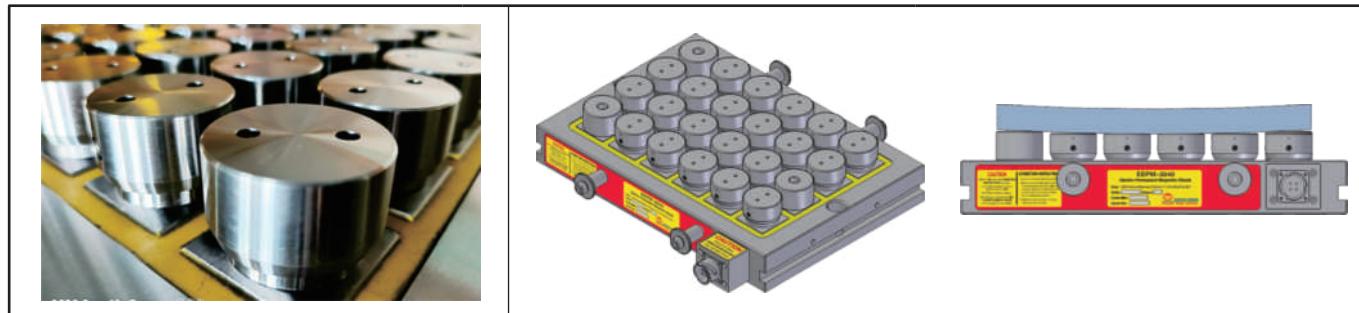


Unit:mm

MODEL NO.	OD	H	SUITABLE
EEPMS-SPR35	Ø37	21~25	EEPMS-A Series
EEPMS-SPRF35	Ø37	23	

MODEL NO.	OD	H	SUITABLE
EEPMS-SPR50	Ø52	30~35	EEPMS-B Series
EEPMS-SPRF50	Ø52	32.5	

MODEL NO.	OD	H	SUITABLE
EEPMS-SPR70	Ø72	39~45	EEPMS-D Series
EEPMS-SPRF70	Ø72	42	



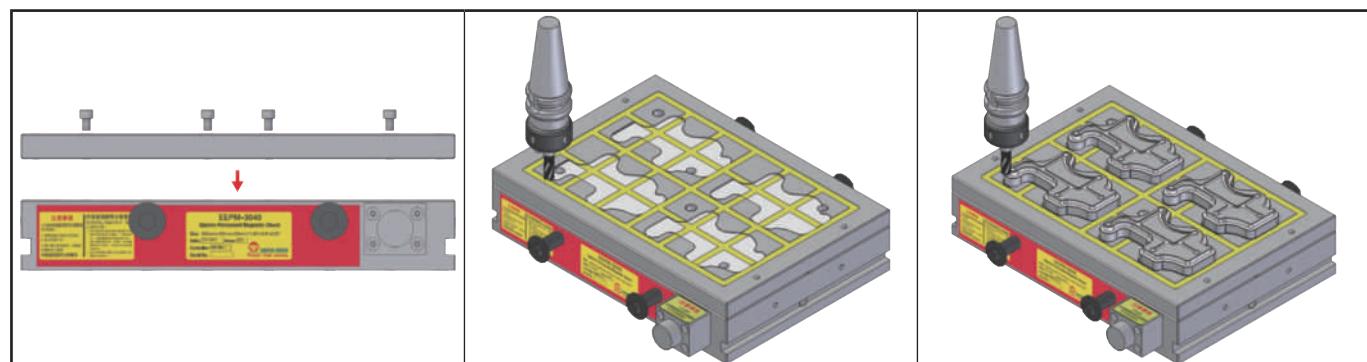
### Induction Sub Plate EEPM-ISP Series

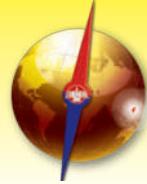
■ Suitable for quantity of irregular and smaller workpiece. It can be machining multi-workpiece at same time easily.



#### Features:

1. Suitable for quantity of irregular and smaller workpiece. It can be machining multi-workpiece at same time easily.
2. One EEPM chuck can be use several Induction Sub Plate exchangeability for machining different kind of workpiece.
3. Operation: Set up the Induction Sub Plates to the EEPM chucks first, then machining forms (Around 1-2mm depth) on ISP to match the workpiece by the machine directly. Start to clamp workpieces for machining.
4. Please advise the model No. of EEPM chuck which you want to combine for, when purchased.





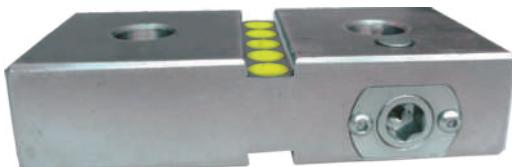
■ Suitable for use on EEPM Series of Electro-Permanent Magnetic Chuck.

### Induction block with raise pin structure EEPM-IB225BT

■ Suitable for high-carbon steel workpiece

#### Features:

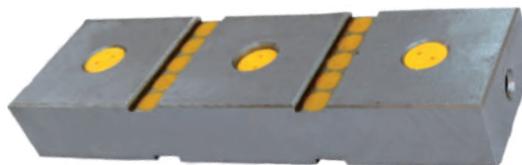
1. Since the high-carbon materials, the workpiece might be unable to be instantly released after machining cycle is completed due to residual magnetism.
2. The high-carbon steel parts are difficult to remove after the magnetization using induction block with raise pin structure can easily remove the workpiece.



### Tap of Induction block screw hole EEPM-IBC50

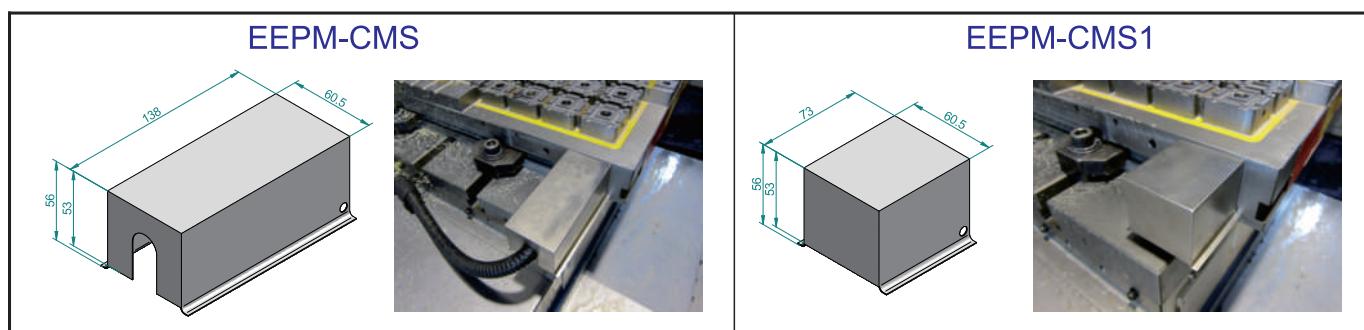
#### Features:

1. Put the EEPM-IBC50 into Induction block screw hole, to avoid the iron chip fall in the induction block screw holes when machining, can be save the time for chips clear.
2. Maximum temperature is 200 degrees, if without cooling device the surface of EEPM-IBC50 will be damage by high temperature of iron chips.



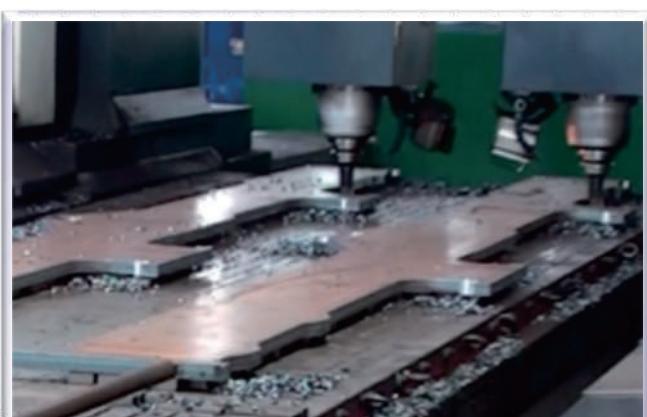
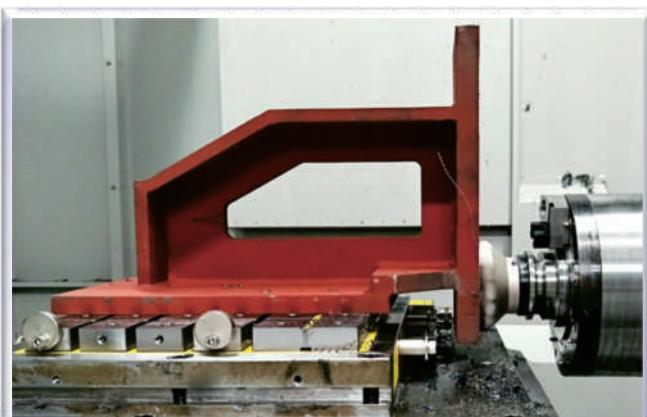
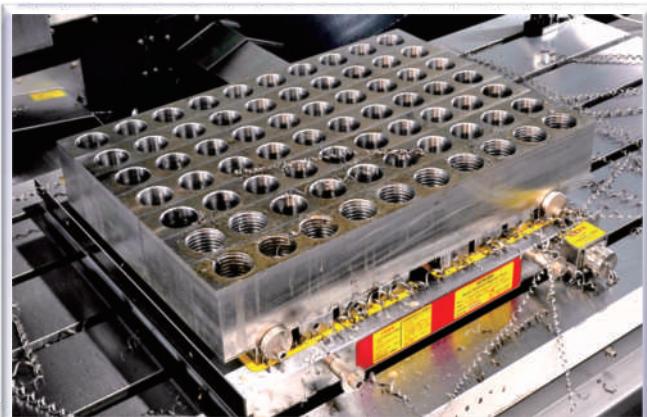
### Cover of Connector Base EEPM-CMS & EEPM-CMS1

■ Effectively avoid short circuit cause by liquid or objects enter into the wires.

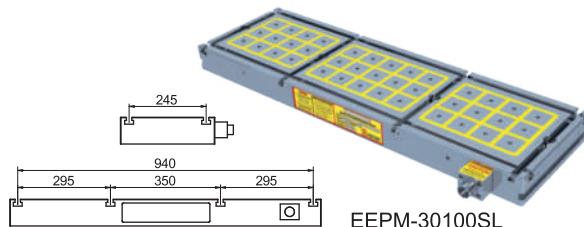




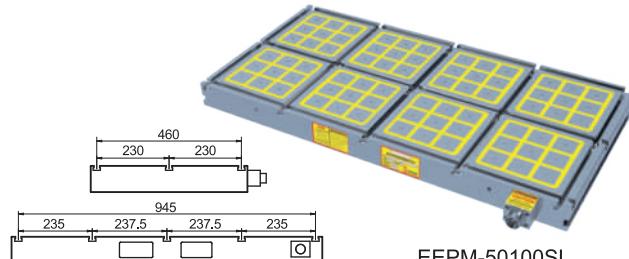
Working Example



■ Suitable for all size of workpiece, can be use together with mechanical clamping tools.

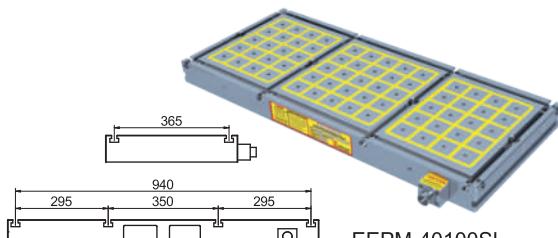


EEPMSL

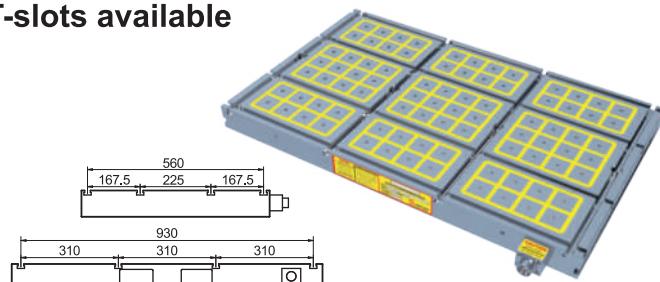


EEPMSL

### Made with T-slots available



EEPMSL



EEPMSL

With multi-functions of machine table, clamping plate and magnetic chuck

Unit:mm

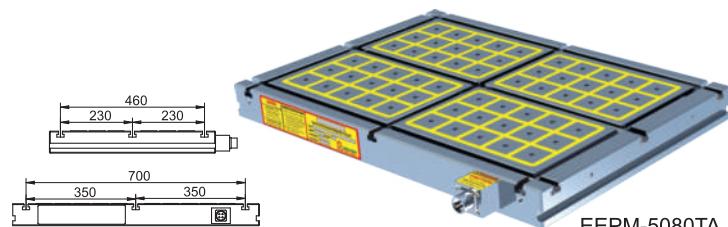
MODEL NO.	DIMENSION L×W×H	PITCH	POLE	NO. OF POLE	T-SLOT	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
EEPMSL	990×300×70	10	50×50	39		12100	160kg	CHUCK DC 220V	24A	C2	CHUCK DC 380V	16A	C2H
EEPMSL	990×420×70	10	50×50	65		20300	225kg	CONTROLLER AC	30A	C2	CONTROLLER AC	13A	C2H
EEPMSL	990×500×70	10	50×50	72		22500	260kg	CONTROLLER AC	14A	C4	CONTROLLER AC	14A	C2H
EEPMSL	990×600×70	10	50×50	84		26200	320kg	220V~480V	22A	C4	380V~440V	9A	C4H

Customization is available.

■ Suitable for big size of workpiece only, use together with mechanical clamping tool for heavy duty machining.



EEPM-3040TA

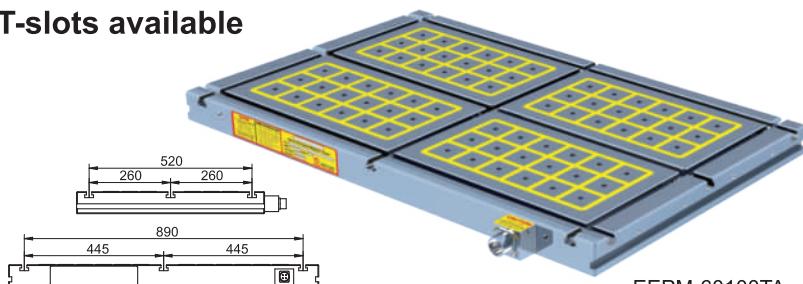


EEPM-5080TA

### Made with T-slots available



EEPM-4050TA



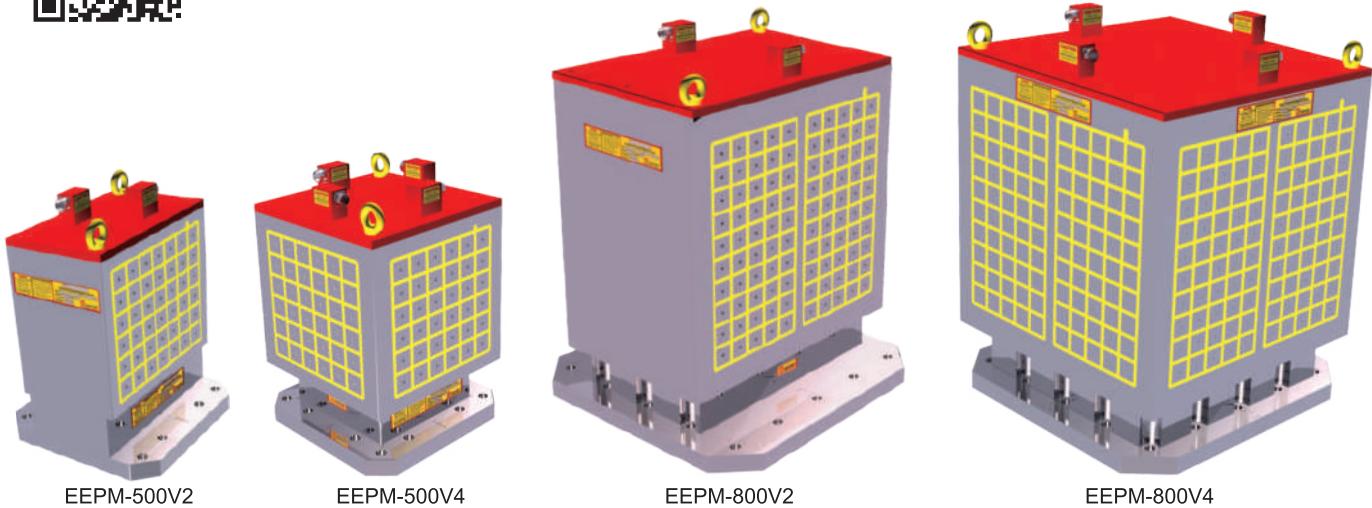
EEPM-60100TA

Lower price for big size of workpiece only.

Unit:mm

MODEL NO.	DIMENSION L×W×H	PITCH	POLE	NO. OF POLE	T-SLOT	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
EEPM-3040TA	420×300×70	10	50×50	15		4600	50kg	CHUCK DC 220V	17A	C1	CHUCK DC 380V	14A	C1H
EEPM-4050TA	530×440×70	10	50×50	30		9300	80kg	CONTROLLER AC	33A	C1	CONTROLLER AC	16A	C1H
EEPM-5080TA	790×530×70	10	50×50	60		18700	180kg	220V~480V	32A	C2	CONTROLLER AC	14A	C2H
EEPM-60100TA	990×600×70	10	50×50	72		22500	240kg	380V~440V	23A	C4	380V~440V	13A	C2H

Customization is available.

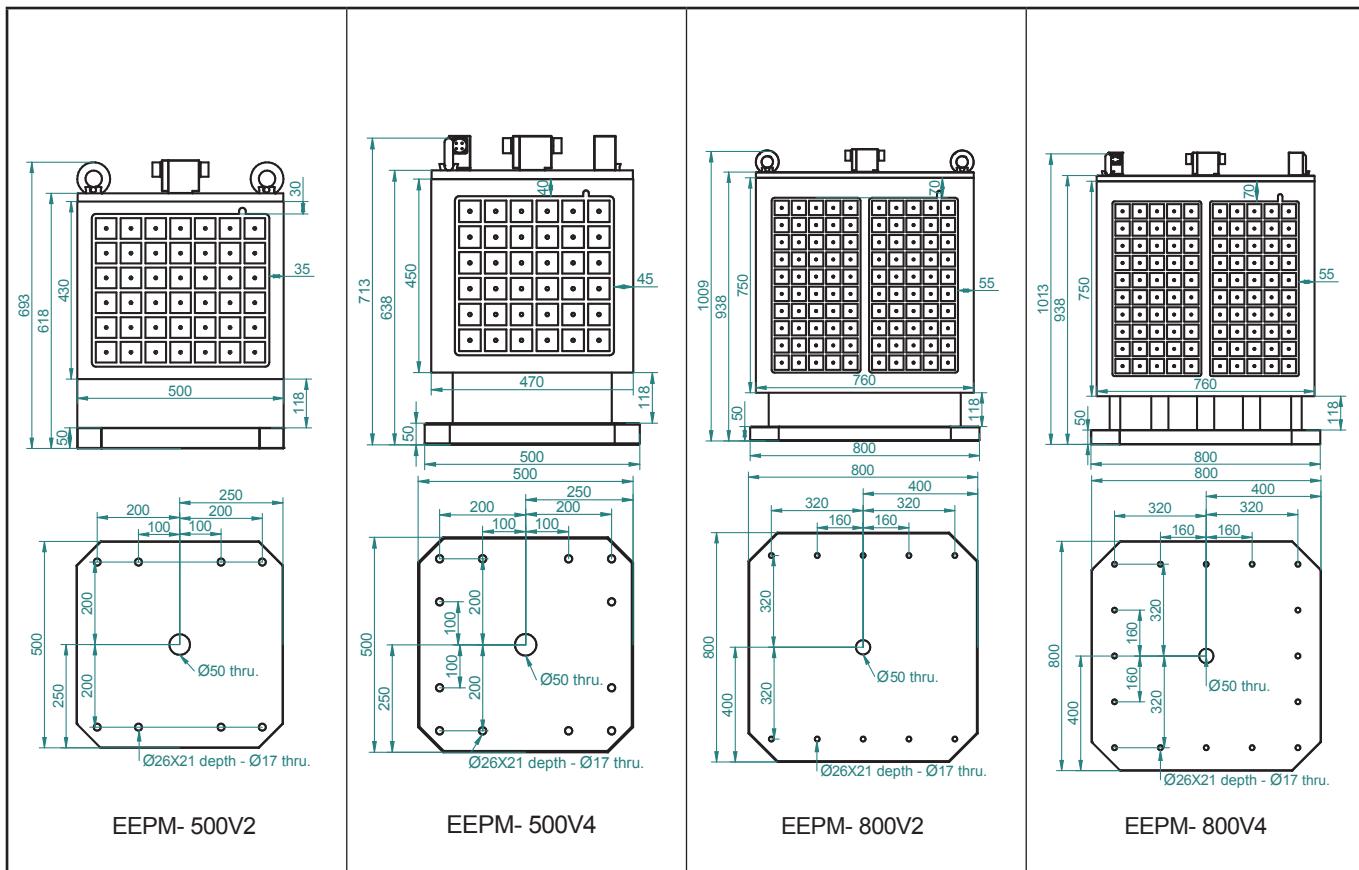


EEPm-500V2

EEPm-500V4

EEPm-800V2

EEPm-800V4



EEPm- 500V2

EEPm- 500V4

EEPm- 800V2

EEPm- 800V4

Unit:mm

MODEL NO.	DIMENSION	PITCH	POLE	NO. OF POLE	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (Included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (Included)
EEPm-500V2	430x500	10	50x50	42x2	13100	480kg	CHUCK DC 220V	30A	C2	CHUCK DC 380V	14A	C2H
EEPm-500V4	450x470	10	50x50	36x4	11200	510kg	CONTROLLER AC 220V~480V	20A	C2	CONTROLLER AC 380V~440V	13A	C1H
EEPm-800V2	750x760	10	50x50	100x2	31200	760kg	22A	C4	22A	10A	C4H	
EEPm-800V4	750x760	10	50x50	100x4	31200	810kg	22A	C4	22A	10A	C4H	

Customization is available.



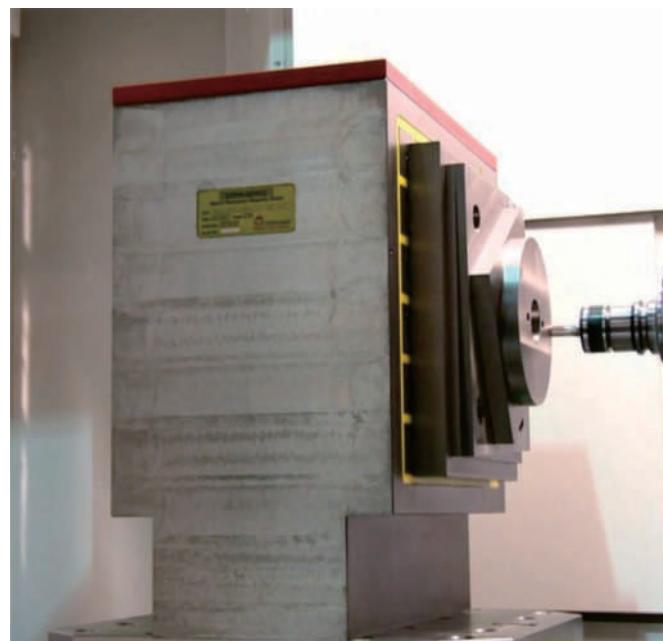
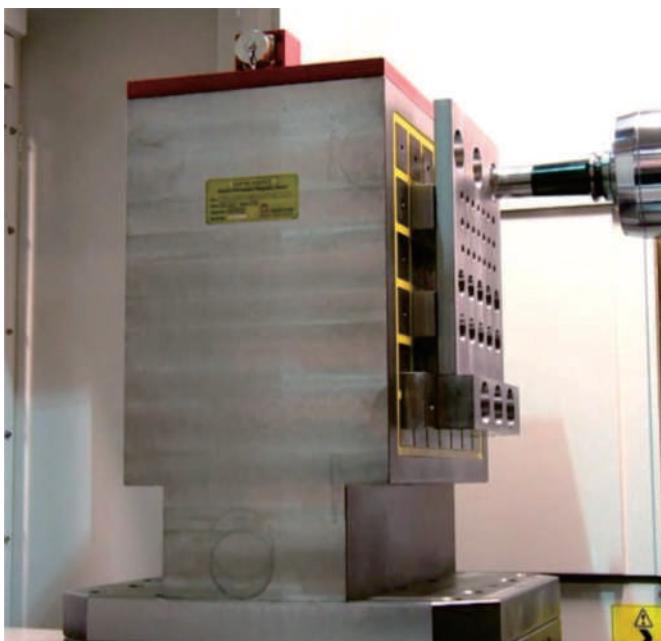
**Features:**

1. Super power magnetic force 1250kgf/100cm<sup>2</sup> ±5%. (4 Poles)
2. Control each working face for ON and OFF, so it can be load and unload the workpiece on each working face.  
3~10 seconds control for power ON and OFF.
3. Each EEPM-V type can be clamp multi-workpiece machining, instead of multi-pallet exchange.
4. Can do 5 sides machining, un-obstructed movement of cutters during machining.  
One cycle to finish a workpiece, helps in achieving best machining accuracy and increases efficiency a lot.

**Applications:**

1. Suitable for CNC horizontal machining center.
2. EEPM-V2 with 2 working faces suitable for bigger workpiece.  
EEPMM-V4 with 4 working faces suitable for medium workpiece.
3. More functions for cooperate with Induction Block and Spring Block. (See the detail of Option Accessories)

**Working Example**





Traditional Milling Machine can do 5 sides machining too.  
PATENT NO.350429

### Features:

1. We changed traditional clamping way of Index Table. Made with Electro-Permanent Magnetic Chuck, can do 5 side machining, without any obstructed movement of cutters during machining.
2. Super magnetic force 1250kgf/100cm<sup>2</sup> ±5%.
3. Structure of Electro-Permanent Magnetic Chuck, 3~10 seconds control for power ON & OFF. No electric power supply required to keep the chuck ON. So no electric cable disturbed, can be turning freely.
4. Magnetic power adjustable.
5. Pneumatic system to rotate and fix the table, Easy and convenient to operate.
6. Heavy Duty construction, built of FC35 cast iron. Suitable for heavy duty machining.

### Applications:

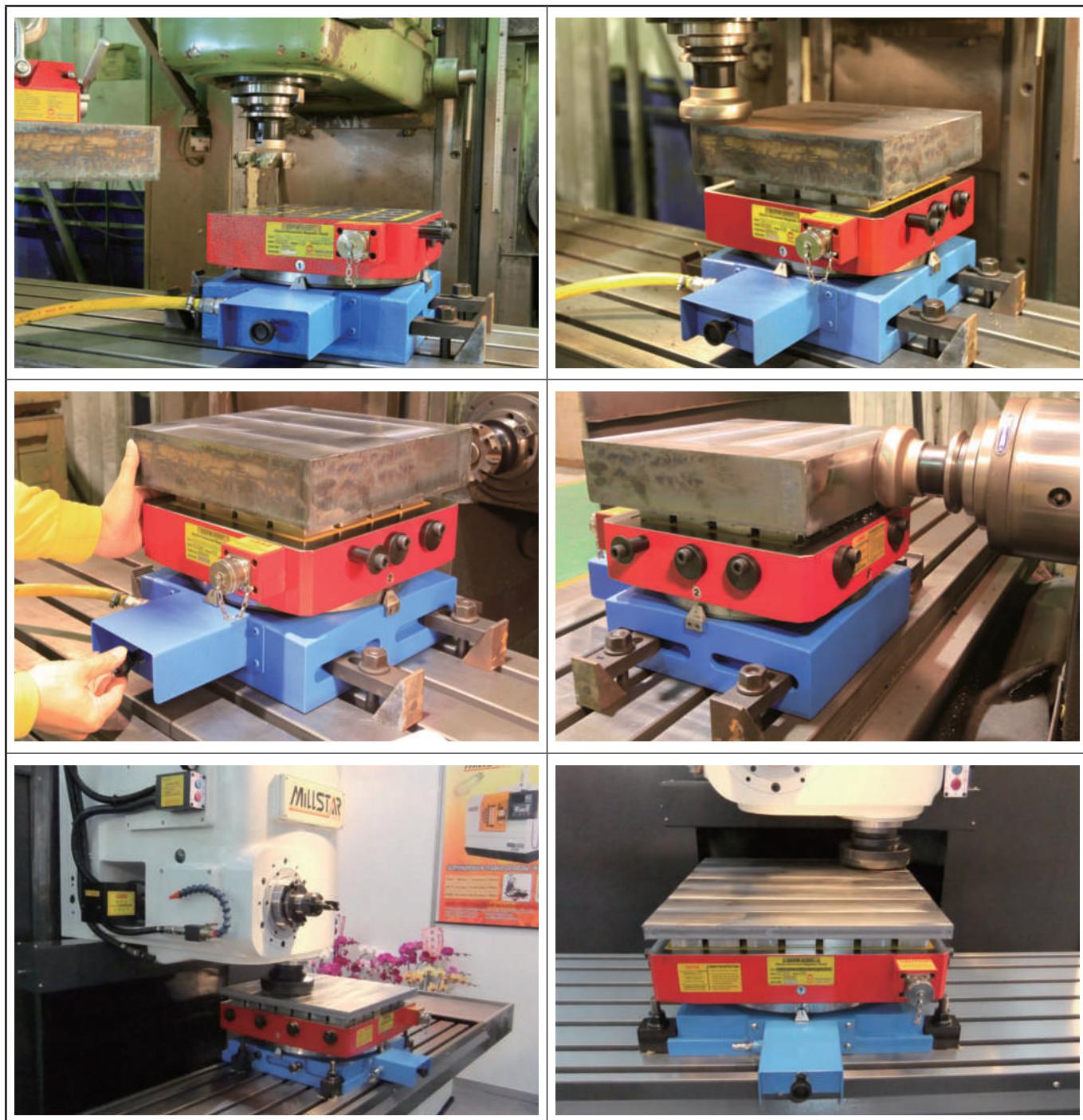
1. Suitable for horizontal milling, boring machine on precision machining of division.
2. More functions for cooperate with Induction Block and Spring Block. (See the detail of Option Accessories)

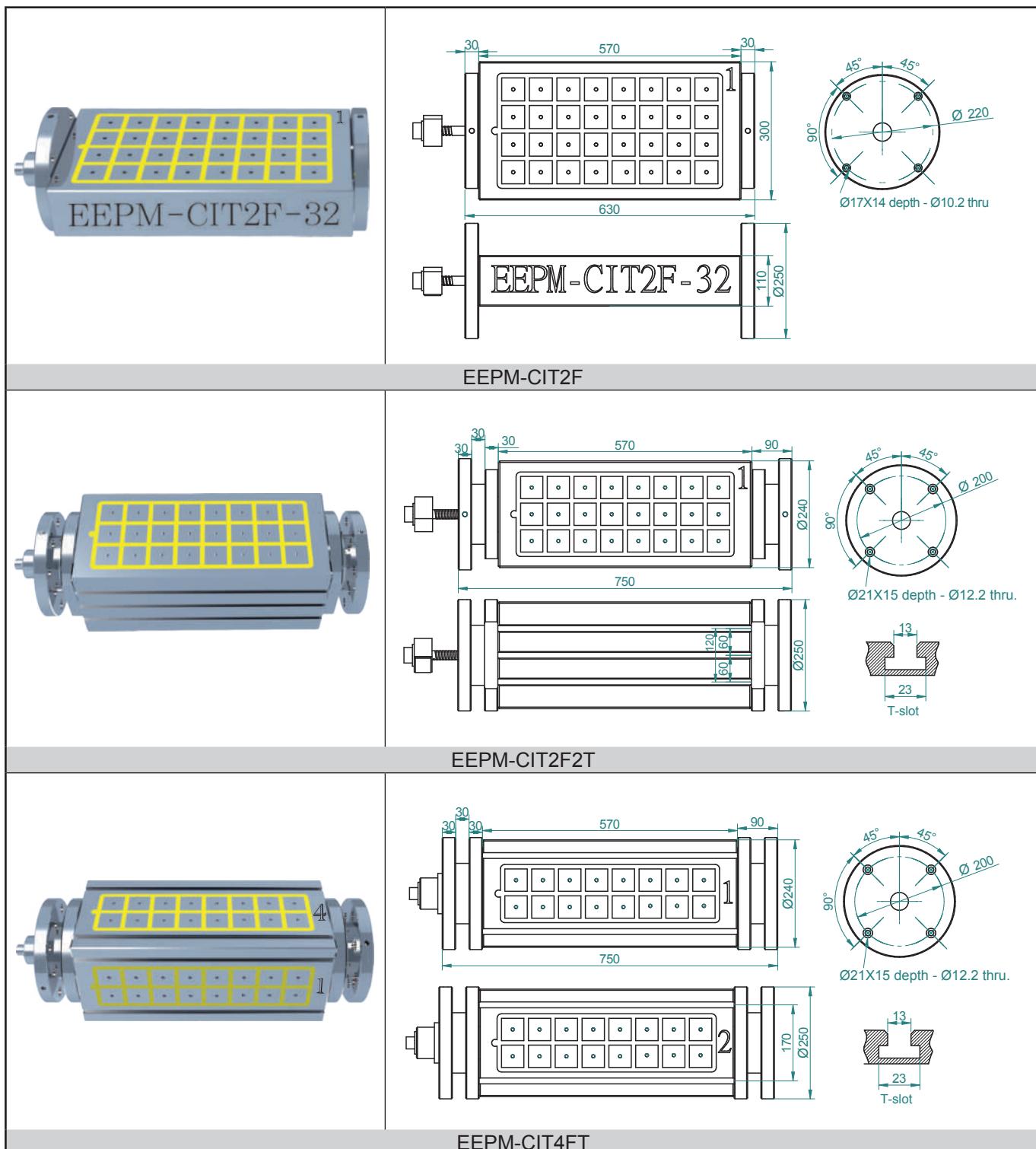
Unit:mm

MODEL NO.	EEP-300IT	EEP-470IT	EEP-600IT	EEP-800IT
L X W	300×300	470×470	600×600	800×800
HEIGHT	193	187	226	302
DRIVING	FLOATATION			
	Air Pressure 5~8 kg/cm <sup>2</sup>			
	REVOLVING			
	Manual			
MAX. LOAD WEIGHT VERTICAL IN THEORY	1200kg	2400kg	3400kg	4500kg
ALLOWABLE LOAD WEIGHT	500kg	1000kg	2000kg	3000kg
TABLE ROTATION	Clockwise & anticlockwise			
DIVISION	Standard 24T~15° Option 72T~5°	Standard 72T~5° / Option 360T~1°		
NET WEIGHT	104kg	223kg	453kg	983kg
DIMENTION OF POLE	50×50			
NO. OF POLE	16	48	72	144
TOTAL HOLDING POWER kgf ±5%	5000	15000	22500	45000
VOLTAGE (Single Phase)	CHUCK DC 220V / CONTROLLER AC 220V~480V			
CURRENT (AMP)	15A	23A	23A	18A
CONTROLLER (included)	C1	C2	C4	C8
VOLTAGE (Single Phase)	CHUCK DC 380V / CONTROLLER AC 380V~440V			
CURRENT (AMP)	13A	10A	18A	18A
CONTROLLER (included)	C1H	C2H	C2H	C4H

MODEL NO.	EEP-300IT	EEP-470IT	EEP-600IT	EEP-800IT
SQUARENESS OF TABLE	0.01	0.015	0.02	0.02
REPEAT ROTATION	0.01	0.01	0.015	0.015
PARALLELISM OF TABLE	0.01	0.015	0.02	0.02
BASIC SIDE SQUARENESS	0.015	0.015	0.02	0.02
DIVISION (SECOND)	DIVIDING 4		±2"	
	DIVIDING 72		±3"	

### Working Example





Unit:mm

MODEL NO.	DIMENSION	PITCH	POLE	NO. OF POLE	TOTAL HOLDING POWER kgf $\pm 5\%$	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
EEPMS-CIT2F	300×570	10	50×50	32×2	10000	141kg	CHUCK DC 220V	30A	C2-2C1
EEPMS-CIT2F2T	240×570	10	50×50	24×2	7500	228kg	CONTROLLER	23A	C2-2C1
EEPMS-CIT4FT	240×570	10	50×50	16×4	5000	219kg	AC 220V~480V	20A	C4-4C1

Customization is available.



**Features:**

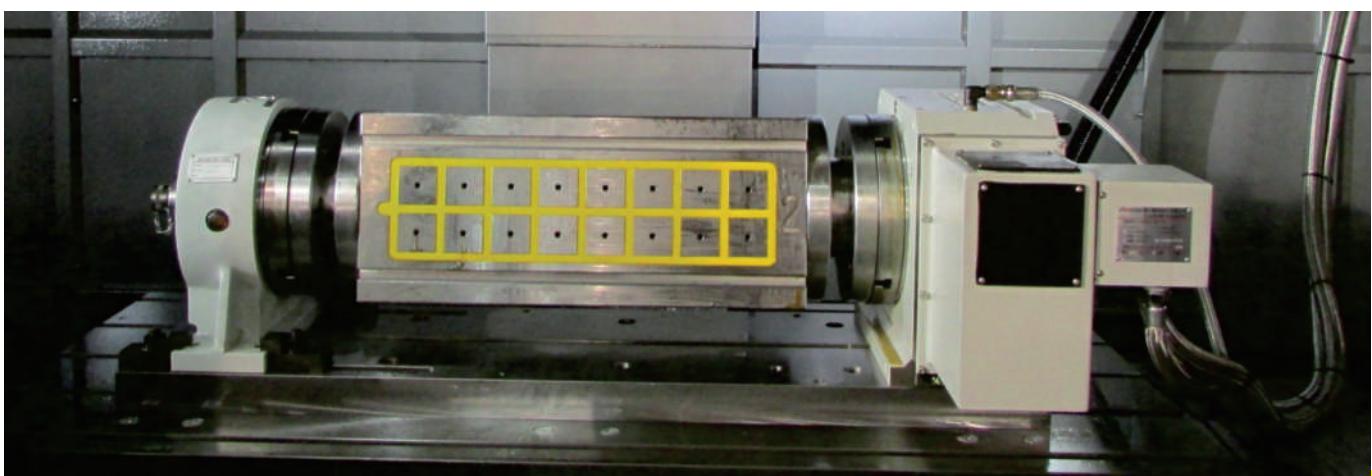
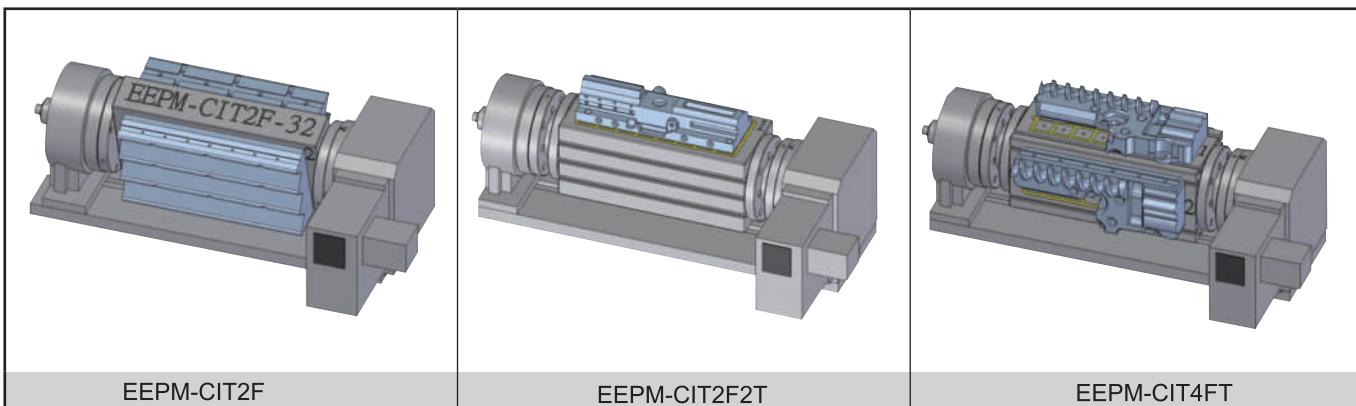
1. Super power magnetic force 1250kgf/100cm<sup>2</sup> ±5%. (4 Poles)
2. Control each working face for ON and OFF, so it can be load and unload the workpiece on each working face. 3 seconds control for power ON and OFF.
3. EEPM-CIT2F with 2 magnetic working face, can be clamp 2 workpiece for machining. Suitable for bigger workpiece machining.
4. EEPM-CIT2F2T with 2 magnetic working face and 2 T-slot working face, can be clamp both of magnetic and non-magnetic material of workpiece machining. Suitable for smaller workpiece machining.
5. EEPM-CIT4FT with 4 magnetic working face and T-slots available. Suitable for smaller workpiece machining.
6. Without any obstructed movement of cutters during machining. Can be use all the functions of CNC 4 Axis Index Device completely.

**Applications:**

1. Suitable in use for combine with CNC 4 Axis Index Device.
2. Minimum size of workpiece required as 4 alternate magnetic square poles and above is necessary for optimum clamping.

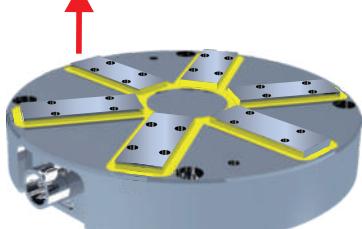


**Working Example**

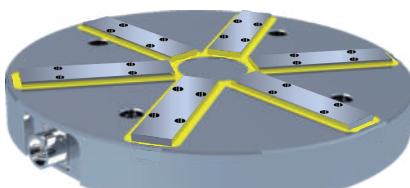




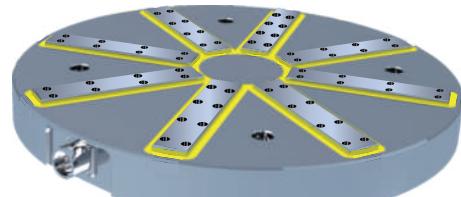
Induction Block (Optional Accessoires)



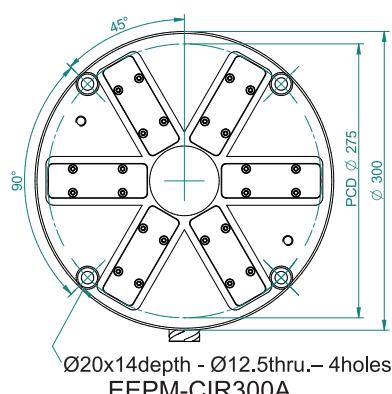
EEPm-CIR300A



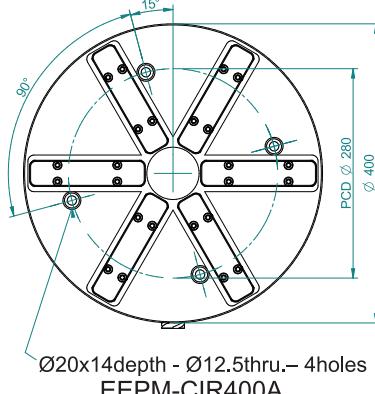
EEPm-CIR400A



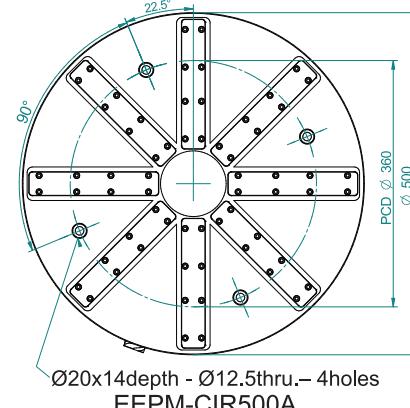
EEPm-CIR500A



Ø20x14depth - Ø12.5thru.- 4holes  
EEPm-CIR300A



Ø20x14depth - Ø12.5thru.- 4holes  
EEPm-CIR400A



Ø20x14depth - Ø12.5thru.- 4holes  
EEPm-CIR500A

### Features:

1. Round type and radiate magnetic poles, suitable for clamping round type and any form of workpiece machining.
2. Workpieces can be touch to all poles of Magnetic Chuck, super power magnetic force as minimum of 300Kgf (0.30tons) ±5% and maximum of 2375Kgf (2.38 tons)±5%, it depends on size of workpiece and magnetic chuck. (Please refer to the spec. list)
3. 1 ~ 10 seconds control for power ON & OFF. No electric power supply required to keep the magnetic chuck ON, cable can be taken off for turning chuck freely while machining.
4. Un-obstructed movement of cutters during machining, the really functions of 5 side machining on workholding.
5. Design of Electric-Permanent, never gets temperature to effect the accuracy of workpieces.

### Applications:

1. Suitable in use for combine with Vertical Lathe, CNC 5 Axis Index Device, CNC 5 Axis Machining Center ...etc.
2. Minimum dimension of workpiece required as:  
EEPm-CIR300- Ø 300mm; EEPm-CIR400- Ø 360mm; EEPm-CIR 500- Ø 500mm  
or same dimensions of any other forms of workpiece.
3. More functions for cooperate with induction plate, can do positioning on workholding.

Panted Patent No:M358689

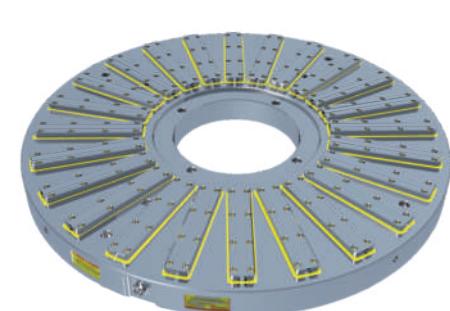
Unit:mm

MODEL NO.	DIMENSION			NO. OF POLE	MAGNETIC FORCE	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	OD	ID	HEIGHT						
EEPm-CIR300A	Ø 300	0	55	6	1600kgf±5%	30kg	CHUCK DC 220V	7A	C1
EEPm-CIR400A	Ø 400	0	55	6	2480kgf±5%	55kg	CONTROLLER AC 220V~480V	18A	C1
EEPm-CIR500A	Ø 500	0	55	8	4400kgf±5%	85kg		22A	C1

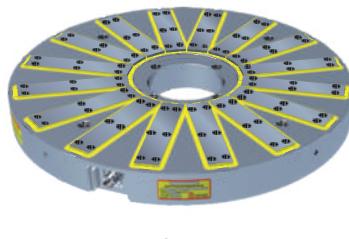
Customization is available.



Patent Protected violators will be prosecuted: Patented Taiwan M358689



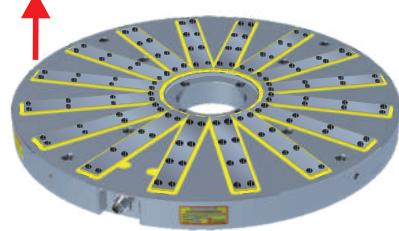
EPPM-CIR1250B



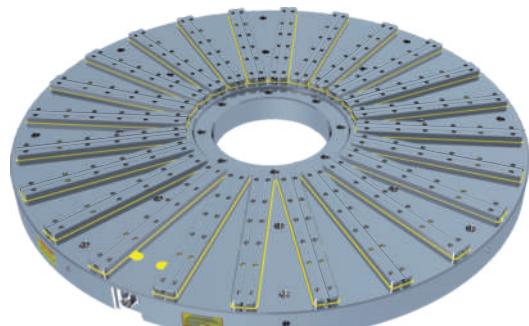
EPPM-CIR800B



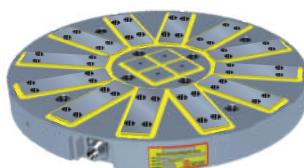
Induction Block  
(Optional Accessories)



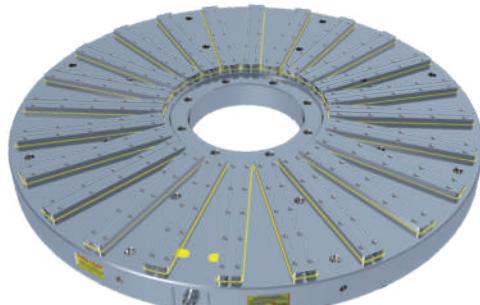
EPPM-CIR1000B



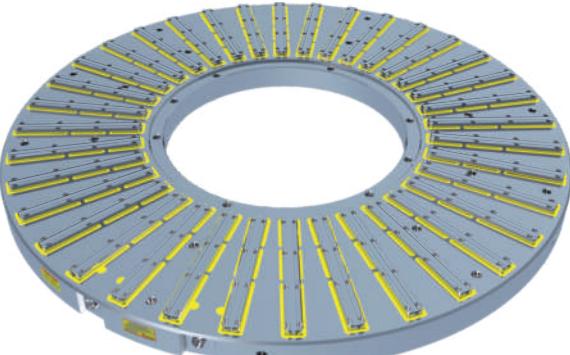
EPPM-CIR1600B



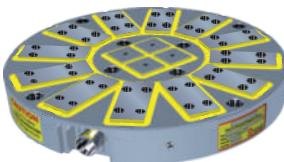
EPPM-CIR600B



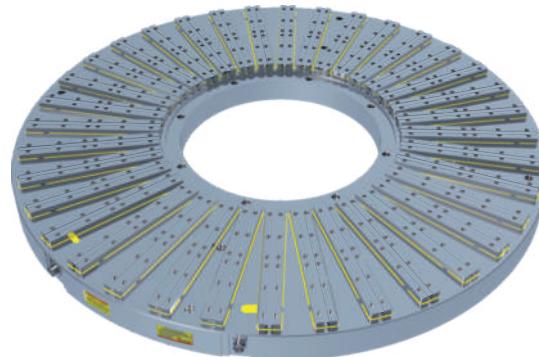
EPPM-CIR1500B



EPPM-CIR2000B



EPPM-CIR500B



EPPM-CIR1800B

Panted Patent No:M358689

Unit:mm

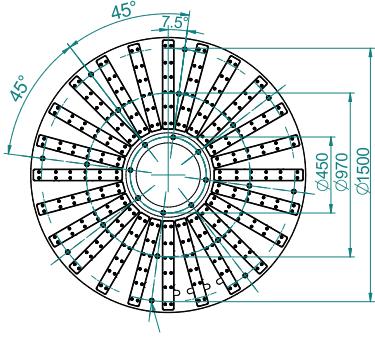
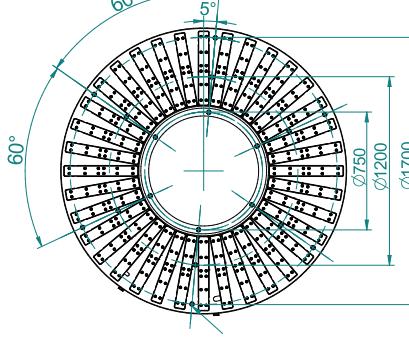
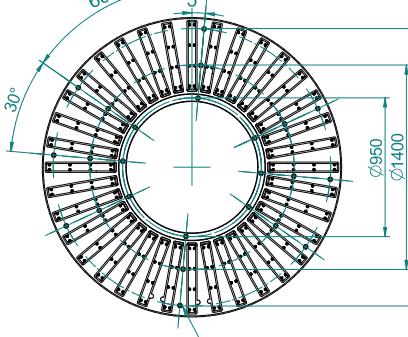
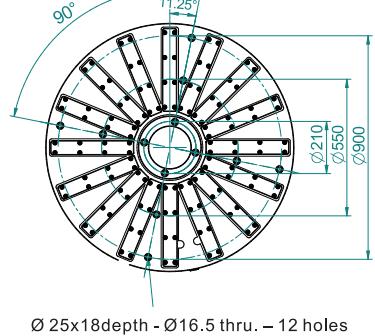
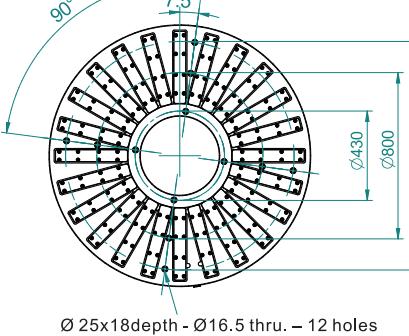
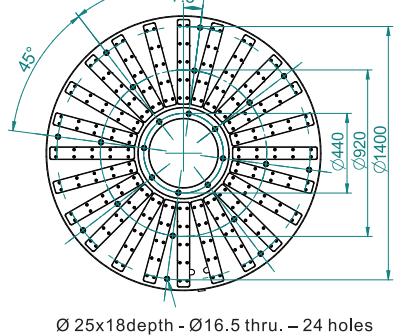
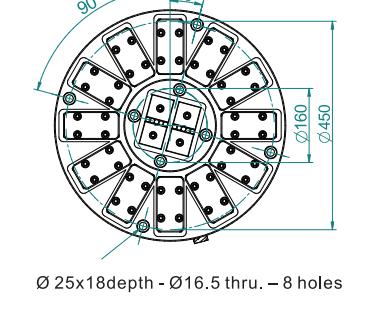
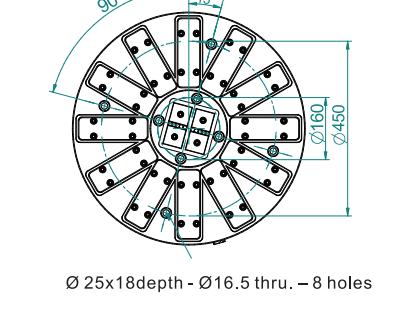
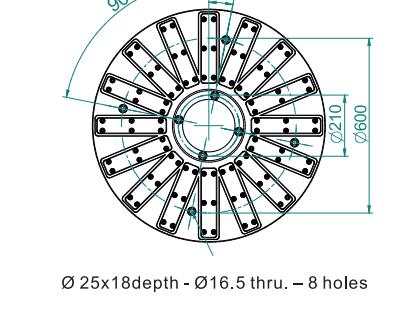
MODEL NO.	DIMENSION			NO. OF POLE	MAGNETIC FORCE	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	OD	ID	HEIGHT									
EPPM-CIR500	φ 500	0	70	12/4	6650kgf±5%	108kg	CHUCK DC 220V	35A	C1	CHUCK DC 380V	15A	C1
EPPM-CIR600	φ 600	0	70	12/4	9500kgf±5%	151kg		23A	C2		15A	C2
EPPM-CIR800	φ 800	φ 250	85	16	15200kgf±5%	305kg		30A	C2		28A	C2
EPPM-CIR1000	φ 1000	φ 250	85	16	19000kgf±5%	471kg		24A	C4		20A	C4
EPPM-CIR1250	φ 1260	φ 500	90	24	28500kgf±5%	828kg		33A	C4		18A	C4
EPPM-CIR1500	φ 1520	φ 500	100	24	39900kgf±5%	1325kg	CONTROLLER AC 220V	24A	C8	CONTROLLER AC 380V	25A	C8
EPPM-CIR1600	φ 1630	φ 500	100	24	45600kgf±5%	1507kg		24A	C8		20A	C8
EPPM-CIR1800	φ 1820	φ 800	100	36	59850kgf±5%	2290kg		33A	C8		28A	C8
EPPM-CIR2000	φ 2050	φ 1000	110	36	59850kgf±5%	2490kg		33A	C8		28A	C8
EPPM-CIR2600												
EPPM-CIR3000												

Customization is available.



**Dimension of screw holes for setting up**

Panted Patent No:M358689

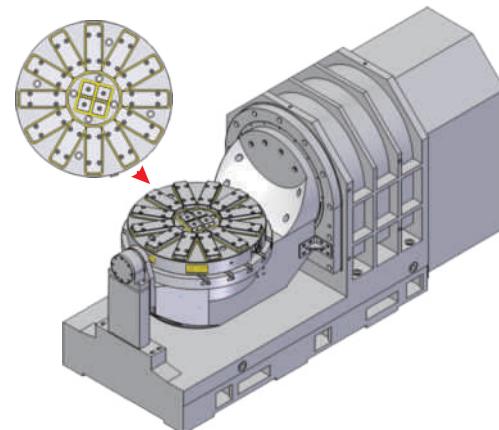
		
EEPMP-CIR1600	EEPMP-CIR1800	EEPMP-CIR2000
		
EEPMP-CIR1000	EEPMP-CIR1250	EEPMP-CIR1500
		
EEPMP-CIR500	EEPMP-CIR600	EEPMP-CIR800

**Features:**

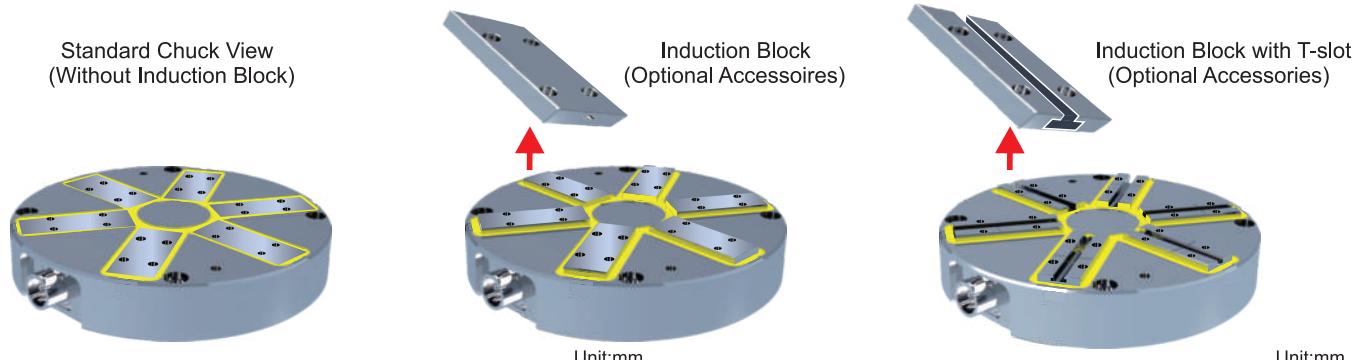
1. Round type and radiate magnetic poles, suitable for clamping round type and any form of workpiece machining.
2. Workpieces can be touch to all poles of Magnetic Chuck, super power magnetic force as minimum of 1340Kgf (1.34tons)  $\pm 5\%$  and maximum of 60,400Kgf (60 tons)  $\pm 5\%$ , it depends on size of workpiece and magnetic chuck. (Please refer to the spec. list)
3. 1~10 seconds control for power ON & OFF. No electric power supply required to keep the magnetic chuck ON, cable can be taken off for turning chuck freely while machining.
4. Un-obstructed movement of cutters during machining, the really functions of 5 side machining on workholding.
5. Design of Electric-Permanent, never gets temperature to effect the accuracy of workpieces.

**Applications:**

1. Suitable in use for combine with Vertical Lathe, CNC 5 Axis Index Device, CNC 5 Axis Machining Center ...etc.
2. Minimum dimension of workpiece required as:  
 EEPM-CIR500-Ø300mm ; EEPM-CIR600-Ø360mm  
 EEPM-CIR800-Ø500mm ; EEPM-CIR1000-Ø500mm  
 EEPM-CIR1250-Ø850mm ; EEPM-CIR1500-Ø850mm  
 EEPM-CIR1600-Ø1200mm ; EEPM-CIR1800-Ø1200mm  
 or same dimensions of any other forms of workpiece.
3. More functions for cooperate with induction plate, can do positioning on workholding.

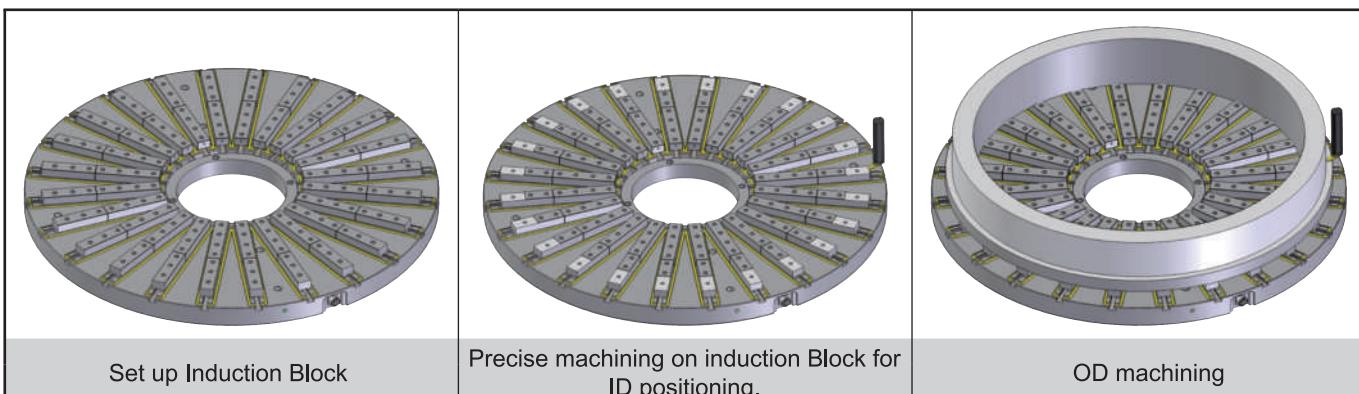

**Option Accessories-Induction Block**

1. Induction Block EEPM-CIRIB series are use for EEPM-CIR chucks, can do many more functions on workholding.
2. Convenience and Accuracy: Induction Block are interchanging & consuming accessories, you can machining surface or forming induction blocks for the workpiece required by the machine directly, so the parallelism of induction block will always 100% match to the machine.



INDUCTION BLOCK	T-SLOT(included)	L	W	H
EEPMB-CIRIB300A	EEPMB-CIRIB300AT	96	35	15
EEPMB-CIRIB400A	EEPMB-CIRIB400AT	145	35	15
EEPMB-CIRIB500A	EEPMB-CIRIB500AT	181	35	15
EEPMB-CIRIB500B	EEPMB-CIRIB500BT	120	60	20
EEPMB-CIRIB600B	EEPMB-CIRIB600BT	180	60	20
EEPMB-CIRIB800B	EEPMB-CIRIB800BT	245	60	20

INDUCTION BLOCK	T-SLOT(included)	L	W	H
EEPMB-CIRIB1000B	EEPMB-CIRIB1000BT	335	60	20
EEPMB-CIRIB1250B	EEPMB-CIRIB1250BT	350	60	20
EEPMB-CIRIB1500B	EEPMB-CIRIB1500BT	465	65	20
EEPMB-CIRIB1600B	EEPMB-CIRIB1600BT	530	65	20
EEPMB-CIRIB1800B	EEPMB-CIRIB1800BT	470	65	20
EEPMB-CIRIB2000B	EEPMB-CIRIB2000BT	475	65	20

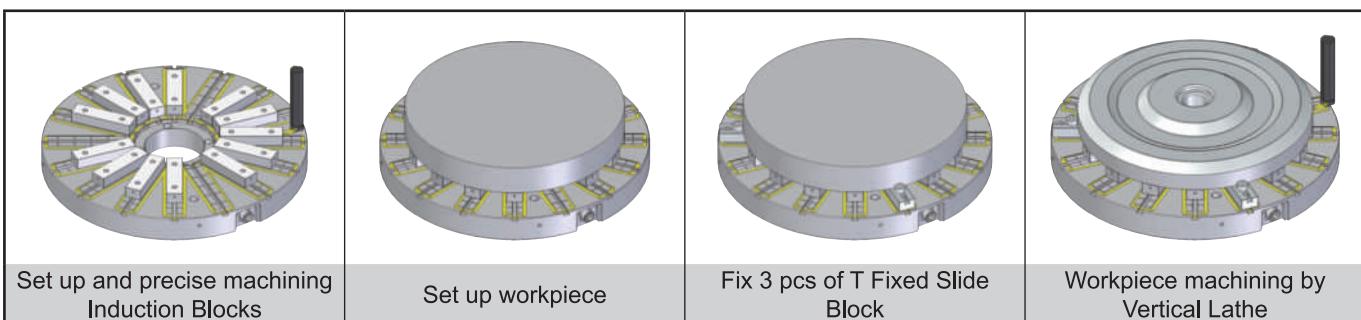
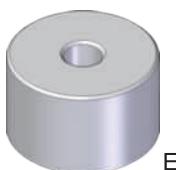
**Working Example:** ID positioning and OD machining by Induction Block.


**Option Accessories-T Fixed Slide Block**

**EEPM-T Series**
**Features:**

1. T-fixed slide block can do base points for workpiece positioning.
2. Due to the holding surface of small workpiece is not big enough, so please always use the T fixed slide Block to avoid the workpiece moving when machining.

MODEL NO	L	W	H	SUITABLE
EEPM-15T	77	35	15	EEPM-CIRA Series
EEPM-20T	120	50	20	EEPM-CIR Series

**Working Example:** Vertical Lathe machining by Induction Block with T Fixed slide Block

**Spring Block, Fixed Block** **Features:**

**Fixed Block**  
**EEPM-SPF Series**

1. Suitable for clamping on iron cast, irregular form and flexuous workpieces, it will not be out of shape of the workpiece after machining.
2. 3 Fixed Blocks is necessary for each workpiece clamping, it could be makes a basic surface for the workpiece touch to the Spring Blocks.

**Relative magnetic force to Fixed block and Spring block:**

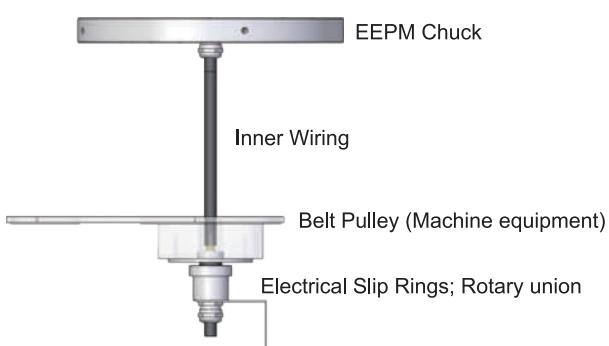
	Spring Block
EEPM-SPFR50	43%


**Spring Block**  
**EEPM-SP Series**

Unit:mm			
MODEL NO	$\phi D$	H	SUITABLE
EEPM-SPR35	$\phi 37$	21~25	EEPM-CIRA Series
EEPM-SPFR35	$\phi 37$	23	
MODEL NO	$\phi D$	H	SUITABLE
EEPM-SPR50	$\phi 52$	30~35	EEPM-CIR Series
EEPM-SPFR50	$\phi 52$	32.5	

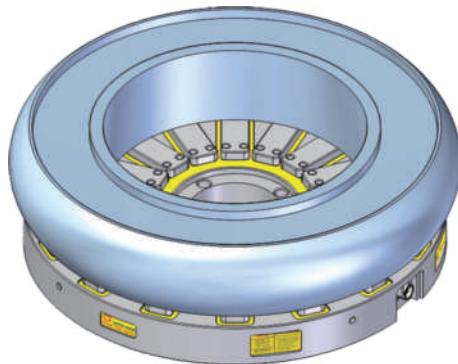
**Electrical Slip Rings; Rotary union**  
**(Need to buy by yourself)**
**Features:**

For Magnetization/Demagnetization connection, installed in the center of the rear of the EEPM Chuck can be turning freely while machining.

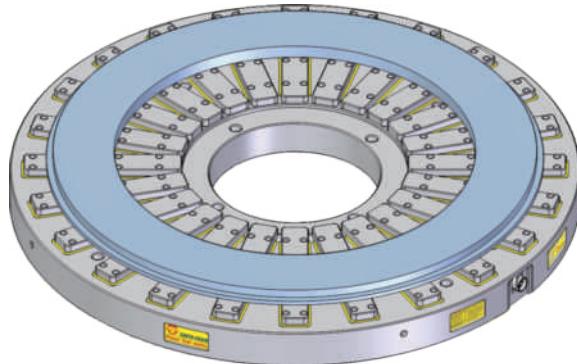




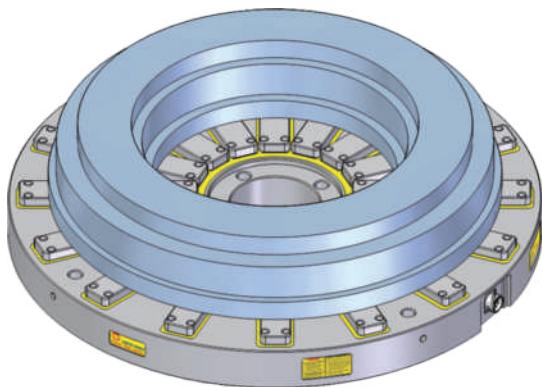
**Working Example**



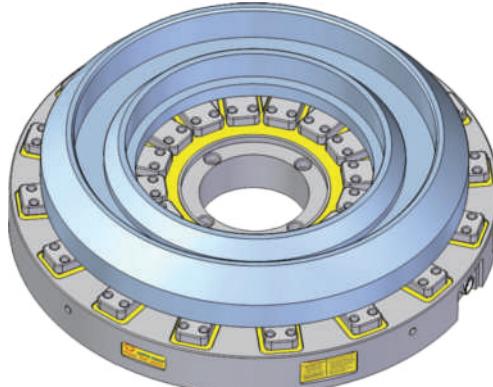
Round type workpiece for surface, ID and OD machining by Induction Block.



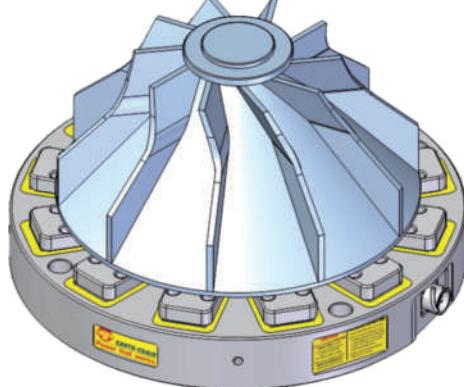
Irregular and thin workpiece for ID and OD machining by Spring Block.



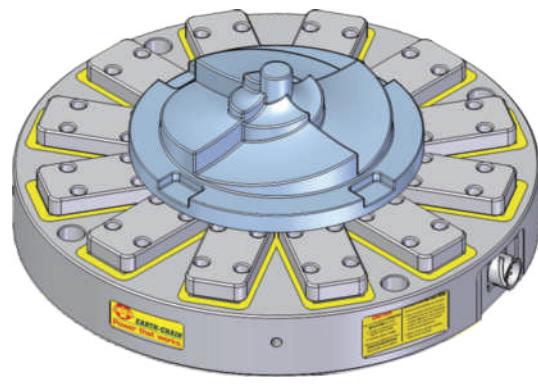
Round type workpiece positioning by OD for ID machining by Induction Block.



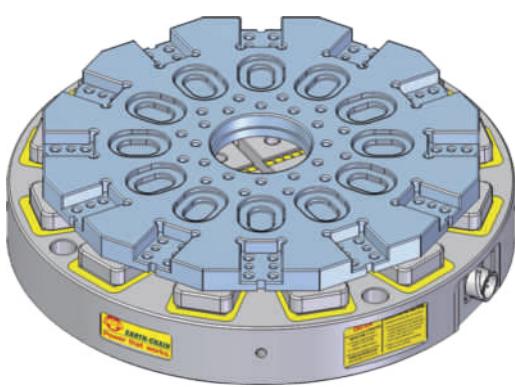
Round type workpiece positioning by ID for OD machining by Induction Block.



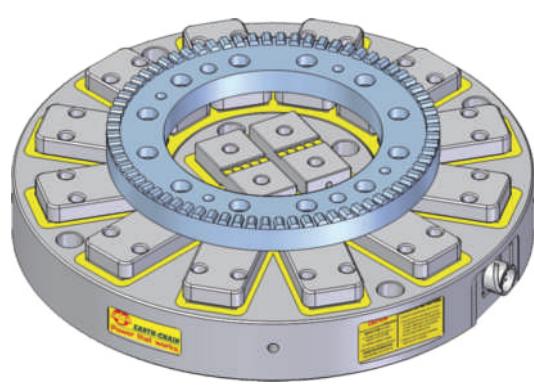
Round type spiral workpiece for complex machining by Induction Block.



Round type spiral workpiece for complex machining by Induction Block.



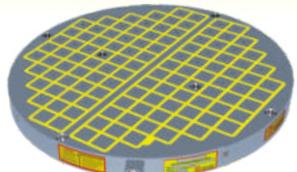
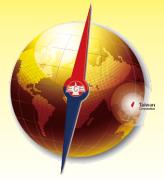
Multi-angle workpiece for 5 sides complex machining by Induction Block.



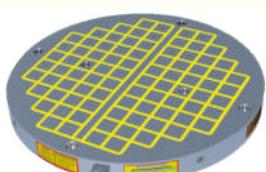
Round type gear workpiece for 5 sides complex machining by Induction Block.

## Electro-Permanent Magnetic Chuck EEPM-CIRS Series

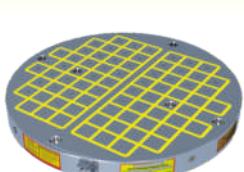
Suitable in use for combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.



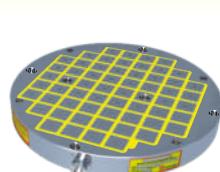
EEPMS-CIRS600A



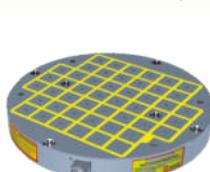
EEPMS-CIRS550A



EEPMS-CIRS500A



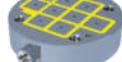
EEPMS-CIRS450A



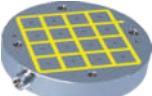
EEPMS-CIRS400A



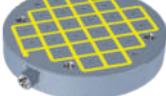
EEPMS-CIRS150A



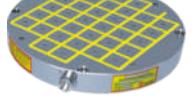
EEPMS-CIRS200A



EEPMS-CIRS250A

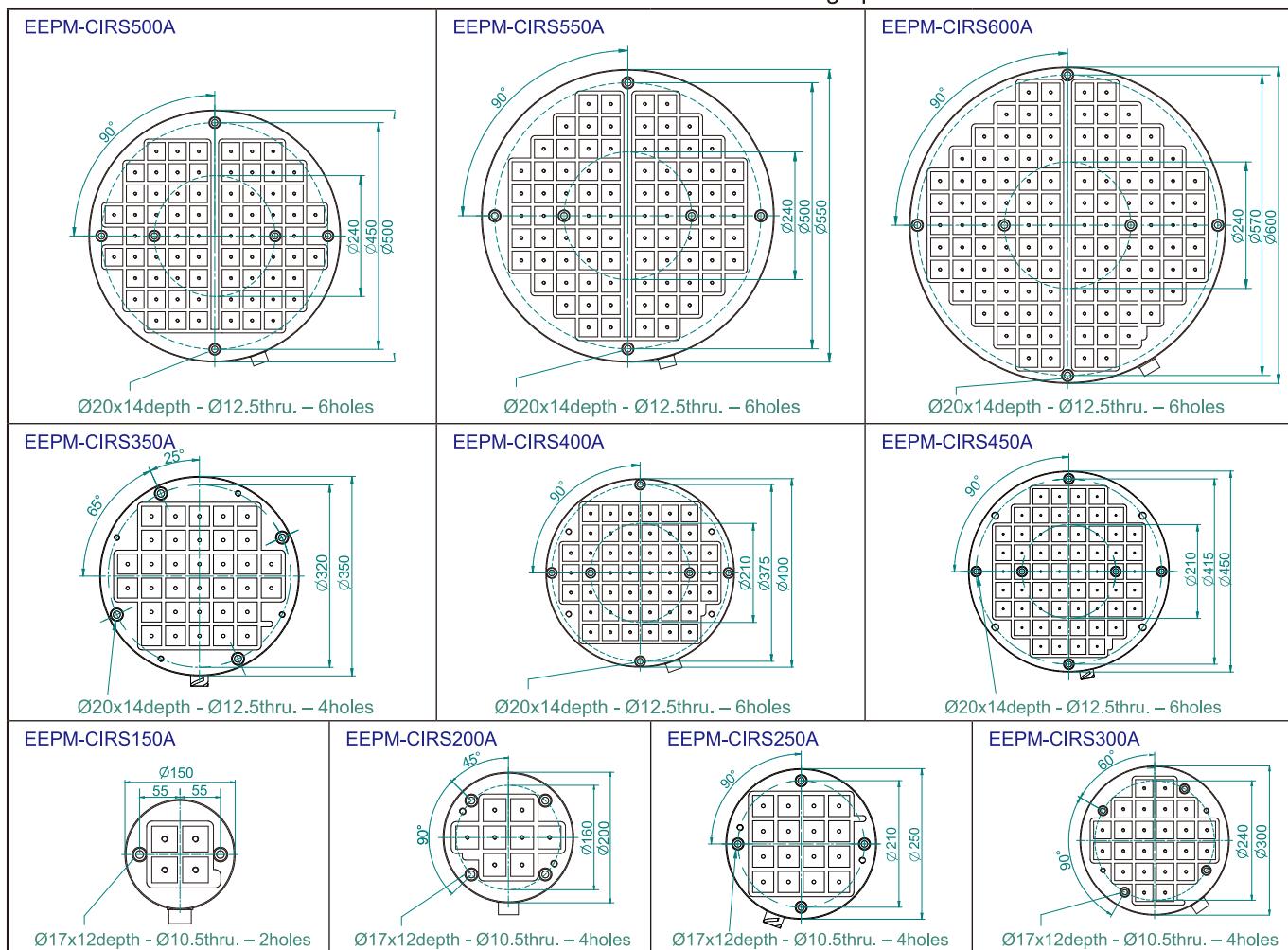


EEPMS-CIRS300A



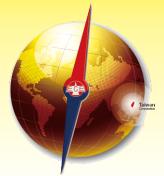
EEPMS-CIRS350A

Dimension of screw holes for setting up

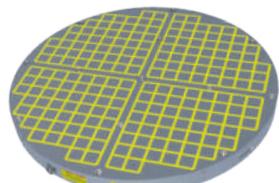


Unit:mm

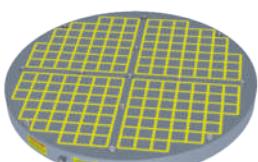
MODEL NO	DIMENSION		PITCH	POLE	NO. OF POLE	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	D	HEIGHT							
EEPMS-CIRS150A	Ø 150	50	7	35x35	4	6kg	CHUCK DC 220V	20A	C1
EEPMS-CIRS200A	Ø 200	50			8	11kg		10A	C1
EEPMS-CIRS250A	Ø 250	50			16	17kg		25A	C1
EEPMS-CIRS300A	Ø 300	60			24	25kg		10A	C1
EEPMS-CIRS350A	Ø 350	60			34	34kg		26A	C1
EEPMS-CIRS400A	Ø 400	60			46	44kg	CONTROLLER AC 220V & 480V	14A	C2
EEPMS-CIRS450A	Ø 450	70			55	55kg		21A	C2
EEPMS-CIRS500A	Ø 500	70			70	69kg		26A	C2
EEPMS-CIRS550A	Ø 550	70			84	83kg		15A	C4
EEPMS-CIRS600A	Ø 600	70			114	99kg		23A	C4



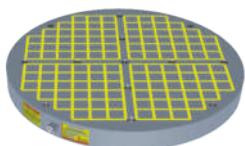
Suitable in use for combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.



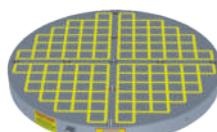
EEPML-CIRS1100



EEPML-CIRS1000



EEPML-CIRS900



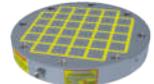
EEPML-CIRS800



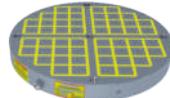
EEPML-CIRS200



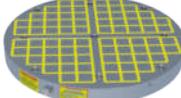
EEPML-CIRS300



EEPML-CIRS500

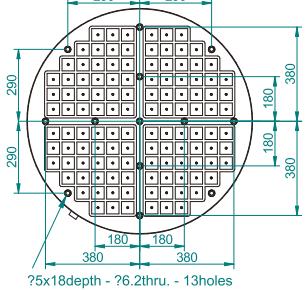
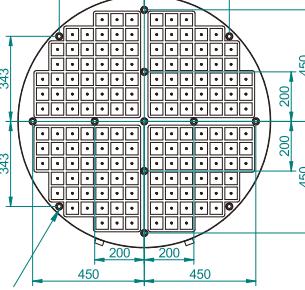
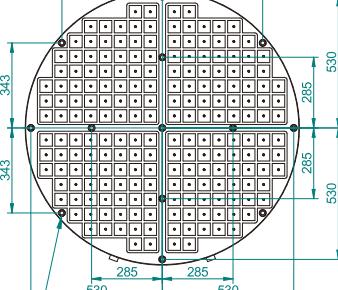
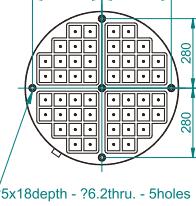
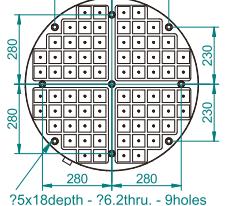
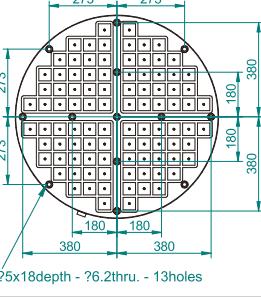
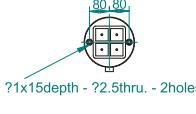
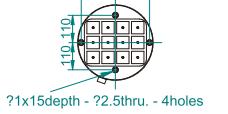
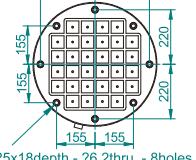


EEPML-CIRS600



EEPML-CIRS700

Dimension of screw holes for setting up

EEPML-CIRS900	EEPML-CIRS1000	EEPML-CIRS1100
 <p>?5x18depth - ?6.2thru. - 13holes</p>	 <p>?5x18depth - ?6.2thru. - 13holes</p>	 <p>?5x18depth - ?6.2thru. - 13holes</p>
EEPML-CIRS600	EEPML-CIRS700	EEPML-CIRS800
 <p>?5x18depth - ?6.2thru. - 5holes</p>	 <p>?5x18depth - ?6.2thru. - 9holes</p>	 <p>?5x18depth - ?6.2thru. - 13holes</p>
EEPML-CIRS200	EEPML-CIRS300	EEPML-CIRS500
 <p>?1x15depth - ?2.5thru. - 2holes</p>	 <p>?1x15depth - ?2.5thru. - 4holes</p>	 <p>?5x18depth - ?6.2thru. - 8holes</p>

Unit:mm

MODEL NO	DIMENSION		PITCH	POLE	NO. OF POLE	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	D	HEIGHT										
EEPML-CIRS200	Ø 203	60	10	50x50	4	16 kg	CHUCK DC 220V CONTROLLER AC 220V i 480V	15A	C1	CHUCK DC 380V CONTROLLER AC 380V i 480V	--	--
EEPML-CIRS300	Ø 320	60	10		12	35 kg		20A	C1		5A	C1
EEPML-CIRS500	Ø 500	70	10		32	97 kg		30A	C1		15A	C1
EEPML-CIRS600	Ø 620	70	10		52	150 kg		21A	C2		22A	C2
EEPML-CIRS700	Ø 720	70	10		76	191 kg		21A	C4		10A	C4
EEPML-CIRS800	Ø 820	80	10		96	262 kg		23A	C4		9A	C4
EEPML-CIRS900	Ø 900	80	10		120	362 kg		33A	C4		18A	C4
EEPML-CIRS1000	Ø 1020	90	10		164	464 kg		29A	C8		27A	C8
EEPML-CIRS1100	Ø 1106	90	10		204	546 kg		28A	C8		11A	C8



■ Suitable in use for combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.

### Features:

- 1~10 seconds control for power ON & OFF. No electric power supply required to keep the magnetic chuck ON, cable can be taken off for turning chuck freely while machining.
2. Un-obstructed movement of cutters during machining, the really functions of 5 side machining on workholding.

### Applications:

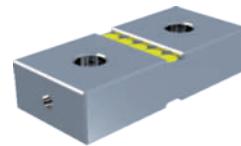
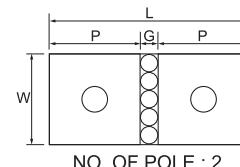
1. EEPM-CIRSA: Suitable for thin & small workpiece.(Pole Size 35X35 mm, Magnetic Force 580 kgf/4 Poles).
2. EEPM-CIRS: Suitable for thin & medium workpiece.(Pole Size 50X50 mm, Magnetic Force 1250 kgf/4 Poles).
3. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is necessary for optimum clamping.
4. More functions for cooperate with Induction Block and Spring Block.  
(See the detail of Option Accessories)

### Option Accessories-Induction Block EEPM-IB Series

■ EEPM-IBA Suitable for use on EEPM-CIRSA Series Chucks.

Unit:mm

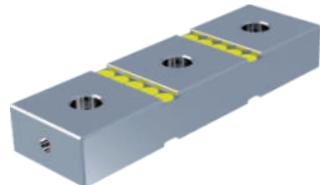
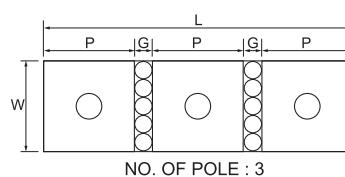
MODEL NO.	NO. OF POLE	W	L	HEIGHT	P	G
EEPMB-IB215A	2	35	77	15	35	7
EEPMB-IB315A	3	35	119	15	35	7



■ EEPM-IBB Suitable for use on EEPM-CIRS Series Chucks.

Unit:mm

MODEL NO.	NO. OF POLE	W	L	HEIGHT	P	G
EEPMB-IB225B	2	50	110	25	50	10
EEPMB-IB325B	3	50	170	25	50	10



Relative magnetic force and EEPM-IB percentage table

MODEL NO.	Holding Power (Kgf)	MODEL NO.	Holding Power (Kgf)
EEPMB-IB215A	80 %	EEPMB-IB225B	82 %
EEPMB-IB315A	64 %	EEPMB-IB325B	68 %

Example:

EEPMB chuck	Induction Block	Total Holding Power
EEPMB-CIRS500	None	10,000±5% kgf
EEPMB-CIRS500	IB225B x 32pcs	8200±5% kgf (10,000x82%)

### Spring Block EEPM-SPR Series

Patent Protected violators will be prosecuted: Patented Taiwan M605141

■ Suitable for clamping on iron cast, irregular form and flexuous workpieces, it will not be out of shape the workpiece after machining.

#### Features:

1. Suitable for clamping on iron cast, irregular form and flexuous workpieces, it will not be out of shape of the workpiece after machining.
2. 3 Fixed Blocks is necessary for each workpiece clamping, it could be makes a basic surface for the workpiece touch to the Spring Blocks.



Fixed Block  
EEPMB-SPF Series



Spring Block  
EEPMB-SPR Series

MODEL NO.	OD	H	SUITABLE
EEPMB-SPR35	Ø37	21~25	EEPMB-CIRSA Series
EEPMB-SPRF35	Ø37	23	

Unit:mm

MODEL NO.	OD	H	SUITABLE
EEPMB-SPR50	Ø52	30~35	EEPMB-CIRS Series
EEPMB-SPRF50	Ø52	32.5	

Unit:mm

Relative magnetic force to Fixed block and Spring block:

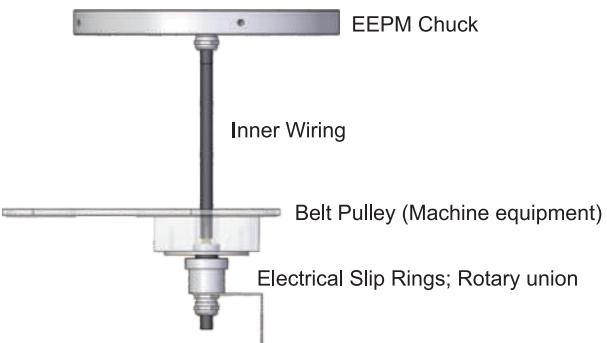
Spring Block	Holding Power (Kgf)
	43%



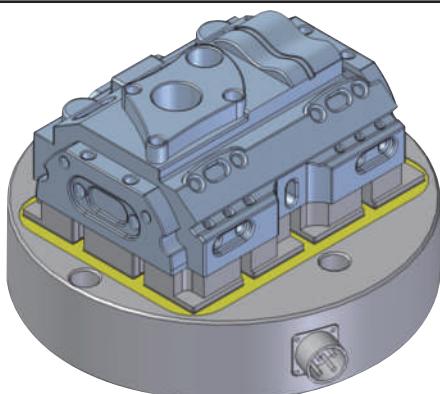
Electrical Slip Rings; Rotary union  
(Need to buy by yourself)

**Features:**

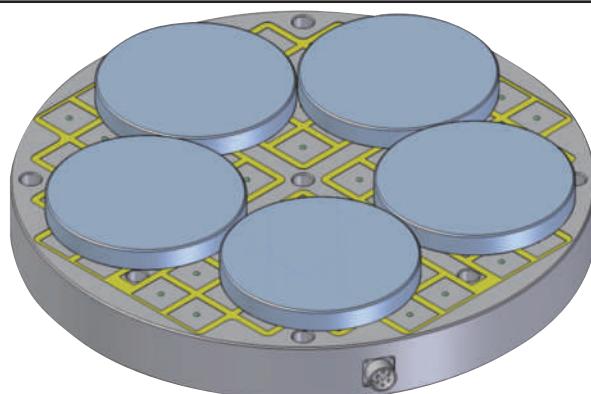
For Magnetization/Demagnetization connection,  
installed in the center of the rear of the EEPM  
Chuck can be turning freely while machining.



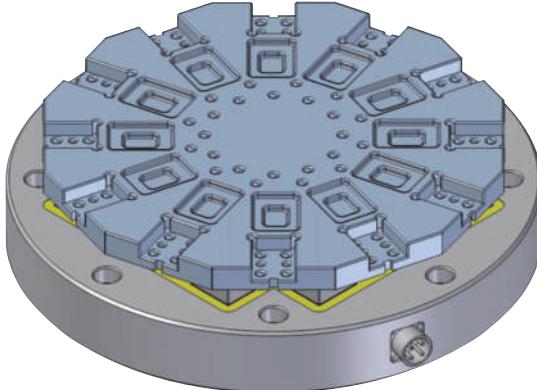
**Working Example**



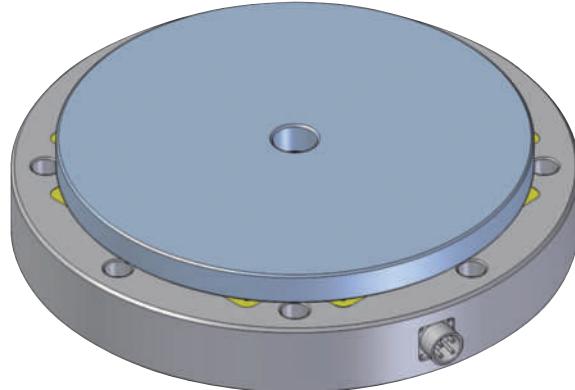
Multi-form workpiece for 5 side machining by induction block.



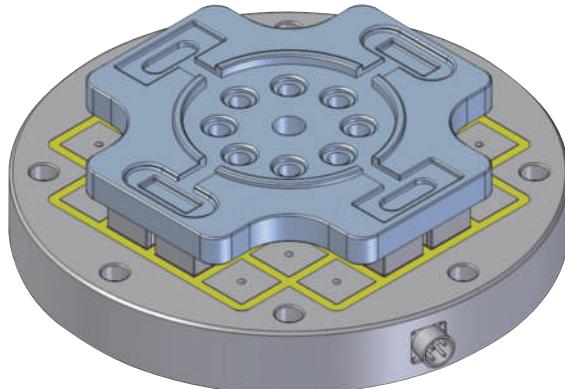
Multi-round type workpiece for precision grinding.



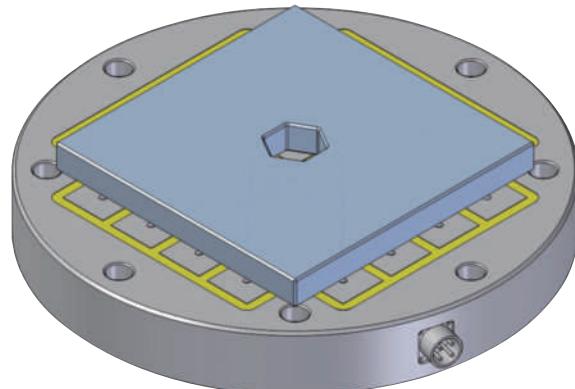
Multi-angle workpiece for 5 side machining by induction block.



Round type workpiece for precision grinding.



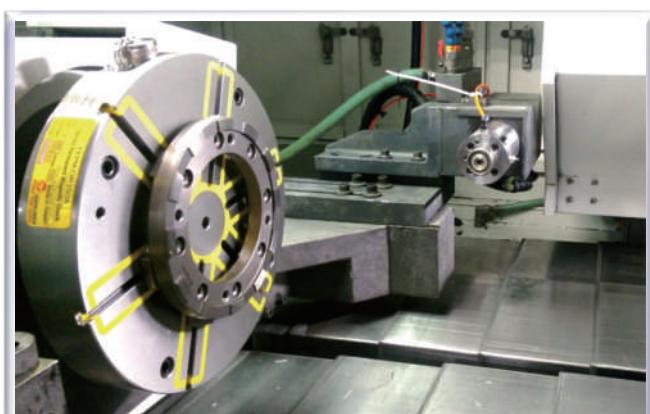
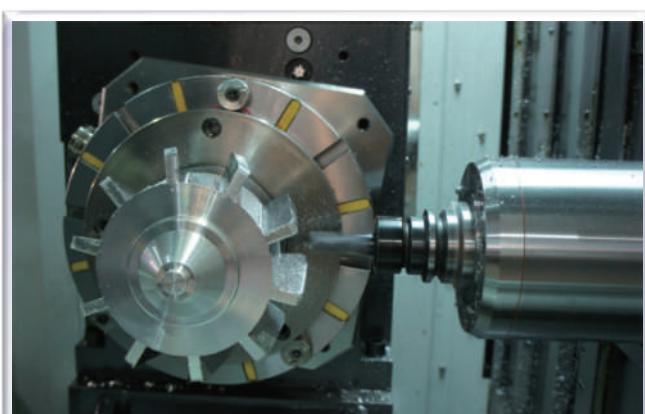
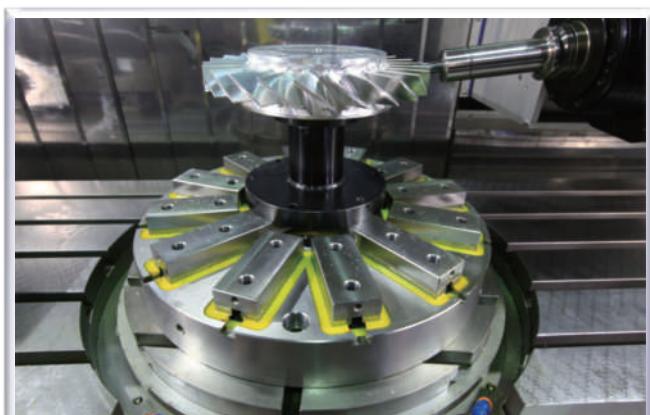
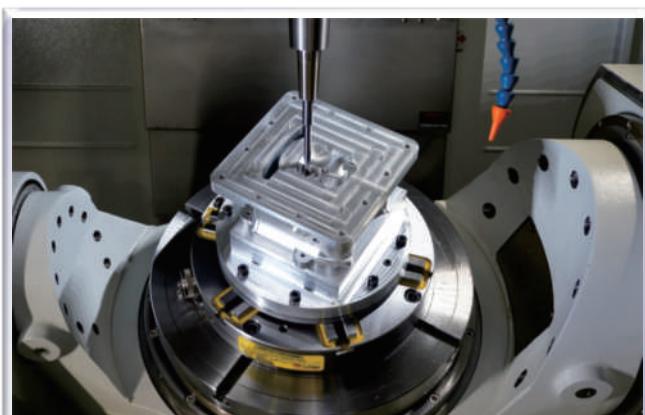
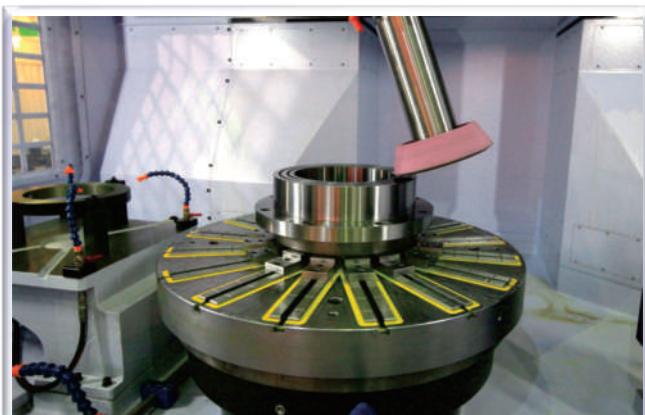
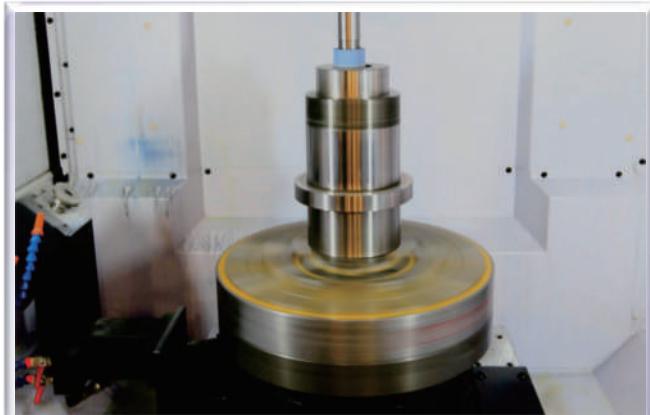
Round type workpiece for precision grinding.



Square workpiece for precision grinding.

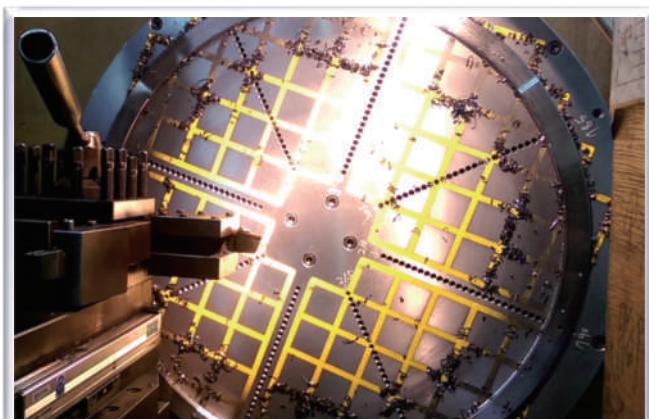
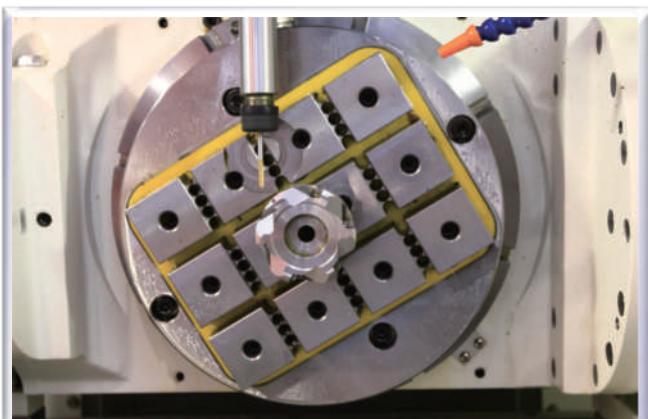
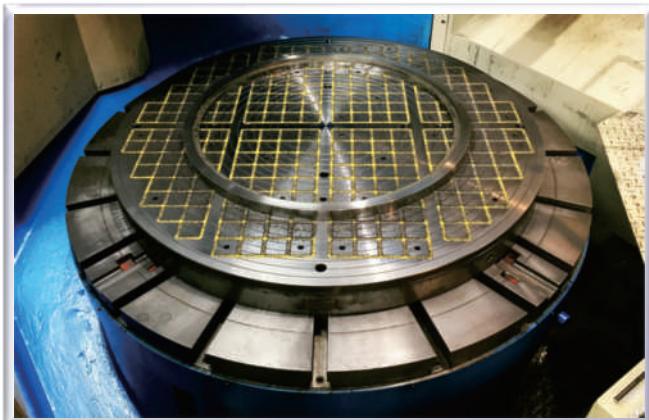
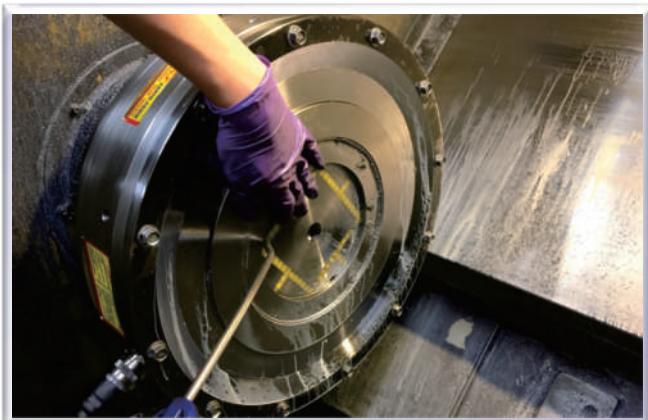


**Working Example**





**Working Example**





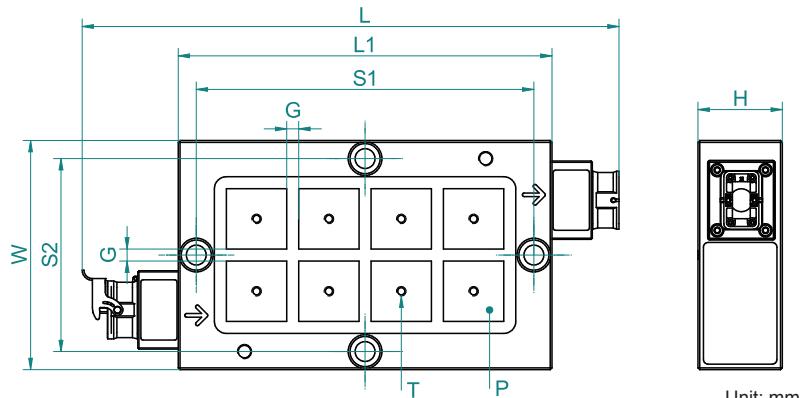
**EARTH-CHAIN**  
Power that works.

## Electro-Permanent Magnetic Chuck-Connection Type EEP-M-C Series



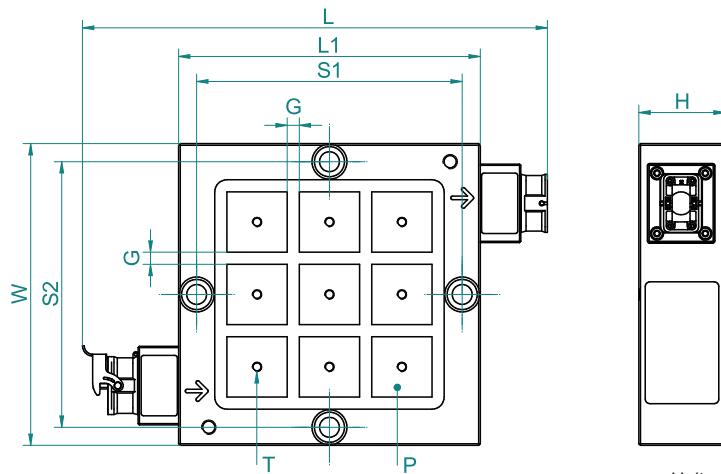
Suitable for use on large Vertical Lathe, Double Column Machining Center and CNC Machining Center ...etc.

Patent Protected violators will be prosecuted: Patented Taiwan M419639, Taiwan M419639, Taiwan M447812, China 2238015, China 1653120, Japan 5465277, USA 8,905, 387, Korea 10-1458056, Italy 1414610



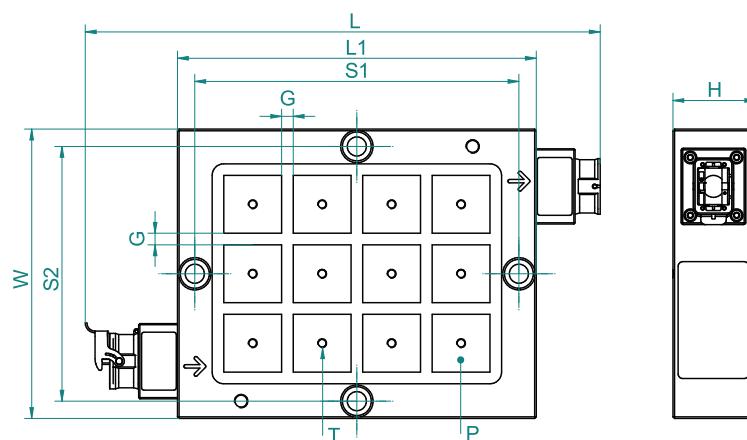
EEP-2030C-220V

MODEL NO	CHUCK VOLTAGE	CONTROLLER VOLTAGE	DIMENSION							PITCH G	POLE P	No. OF POLE	HOLDING POWER	CHUCK N.W.
			W	L	L1	S1	S2	H	T					
EEP-2030C	DC 220V	AC 220V~480V	190	446	310	280	160	70	M8	10	50×50	8	2500±5% kgf	33.5kg



EEP-2525C-220V

MODEL NO	CHUCK VOLTAGE	CONTROLLER VOLTAGE	DIMENSION							PITCH G	POLE P	No. OF POLE	HOLDING POWER	CHUCK N.W.
			W	L	L1	S1	S2	H	T					
EEP-2525C	DC 220V	AC 220V~480V	250	386	250	220	220	70	M8	10	50×50	9	2800±5% kgf	35.0kg



EEP-2530C-380V~440V

MODEL NO	CHUCK VOLTAGE	CONTROLLER VOLTAGE	DIMENSION							PITCH G	POLE P	No. OF POLE	HOLDING POWER	CHUCK N.W.
			W	L	L1	S1	S2	H	T					
EEP-2530C	DC 380V	AC 380V~440V	250	446	310	280	220	70	M8	10	50×50	12	3750±5% kgf	44.0kg



**EARTH-CHAIN**  
Power that works.

## Electro-Permanent Magnetic Chuck-Connection Type EEP-M-C Series

Suitable for use on large Vertical Lathe, Double Column Machining Center and CNC Machining Center ...etc.



### Features:

1. Super power magnetic force 1250 kgf/100 cm (4 poles), can meet various machining process.
2. Structure of Electro-Permanent Magnetic Chuck, no electric power supply required to keep the chuck On, it could be used for long time and never get temperatures to affect the accuracy of workpiece.
3. Using innovation series and parallel connection modular system, EEP-M-C provides a more economic solution to hold various size workpiece. Flexible units could be deployed with various quantities, locations, and distance to each other depending on customers' various workpiece shapes. Save time and cost during machining and increase the accuracy that makes the goods have higher quality and value.
4. According to the size of the workpiece point hold the workpiece, changing the magnetic fixture surface clamp the workpiece, 100% use of the chuck in an all-round way. Can reduce equipment costs and increase more profits.
5. Without any obstructed movement of cutters during machining. Can do 5-sides machining, drilling, tapping, grooving and forming can be done all in one cycle. This greatly enhances work efficiency, and reduces repeated positioning tolerances to achieve best machining accuracy.

### How to choose:

According application requirement can choose EEP-M-C Series as following steps:

1. Choose number of chucks according to Voltage and workpiece required.
2. Choose Chuck Controller.
3. Choose the Screw Size.
4. Choose the length of Chuck Connection Cables.
5. Choose the length of Power Cord.



Note: A maximum of 16 chucks can be connected to one controller. If the workpiece dimension requests more than 16 chucks please use two groups of chucks unit.

### Chuck Controller EEP-M-C4C (Option)



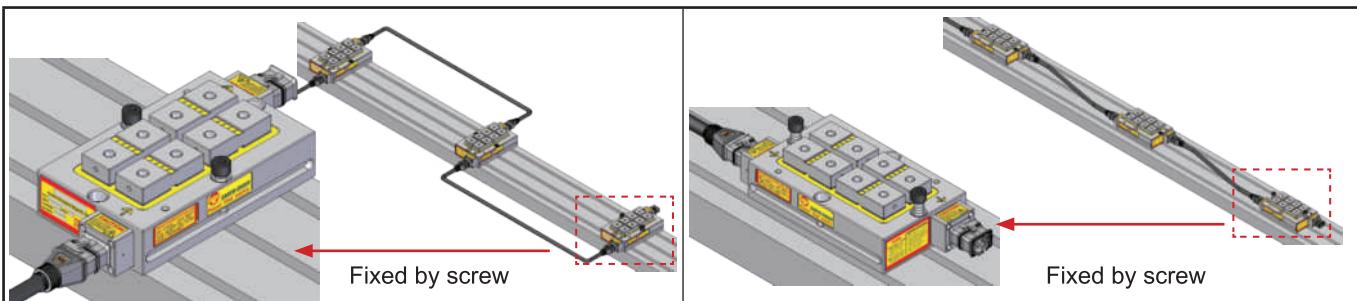
The controller EEP-M-C4C can be control 1-16 chucks at the same time, and has the automatic detection whether the chuck cable is connection completed.

MODEL NO	VOLTAGE (Single Phase)	DIMENSION		
		L	W	H
EEP-M-C4C	AC 380V~440V	370	220	125

### Standard accessories Screw Size

T-Slot	A	B	C	D	F	Thread
18	18 <sup>+0</sup> <sub>-0.3</sub>	20	11	28	32	5/8"-11
22	20 <sup>+0</sup> <sub>-0.3</sub>	26	14	32	38	5/8"-11
28	26 <sup>+0</sup> <sub>-0.3</sub>	26	16	41	40	5/8"-11

Chuck installation direction:





**EARTH-CHAIN**  
Power that works.

## Electro-Permanent Magnetic Chuck-Connection Type EEP-M-C Series

Suitable for use on large Vertical Lathe, Double Column Machining Center and CNC Machining Center ...etc.



### Chuck Connection Cable

#### Standard Accessories - (Iron Flexible Conduit)

Suitable for general machining.



MODEL NO.	LENGTH
EEP-M-CC10R	1000mm
EEP-M-CC15R	1500mm

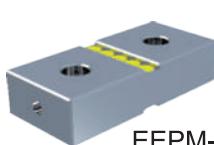
#### Optional Accessories - (Stainless Steel Flexible Conduit)

Suitable for long time heavy duty machining. With high toughness and high strength preventing iron chips cut off the wire.

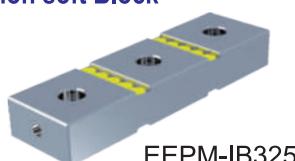


MODEL NO.	LENGTH
EEP-M-CC10BR	1000mm
EEP-M-CC15BR	1500mm

### Standard Accessories-Induction soft Block



EEP-M-IB225



EEP-M-IB325

Relative magnetic force and EEP-M-IB percentage table

MODEL NO.	Holding Power (Kgf)
EEP-M-IB225B	82 %
EEP-M-IB325B	68 %

### Option Accessories-Spring Block EEP-M-SP Series



Fixed Block EEP-M-SPF

#### Features:

1. Suitable for clamping on iron cast, irregular form and flexuous workpieces, it will not be out of shape of the workpiece after machining.
2. 3 Fixed Blocks is necessary for each workpiece clamping, it could be makes a basic surface for the workpiece touch to the Spring Blocks.



Spring Block EEP-M-SP

Unit: mm

MODEL NO.	D	H
EEP-M-SP	48	32.5
EEP-M-SPF	50	30.35

Relative magnetic force to Fixed block and Spring block:

MODEL NO.	Holding Power (Kgf)
Spring Block	43 %

### CONNECTION TABLE

MODEL NO.	EEP-M-2030C 220V			EEP-M-2525C 220V			EEP-M-2530C 380V~440V		
	CHUCK NOS.	HOLDING POWER OF EACH CHUCK	TOTAL HOLDING POWER kgf ±5%	CURRENT AMP	HOLDING POWER OF EACH CHUCK	TOTAL HOLDING POWER kgf ±5%	CURRENT AMP	HOLDING POWER OF EACH CHUCK	TOTAL HOLDING POWER kgf ±5%
3	2500±5%	7500	7A	2800±5%	8400	7A	3750±5%	11250	8A
4		10000	9A		11200	9A		15000	10A
5		12500	11A		14000	10A		18750	12A
6		15000	12A		16800	11A		22500	13A
7		17500	14A		19600	12A		26250	16A
8		20000	16A		22400	14A		30000	18A
9		22500	17A		25200	15A		33750	19A
10		25000	19A		28000	17A		37500	21A
11		27500	20A		30800	19A		41250	23A
12		30000	22A		33600	20A		45000	25A
13		32500	24A		36400	22A		48750	27A
14		35000	26A		39200	23A		52500	29A
15		37500	27A		42000	24A		56250	30A
16		40000	29A		44800	26A		60000	33A

If the workpiece dimension requests more than 16 chucks, please use two groups of chuck unit.

#### Notice:

1. EEP-M-C Series each voltage has two specifications can be choose.
2. Maximum distance required:

No. of EEP-M-CS	3-4 Chucks	5-10 Chucks	11-16 Chucks
Max. Distance Between Chucks	800 mm	1000 mm	1500 mm



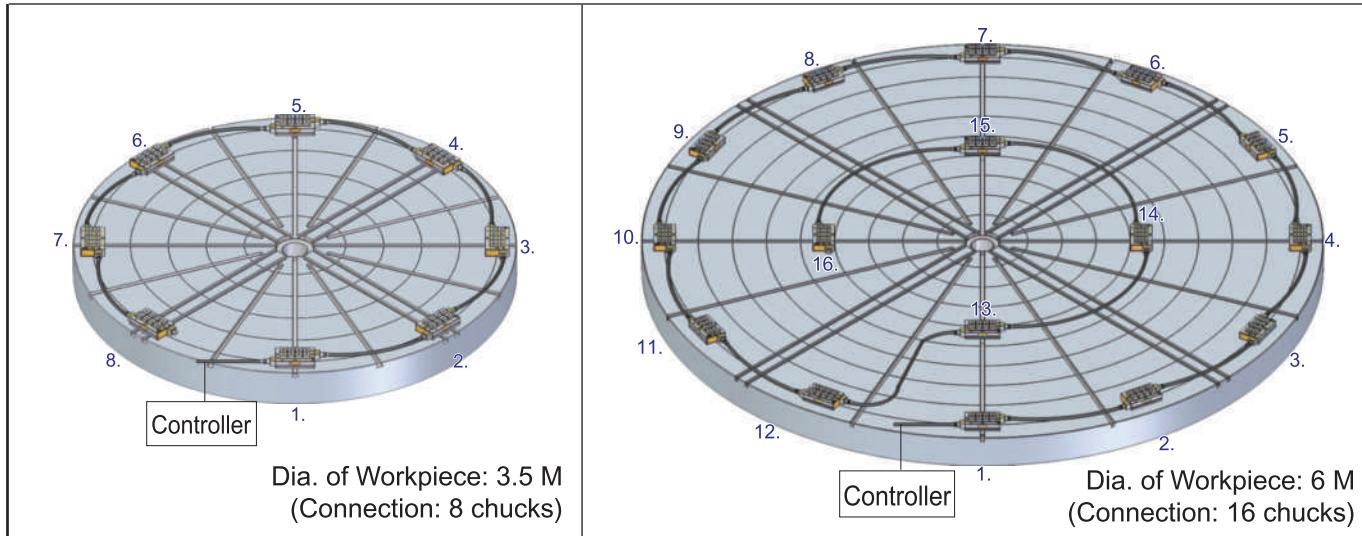
**EARTH-CHAIN**  
Power that works.

## Electro-Permanent Magnetic Chuck-Connection Type EEP-M Series

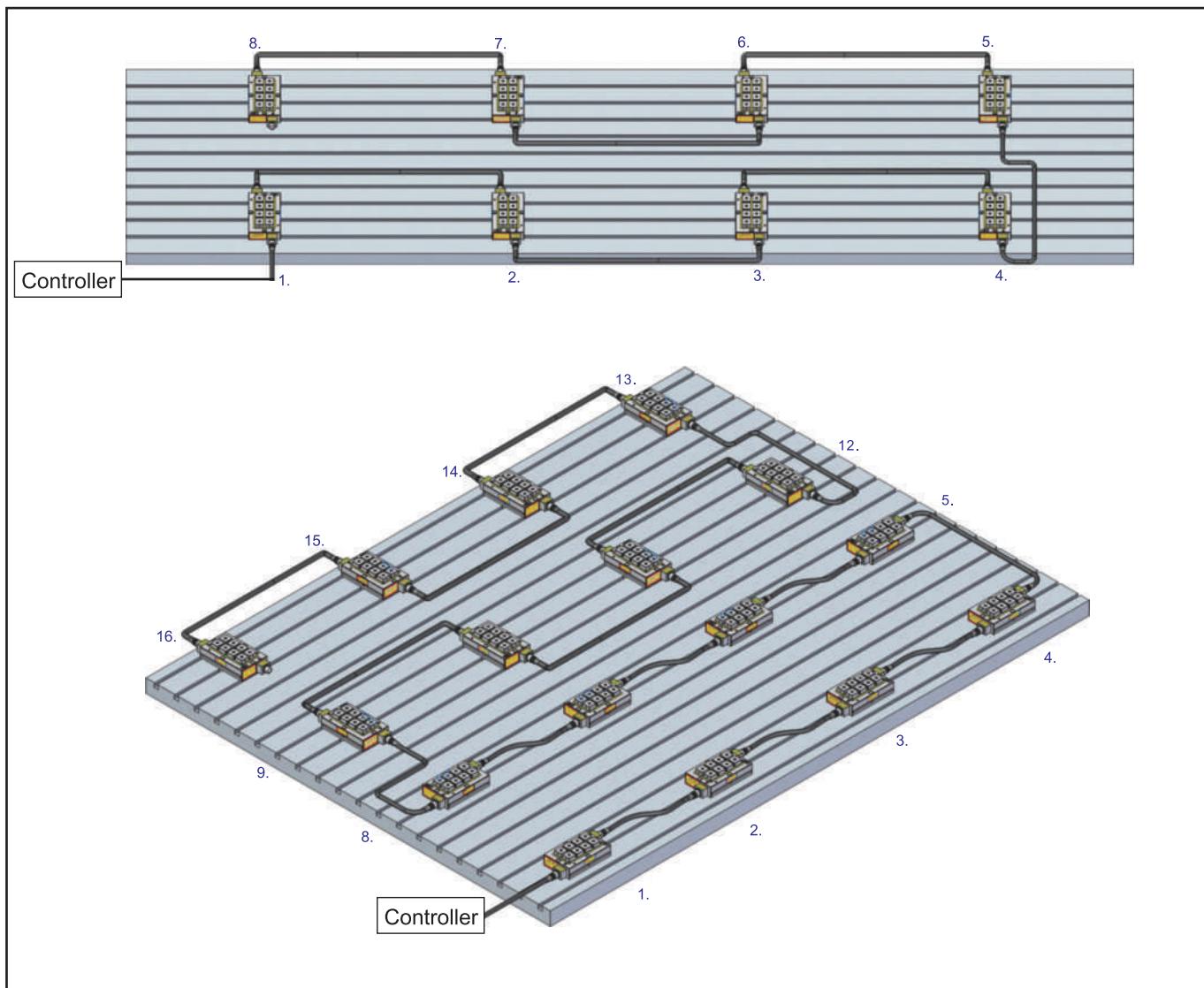


Suitable for use on large Vertical Lathe, Double Column Machining Center and CNC Machining Center ...etc.

### Example of Vertical Lathe on Setting:



### Example of Double Column Machining Center and CNC Machining Center on Setting





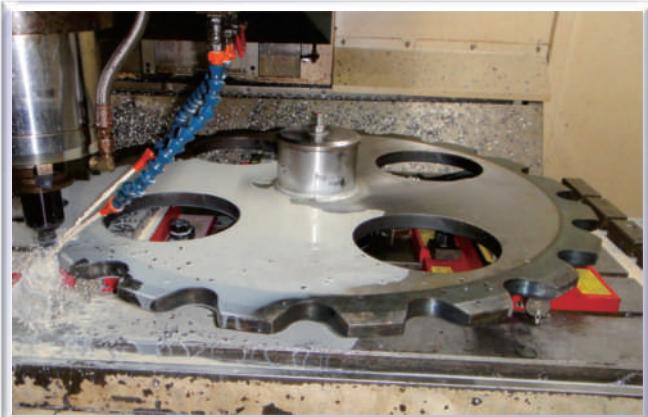
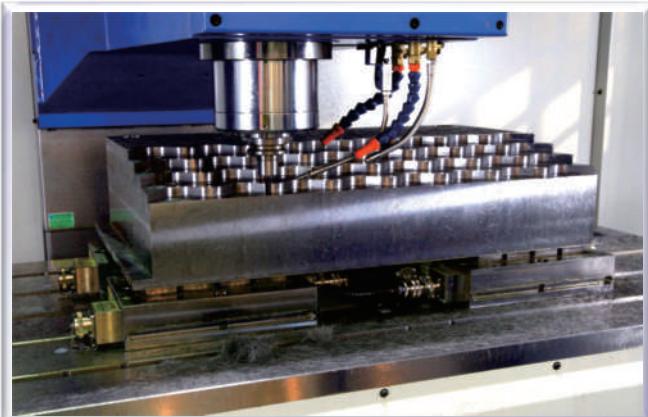
**EARTH-CHAIN**  
Power that works.

## Electro-Permanent Magnetic Chuck-Connection Type EEP-M Series

Suitable for use on large Vertical Lathe, Double Column Machining Center and CNC Machining Center ...etc.



### Working Example





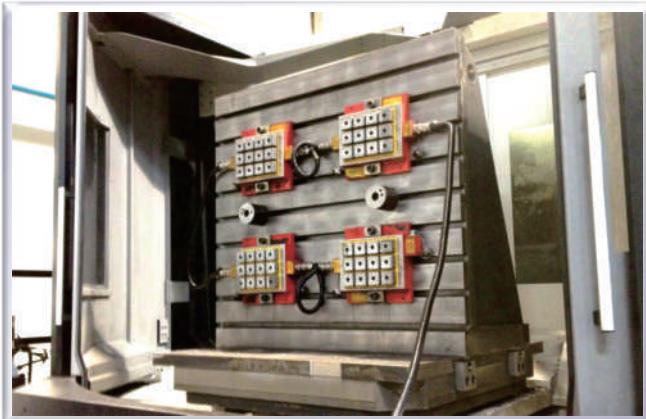
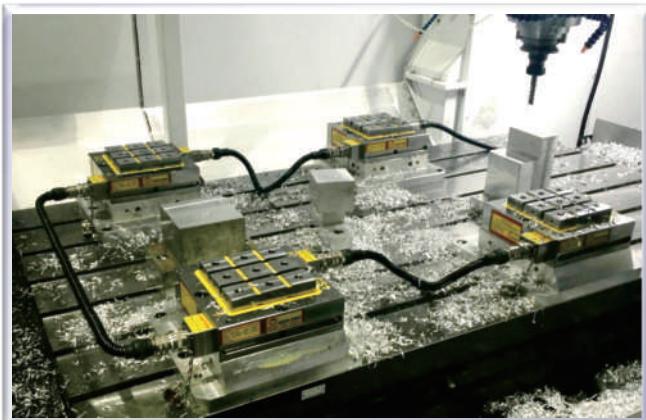
**EARTH-CHAIN**  
Power that works.

## Electro-Permanent Magnetic Chuck-Connection Type EEP-M Series



Suitable for use on large Vertical Lathe, Double Column Machining Center and CNC Machining Center ...etc.

### Working Example





## Professional R & D team-Custom-Made is available

At present, the customized products have reached more than 40%. Earth-Chain pays attentions to the services to every customer, listening to customers and tailoring the requirements for customers.

R & D



Dedicated Customer Service

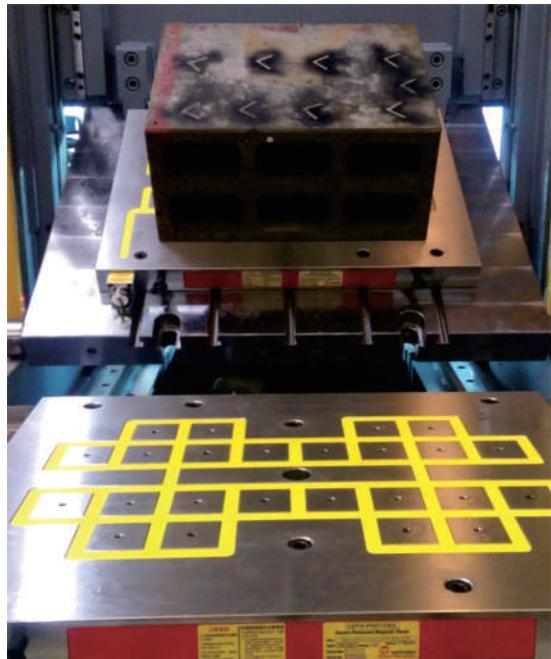
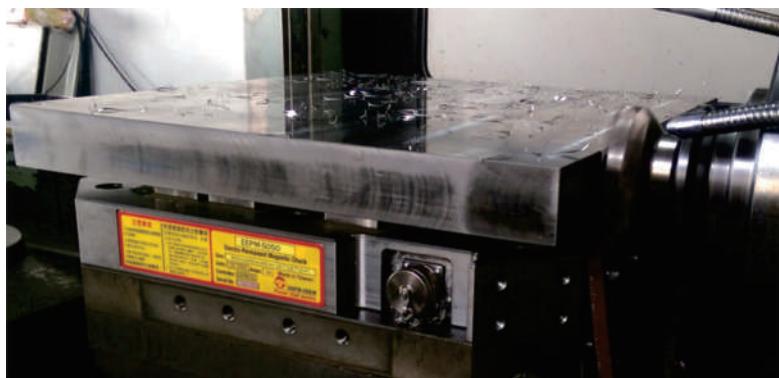
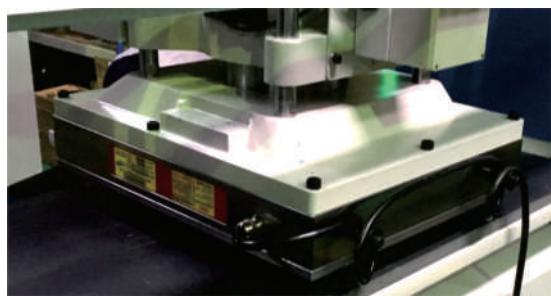


Production Department



Precise magnetic testing



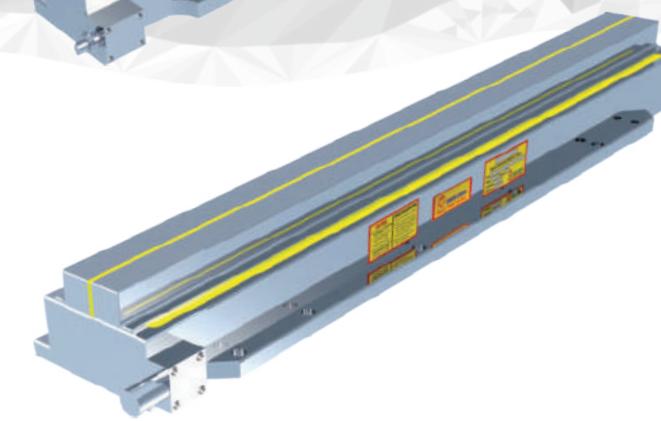
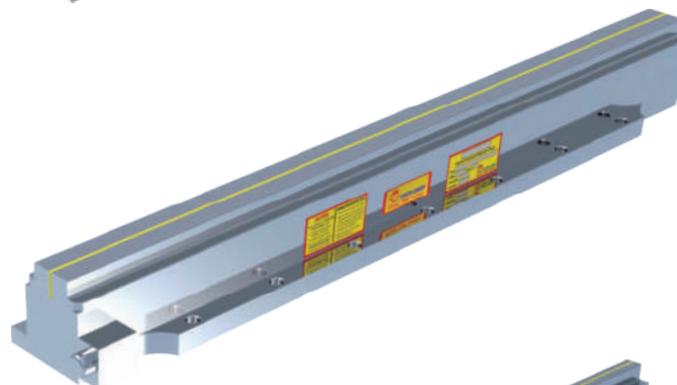
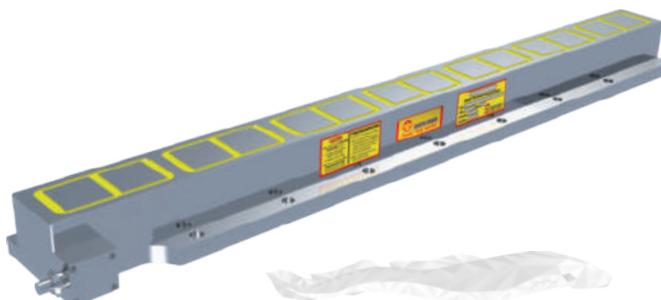


## Electro-Permanent Magnetic Chuck EEPML Series

Used on Linear Guideway high precision or high accuracy long strip workpiece drilling, grinding machining...etc. (Custom-made)



Patent Protected violators will be prosecuted: Patented Taiwan M415776, Taiwan M511830, China ZL 2013 2 0056033.9



### Applications:

#### EEPML-08102WS Series

With Lower price suitable for large sizes of precision linear guideway or long strip workpiece.



#### EEPML-11-08102 Series

1. Suitable for small, medium and large of linear guideway high precision or long strip workpieces.
2. Using Induction block can be increased the precision of linear guideway grinding.



#### EEPML-11-08102-1 Series

1. Induction block is changeable, can be using for small, medium and large of linear guideway high precision or long strip workpieces.
2. Custom-made of induction block is available.



#### EEPML-15-15102 Series

1. Suitable for small, medium and large of linear guideway high precision or long strip workpieces.
2. Using Induction block can be increased the precision of linear guideway grinding.

MODEL NO.	DIMENSION L × W × H	NO. OF POLE	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (Included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (Included)	Unit: mm
EEPML-08102WS	1020×130×80	14	3150	60kg	CHUCK	20A	C1	CHUCK	10A	C1	
EEPML-11-08102	1020×130×88	14	2275	65kg	DC 220V	20A	C1	DC 380V	10A	C1	
EEPML-11-08102-1	1020×130×88	14	2275	63kg	CONTROLLER	20A	C1	CONTROLLER	10A	C1	
EEPML-15-15102	1020×200×88	28	4550	101kg	AC 220V~480V	33A	C1	AC 380V~440V	15A	C1	

Custom-Made products (above specification are for reference only)

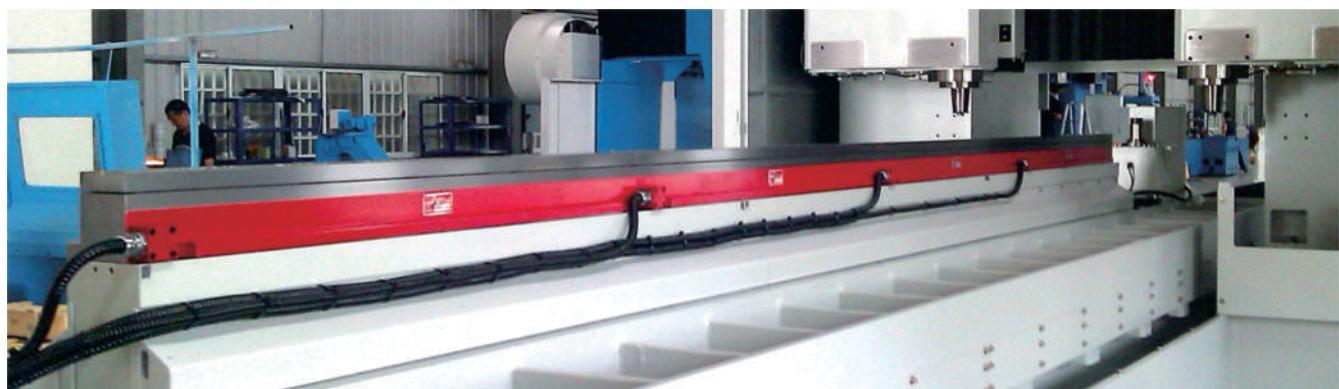
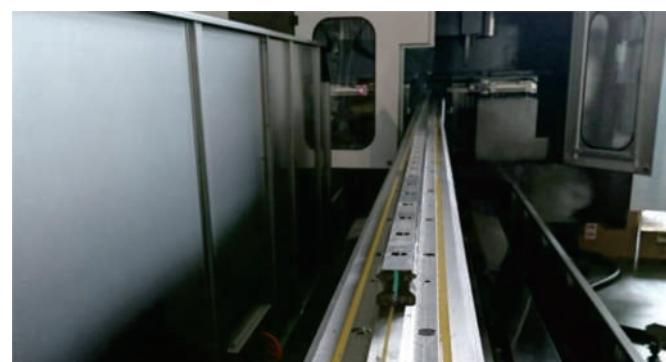


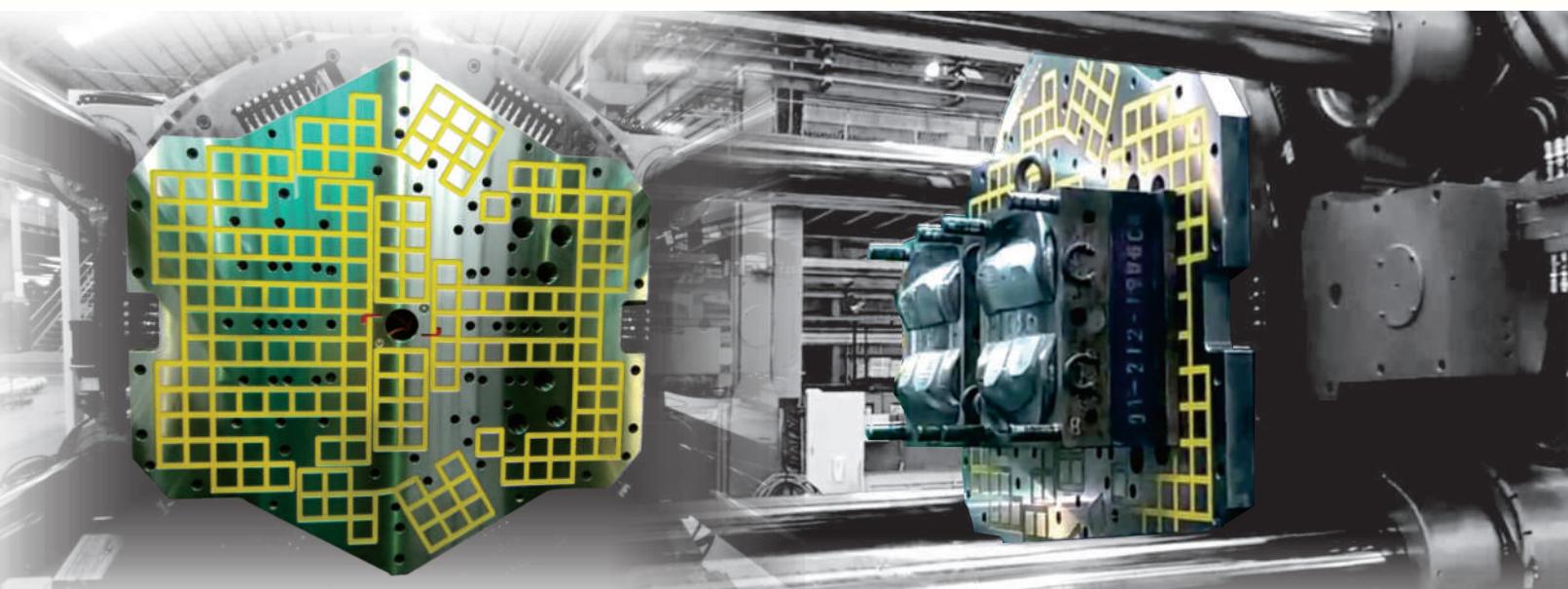
**Features:**

1. Structure of Electro-Permanent Magnetic Chuck, 1-3 seconds control for power ON & OFF.  
No electric power supply required to keep the chuck ON.
2. EEPML Chucks can be connected and one controller can be control muti-EEPM Chucks.
3. Linear guideway/ Long strip workpieces:  
Can be fully clamped by magnetic chuck and increased grinding accuracy.
4. It could be used for long time and never get temperatures to affect the accuracy of workpieces.



**Working Example**





- 1. Safety**
  - Electro-Permanent Magnetic design, no power supply to keep the magnetic chuck ON.
  - Safety in case of power failure. Magnetic power 4~5 times safety factor.
  - Rare-earth material bear up to max. 120°C.
- 2. Humanity**
  - Proximity.
  - IC safety device.
- 3. Quickly**
  - Reduce 70% mold setting time significantly.
  - Shorten delivery time.
- 4. Flexibility**
  - Low cost and high quality.
  - Apply to any kinds of shapes mold.
- 5. Economic**
  - Low labor cost.
  - Low mold repair cost.
  - Less than 1 KW power consuming.
  - Low maintenance cost.
- 6. Improved**
  - Improve machine mold size capacity.
  - Improve machine shifts rotate.
  - Improve quick production demand.
  - Improve production quality
  - Improve strength and parallelism of machine movable/stationary plates and frame.



### Features:

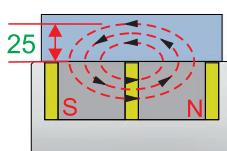
1. Electro-Permanent Magnetic system: 2~10 seconds control for power ON & OFF. No power supply required to keep the magnetic chuck on, Safety in case of power failure. Never get temperatures and deformation mold.
2. Magnetic force depends on the mold needs, with 3 sizes pole can choose.
3. Magnetic chuck is dual poles (N/S poles), no magnetize machine frame and equipment relative parts.
4. The clamping force is distributed consistently along the whole mold surface reduce product burs and increase mold duration.
5. Reduce 70% mold setting time significantly, increase machine shifts, shorten lead times and increase production capacity.
6. Improve the strength and parallelism of machine movable/ stationary plate and machine frame.
7. Increase 20% clamping area, without fixture plate enhancing the performance of the mold.
8. Can be used with a working temperature up to 120°C, higher product safety.
9. No oil working environment, stable quality, applying for high working specification of germfree/dustfree.



### Pole Specification (Height of magnetic field)

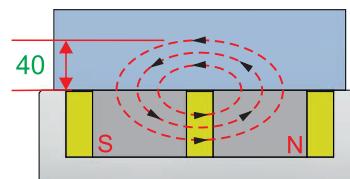
EEPM-PIM designed for different mold thickness. Specify the mold to be Large, Medium and Small sizes, make 3 poles size. Different pole sizes have different magnetic field height to ensure mold clamping safety.

For Small mold



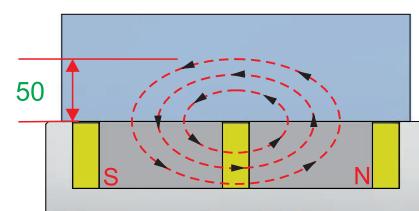
EEPM-PIM Series

For Medium mold



EEPM-PIM-D Series

For Large mold



EEPM-PIM-E Series

Unit: mm

Model No.	Pole Size	Chuck height	Magnetic field height	Magnetic Force (kgf / 4 poles)
EEPM-PIM Series	50x50	60	25	1200 ±5%
EEPM-PIM-D Series	70x70	70	40	2800 ±5%
EEPM-PIM-E Series	92x92	80	50	4800 ±5%

\*\* The thickness of EEPM-PIM is available from 35~60 mm, magnetic force is 1100 kgf / 4 poles



### Human Machine Interface controller upcoming

Human Machine Interface touch screen system, feedback operation status from screen page, and the devices could be driven by pre-set program and parameter. Create new policy of 【MagVise Magnetic Clamping System】.

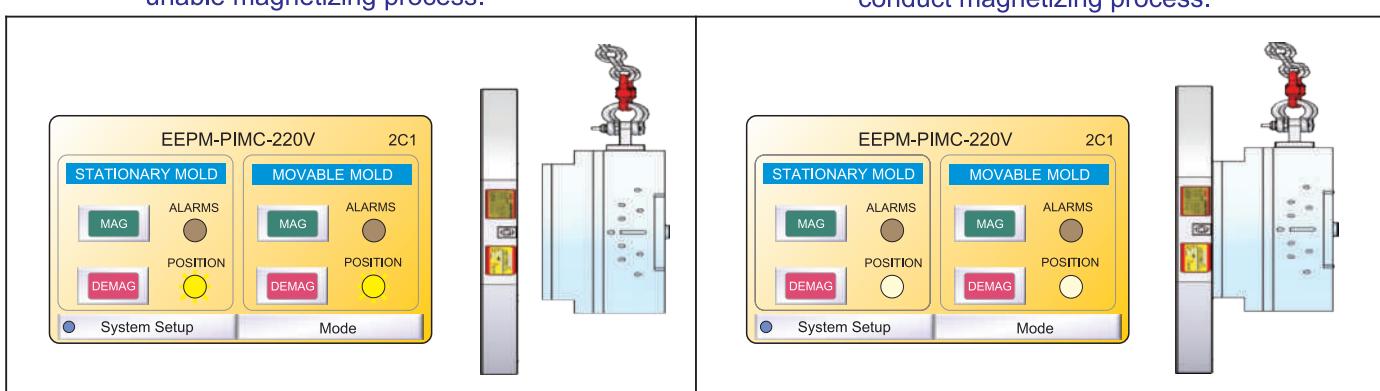


### Proximity Sensor Device (Mold clamping detective system)

EEPMPIM control system built-in IC security detection devices to ensure 100% magnetization when Magnetic Lamp lights on. Install Proximity sensor on the chuck, by detecting lamp shows up the clamping status of the mold, to warn the operator if the mold is completely attached, to avoid holding false happens.

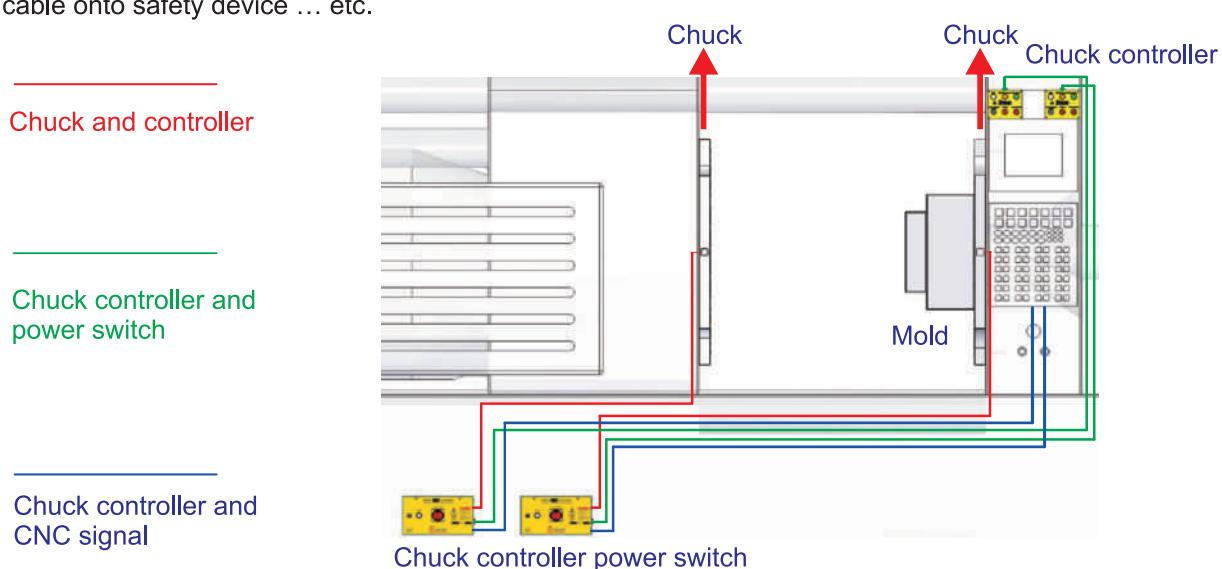
When proximity sensor lamp ON,  
unable magnetizing process.

When proximity sensor lamp OFF,  
conduct magnetizing process.



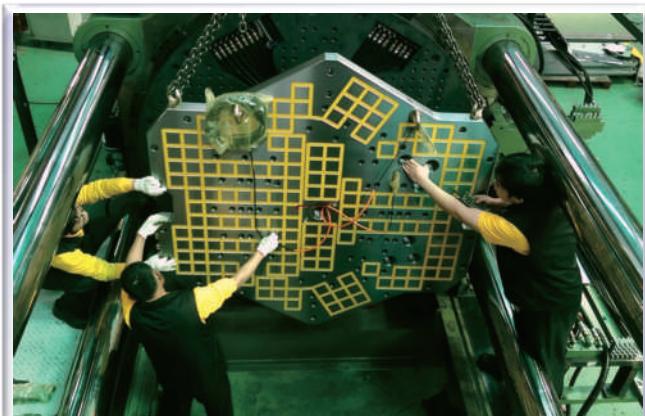
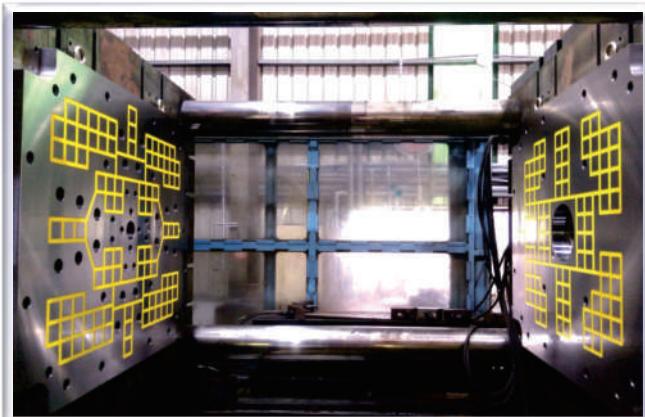
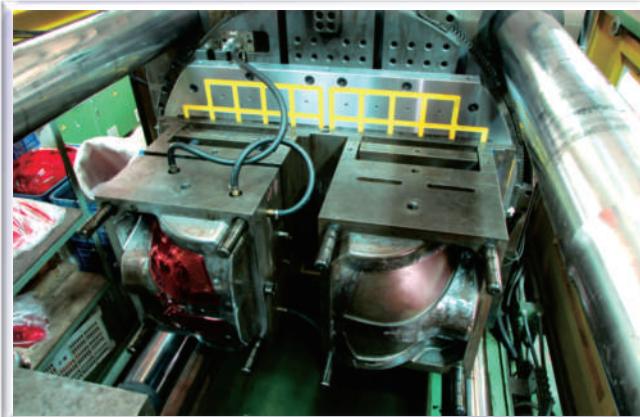
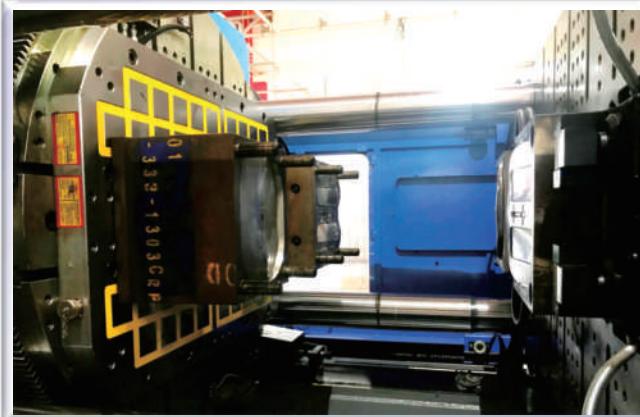
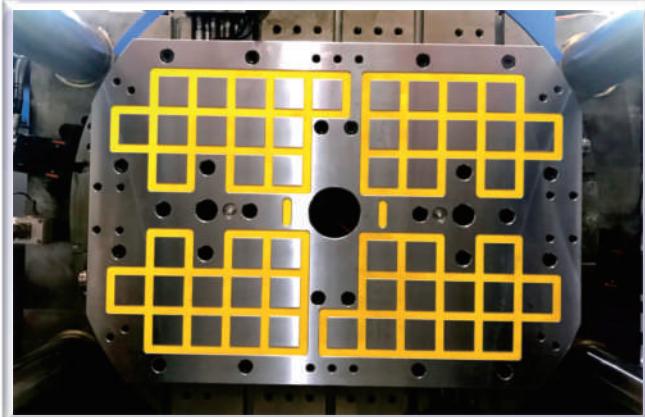
### IC Controller (Safety device)

To ensure operator's safety, EEPMPIM adds safety device to ensure all set-up process then injection machine starts to production process. Set-up process includes complete mold clamping, complete magnetization, plug chuck cable onto safety device ... etc.



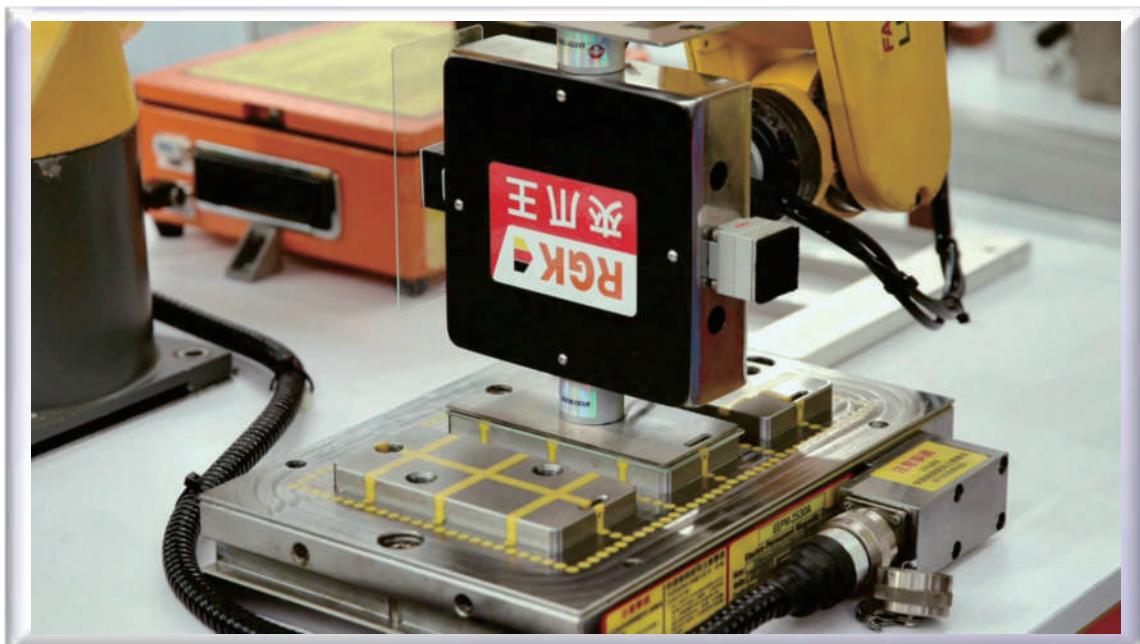


Working Example

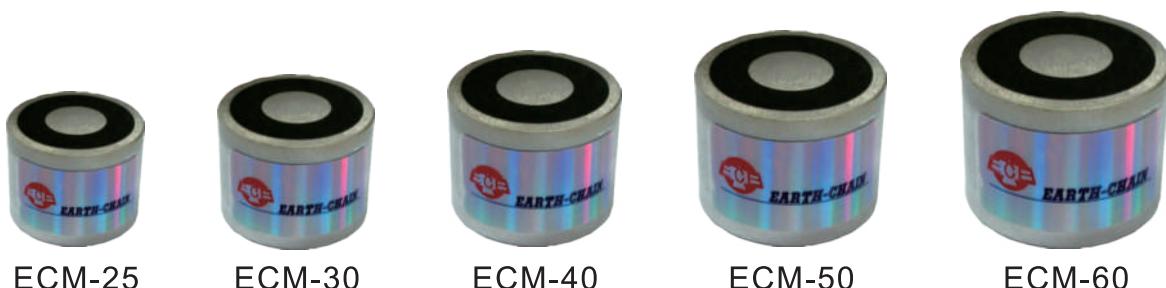


## Electro-Magnet ECM Series

■ Suitable for Automatic Robotic Arm clamping



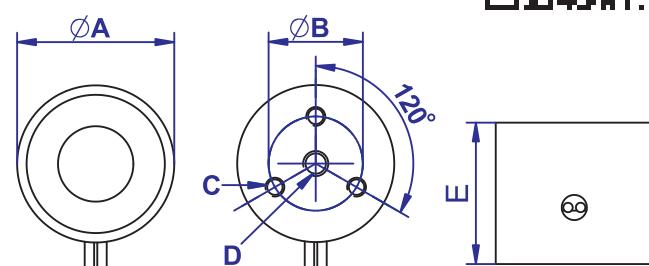
Light weight   Powerful   High Safety   Low Price   Easy assembly



Suitable for automated production line including robotic arm, medical, machine, laboratory equipment and other automatic processing production line materials or product transport applications.



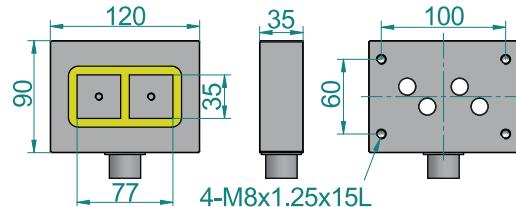
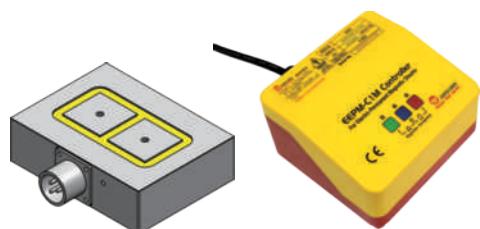
Model	A	B	C	D	E	LINE LENGTH	CURRENT AMP	N.W. kg	HOLDING POWER
ECM-25	32	15	M3	M4	22.5	300	0.11	0.07	15 kgf $\pm$ 5%
ECM-30	32	18	M3	M5	24.5	300	0.12	0.12	25 kgf $\pm$ 5%
ECM-40	42	26	M4	M5	30.5	300	0.25	0.26	60 kgf $\pm$ 5%
ECM-50	52	34	M4	M5	34.5	300	0.31	0.45	90 kgf $\pm$ 5%
ECM-60	65	40	M5	M8	38.5	300	0.40	0.78	160 kgf $\pm$ 5%



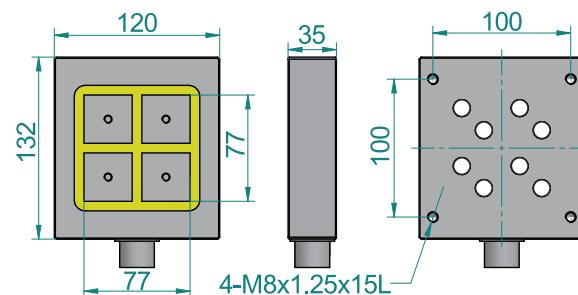
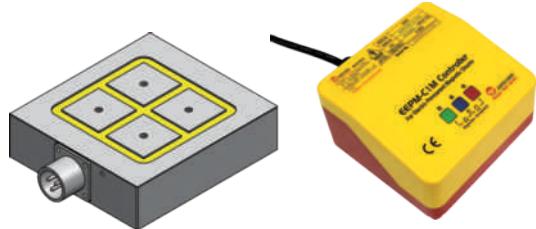


Light weight    Powerful    High Safety    Low Price    Easy assembly

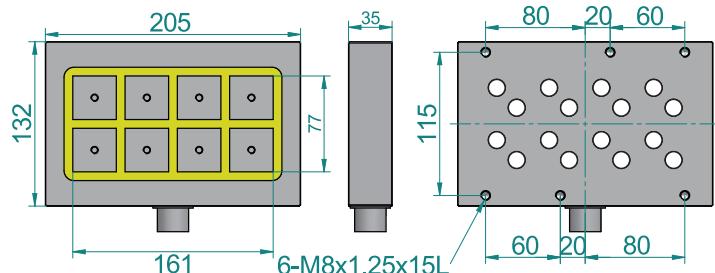
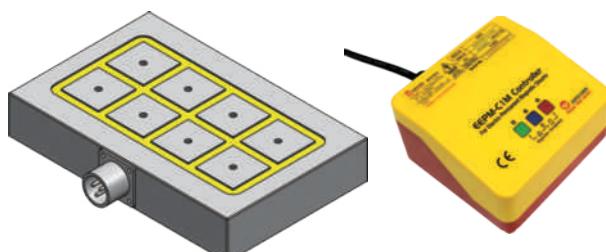
Suitable for automated production line including robotic arm, medical, machine, laboratory equipment and other automatic processing production line materials or product transport applications.



EPSM-0912A-220V



EPSM-1312A-220V



EPSM-1320A-220V

#### Features:

1. Electro-Permanent Magnetic Chuck made by "Neodymium" magnet. One second control for power ON & OFF. No electric power supply required to keep magnetic chuck ON.
2. The workpiece will not fall due to power failure or abnormal status during the automatic transportation.
3. Built-in intelligent IC signal feedback device can be pre-edited program drive integration of other connected device to reduce the manpower time and operational complexity for future industrial applications.
4. Can be used various types of induction block for different workpieces Transportation.

Model NO.	DIMENSION			PITCH G	POLE P	NO. OF POLE	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	W	L	H								
EPSM-0912A	90	120	35			2	290	2.6kg		0.3A	C1M
EPSM-1312A	120	132	35	7	35x35	4	580	3.8kg	220V	0.6A	C1M
EPSM-1320A	132	205	35			8	1160	6.4kg		2.8A	C1M

Unit: mm

Customization is available.



## Permanent Magnetic Clamping Block ECB Series



■ Suitable for medium & large workpiece. (Can do 5 sides machining).



Patented

Taiwan M258824, Italy / USA us7, 224, 251, B2 / Japan 3106264, / Korea 0366170, / Germany 20 2004 009 776.1 / China L2004 2 0067865.1

### Features:

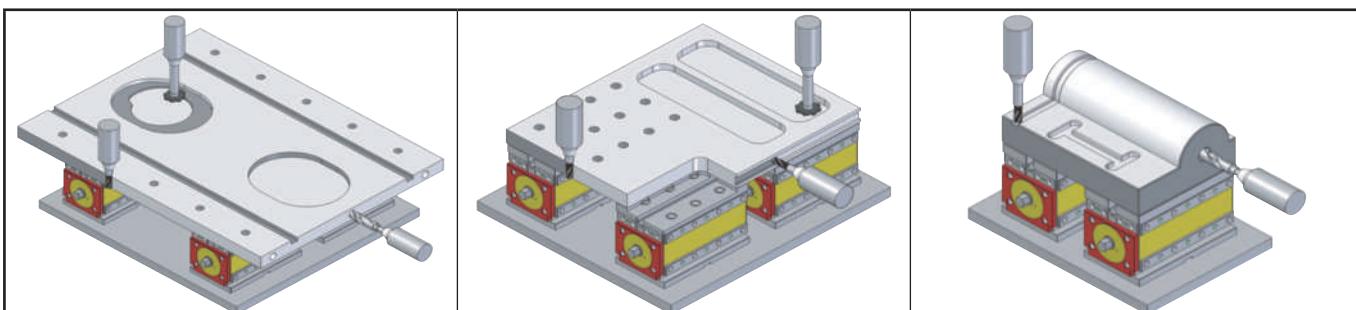
1. The all new model Magnetic Clamping Block ECB Series are a new sense of clamping way for metal working on CNC Machining Center and Milling Machine in quick clamp workpieces.
2. Free to set up position, numbers and distance of Magnetic Clamping Block according to the size of workpiece.
3. The ECB Series including changeable Induction Soft Block. It can be revised the surface to be 100% accuracy on the machine for clamp workpieces. Can be also cutting, drilling, tapping and slotting directly to the Induction Soft Block during machining workpiece. Multi-function of Induction Soft Block, the user can make it by themselves according to workpiece required.
4. Two machining circle for finish workpiece machining, increase a lot of machining efficiency and achieve accuracy required.

### Applications:

1. Most suitable for medium and large size of workpiece machining on milling machine and CNC machining center.
2. Minimum size of workpiece required as bigger than an area of two Magnetic Clamping Blocks.
3. The Magnetic Clamping Blocks are not suitable for small workpiece clamping.



### Working Example

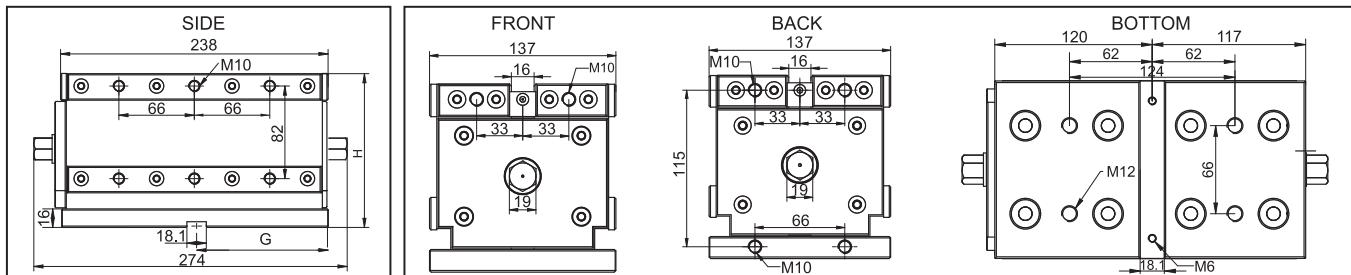


MODEL NO	HOLDING POWER	MINIMUM THICKNESS OF WORKPIECE REQUIRED	G	H	Height Total (including Induction Block)	N.W.
ECB-210	2100kgf±5%	30	117	134	155	36kg
ECB-120	1200kgf±5%	20	94.5	108	123	18kg
ECB-075	750kgf±5%	15	97	78	90	9.5kg
ECB-050	500kgf±5%	15	63	78	90	7kg

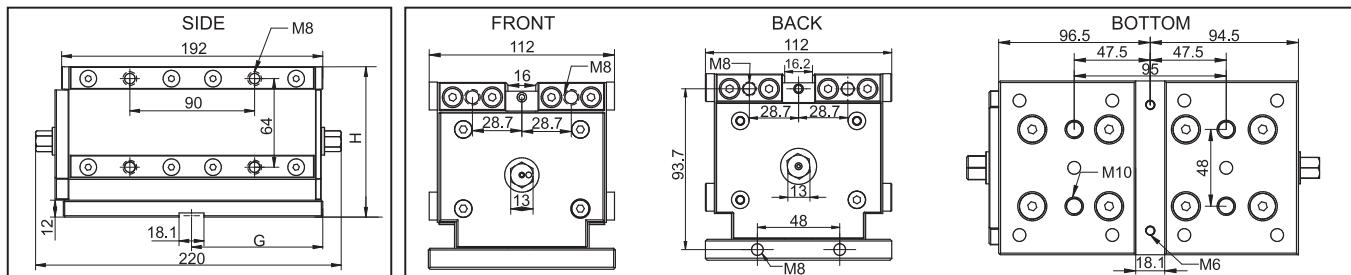
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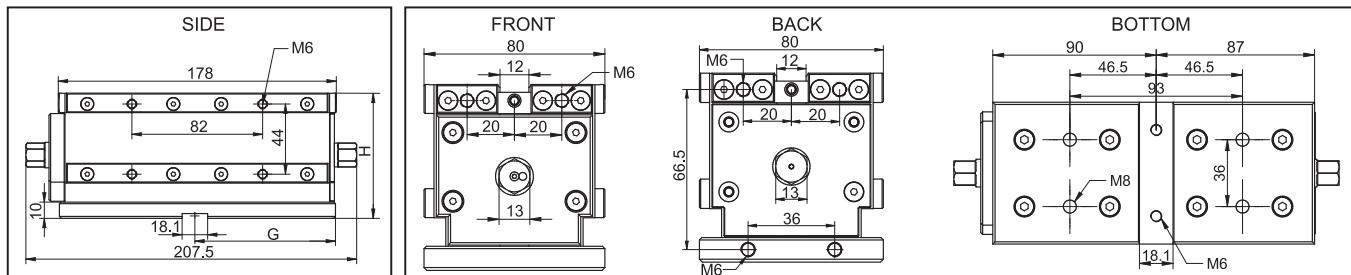
**Dimension ECB-210**



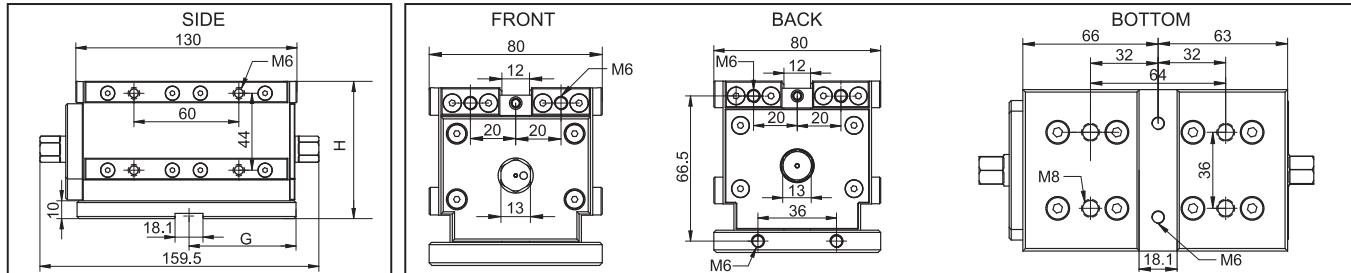
**ECB-120**



**ECB-075**



**ECB-050**



## Permanent Magnetic Clamping Block ECB Series



■ Suitable for medium & large workpiece. (Can do 5 sides machining).

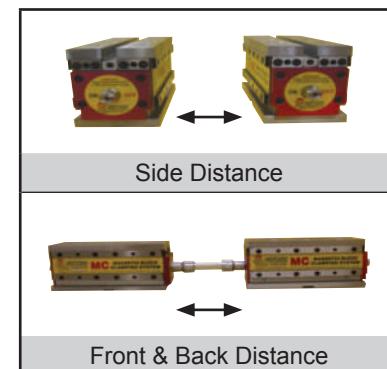
Customer can make switch connector by standard hexagon steel bar themselves for depends on length required. The dimension of hexagon bar required as ECB-210 --- 19mm, ECB-120, 075, 050 --- 13mm.



Unit:mm

Maximum & Minimum distance required

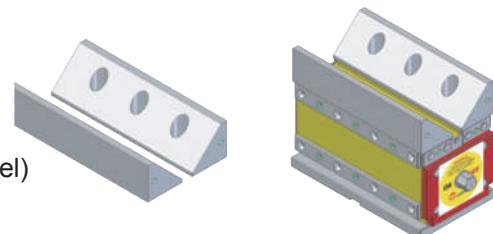
MODEL NO	ECB-210	ECB-120	ECB-075	ECB-050
SIDE DISTANCE	Min.	100	60	25
	Max.	1000	600	400
FRONT & BACK DISTANCE	Min.	70	40	40
	Max.	500	300	200



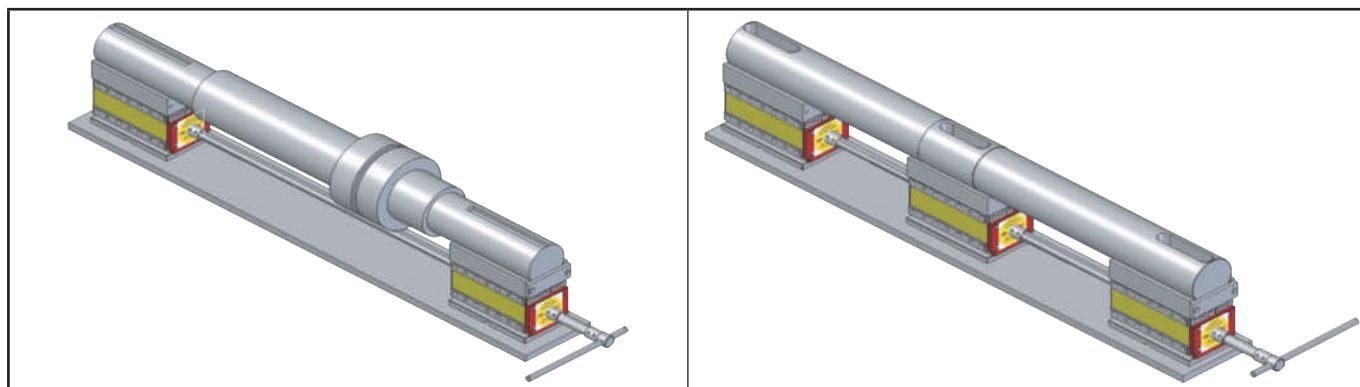
### Special made Induction Block:

Customer can make special induction block themselves for depends on the workpiece and application required.

(The material of induction block required as general and low carbon steel)



### Example



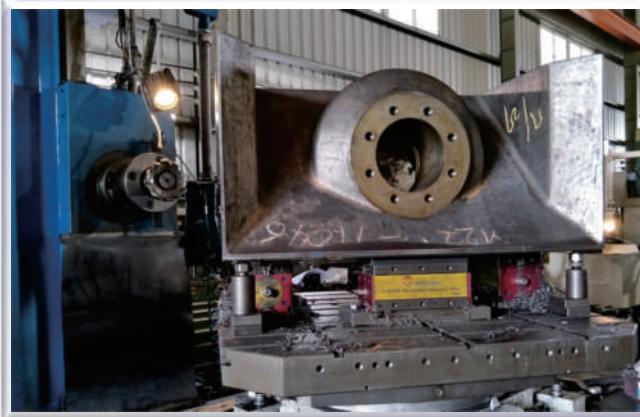
### Working Example



## Permanent Magnetic Clamping Block ECB Series



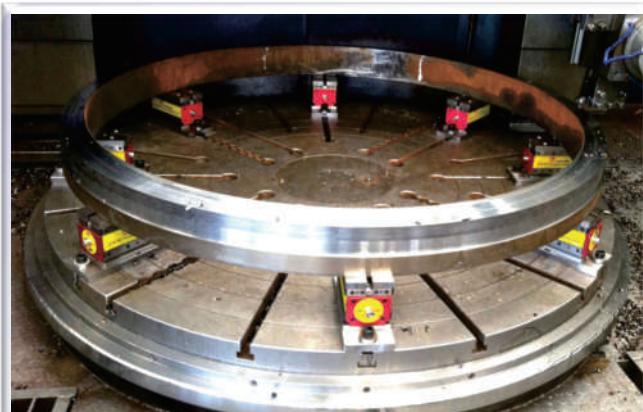
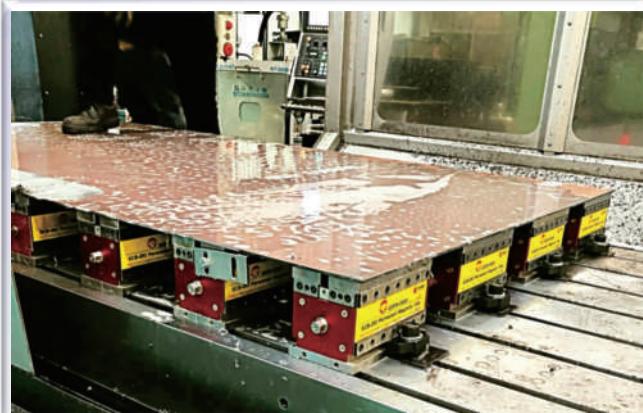
■ Suitable for medium & large workpiece. (Can do 5 sides machining).

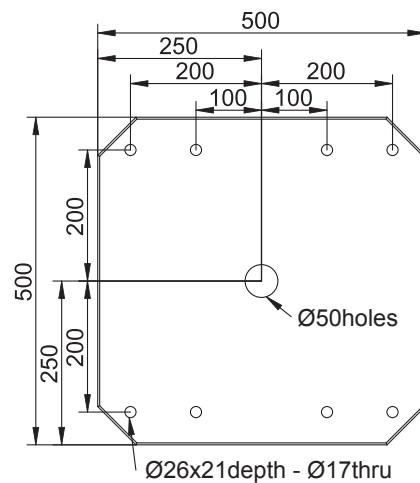
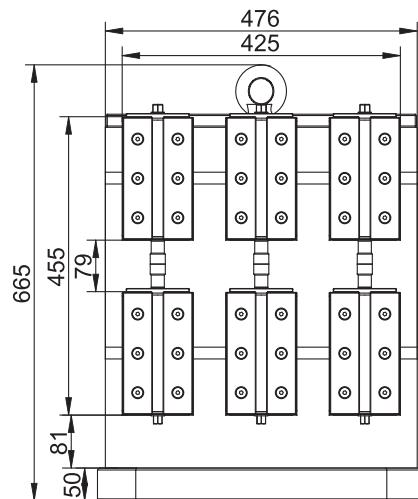
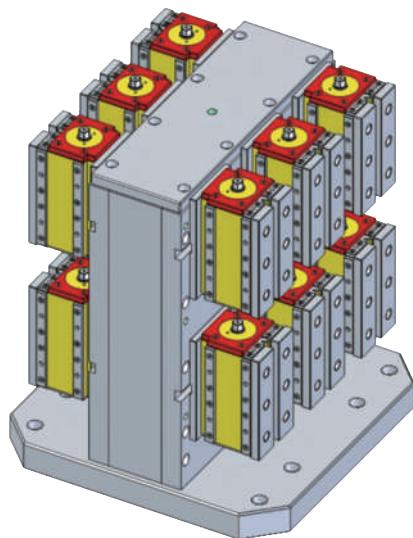


## Permanent Magnetic Clamping Block ECB Series



■ Suitable for medium & large workpiece. (Can do 5 sides machining).





### Features & Applications:

1. Each 6pcs of ECB-120 magnetic clamping block on 2 working face, each of 7200 kgf  $\pm 5\%$  (1200kgfx6) holding power, can be clamping 2 big workpieces for machining at same time.
2. Customer can makes and assemble any type of clamping device themselves by ECB series for depends on workpieces required.
3. Suitable for use on CNC Horizontal Machining Center. (can do 5 sides machining.)

### Working Example



# Mag Vise Magnetic Workholding



## EARTH-CHAIN ENTERPRISE CO., LTD.

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