EARTH-CHAIN
Power that works.

Mag Vise Magnetic Workholding

Electro-Permanent Magnetic Chuck



EEPM series

Permanent Magnetic Clamping Block



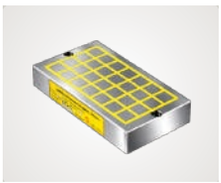
ECB series

AUTOMATIC IOMM
ARTIFICIAL INTELLGENT PLANT



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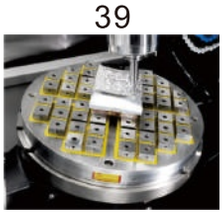
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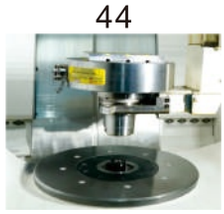
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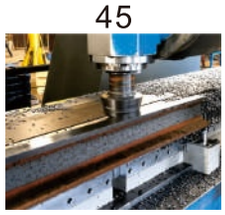
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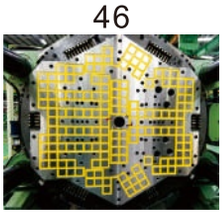
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Magnetic force of EEPM Chucks

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

Chart of difference in Magnetic force by thickness

	Thickness		Percentage of Magnetic force			
	mm	inch	EEPM-A	EEPM-B	EEPM-D	EEPM-E
T1	up 50	up1.97"	100%	100%	100%	100%
T2	45	1.77"				90%
T3	40	1.57"				80%
T4	35	1.38"			90%	70%
T5	30	1.18"			80%	55%
T6	25	0.98"			65%	—
T7	20	0.79"		90%	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 EEPM Series

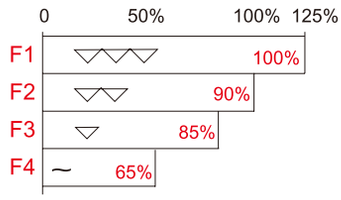
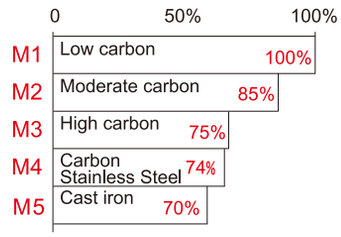


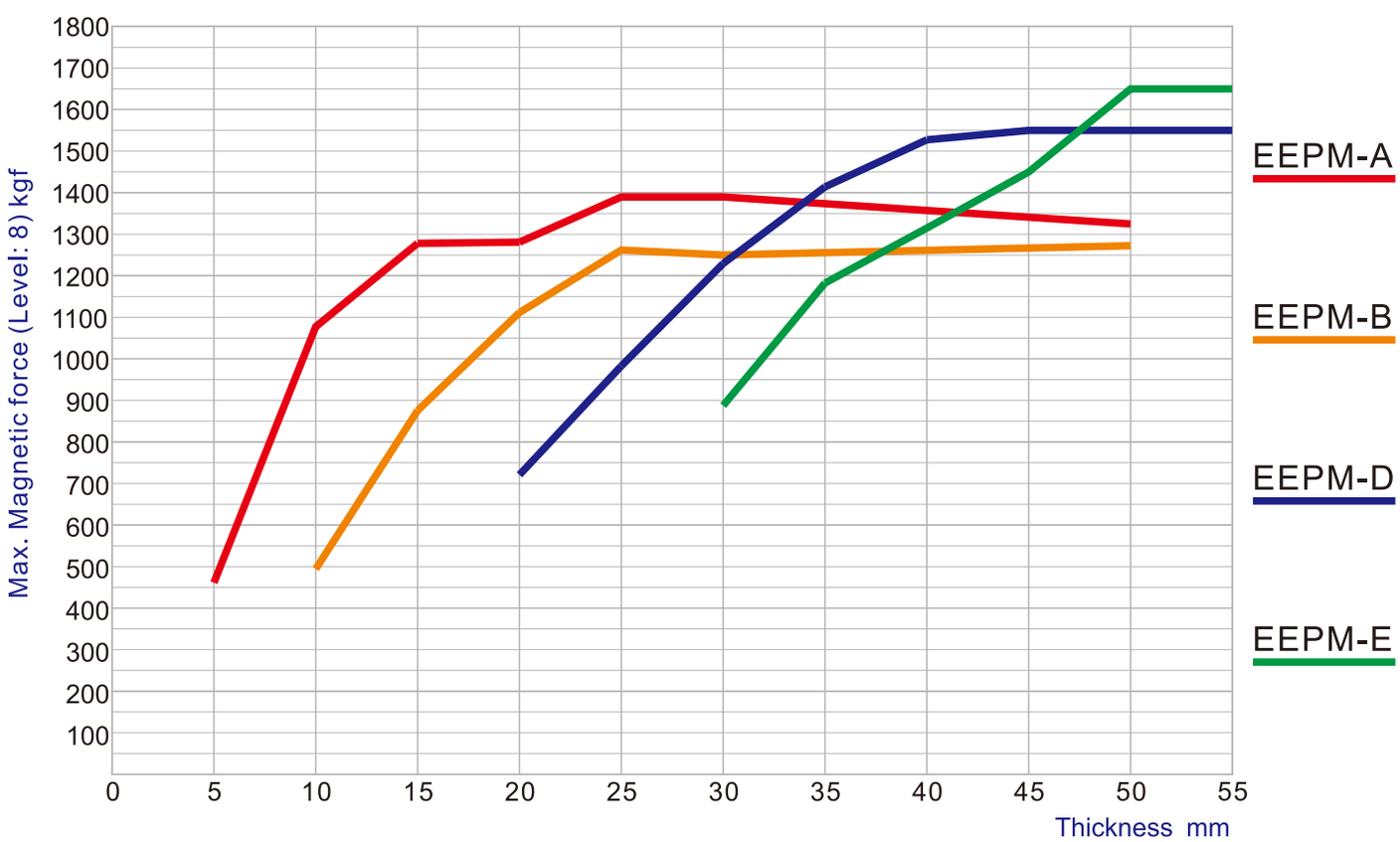
Chart of difference in Magnetic force by material quality.
For all EEPM Series



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

Example of EEPM-D 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^2 area
2. EEPM-A Series: Flux line: 15mm, Workpiece thickness suggestion: 25mm ↓
   EEPM-B Series: Flux line: 25mm, Workpiece thickness suggestion: 15~50mm
   EEPM-D Series: Flux line: 40mm, Workpiece thickness suggestion: 30mm ↑
   EEPM-E Series: Flux line: 50mm, Workpiece thickness suggestion: 40mm ↑

Electro-Permanent Magnetic Chuck

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):

EEPM 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.

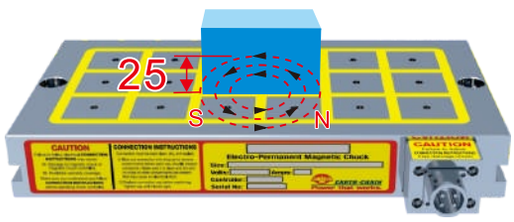
Notice:The temperature of usage environment and the workpiece to be processed should not exceed 80°C, otherwise the magnetic force will be eternally reduced.

EEPM-A Series Flux Line 15 mm, Pole Size 35x35 mm
Magnetic force: 580 ±5% Kgf/4 poles



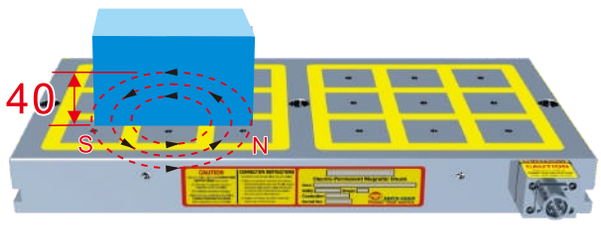


EEPM-B Series Flux Line 25 mm, Pole Size 50x50 mm
Magnetic force: 1250 ±5% Kgf/4 poles



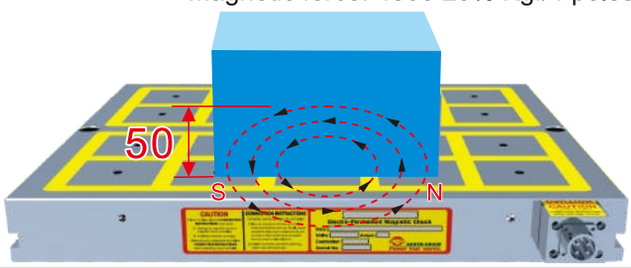


EEPM-D Series Flux Line 40 mm, Pole Size 70x70 mm
Magnetic force: 2800 ±5% Kgf/4 poles





EEPM-E Series Flux Line 50 mm, Pole Size 92x92 mm
Magnetic force: 4800 ±5% Kgf/4 poles





Electro-Permanent Magnetic Chuck

EEPM-M Series

Suitable for CNC Vertical Machining Center(Can do 5 sides machining in one setup)

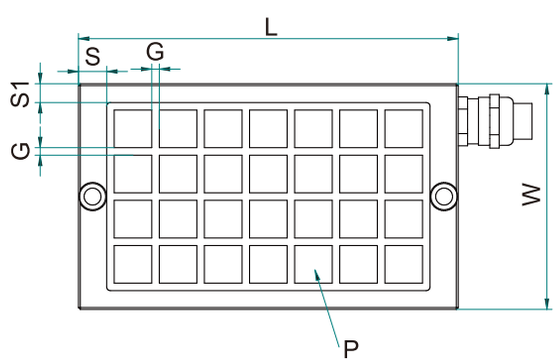
Patent Protected violators will be prosecuted: Patented Taiwan M605144



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

Applications:

1. Suitable for exetreme thin and small workpiece on light duty machining.
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	H								
EEPM-1020M	120	202	15	10	35	4	20x20	28	616	7kg	CHUCK DC 220V CONTROLLER AC 220V~480V	12A	C1-G
EEPM-1030M	120	298						44	968	10kg		15A	C1-G
EEPM-2020M	192	202						49	1078	11kg		13A	C2-G
EEPM-2030M	192	298						77	1694	16kg		17A	C4-G

Customization is available.

Electro-Permanent Magnetic Chuck

EEPM-A Series

Suitable for CNC Vertical Machining Center(Can do 5 sides machining in one setup)





Standard accessories (No screws, T-caps)

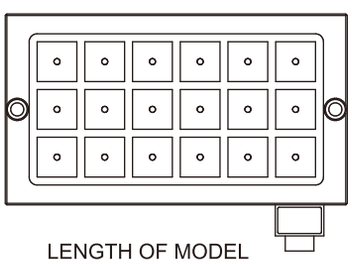


4 pressure plates
Center circle diameter: 17mm
Thickness: 30mm

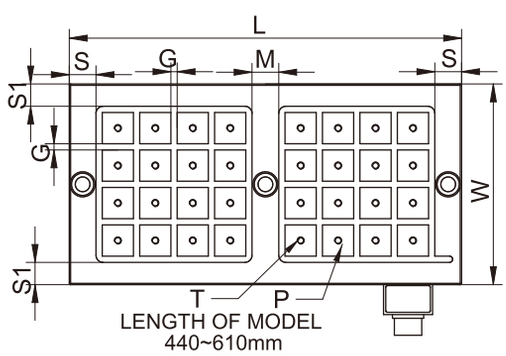
Pole 35X35 mm, Flux Line 15 mm,
Magnetic Force 580±5% kgf/4 Poles

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)



LENGTH OF MODEL
320mm



LENGTH OF MODEL
440~610mm

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								
EEPM-1530A	185	320	30.5	26	-	M6	50	7	35×35	18	2610	23kg	CHUCK DC 220V CONTROLLER AC 220V ~ 480V	18A	C1-G
EEPM-2540A	225	440	30	25	30					32	4640	39kg		30A	C1-G
EEPM-2560A	225	610	31	25	30					48	6960	54kg		26A	C2-G
EEPM-3030A	310	320	30.5	25.5	-					36	5220	39kg		26A	C1-G
EEPM-3040A	310	440	30	25.5	30					48	6960	53kg		25A	C2-G
EEPM-3060A	310	610	31	25.5	30					72	10440	74kg		31A	C2-G
EEPM-4040A	435	440	30	25	30					72	10440	75kg		31A	C2-G
EEPM-4050A	435	525	30.5	25	30					90	13050	90kg		24A	C4-G
EEPM-4060A	435	610	31	25	30					108	15660	104kg		26A	C4-G

Customization is available.

Electro-Permanent Magnetic Chuck

EEPM-B Series

Suitable for CNC Vertical Machining Center(Can do 5 sides machining in one setup)





Standard accessories (No screws, T-caps)

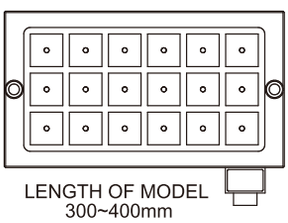


4 pressure plates
Center circle diameter: 17mm
Thickness: 30mm

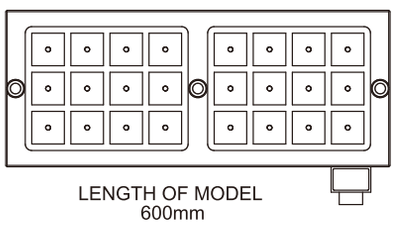
Pole 50X50 mm, Flux Line 25 mm,
Magnetic Force 1250±5% kgf/4 Poles

Applications:

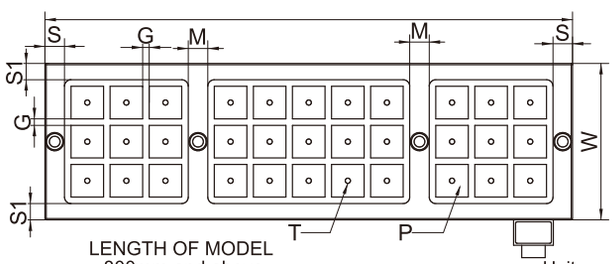
1. Suitable for small and medium workpiece machining.
2. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is necessary for optimum clamping.



LENGTH OF MODEL
300~400mm



LENGTH OF MODEL
600mm



LENGTH OF MODEL
800mm and above

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								
EEPM-2540B	240	430	30	25	--	M8	60	10	50×50	18	5600	50kg	CHUCK DC 220V CONTROLLER AC 220V ~ 480V	18A	C1-G
EEPM-2560B	240	590	30	25	30					24	7500	69kg		30A	C1-G
EEPM-2580B	240	810	30	25	30					33	10300	92kg		30A	C1-G
EEPM-2590B	240	870	30	25	30					36	11200	98kg		18A	C2-G
EEPM-25100B	240	990	30	25	30					42	13100	111kg		26A	C2-G
EEPM-3030B	300	310	30	25	--					16	5000	44kg		20A	C1-G
EEPM-3040B	300	430	30	25	--					24	7500	61kg		30A	C1-G
EEPM-3060B	300	590	30	25	30					32	10000	82kg		30A	C1-G
EEPM-3080B	300	810	30	25	30					44	13700	116kg		25A	C2-G
EEPM-3090B	300	870	30	25	30					48	15000	123kg		30A	C2-G
EEPM-30100B	300	990	30	25	30					56	17500	138kg		35A	C2-G
EEPM-4040B	420	430	30	25	--					36	11200	84kg		18A	C2-G
EEPM-4050B	420	490	30	25	--					42	11200	95kg		26A	C2-G
EEPM-4060B	420	590	30	25	30					48	15000	100kg		30A	C2-G
EEPM-4080B	420	810	30	25	30					66	20600	159kg		30A	C2-G
EEPM-4090B	420	870	30	25	30					72	22500	169kg		18A	C4-G
EEPM-40100B	420	990	30	25	30					84	26200	193kg		26A	C4-G
EEPM-5060B	480	590	30	25	30					56	17500	129kg		35A	C2-G
EEPM-5080B	480	810	30	25	30					77	24000	185kg		30A	C4-G
EEPM-5090B	480	870	30	25	30					84	26200	196kg		26A	C4-G
EEPM-50100B	480	990	30	25	30					98	30600	219kg		30A	C4-G
EEPM-6060B	600	590	30	25	30					72	22500	165kg		18A	C4-G
EEPM-6080B	600	810	30	25	30					99	30900	215kg		30A	C4-G
EEPM-6090B	600	870	30	25	30					108	33700	240kg		27A	C4-G
EEPM-60100B	600	990	30	25	30					126	39300	274kg		32A	C4-G
EEPM-8080B	755	810	30	25	30					121	37800	271kg		33A	C4-G

Customization is available.

Electro-Permanent Magnetic Chuck

EEPM-D Series

Suitable for CNC Vertical Machining Center(Can do 5 sides machining in one setup)





Standard accessories (No screws, T-caps)

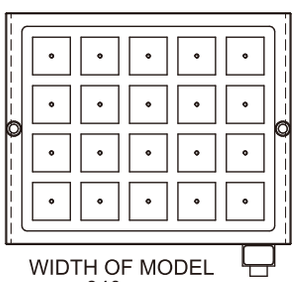


4 pressure plates
Center circle diameter: 17mm
Thickness: 30mm

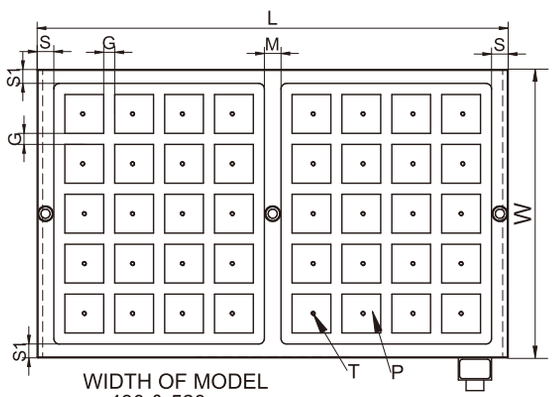
Pole 70X70 mm, Flux Line 40 mm,
Magnetic Force 2800±5% kgf/4 Poles

Applications:

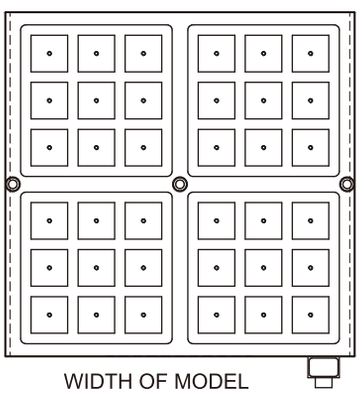
1. Suitable for medium and large workpiece on heavy duty machining.
2. Suitable for medium and double column machining center.
3. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is necessary for optimum clamping.
4. More functions for cooperate with Induction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



WIDTH OF MODEL
340mm



WIDTH OF MODEL
430 & 520 mm



WIDTH OF MODEL
660 & 840 mm

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)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	W	L	S	S1	M	T	H											
EEPM-3060D	340	670	30	25	30	M10	70	20	70×70	18	12600	126kg	CHUCK DC 220V CONTROLLER AC 220V ~ 480V	24A	C2-G	CHUCK DC 380V CONTROLLER AC 380V ~ 440V	25A	C1-B
EEPM-4050D	430	530	30	25	--					20	14000	126kg		13A	C2-G		22A	C1-B
EEPM-4060D	430	670	30	25	30					24	16800	159kg		24A	C2-G		29A	C1-B
EEPM-4080D	430	850	30	25	30					32	22400	202kg		16A	C4-G		27A	C2-B
EEPM-5060D	520	670	30	25	30					30	21000	193kg		19A	C2-G		17A	C2-B
EEPM-5080D	520	850	30	25	30					40	28000	244kg		13A	C4-G		22A	C2-B
EEPM-6060D	660	670	30	25	30					36	25200	245kg		15A	C4-G		25A	C2-B
EEPM-6080D	660	850	30	25	30					48	33600	310kg		24A	C4-G		29A	C2-B
EEPM-8080D	840	850	30	25	30					64	44800	395kg		32A	C8-G		27A	C4-B

Customization is available.

Electro-Permanent Magnetic Chuck

EEPM-E Series

Suitable for CNC Vertical Machining Center(Can do 5 sides machining in one setup)





Standard accessories (No screws, T-caps)

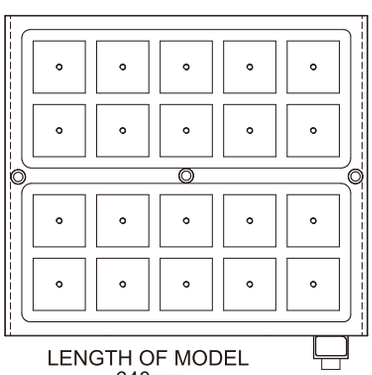


4 pressure plates
Center circle diameter：17mm
Thickness：30mm

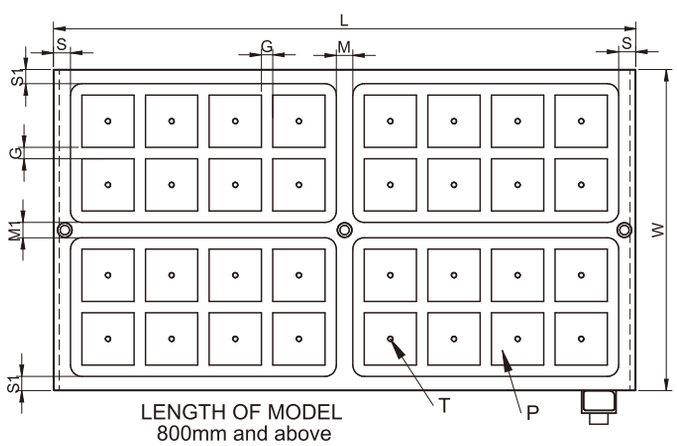
Pole 92X92 mm, Flux Line 50 mm,
Magnetic Force 4800±5% kgf/4 Poles

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)



LENGTH OF MODEL
640mm



LENGTH OF MODEL
800mm and above

Unit:mm

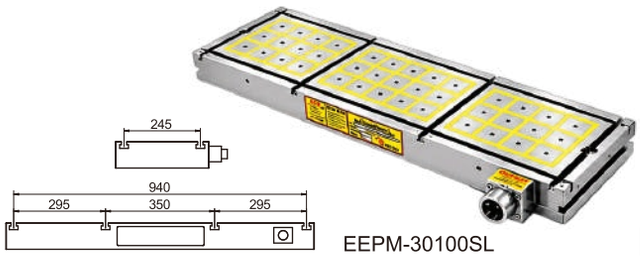
MODEL NO.	DIMENSION								PITCH G	POLE P	NO. OF POLE	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	W	L	S	S1	M	M1	T	H								
EEPM-6060E	565	640	30	25	--	27	M10	70	20	92×92	20	24000	214kg	CHUCK DC 380V CONTROLLER AC 380V~440V	24A	C2-B
EEPM-60100E	565	1025	30	25	29	27					32	38400	343kg		13A	C4-B
EEPM-60120E	565	1250	30	25	30	27					40	48000	418kg		24A	C4-B
EEPM-8080E	790	800	30	25	28	28					36	43200	374kg		26A	C4-B
EEPM-80100E	790	1025	30	25	29	28					48	57600	480kg		19A	C4-B
EEPM-80120E	790	1250	30	25	30	28					60	72000	585kg		15A	C8-B

Customization is available.

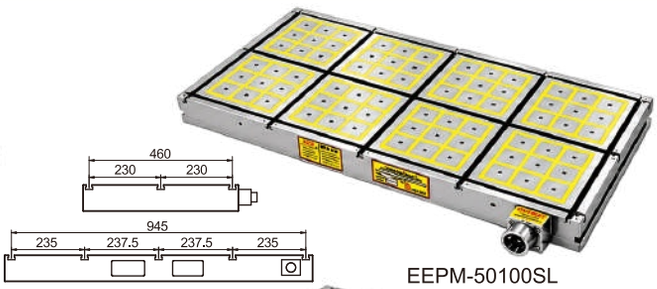
Electro-Permanent Magnetic Chuck

EEPM-SL Series

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

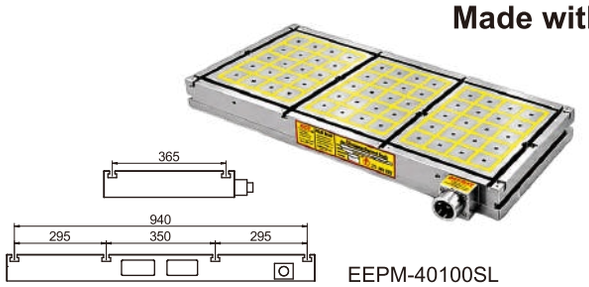


EEPM-30100SL

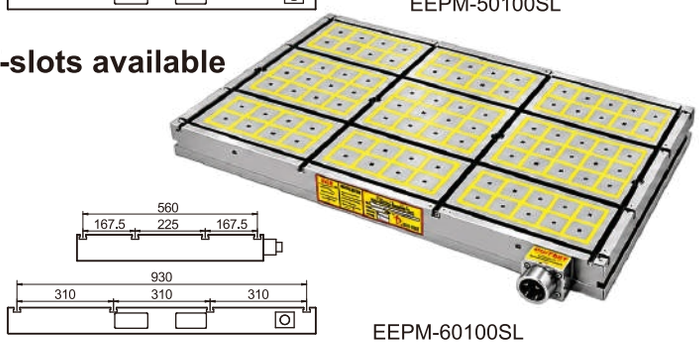


EEPM-50100SL

Made with T-slots available



EEPM-40100SL



EEPM-60100SL

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

Unit:mm

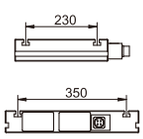
MODEL NO.	DIMENSION L×W×H	PITCH	POLE	NO. OF POLE	T-SLOT	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
EEPM-30100SL	990×300×70	10	50×50	39	13 / 23	12100	160kg	CHUCK DC 220V CONTROLLER AC 220V~480V	24A	C2-G	CHUCK DC 380V CONTROLLER AC 380V~440V	16A	C2-B
EEPM-40100SL	990×420×70	10	50×50	65		20300	225kg		30A	C2-G		13A	C2-B
EEPM-50100SL	990×500×70	10	50×50	72		22500	260kg		14A	C4-G		14A	C2-B
EEPM-60100SL	990×600×70	10	50×50	84		26200	320kg		22A	C4-G		9A	C4-B

Customization is available.

Electro-Permanent Magnetic Chuck

EEPM-TA Series

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



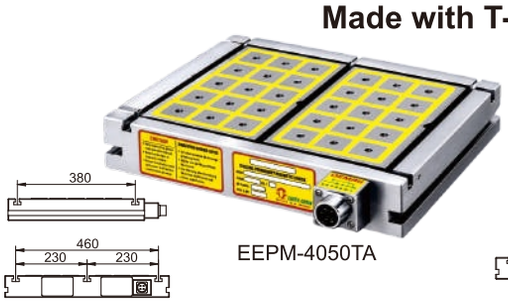


EEPM-3040TA

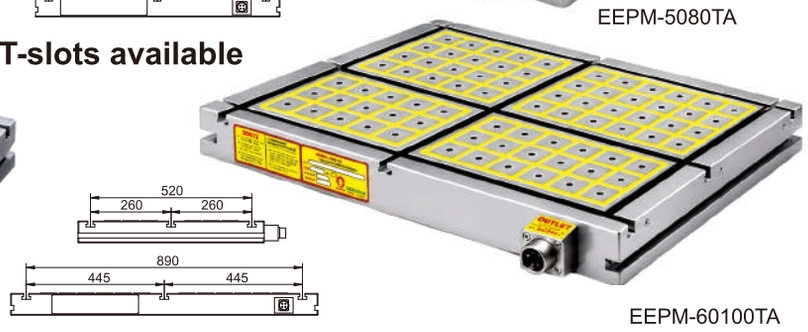


EEPM-5080TA

Made with T-slots available



EEPM-4050TA



EEPM-60100TA

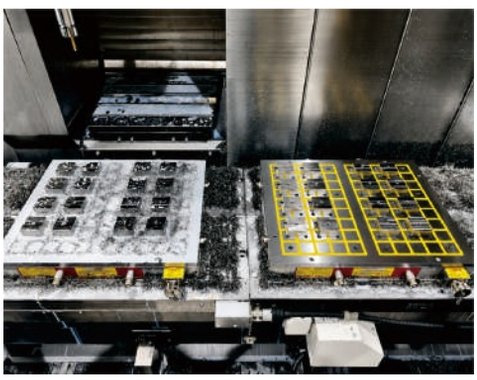
Lower price for big size of workpiece only.

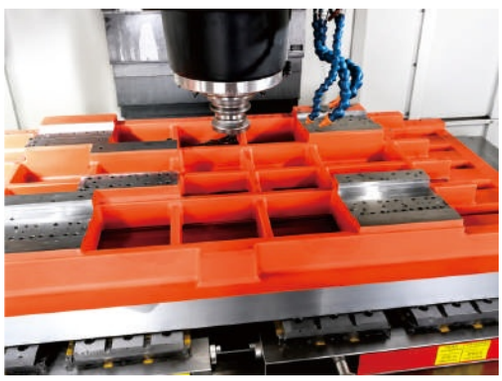
Unit:mm

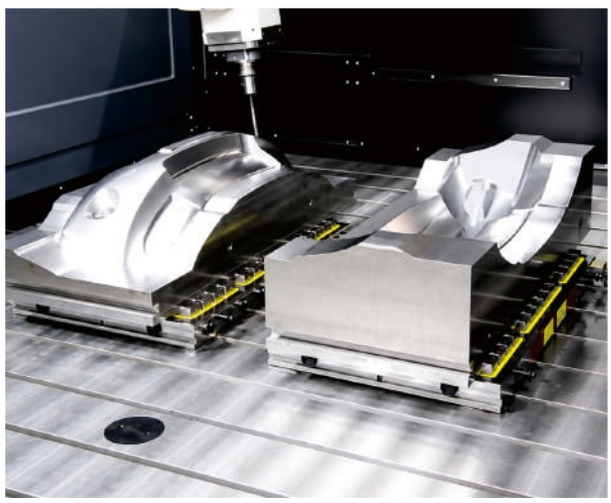
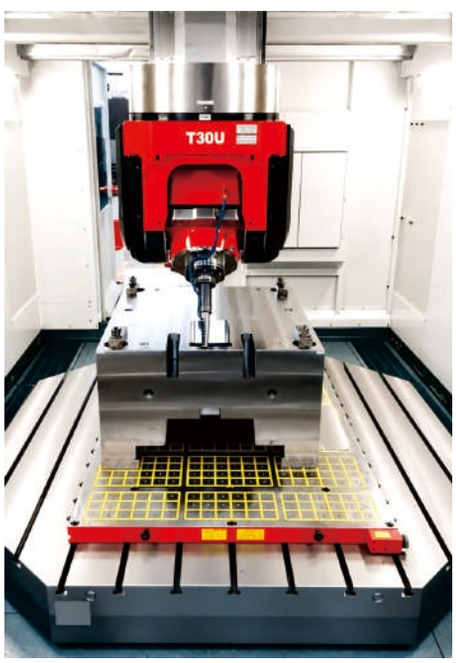
MODEL NO.	DIMENSION L×W×H	PITCH	POLE	NO. OF POLE	T-SLOT	TOTAL HOLDING POWER kgf ±5%	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
EEPM-3040TA	420×300×70	10	50×50	15	13 / 23	4600	50kg	CHUCK DC 220V CONTROLLER AC 220V~480V	17A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

Customization is available.

Working Example







Controller

EEPM-C1/C2

Optional controller available for control 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

Human Machine Interface controller

EEPM-HMI

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

EEPM-C1/C2=Optional

EEPM-C4=Standard



Controller

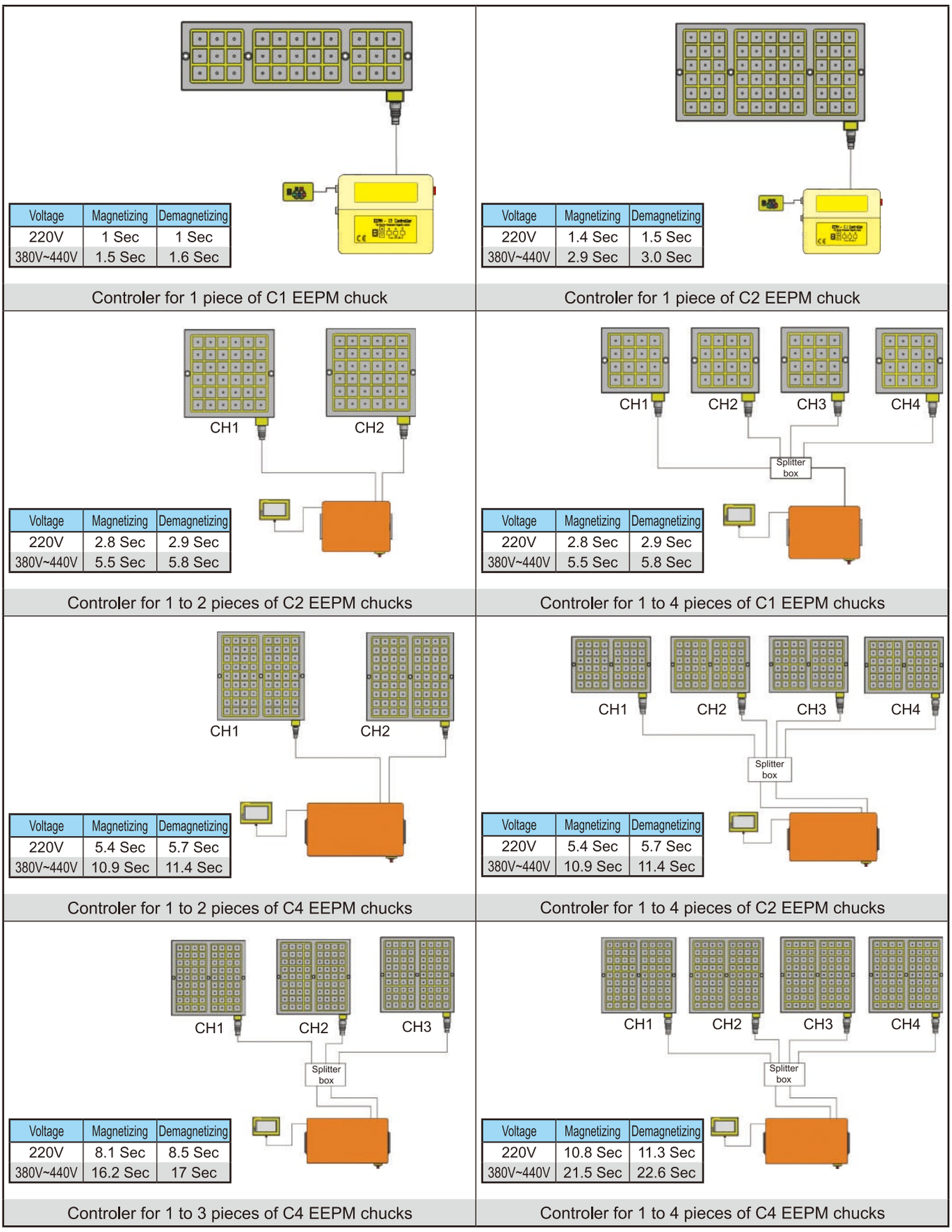
EEPM-HMI

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.

Option controller available for control multi-EEPM chuck

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



Voltage	Magnetizing	Demagnetizing
220V	1 Sec	1 Sec
380V~440V	1.5 Sec	1.6 Sec

Controler for 1 piece of C1 EEPM chuck

Voltage	Magnetizing	Demagnetizing
220V	1.4 Sec	1.5 Sec
380V~440V	2.9 Sec	3.0 Sec

Controler for 1 piece of C2 EEPM chuck

Voltage	Magnetizing	Demagnetizing
220V	2.8 Sec	2.9 Sec
380V~440V	5.5 Sec	5.8 Sec

Controler for 1 to 2 pieces of C2 EEPM chucks

Voltage	Magnetizing	Demagnetizing
220V	2.8 Sec	2.9 Sec
380V~440V	5.5 Sec	5.8 Sec

Controler for 1 to 4 pieces of C1 EEPM chucks

Voltage	Magnetizing	Demagnetizing
220V	5.4 Sec	5.7 Sec
380V~440V	10.9 Sec	11.4 Sec

Controler for 1 to 2 pieces of C4 EEPM chucks

Voltage	Magnetizing	Demagnetizing
220V	5.4 Sec	5.7 Sec
380V~440V	10.9 Sec	11.4 Sec

Controler for 1 to 4 pieces of C2 EEPM chucks

Voltage	Magnetizing	Demagnetizing
220V	8.1 Sec	8.5 Sec
380V~440V	16.2 Sec	17 Sec

Controler for 1 to 3 pieces of C4 EEPM chucks

Voltage	Magnetizing	Demagnetizing
220V	10.8 Sec	11.3 Sec
380V~440V	21.5 Sec	22.6 Sec

Controler for 1 to 4 pieces of C4 EEPM chucks

Induction Block

EEPM-IB Series

To be used on EEPM Series Electro-Permanent Magnetic Chuck.

(Option Accessories)



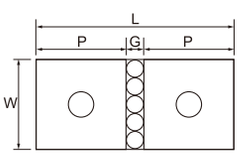
Features:

1. Induction Block EEPM-IB series are used with EEPM chucks, can be bring 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 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.

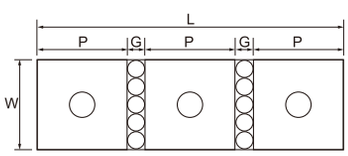
EEPM-IBM Suitable for use on EEPM-M Series Chucks.

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

EEPM-IBB Suitable for use on EEPM-B Series Chucks.

Unit:mm

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

MODEL NO.	NO. OF POLE	W	L	HEIGHT	P	G
EEPM-IB250B	2	50	110	50	50	10
EEPM-IB350B	3	50	170	50	50	10

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

Unit:mm

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

EEPM-IBE Suitable for use on EEPM-E Series Chucks.

Unit:mm

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

Relative magnetic force to reduction 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:

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

Induction Block

EEPM-IBT Series

Suitable to be used with EEPM Series of Electro-Permanent Magnetic Chuck. (Option Accessories)

30°	45°	60°	90°
			
EEPM-IBT30B	EEPM-IBT45B	EEPM-IBT60B	EEPM-IBT90B
			
Working Example			

90°			120°		
					
EEPM-IB90V3	EEPM-IB90V4	EEPM-IB90V6	EEPM-IB120V3	EEPM-IB120V4	EEPM-IB120V6
					
Working Example					

Stopping Plate

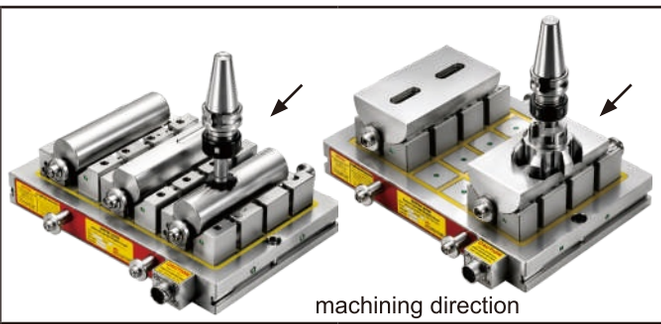
04-EEPM-PS40E

(Option Accessories)



04-EEPM-PS40E

Due to the holding surface of small workpiece is not big enough so please always use the Stopping Plate EEPM-PS40 for avoid the workpiece moving when machining.



machining direction

Spring Block

EEPM-SPR Series

(Option Accessories)

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

Patent Protected violators will be prosecuted: Patented Taiwan M605141



Fixed Block
EEPM-SPF Series



Spring Block
EEPM-SPR Series

Features:

1. Suitable for clamping on iron cast, irregular form and flexuous workpieces, it will not be out of shape 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%

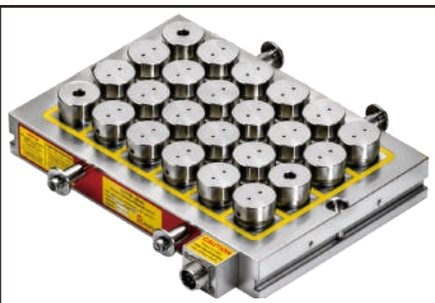
Unit:mm

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

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

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







Induction Sub Plate

EEPM-ISP Series

(Option Accessories)

Suitable to be used with quantity of irregular and smaller workpiece. It can be machining multi-workpiece at same time easily.

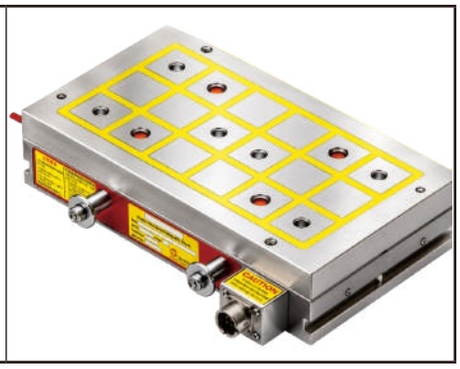


Features:

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.







Induction block with raise pin structure

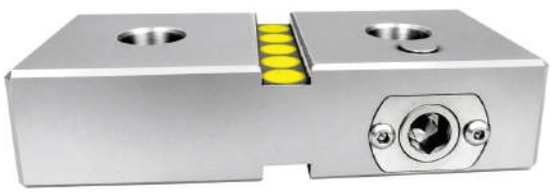
EEPM-IB225BT

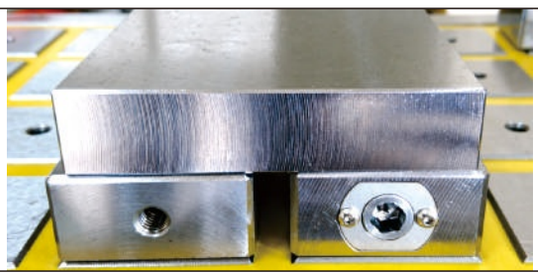
Suitable to be used with high-carbon steel workpiece

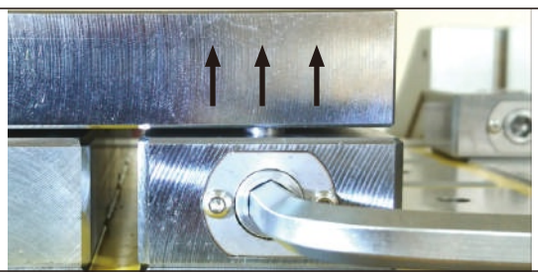
(Option Accessories)

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

(Option Accessories)

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.





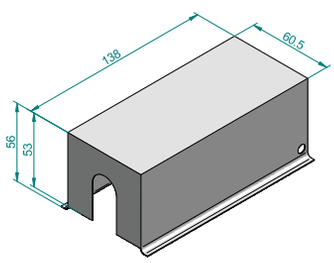
Cover of Connector Base

EEPM-CMS/CMS1

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

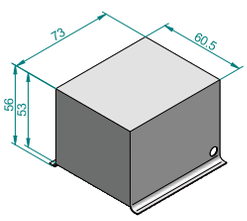
(Option Accessories)

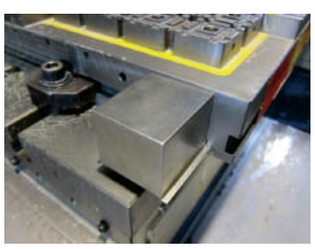
EEPM-CMS





EEPM-CMS1

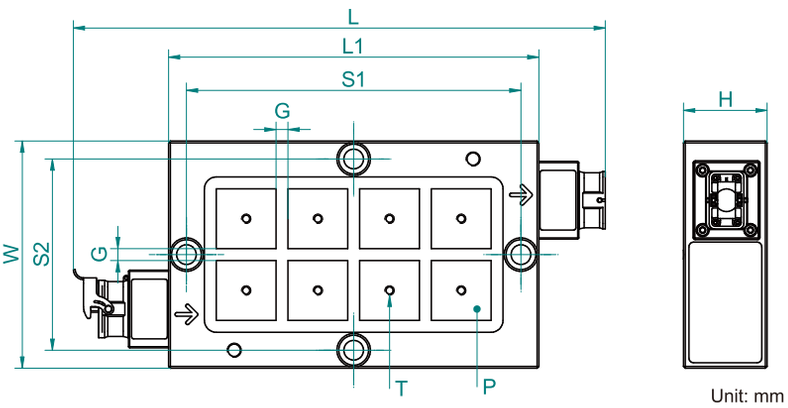




Suitable to be used with large Vertical Lathe, Double Column Machining Center and CNC Machining Center …etc.

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



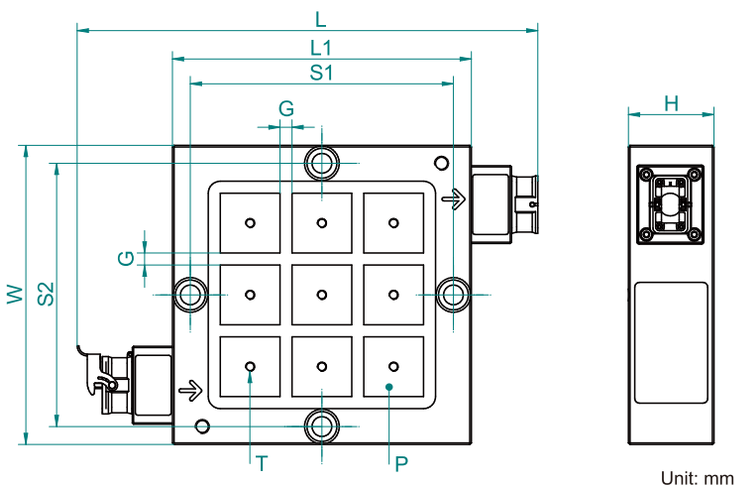


EEPM-2030C-220V

Unit: mm

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					
EEPM-2030C	DC 220V	AC 220V~480V	190	446	310	280	160	70	M8	10	50×50	8	2500±5% kgf	33.5kg



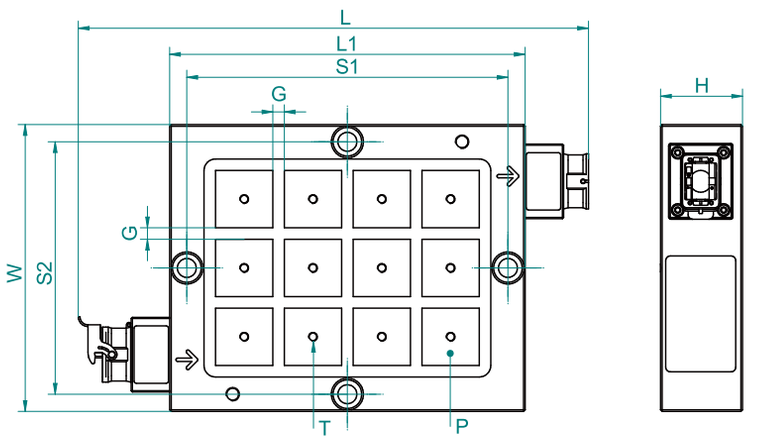


EEPM-2525C-220V

Unit: mm

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					
EEPM-2525C	DC 220V	AC 220V~480V	250	386	250	220	220	70	M8	10	50×50	9	2800±5% kgf	35.0kg





EEPM-2530C-380V~440V

Unit: mm

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					
EEPM-2530C	DC 380V	AC 380V~440V	250	446	310	280	220	70	M8	10	50×50	12	3750±5% kgf	44.0kg

Electro-Permanent Magnetic Chuck-Connection Type

EEPM-C Series

Suitable to be used with large Vertical Lathe, Double Column Machining Center and CNC Machining Center …etc.

Features:

1. Super power magnetic force 1250 kgf/100 cm^2(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, EEPM-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 EEPM-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 EEPM-C4CR



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

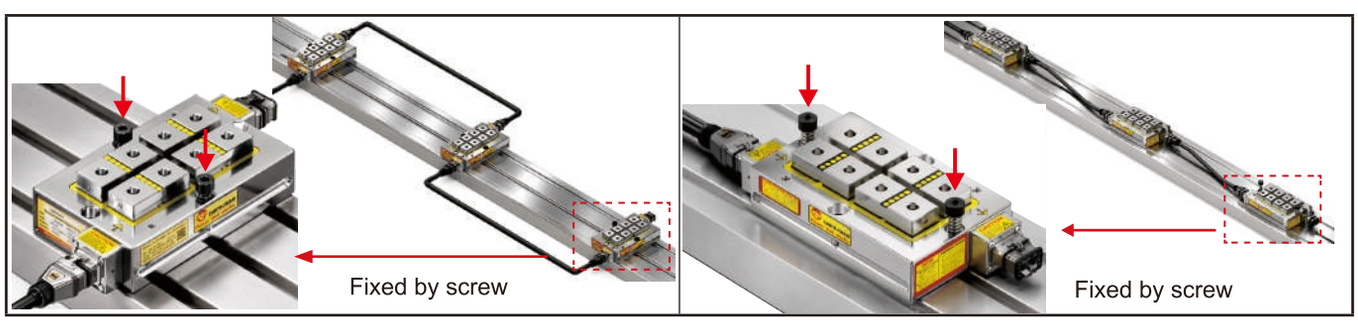
Unit:mm

MODEL NO	VOLTAGE (Single Phase)	DIMENSION			SUITABLE
		L	W	H	
EEPM-C4CR-G	AC 220V~480V	370	220	125	EEPM-2030C EEPM-2525C
EEPM-C4CR-B	AC 380V~440V				EEPM-2530C

Standard accessories Screw Size

T-Slot	A	B	C	D	F	Thread
18	$18^{+0}_{-0.3}$	20	11	28	32	5/8″-11
22	$20^{+0}_{-0.3}$	26	14	32	38	5/8″-11
28	$26^{+0}_{-0.3}$	26	16	41	40	5/8″-11

Chuck installation direction:



Suitable to be used with large Vertical Lathe, Double Column Machining Center and CNC Machining Center …etc.

Chuck Connection Cable

Standard Accessories - (Iron Fle ible Conduit)

Suitable for general machining.



MODEL NO.	LENGTH
EEPM-CC10R	1000mm
EEPM-CC15R	1500mm

Optional Accessories - (Stainless Steel Fle ible Conduit)

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



MODEL NO.	LENGTH
EEPM-CC10BR	1000mm
EEPM-CC15BR	1500mm

Standard Accessories-Induction soft Block



EEPM-IB225



EEPM-IB325

Relative magnetic force and EEPM-IB percentage table

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

Option Accessories-Sping Block EEPM-SP Series



Fixed Block EEPM-SPF



Spring Block EEPM-SP

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.

Unit: mm

MODEL NO.	D	H
EEPM-SP	48	32.5
EEPM-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	EEPM-2030C 220V			EEPM-2525C 220V			EEPM-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%	CURRENT AMP
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.									

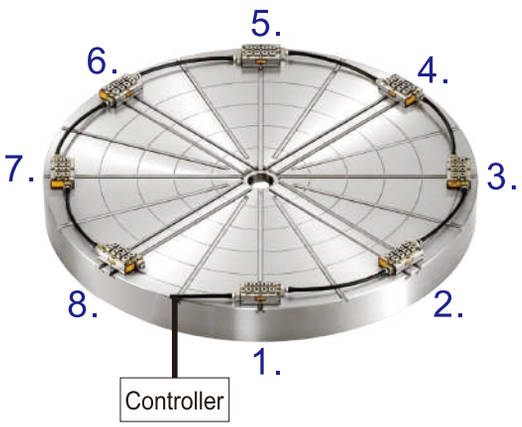
Notice:

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

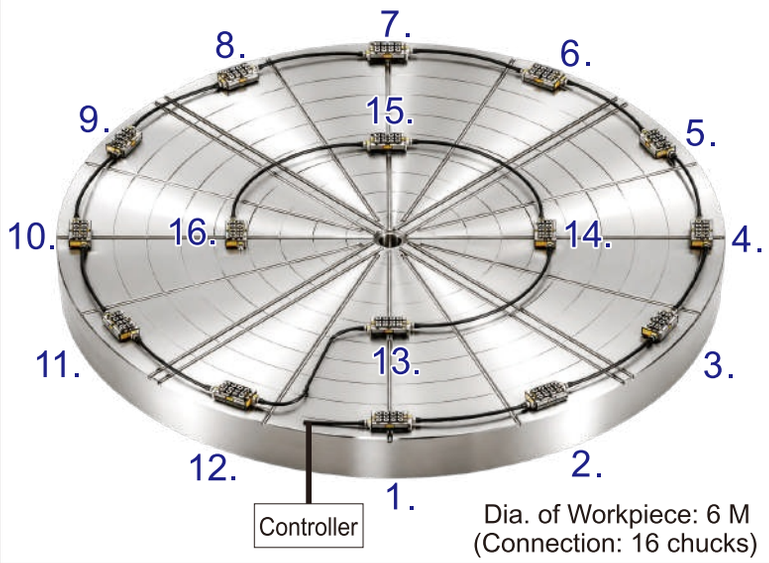
No. of EEPM-CS	3-4 Chucks	5-10 Chucks	11-16 Chucks
Max. Distance Between Chucks	800 mm	1000 mm	1500 mm

Suitable to be used with large Vertical Lathe, Double Column Machining Center and CNC Machining Center …etc.

Example of Vertical Lathe on Setting:

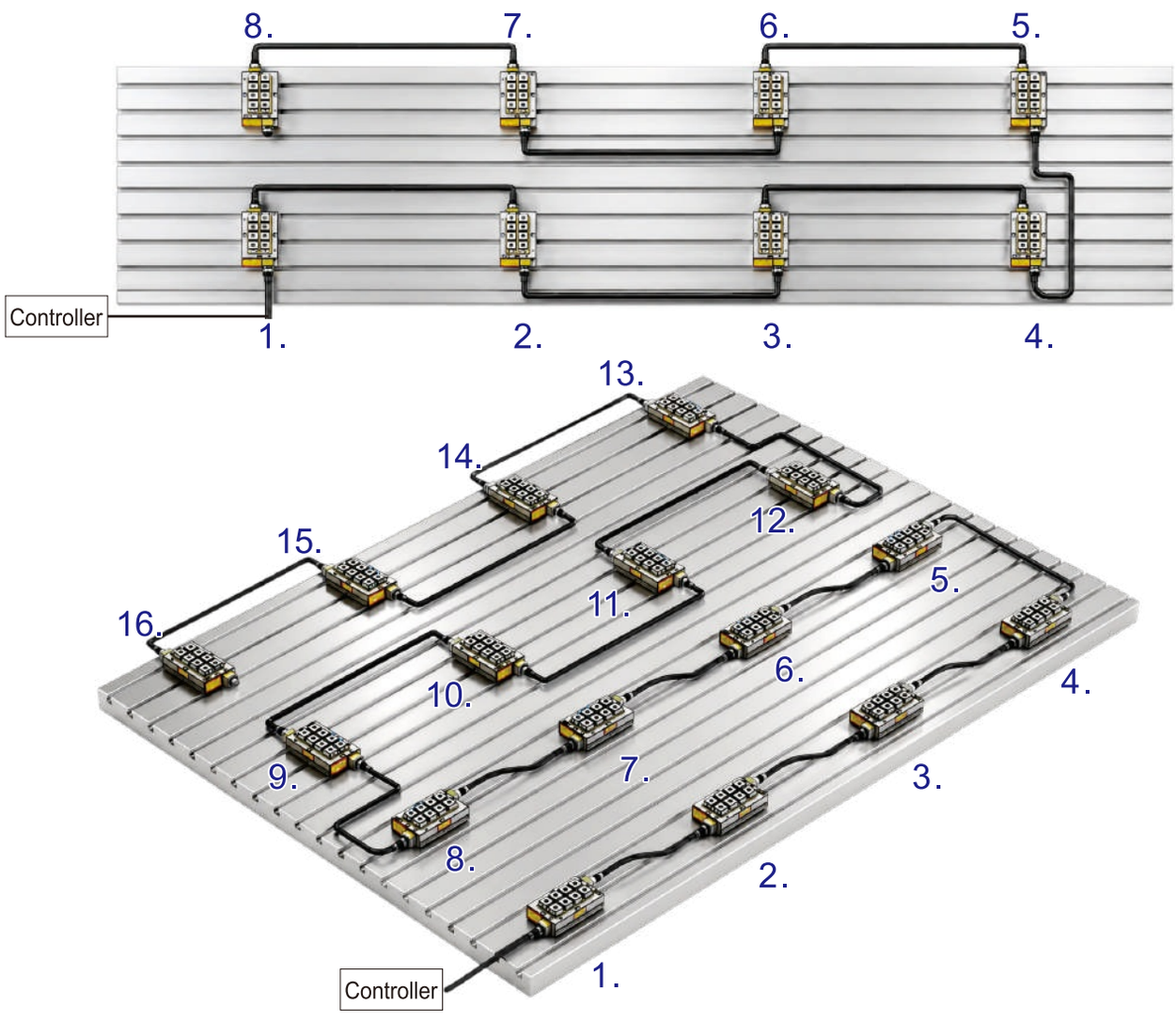


Dia. of Workpiece: 3.5 M
(Connection: 8 chucks)



Dia. of Workpiece: 6 M
(Connection: 16 chucks)

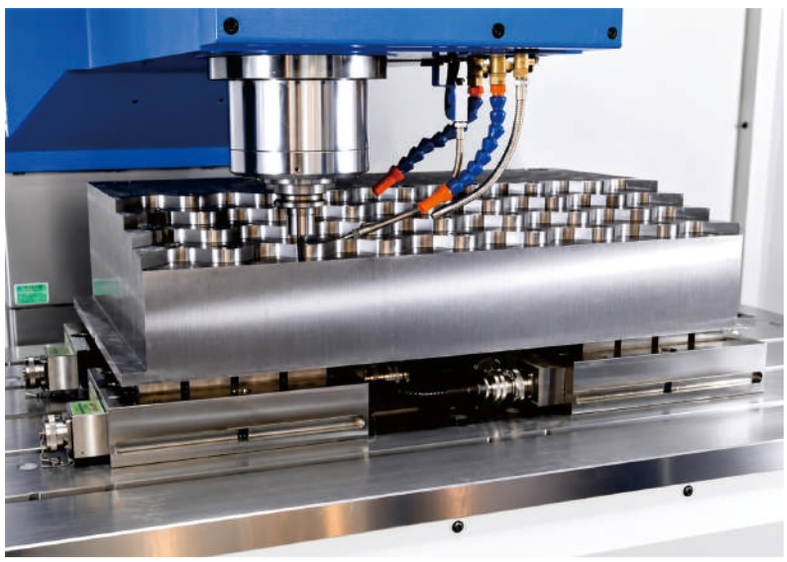
Example of Double Column Machining Center and CNC Machining Center on Setting

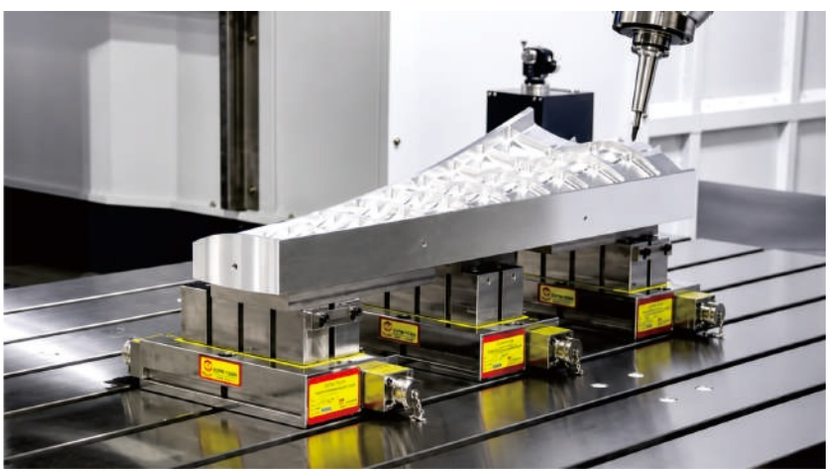


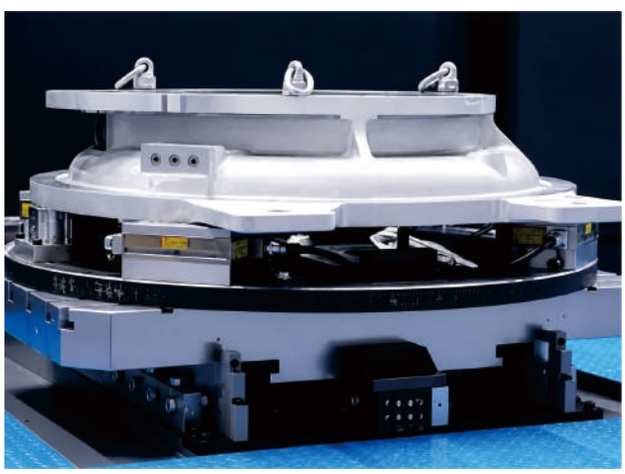
Suitable to be used with large Vertical Lathe, Double Column Machining Center and CNC Machining Center …etc.

Working Example





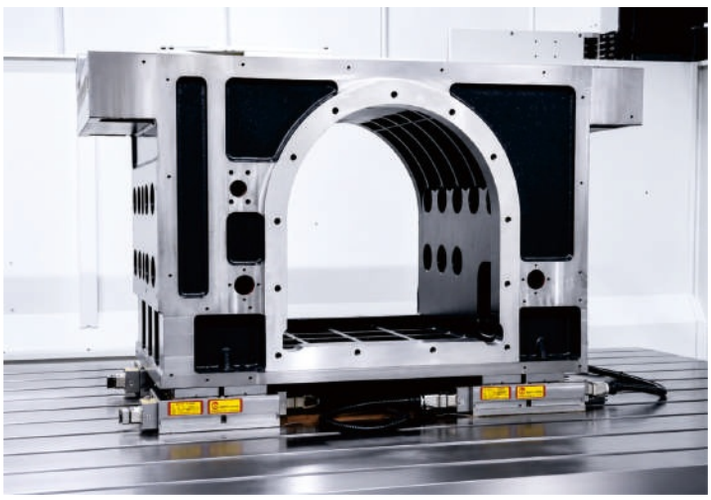


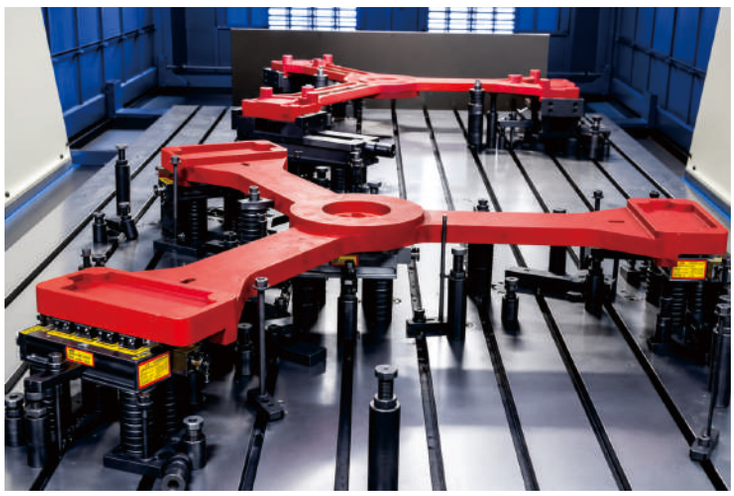


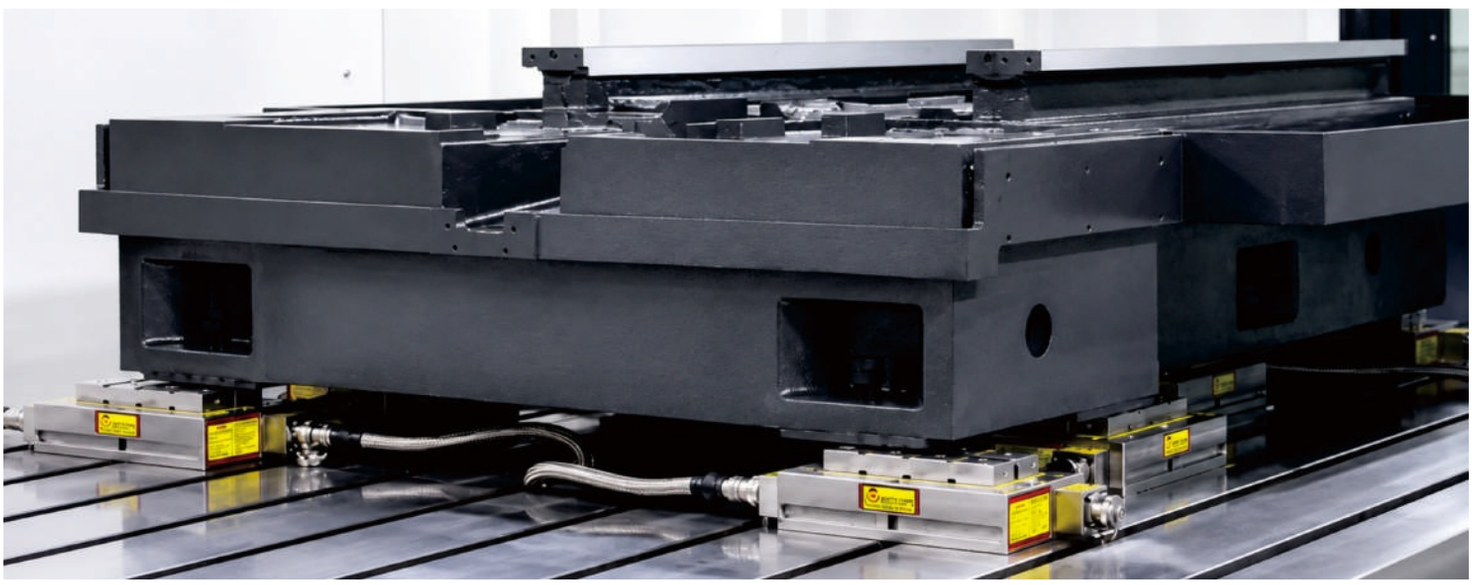


Suitable to be used with large Vertical Lathe, Double Column Machining Center and CNC Machining Center …etc.

Working Example









Permanent Electro-Magnet

PECM Series

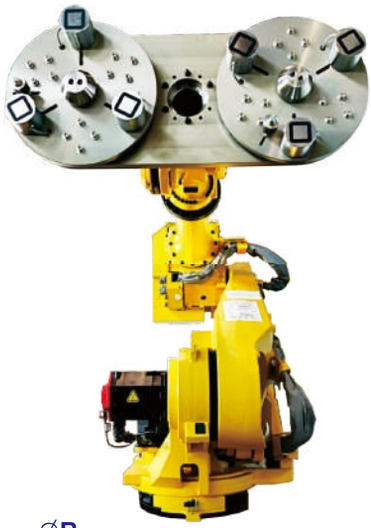
Suitable to be used with Automatic Robotic Arm clamping

Applied with robot arm for automatic production & transport line of medical equipment, machine, laboratory equipment



Features:

Clamping the workpiece by permanent magnetic structure. Prevent workpiece drop even power supply failure. With nature north pole magnetism, reverse to be south pole magnetism after power supply. Enable clamp & de-clamp process.



Operation Condition:

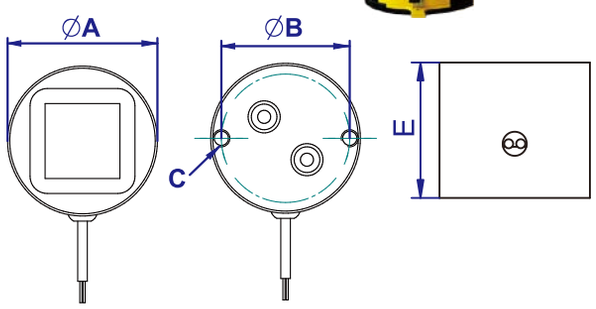
1. No continuous power supply longer than 30 seconds.
2. Working enviroment temperature lower than 80 degree celsius.





Unit: mm

Model	A	B	C	E	LINE LENGTH	VOLTAGE (Single Phase)	CURRENT AMP	N.W. kg	HOLDING POWER
PECM-A-100	70	60	M8	60	500	24V(DC)	3	1.8	100 kgf±5%
PECM-B-300	100	85	M10	90	500	24V(DC)	4	6.2	300 kgf±5%



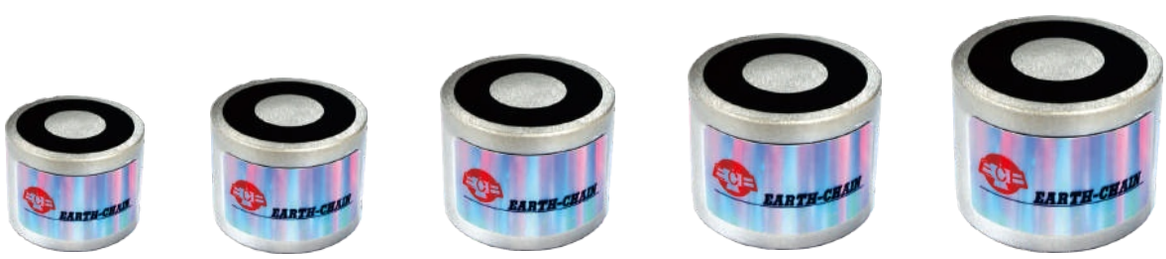
Electro-Magnet

ECM Server

Suitable to be used with Automatic Robotic Arm clamping

Light weight Powerful High Safety Low Price Easy assembly

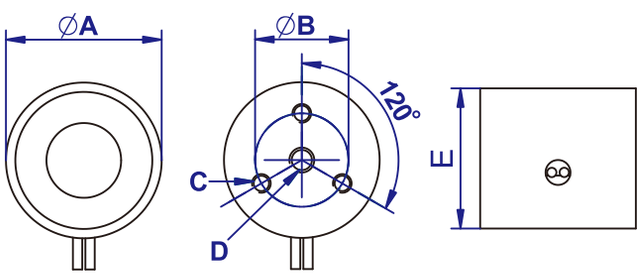
Suitable for automated production line including robotic arm, medical, machine, laboratory equipment and other automatic processing production line materials or product transport applications.



ECM-25 ECM-30 ECM-40 ECM-50 ECM-60

Unit: mm

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±5%
ECM-30	32	18	M3	M5	24.5	300	0.12	0.12	25 kgf±5%
ECM-40	42	26	M4	M5	30.5	300	0.25	0.26	60 kgf±5%
ECM-50	52	34	M4	M5	34.5	300	0.31	0.45	90 kgf±5%
ECM-60	65	40	M5	M8	38.5	300	0.40	0.78	160 kgf±5%

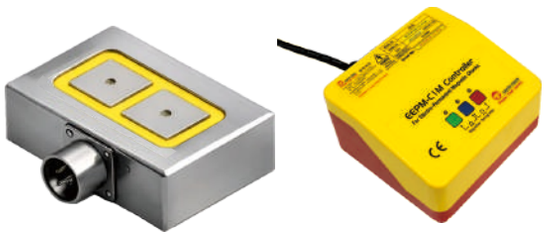


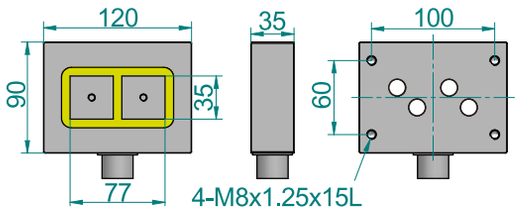
Electro-Permanent Magnetic Chuck

Suitable to be used with Automatic Robotic Arm clamping

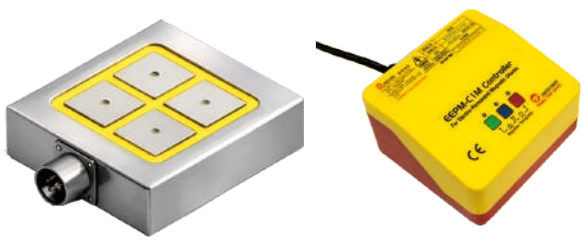
Light weight Powerful High Safety Low Price Easy assembly

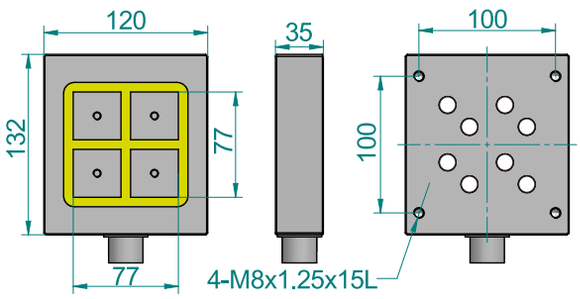
Suitable for automated production line including robotic arm, medical, machine, laboratory equipment and other automatic processing production line materials or product transport applications.



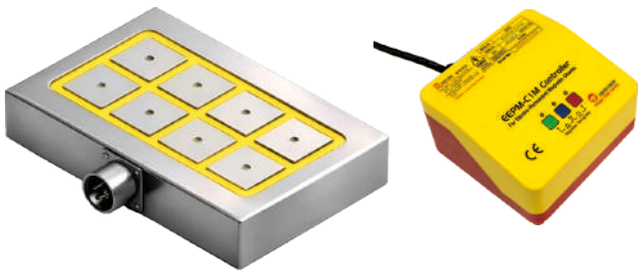


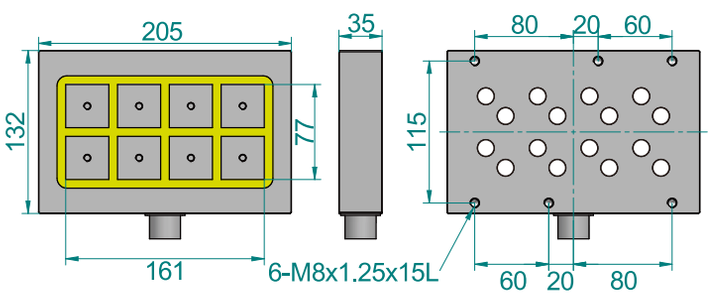
EPSM-0912A-220V





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.

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	H								
EPSM-0912A	90	120	35	7	35×35	2	280	2.6kg	220V	0.3A	C1M
EPSM-1312A	120	132	35			4	560	3.8kg		0.6A	C1M
EPSM-1320A	132	205	35			8	1120	6.4kg		2.8A	C1M

Customization is available.

Mini controller

EPSM-C1M

Suitable to be used with EPSM Series of Electro-Permanent Magnetic Chuck.



EEPM-C1M

Features:

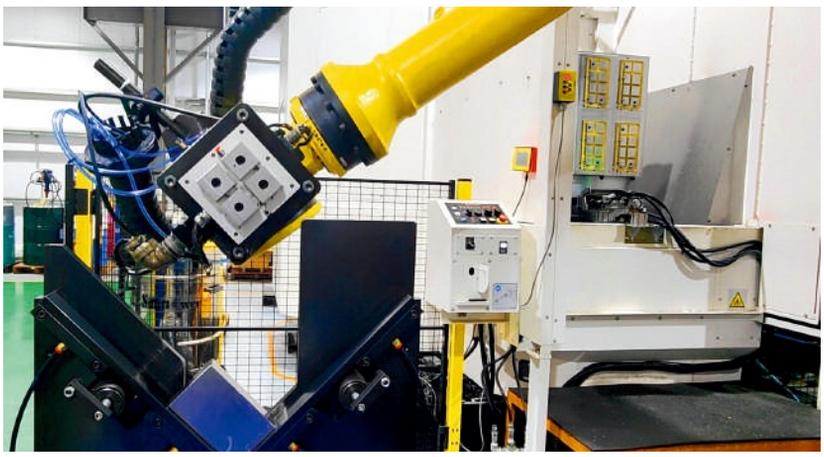
1. Small size, light weight, easy to connect and configure with machine equipment mechanism.
2. The working clock is up to 20Mhz, enable the real-time operation and feedback.
3. Equipped with PLC signal input interface, can be connected with machine automation system.
4. Two international standard voltages of AC220V and AC380V (single phase) for selection.
5. Double fuse structure, enhanced insulation and protection.
6. Optical coupler signal isolation interface, increasing the durability of the signal interface.

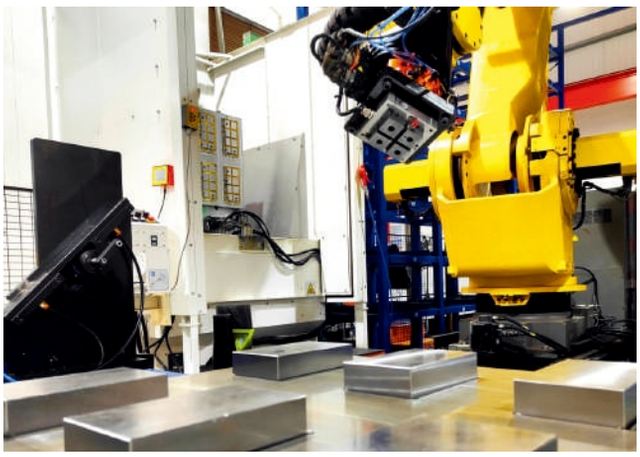
Working Example













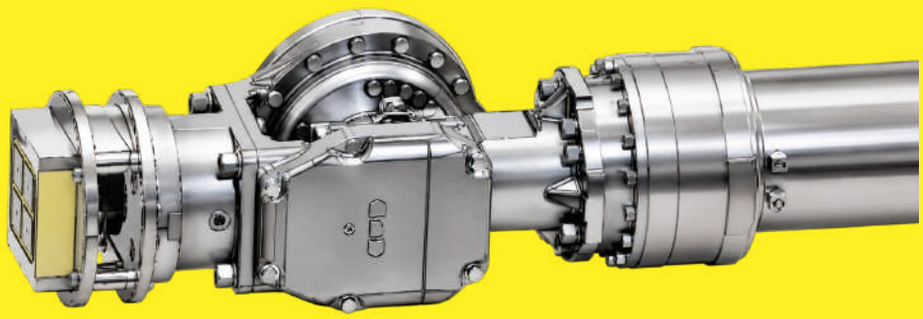
Use for the magnetic chuck system which need to be quickly and repeatedly perform magnetization and demagnetization operation

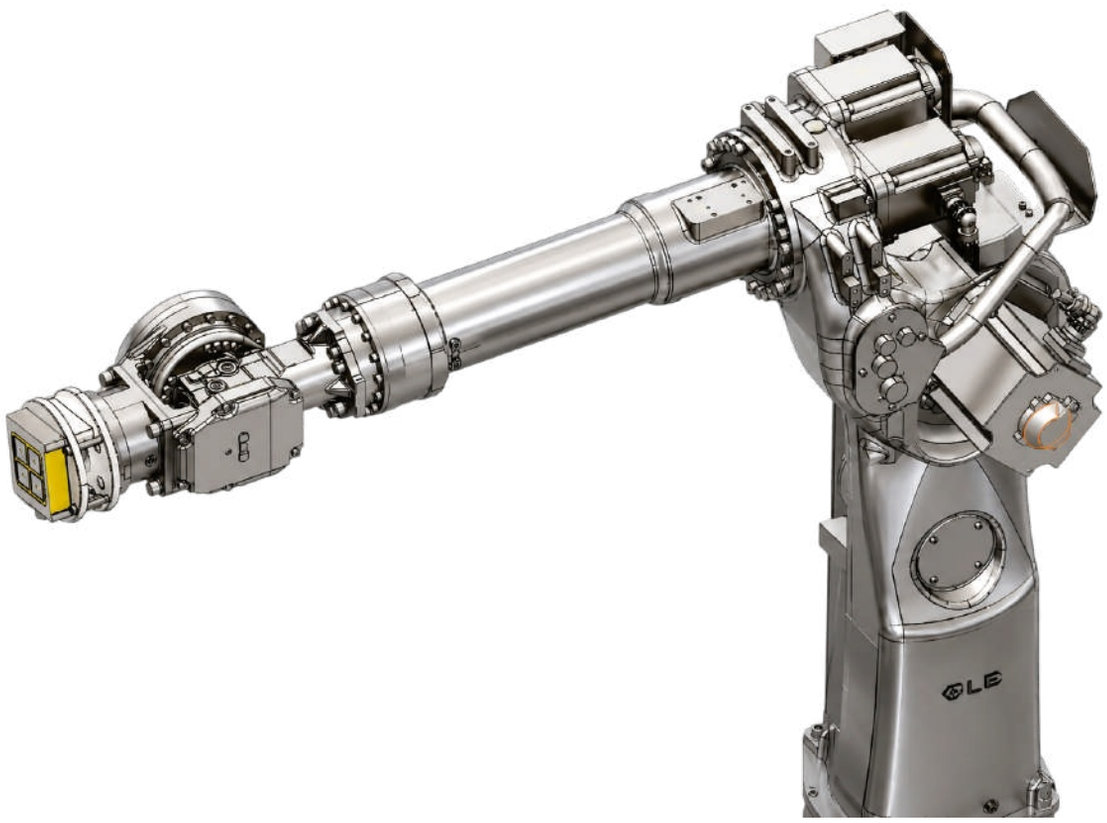
The magnetic chuck be equipped with silicon cooling chip, which is used to effectively control the internal temperature of the chuck while the robot arm continuously moves, avoiding the high temperature which will cause coil burning and magnet degaussing problems.









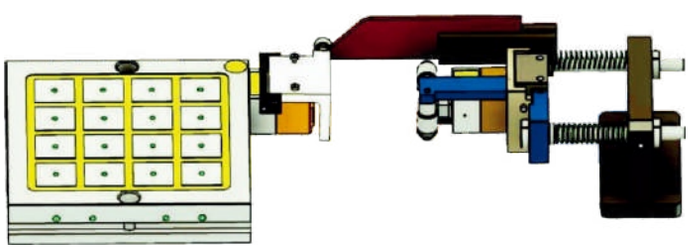


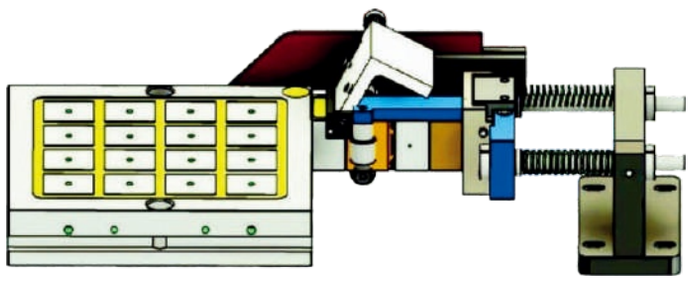
Used for automatic magnetic chuck's cable connection to perform magnetization and demagnetization operation

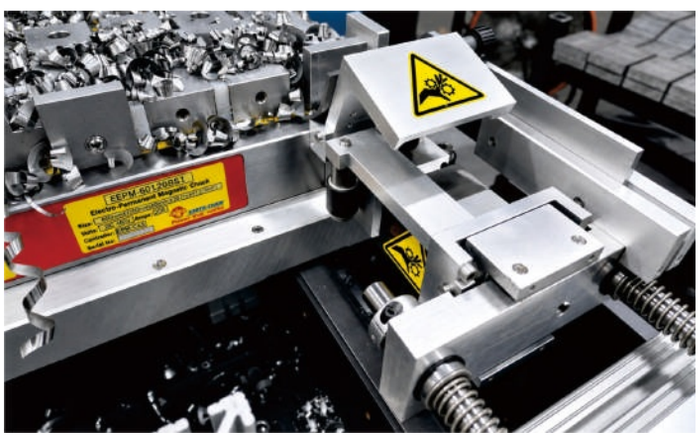


Features:

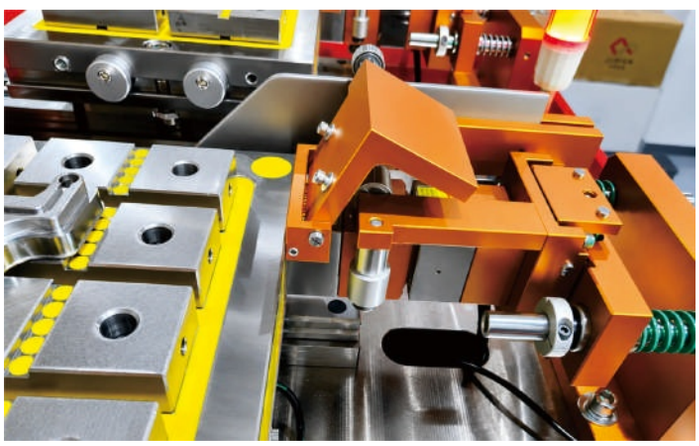
1. Combined with the automatic pallet exchanging system table, can effectively improve the utilization rate of a small amount of various production lines.
2. The patented design self-aligning connection mechanism, obviously reduce the possible connector damage during plugging and unplugging process, improve the life of automatic magnetic chuck system.
3. The mechanical roller protection cover structure can block the liquid and iron chips, ensuring the automatic production line can operate normally and safely.

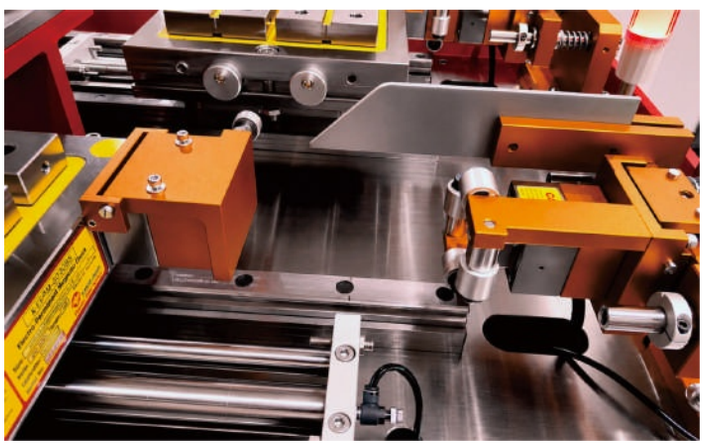












Automatic Zero Point Positioning Magnetic Chuck Changing System

EEPM Series

(Custom-made)

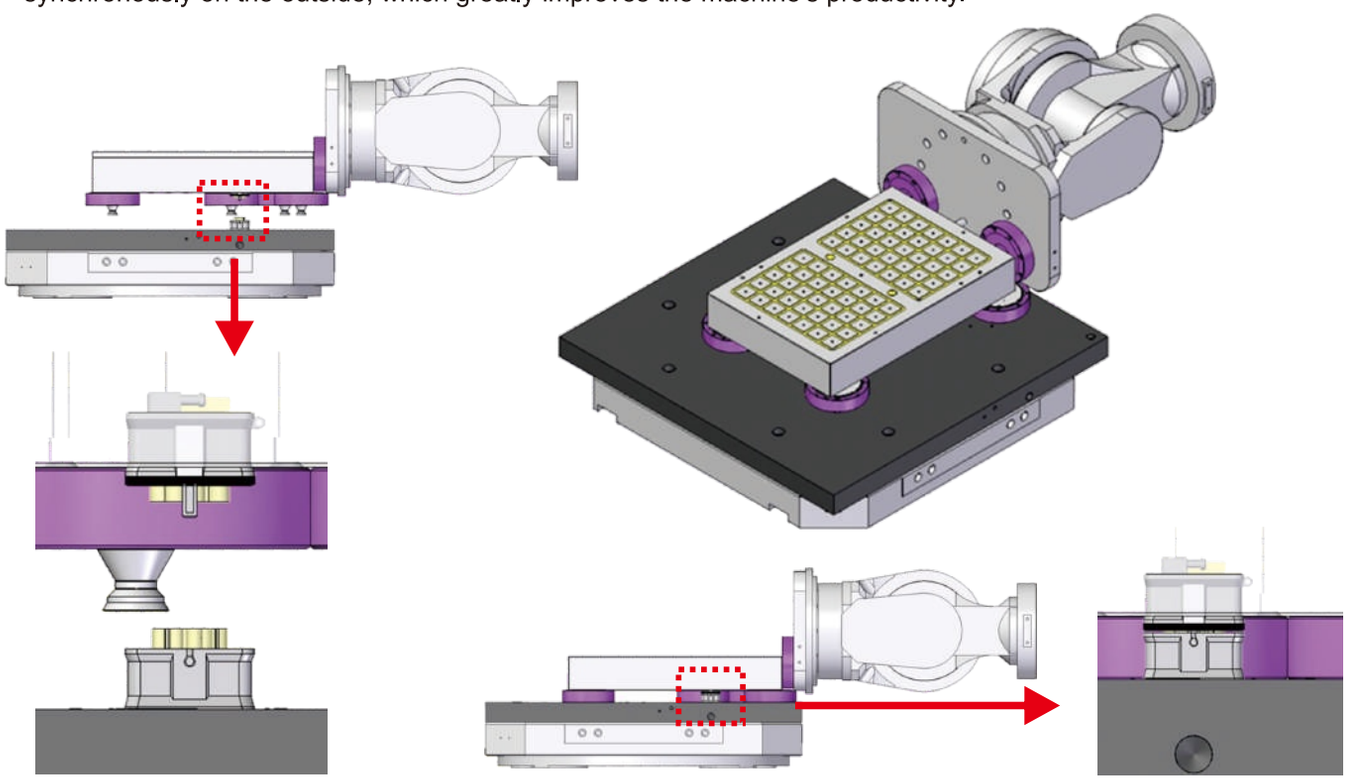
Electro-Permanent Magnetic chuck with zero point positioning system, can be used for automatic multi-magnetic chuck precisely positioning exchange, flexible fixture scheduling can effectively improve the utilization rate of a small amount of various production lines.

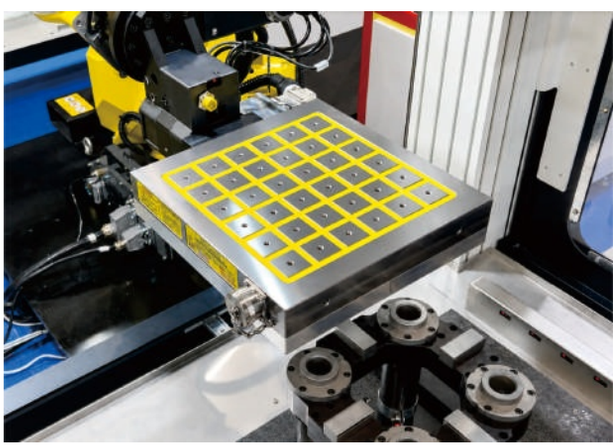




Features:

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. The zero point positioning system can be customized for different specification magnetic chucks.
3. The magnetic chuck also can be customized for various brands & specifications zero point positioning system.
4. Used with induction blocks, available 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. The processing is carried out inside the machine, and the loading and unloading actions can be completed synchronously on the outside, which greatly improves the machine's productivity.







Electro-Permanent Magnetic Chuck

Suitable to be used with CNC horizontal machining center



EEPM-500V2-A



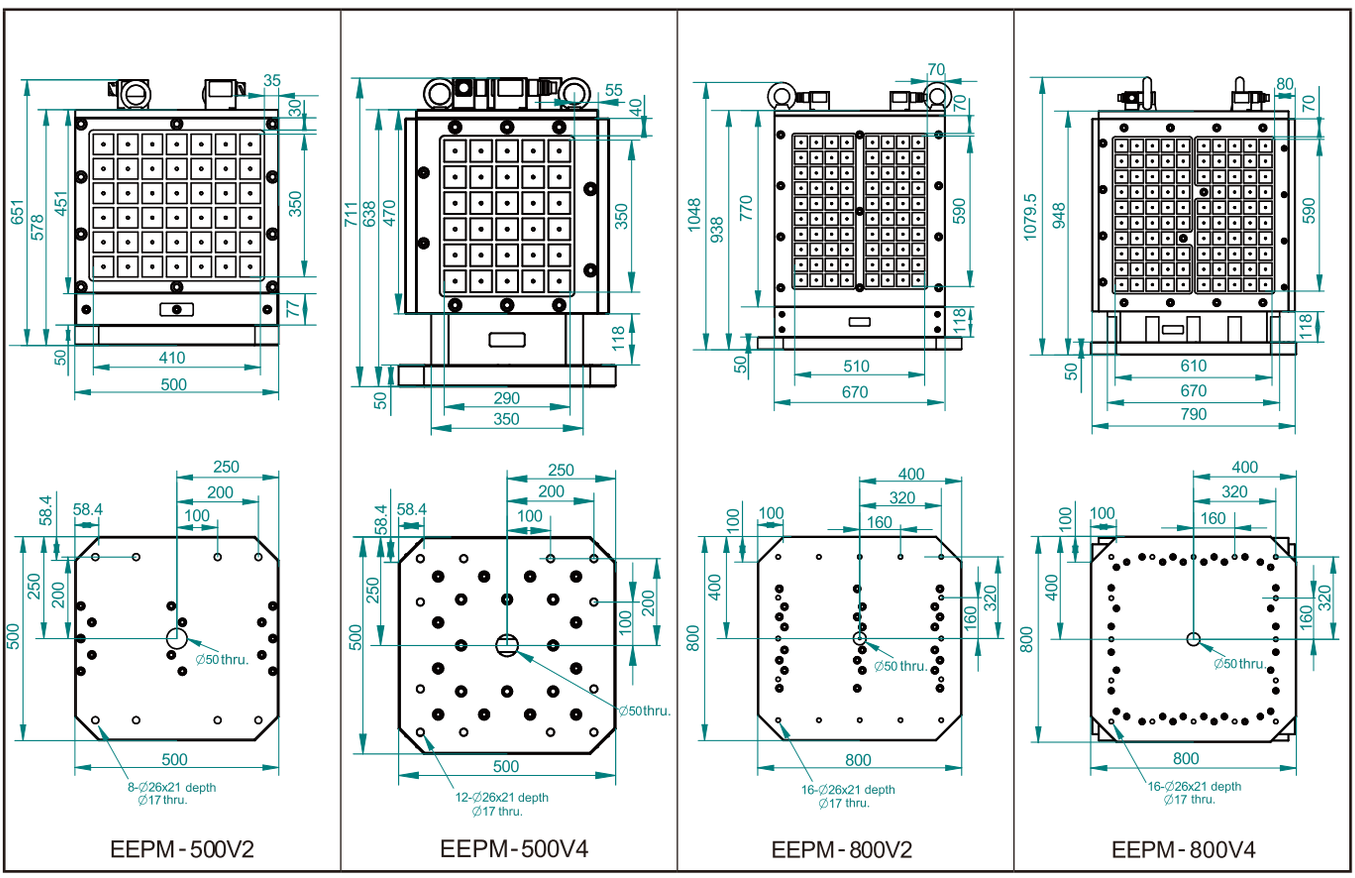
EEPM-500V4-A



EEPM-800V2-A



EEPM-800V4-A



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	430×500	10	50×50	42×2	13100	480kg	CHUCK DC 220V CONTROLLER AC 220V~480V	30A	C2-G	CHUCK DC 380V CONTROLLER AC 380V~440V	14A	C2-B
EEPM-500V4	450×470	10	50×50	30×4	9300	510kg		20A	C1-G		13A	C1-B
EEPM-800V2	750×760	10	50×50	80×2	25000	760kg		22A	C4-G		10A	C4-B
EEPM-800V4	750×760	10	50×50	98×4	30600	810kg		22A	C4-G		10A	C4-B

Customization is available.

Electro-Permanent Magnetic Chuck

Suitable to be used with CNC horizontal machining center

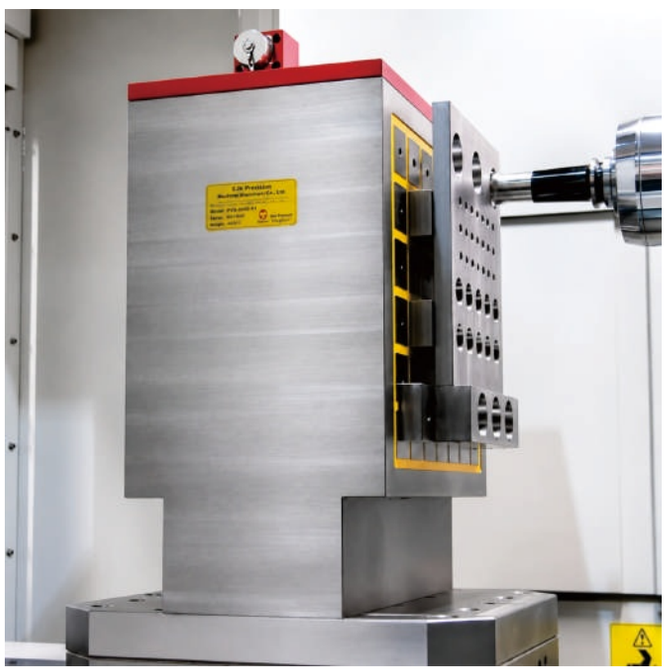
Features:

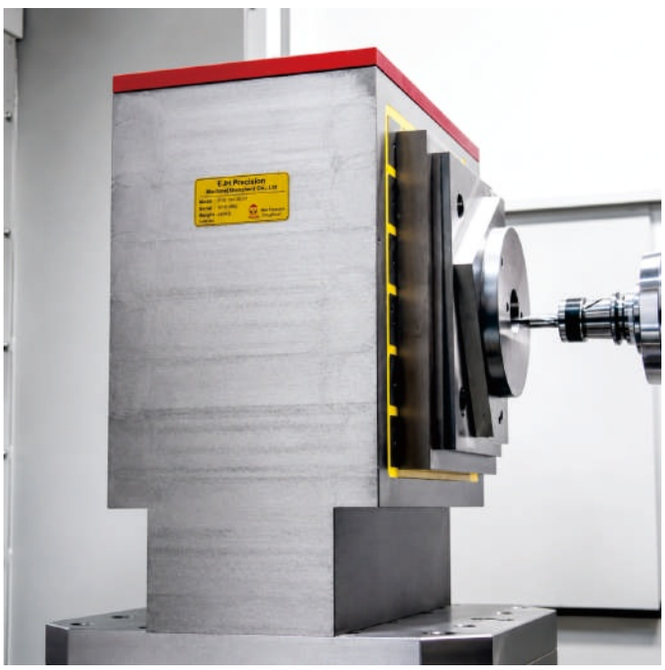
1. Super power magnetic force 1250kgf/100cm^2±5%. (4 Poles)
2. Control each working face for ON and OFF, so it can be load and unload the workpiece on each working face.
   3~10 seconds control for power ON and OFF.
3. Each EEPM-V type can be clamp multi-workpiece machining, instead of multi-pallet exchange.
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.

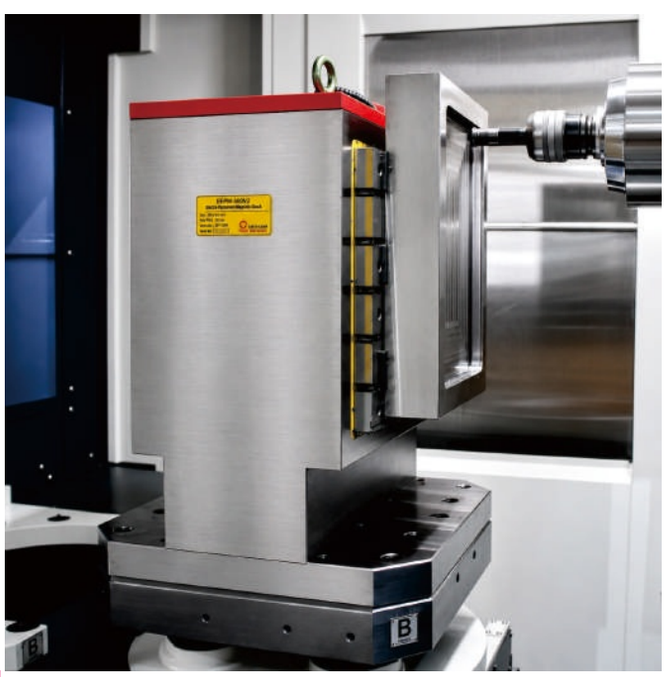
Applications:

1. Suitable for CNC horizontal machining center.
2. EEPM-V2 with 2 working faces suitable for bigger workpiece.
   EEPM-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









Multi-zone cooperative control magnetic chuck system

EEPM-V Series

Used for automatic processing with multi-workpiece clamping

(Custom-made)



Features:

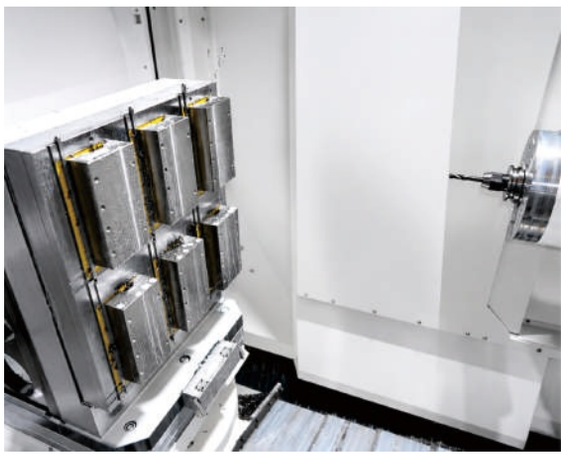
1. The operator can arbitrarily select partitions of the magnetic chuck, and perform magnetization or demagnetization actions independently.
2. Each partition of the magnetic chuck can be set independently, flexibly matched with workpieces of different sizes and thicknesses.
3. The controller can control multiple groups of different size chuck, saving space and cost for device installation.
4. The power connection will be automatic cut off when the magnetism is completed, effectively reduce the power consumption and achieve the purpose of energy saving.
5. The controller can be connected to the machine's operation interface, achieving real closed-loop control.

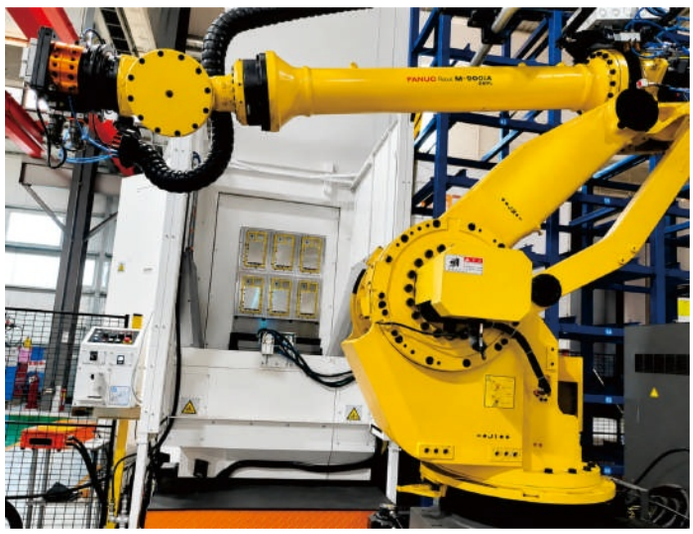
Working Example

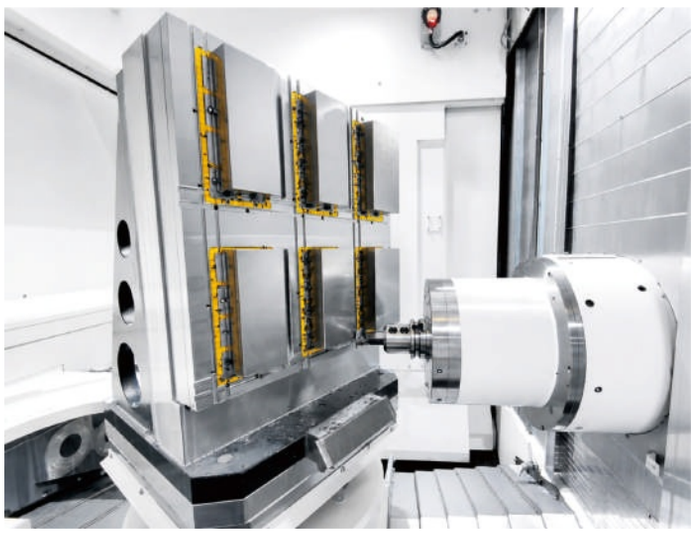
Panted Patent No:Taiwan M644892, China ZL 2023 2 0683326.3



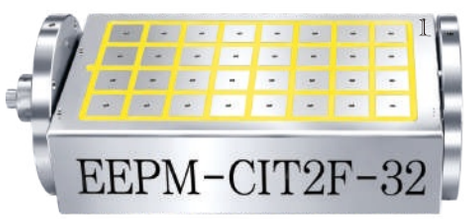


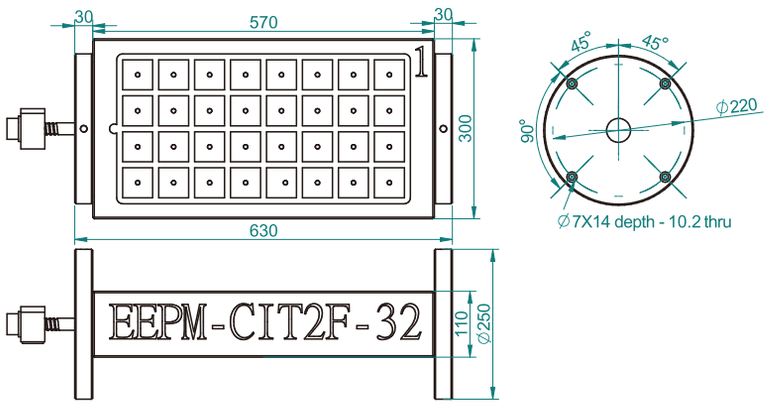






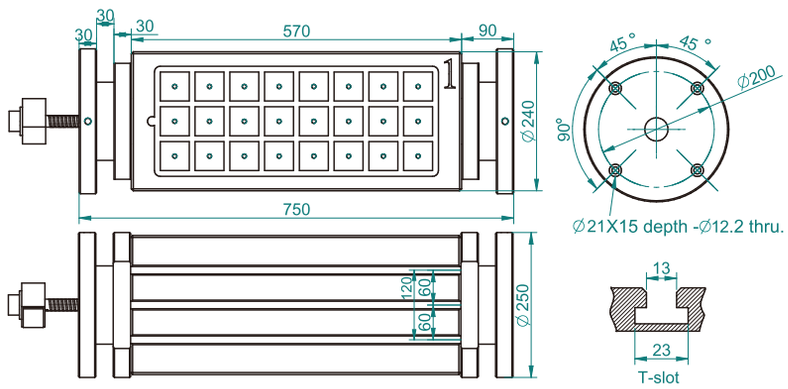
Suitable to be used with combine with CNC 4 Axis Index Device



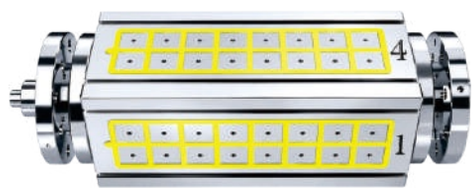


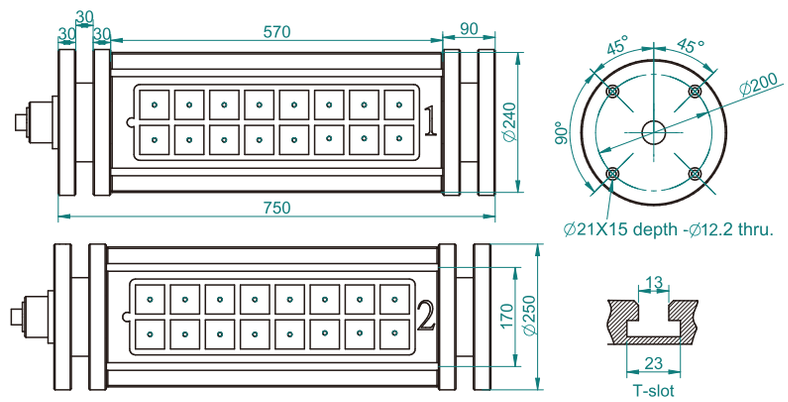
EEPM-CIT2F





EEPM-CIT2F2T





EEPM-CIT4FT

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)
EEPM-CIT2F	300×570	10	50×50	32×2	10000	141kg	CHUCK DC 220V CONTROLLER AC 220V~480V	30A	C2-2C1-G
EEPM-CIT2F2T	240×570	10	50×50	24×2	7500	228kg		23A	C2-2C1-G
EEPM-CIT4FT	240×570	10	50×50	16×4	5000	219kg		20A	C4-4C1-G

Customization is available.

Electro-Permanent Magnetic Chuck

EEPM-CIT Series

Suitable to be used with combine with CNC 4 Axis Index Device

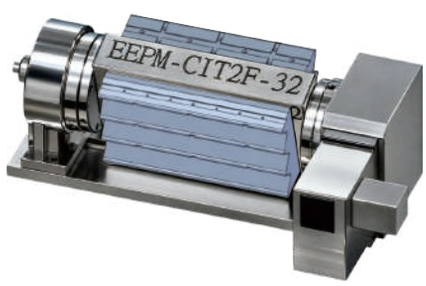
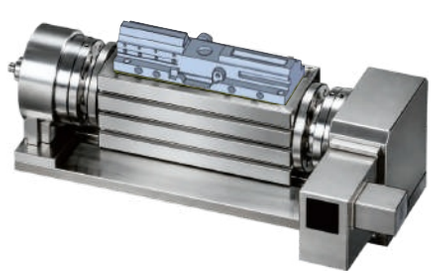
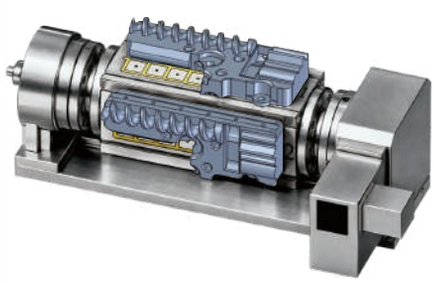
Features:

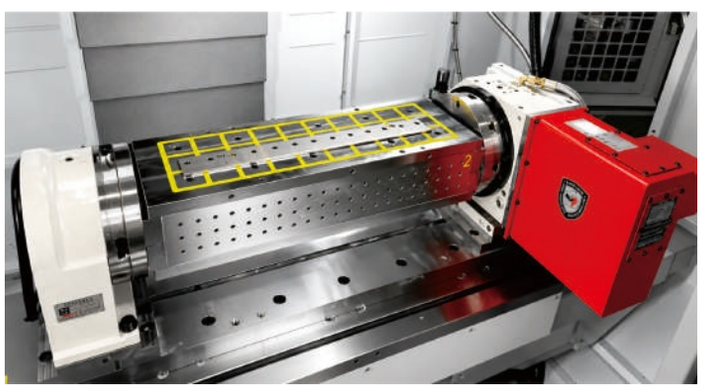
1. Super power magnetic force 1250kgf/100cm^2±5%. (4 Poles)
2. Control each working face for ON and OFF, so it can be load and unload the workpiece on each working face. 3 seconds control for power ON and OFF.
3. EEPM-CIT2F with 2 magnetic working face, can be clamp 2 workpiece for machining. Suitable 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.

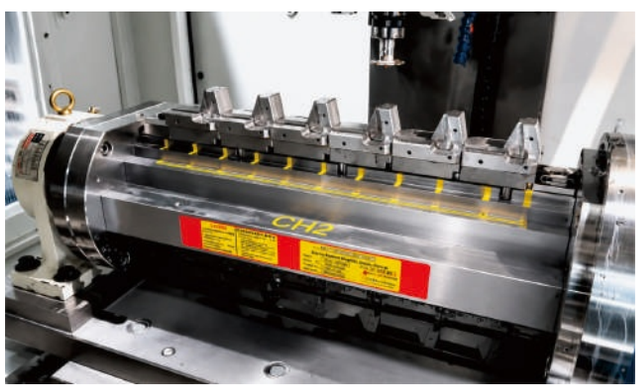
Applications:

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

		
EEPM-CIT2F	EEPM-CIT2F2T	EEPM-CIT4FT









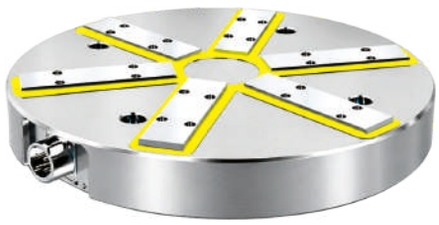
Suitable to be used with Vertical Lathe, CNC 5 Axis Machining Center ...etc.



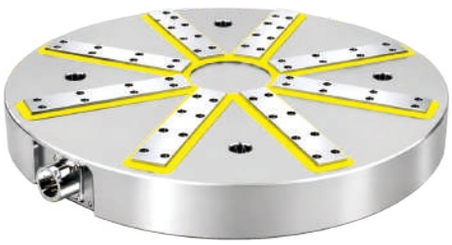
Induction Block (Optional Accessoires)



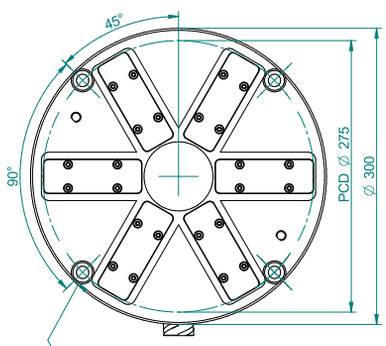
EEPM-CIR300A-A



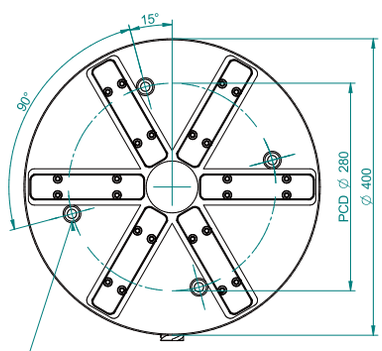
EEPM-CIR400A-A



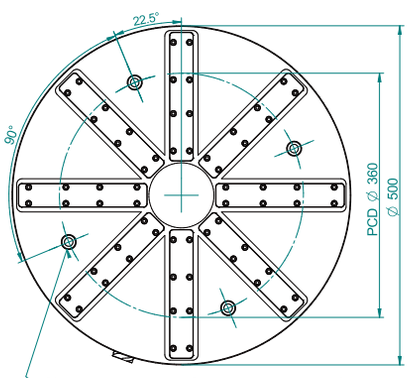
EEPM-CIR500A-A



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-Ø300mm; EEPM-CIR400-Ø360mm; EEPM-CIR 500-Ø500mm
   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:Taiwan M358689, Taiwan I851012, China ZL 2023 2 0261487.3

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 CONTROLLER AC 220V~480V	7A	C1-G
EEPM-CIR400A	Ø 400	0	55	6	2480kgf±5%	55kg		18A	C1-G
EEPM-CIR500A	Ø 500	0	55	8	4400kgf±5%	85kg		22A	C1-G

Customization is available.

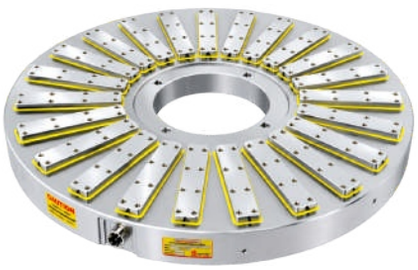
Electro-Permanent Magnetic Chuck

EEPM-CIRB Series

Suitable to be used with Vertical Lathe, CNC 5 Axis Machining Center ...etc.



Induction Block
(Optional Accessoires)



EEPM-CIR1250B



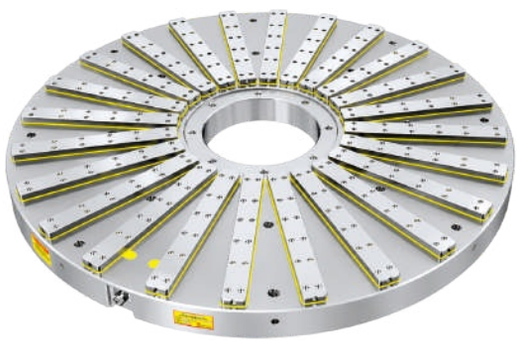
EEPM-CIR800B



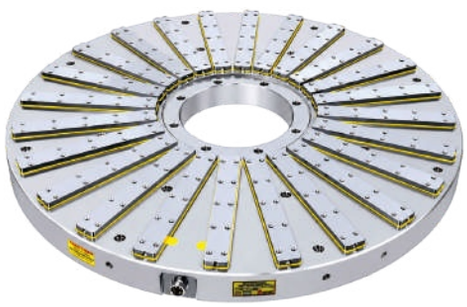
EEPM-CIR1000B



EEPM-CIR600B



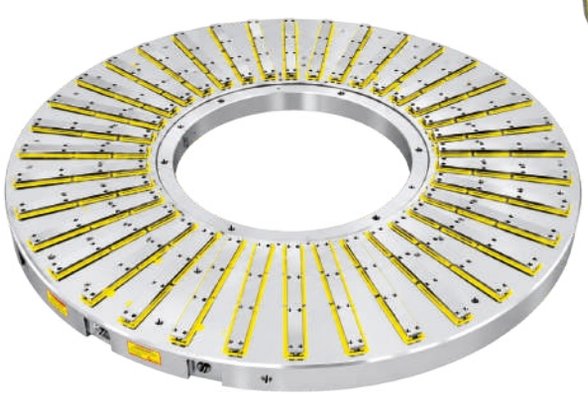
EEPM-CIR1600B



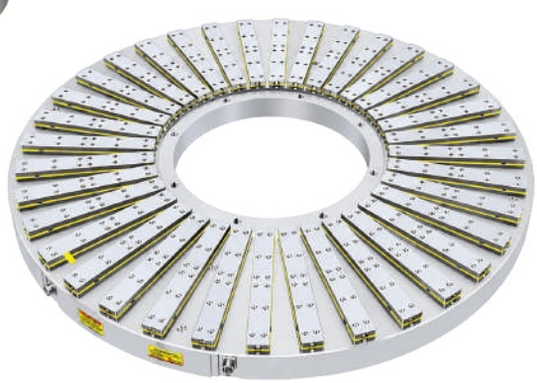
EEPM-CIR1500B



EEPM-CIR500B



EEPM-CIR2000B



EEPM-CIR1800B

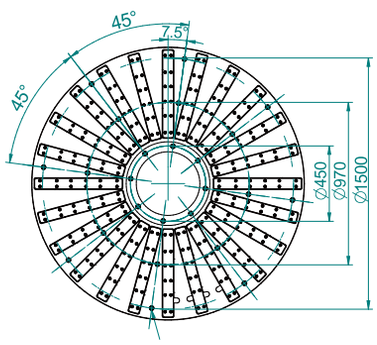
Panted Patent No:Taiwan M358689, Taiwan I851012, China ZL 2023 2 0261487.3

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									
EEPM-CIR500B	Ø500	0	70	12/4	6650kgf±5%	104kg	CHUCK DC 220V / CONTROLLER AC 220V ~ 480V	35A	C1-G	CHUCK DC 380V / CONTROLLER AC 380V ~ 440V	15A	C1-B
EEPM-CIR600B	Ø600	0	70	12/4	9500kgf±5%	148kg		23A	C2-G		15A	C2-B
EEPM-CIR800B	Ø800	Ø250	85	16	15200kgf±5%	302kg		30A	C2-G		28A	C2-B
EEPM-CIR1000B	Ø1000	Ø250	85	16	19000kgf±5%	471kg		24A	C4-G		20A	C4-B
EEPM-CIR1250B	Ø1260	Ø500	90	24	28500kgf±5%	828kg		33A	C4-G		18A	C4-B
EEPM-CIR1500B	Ø1520	Ø500	100	24	39900kgf±5%	1325kg		24A	C8-G		25A	C8-B
EEPM-CIR1600B	Ø1630	Ø500	100	24	45600kgf±5%	1507kg		24A	C8-G		20A	C8-B
EEPM-CIR1800B	Ø1820	Ø800	100	36	59850kgf±5%	2290kg		33A	C8-G		28A	C8-B
EEPM-CIR2000B	Ø2050	Ø1000	110	36	59850kgf±5%	2490kg		33A	C8-G		28A	C8-B

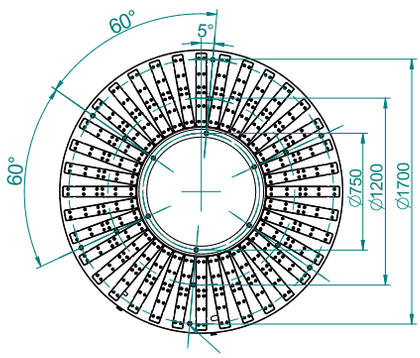
Customization is available.

Dimension of screw holes for setting up



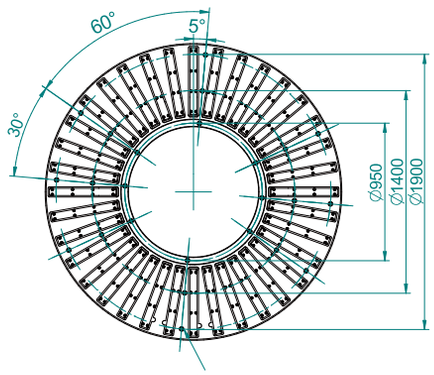
Ø 25x18depth - Ø16.5 thru. – 24 holes

EEPM-CIR1600B



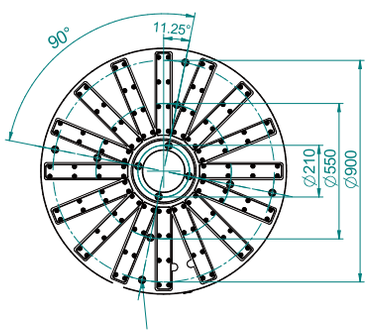
Ø 25x18depth - Ø16.5 thru. – 18 holes

EEPM-CIR1800B



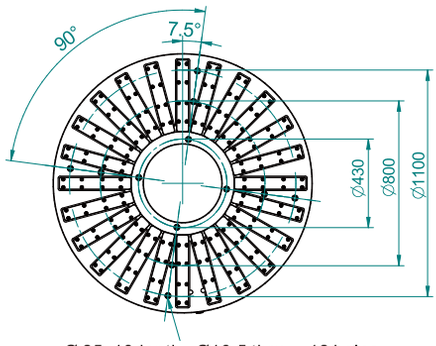
Ø 25x18depth - Ø16.5 thru. – 24 holes

EEPM-CIR2000B



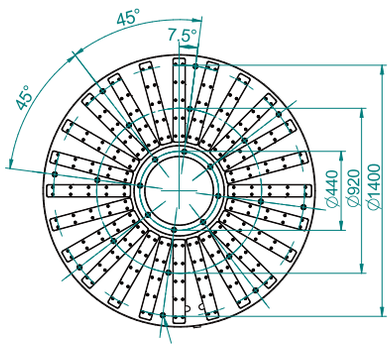
Ø 25x18depth - Ø16.5 thru. – 12 holes

EEPM-CIR1000B



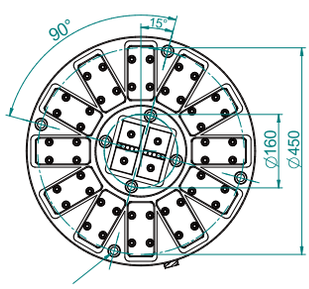
Ø 25x18depth - Ø16.5 thru. – 12 holes

EEPM-CIR1250B



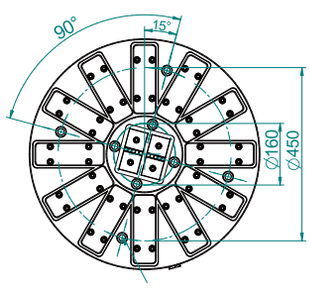
Ø 25x18depth - Ø16.5 thru. – 24 holes

EEPM-CIR1500B



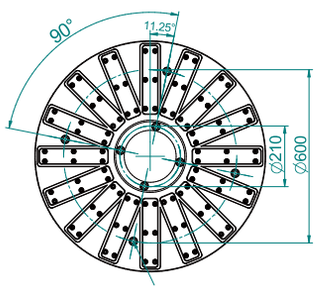
Ø 25x18depth - Ø16.5 thru. – 8 holes

EEPM-CIR500B



Ø 25x18depth - Ø16.5 thru. – 8 holes

EEPM-CIR600B



Ø 25x18depth - Ø16.5 thru. – 8 holes

EEPM-CIR800B

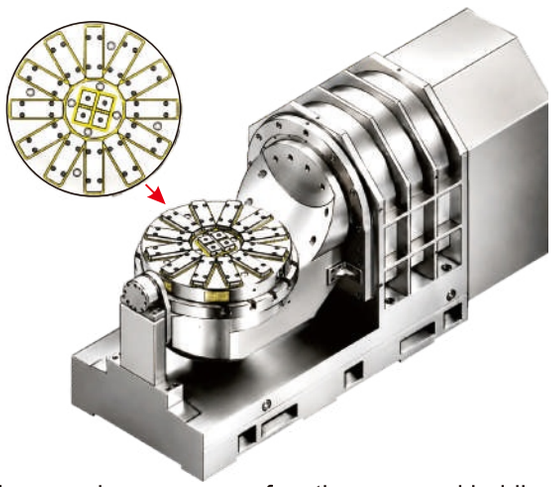
Features:

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 (I.34tons) ±5% and maximum of 60,400Kgf (60 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.

Suitable to be used with Vertical Lathe, CNC 5 Axis Machining Center ...etc.

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-CIR500B-Ø300mm ; EEPM-CIR600B-Ø360mm
EEPM-CIR800B-Ø500mm ; EEPM-CIR1000B-Ø500mm
EEPM-CIR1250B-Ø850mm ; EEPM-CIR1500B-Ø850mm
EEPM-CIR1600B-Ø1200mm ; EEPM-CIR1800B-Ø1200mm
or same dimensions of any other forms of workpiece.
3. More functions for cooperate with induction plate, can do positioning on workholding.



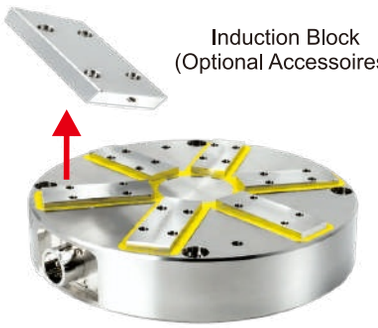
Option Accessories-Induction Block

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.

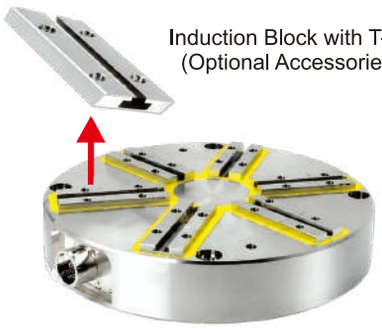
Standard Chuck View
(Without Induction Block)



Induction Block
(Optional Accessoires)



Induction Block with T-slot
(Optional Accessories)



Unit:mm

INDUCTION BLOCK	T-SLOT(included)	L	W	H
EEPM-CIRIB300A	EEPM-CIRIB300AT	96	35	15
EEPM-CIRIB400A	EEPM-CIRIB400AT	145	35	15
EEPM-CIRIB500A	EEPM-CIRIB500AT	181	35	15
EEPM-CIRIB500B	EEPM-CIRIB500BT	120	60	20
EEPM-CIRIB600B	EEPM-CIRIB600BT	180	60	20
EEPM-CIRIB800B	EEPM-CIRIB800BT	240	55	20

Unit:mm

INDUCTION BLOCK	T-SLOT(included)	L	W	H
EEPM-CIRIB1000B	EEPM-CIRIB1000BT	335	55	20
EEPM-CIRIB1250B	EEPM-CIRIB1250BT	350	60	20
EEPM-CIRIB1500B	EEPM-CIRIB1500BT	465	65	20
EEPM-CIRIB1600B	EEPM-CIRIB1600BT	530	65	20
EEPM-CIRIB1800B	EEPM-CIRIB1800BT	470	65	20
EEPM-CIRIB2000B	EEPM-CIRIB2000BT	475	65	20

Option Accessories-T Fixed Slide Block



EEPM-T Series

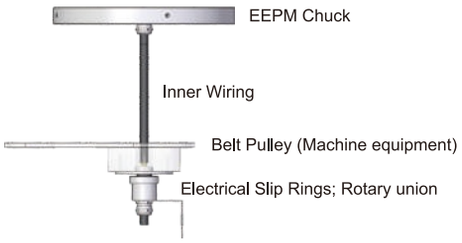
1. T-fixed slide block can do base points for workpiece positioning.
2. Due to the holding surface of small workpiece is not big enough, so please always use the T fixed slide Block to avoid the workpiece moving when machining.

Unit:mm

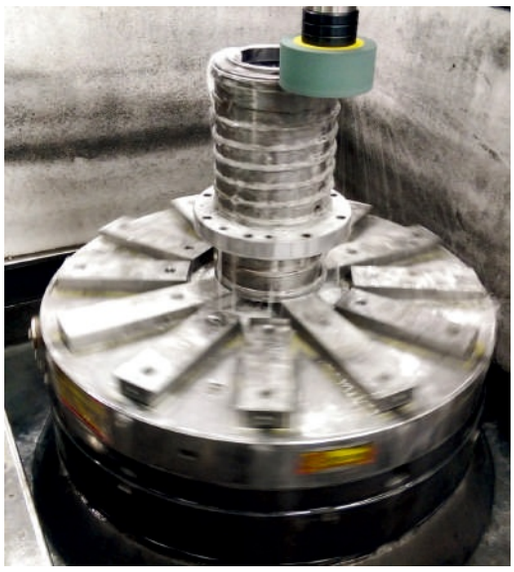
MODEL NO	L	W	H	SUITABLE
EEPM-15T	77	35	15	EEPM-CIRA Series
EEPM-20T	120	50	20	EEPM-CIRB Series

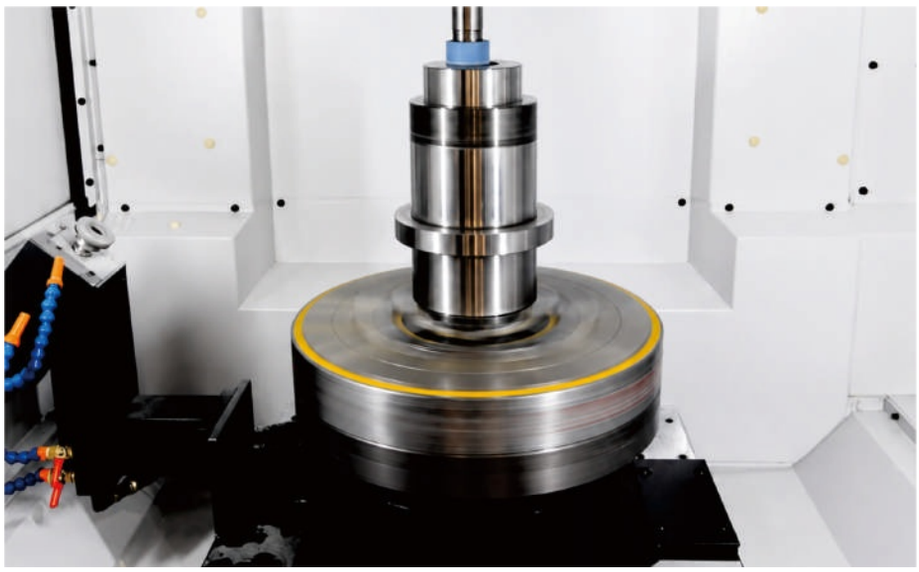
Electrical Slip Rings; Rotary union (Need to buy by yourself)

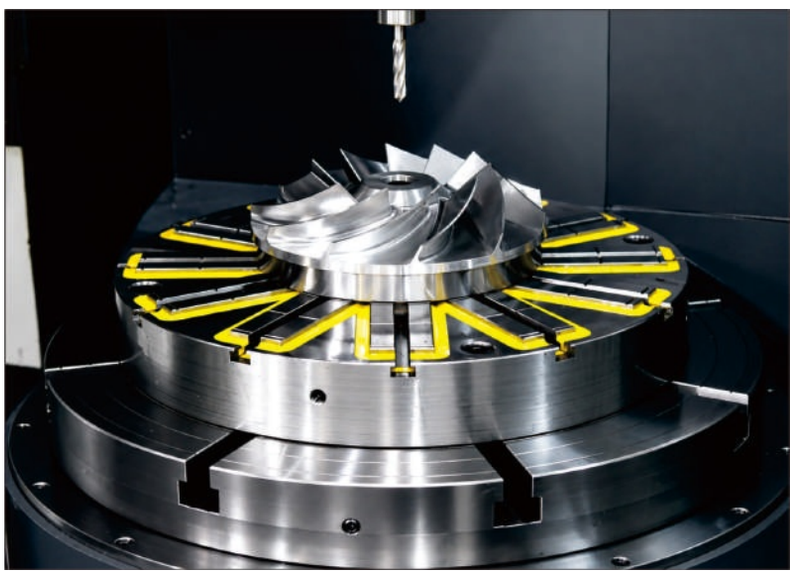
For Magnetization/Demagnetization connection, installed in the center of the rear of the EEPM Chuck can be turning freely while machining.

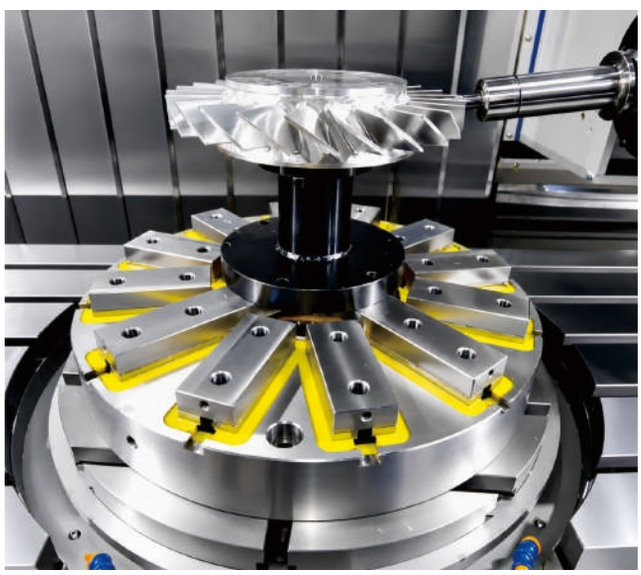


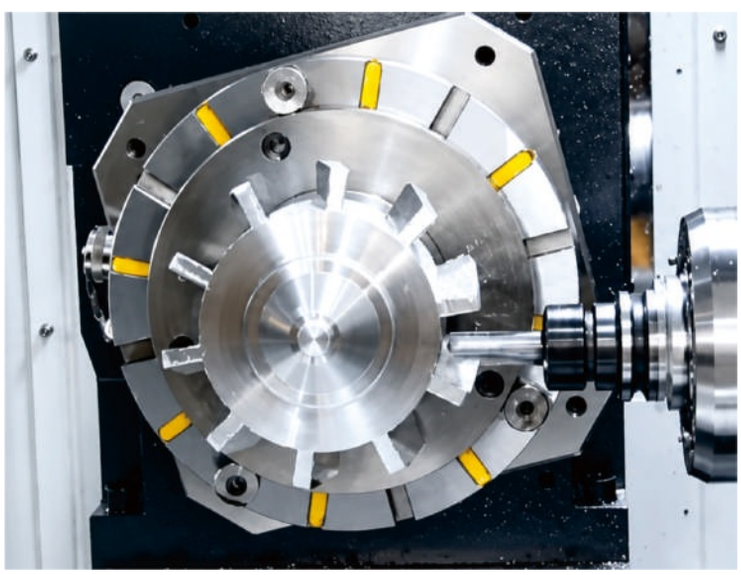
Working Example







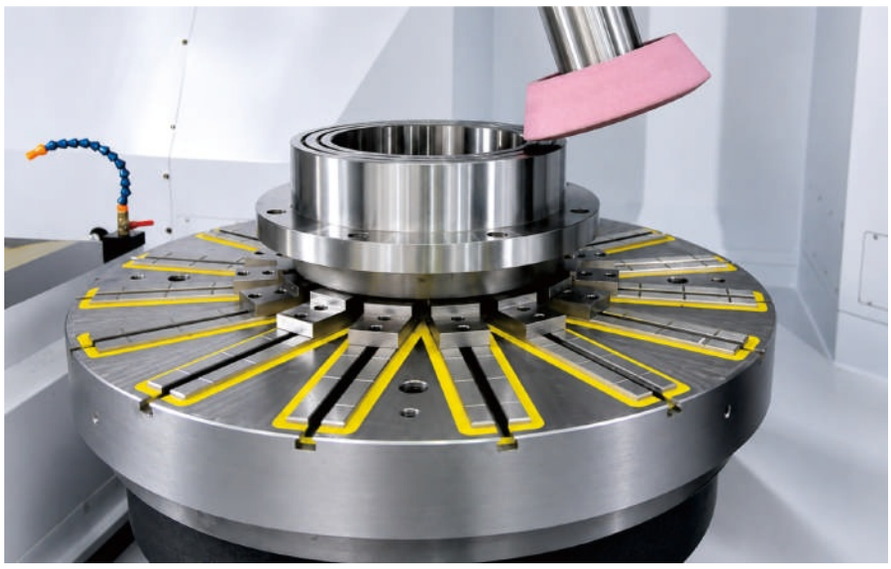






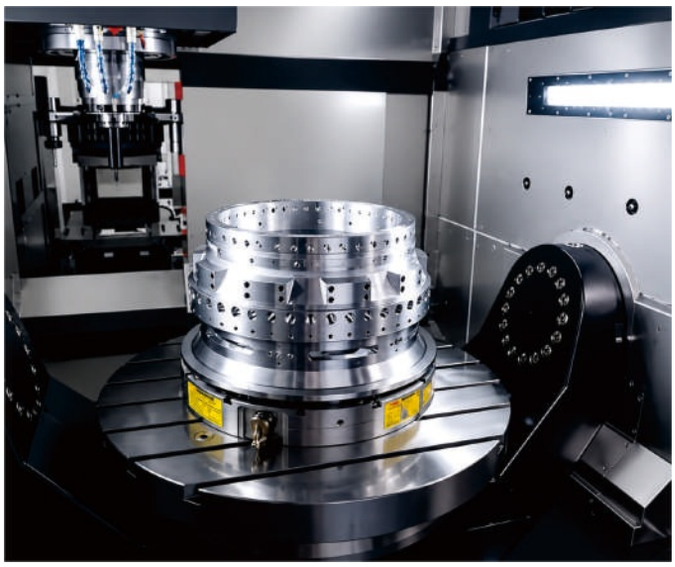
Suitable to be used with Vertical Lathe, CNC 5 Axis Machining Center ...etc.

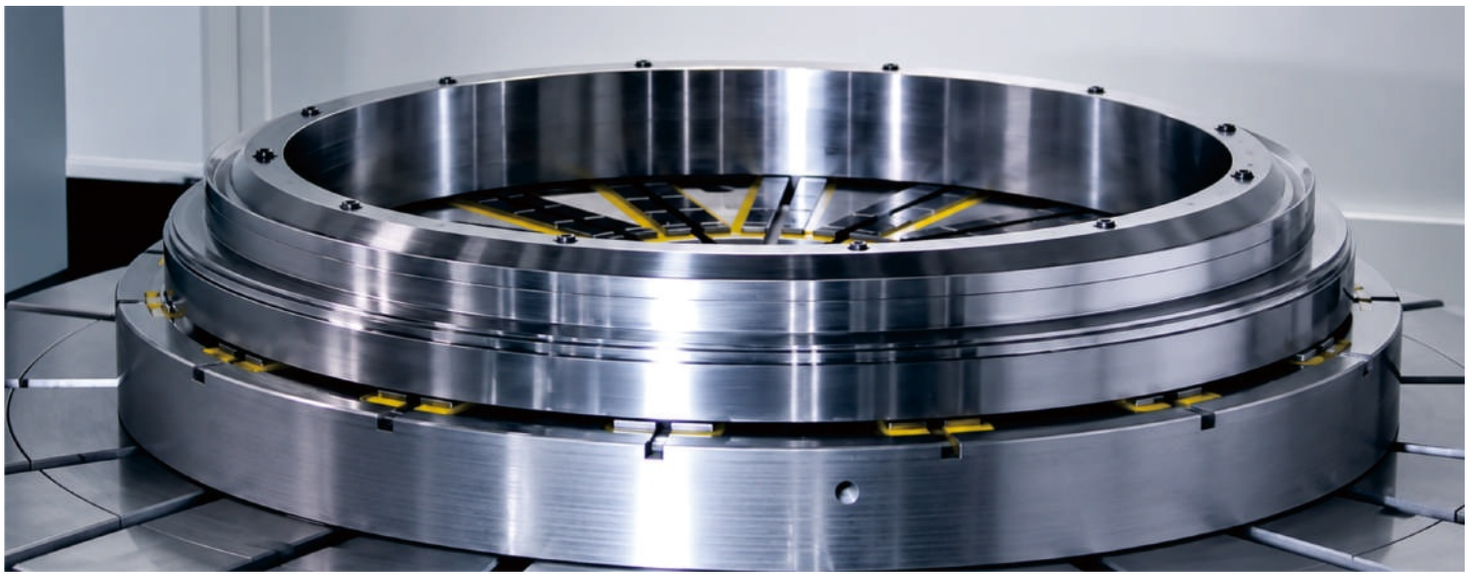
Working Example











Electro-Permanent Magnetic Chuck

EEPM-CIRSA Series

Suitable to be used with combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.


EEPM-CIRS600A


EEPM-CIRS550A


EEPM-CIRS500A


EEPM-CIRS450A


EEPM-CIRS400A


EEPM-CIRS150A


EEPM-CIRS200A

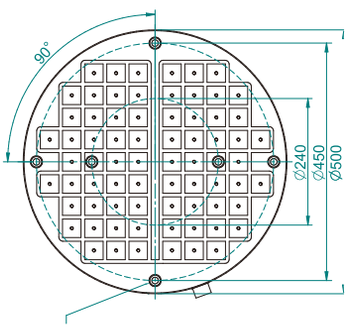

EEPM-CIRS250A


EEPM-CIRS300A


EEPM-CIRS350A

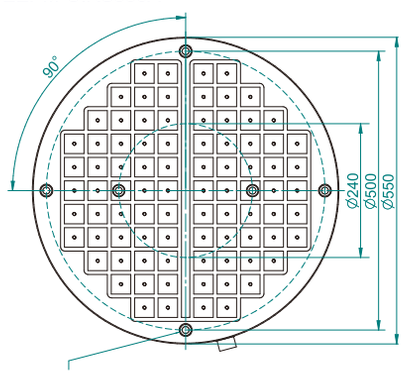
Dimension of screw holes for setting up

EEPM-CIRS500A



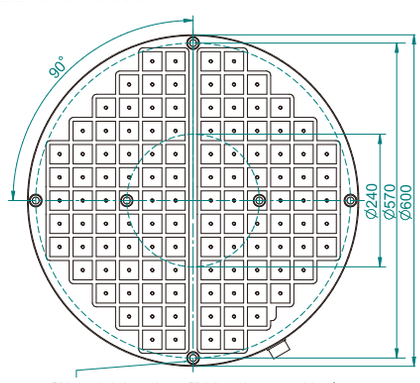
Ø20x14depth - Ø12.5thru. – 6holes

EEPM-CIRS550A



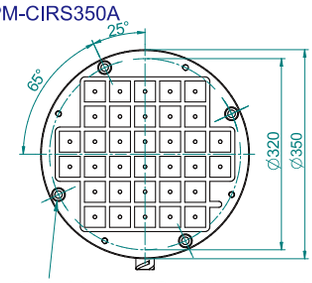
Ø20x14depth - Ø12.5thru. – 6holes

EEPM-CIRS600A



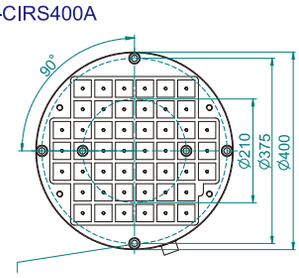
Ø20x14depth - Ø12.5thru. – 6holes

EEPM-CIRS350A



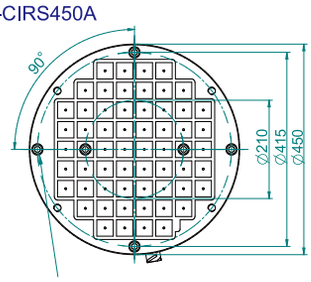
Ø20x14depth - Ø12.5thru. – 4holes

EEPM-CIRS400A



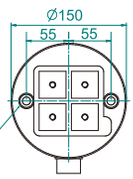
Ø20x14depth - Ø12.5thru. – 6holes

EEPM-CIRS450A



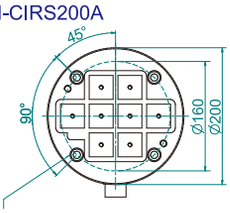
Ø20x14depth - Ø12.5thru. – 6holes

EEPM-CIRS150A



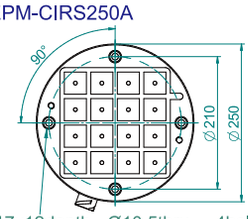
Ø17x12depth - Ø10.5thru. – 2holes

EEPM-CIRS200A



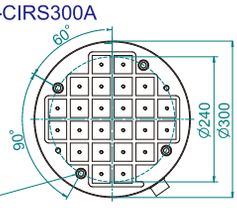
Ø17x12depth - Ø10.5thru. – 4holes

EEPM-CIRS250A



Ø17x12depth - Ø10.5thru. – 4holes

EEPM-CIRS300A



Ø17x12depth - Ø10.5thru. – 4holes

Unit:mm

MODEL NO	DIMENSION		PITCH	POLE	NO. OF POLE	CHUCK N.W.	VOLTAGE (Single Phase)	CURRENT AMP	CONTROLLER (included)
	D	HEIGHT							
EEPM-CIRS150A	Ø 150	50	7	35×35	4	6kg	CHUCK DC 220V CONTROLLER AC 220V ~ 480V	20A	C1-G
EEPM-CIRS200A	Ø 200	50	7		8	11kg		10A	C1-G
EEPM-CIRS250A	Ø 250	50	7		16	17kg		25A	C1-G
EEPM-CIRS300A	Ø 300	60	7		24	34kg		10A	C1-G
EEPM-CIRS350A	Ø 350	60	7		34	46kg		26A	C1-G
EEPM-CIRS400A	Ø 400	60	7		46	60kg		14A	C2-G
EEPM-CIRS450A	Ø 450	70	7		55	88kg		21A	C2-G
EEPM-CIRS500A	Ø 500	70	7		70	109kg		26A	C2-G
EEPM-CIRS550A	Ø 550	70	7		84	132kg		15A	C4-G
EEPM-CIRS600A	Ø 600	70	7		114	157kg		23A	C4-G

Electro-Permanent Magnetic Chuck

EEPM-CIRSB Series

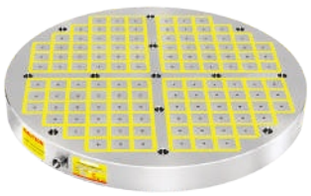
Suitable to be used with combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.



EEPM-CIRS1100B-A



EEPM-CIRS1000B-A



EEPM-CIRS900B-A



EEPM-CIRS800B-A



EEPM-CIRS200B-A



EEPM-CIRS300B-A



EEPM-CIRS500B-A



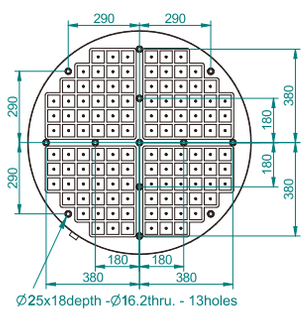
EEPM-CIRS600B-A



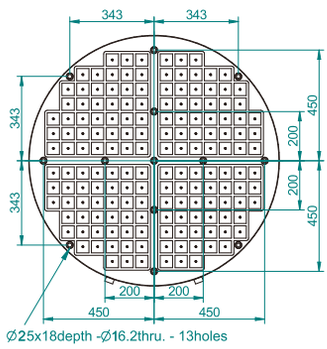
EEPM-CIRS700B-A

Dimension of screw holes for setting up

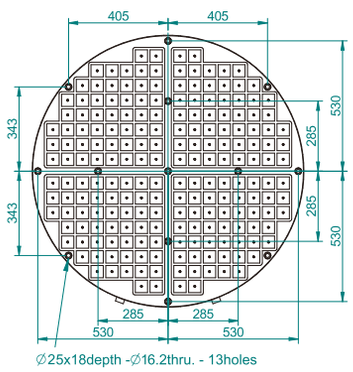
EEPM-CIRS900B



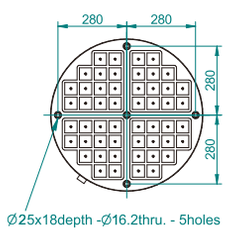
EEPM-CIRS1000B



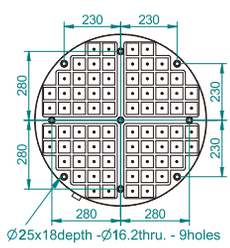
EEPM-CIRS1100B



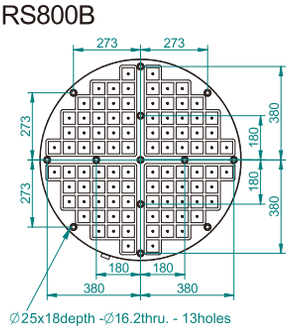
EEPM-CIRS600B



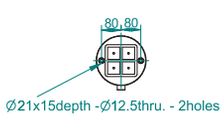
EEPM-CIRS700B



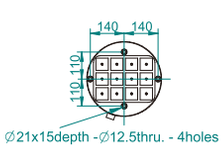
EEPM-CIRS800B



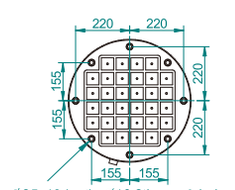
EEPM-CIRS200B



EEPM-CIRS300B



EEPM-CIRS500B



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										
EEPM-CIRS200B	Ø 203	60	10	50×50	4	16kg	CHUCK DC 220V CONTROLLER AC 220V ~ 480V	15A	C1-G	CHUCK DC 380V CONTROLLER AC 380V ~ 480V	--	--
EEPM-CIRS300B	Ø 320	60	10		12	35kg		20A	C1-G		5A	C1-B
EEPM-CIRS500B	Ø 500	70	10		32	108kg		30A	C1-G		15A	C1-B
EEPM-CIRS600B	Ø 620	70	10		52	169kg		21A	C2-G		22A	C2-B
EEPM-CIRS700B	Ø 720	70	10		76	225kg		21A	C4-G		10A	C4-B
EEPM-CIRS800B	Ø 820	80	10		96	334kg		23A	C4-G		9A	C4-B
EEPM-CIRS900B	Ø 900	80	10		120	402kg		33A	C4-G		18A	C4-B
EEPM-CIRS1000B	Ø1020	90	10		164	581kg		29A	C8-G		27A	C8-B
EEPM-CIRS1100B	Ø1106	90	10		204	683kg		28A	C8-G		11A	C8-B

Electro-Permanent Magnetic Chuck

Suitable to be used with combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.

Features:

1. 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:

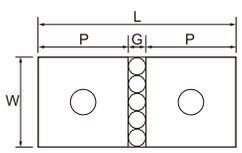
1. EEPM-CIRSA: Suitable for thin & small workpiece.(Pole Size 35X35 mm, Magnetic Force 580 kgf/4 Poles).
2. EEPM-CIRS: Suitable for thin & medium workpiece.(Pole Size 50X50 mm, Magnetic Force 1250 kgf/4 Poles).
3. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts 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
EEPM-IB215A	2	35	77	15	35	7
EEPM-IB315A	3	35	119	15	35	7



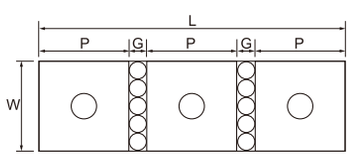
NO. OF POLE : 2



EEPM-IBB Suitable for use on EEPM-CIRSB Series Chucks.

Unit:mm

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



NO. OF POLE : 3



Relative magnetic force and EEPM-IB percentage table

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

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

Example:

EEPM chuck	Induction Block	Total Holding Power
EEPM-CIRS500B	None	10,000±5% kgf
EEPM-CIRS500B	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.



Fixed Block
EEPM-SPF Series



Spring Block
EEPM-SPR 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.

Unit:mm

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

Unit:mm

MODEL NO.	OD	H	SUITABLE
EEPM-SPR50	Ø52	30~35	EEPM-CIRSB Series
EEPM-SPRF50	Ø52	32.5	

Relative magnetic force to Fixed block and Spring block:

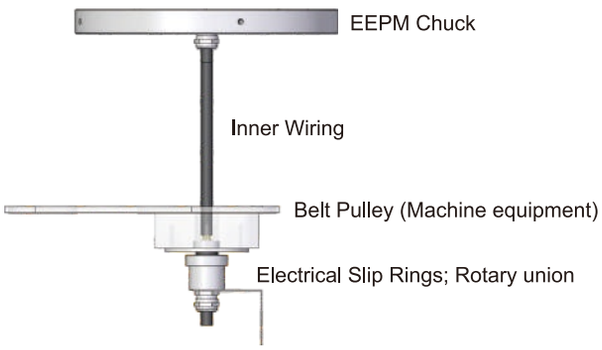
	Spring Block
Holding Power (Kgf)	43%

Suitable to be used with combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.

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

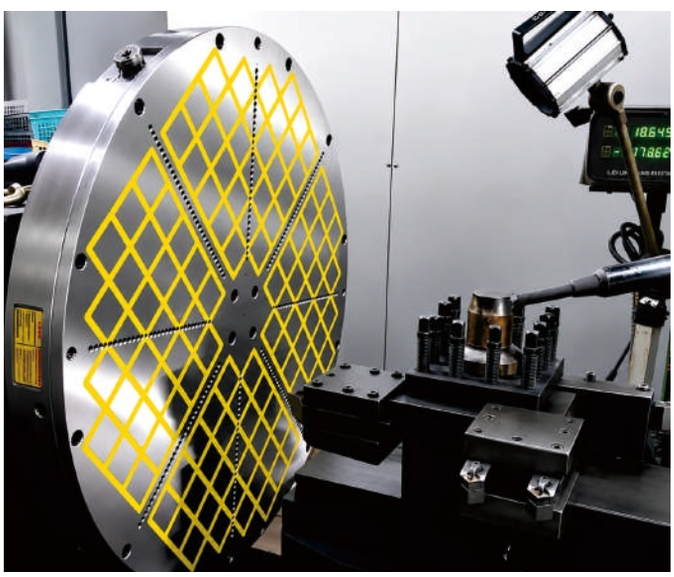
Features:

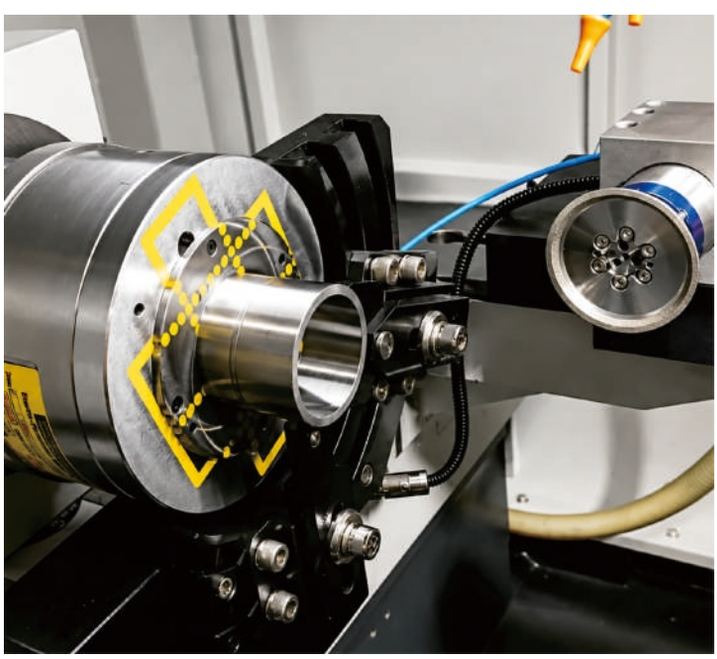
For Magnetization/Demagnetization connection, installed in the center of the rear of the EEPM Chuck can be turning freely while machining.

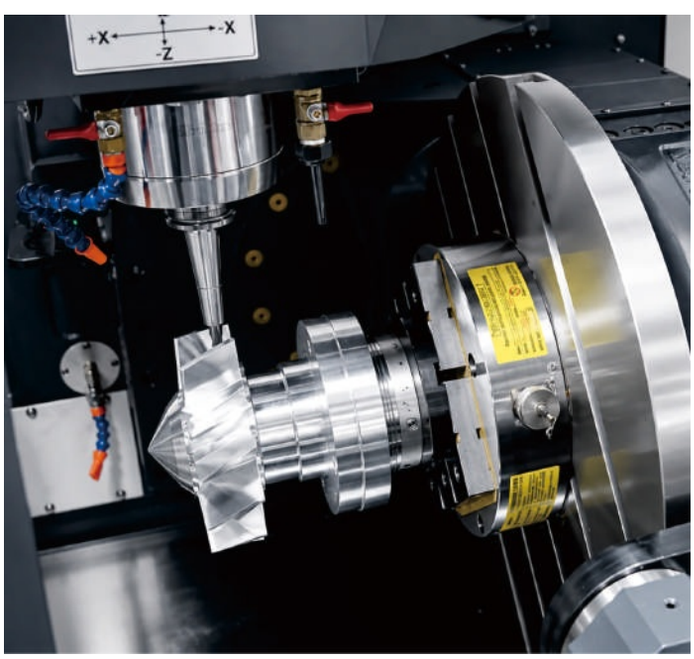


Working Example



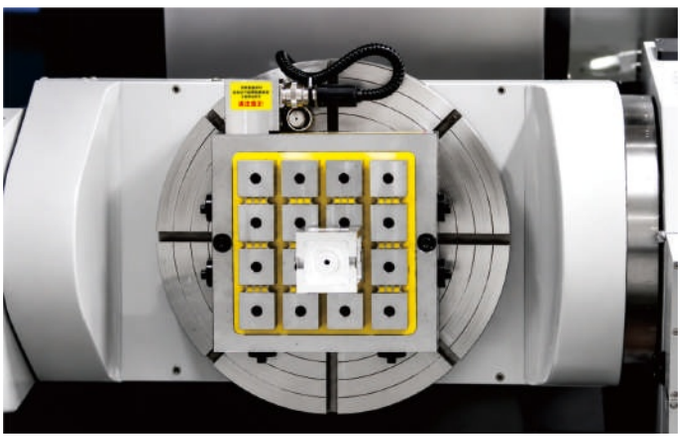


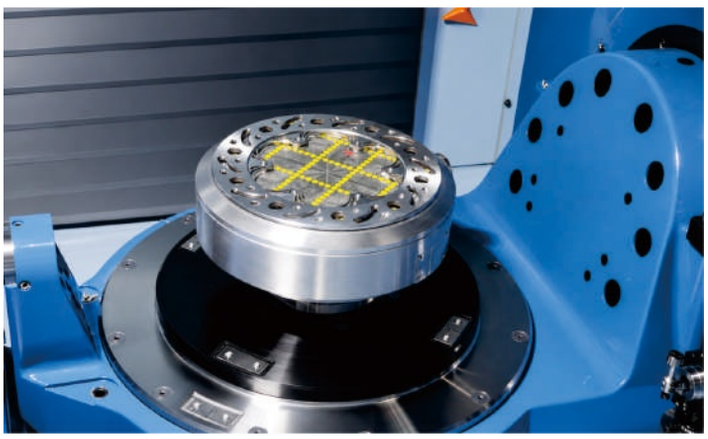


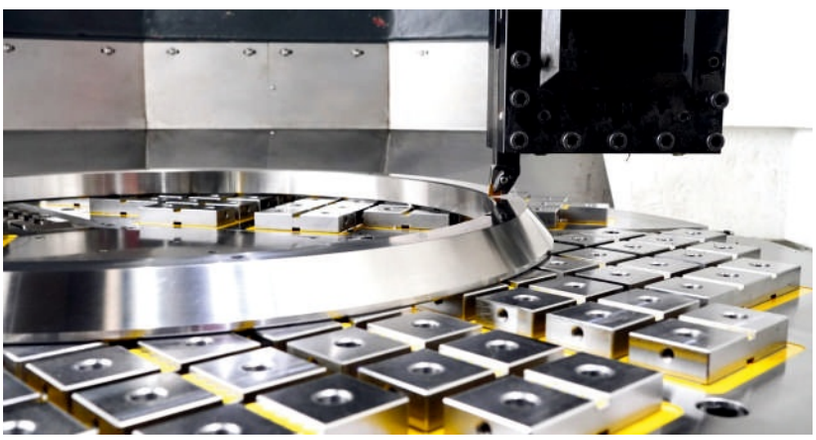


Suitable to be used with combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center ... etc.

Working Example

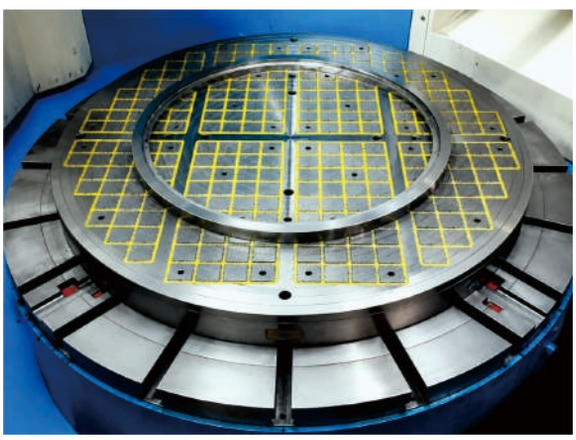


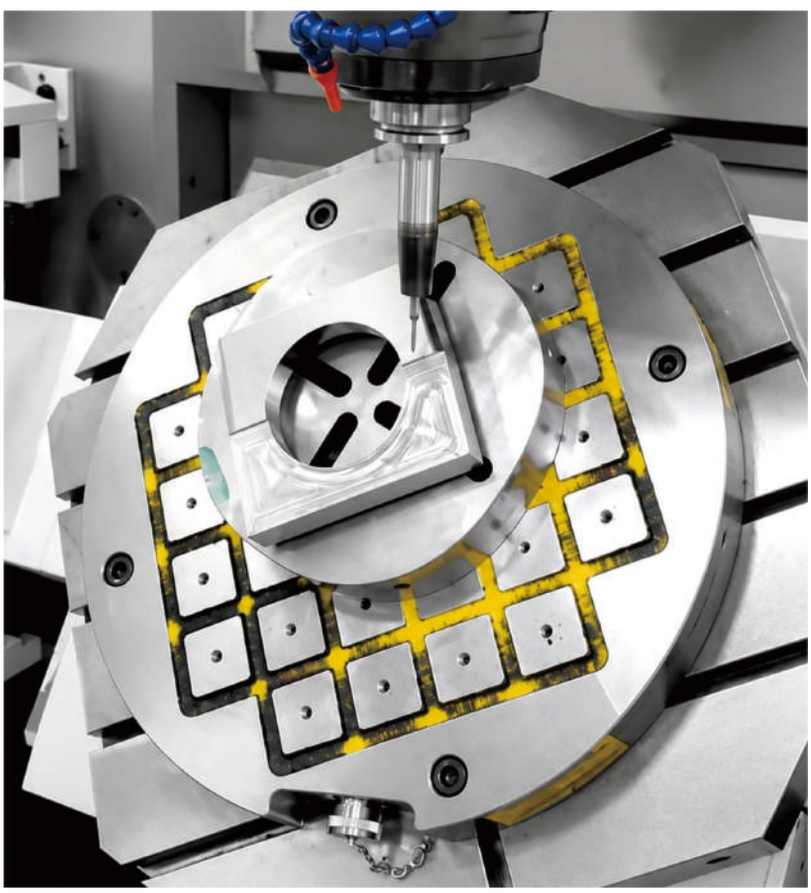








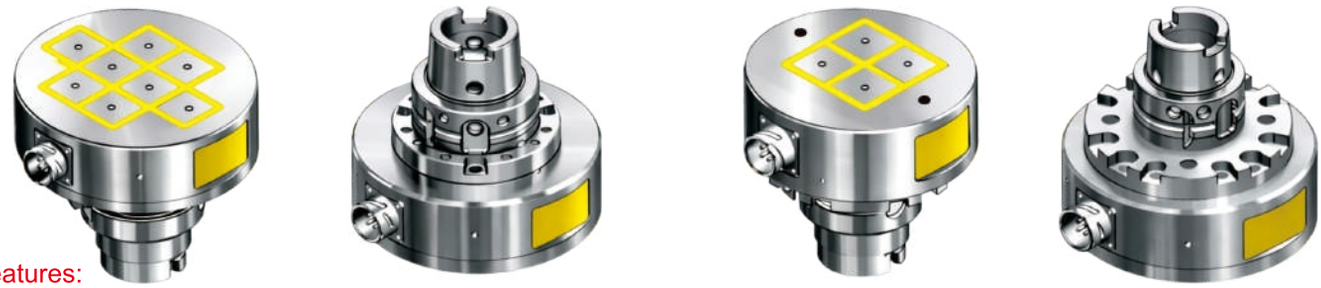




Tool Arbor Type Quick Changing Magnetic Chuck System EEPM-CIRTA Series

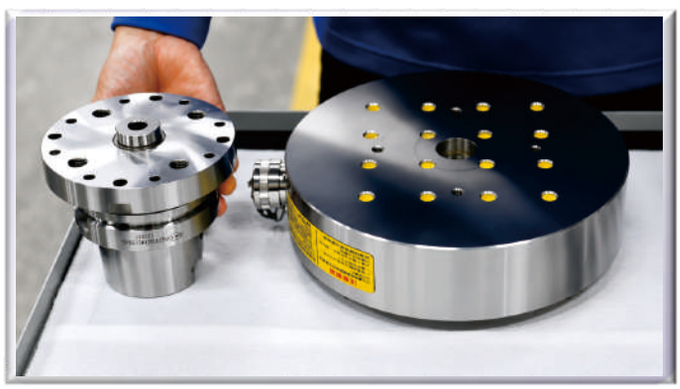
(Custom-made)

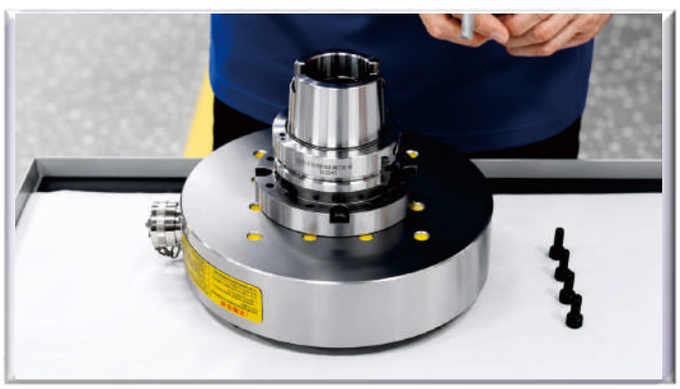
Electro-Permanent Magnetic chuck with precision tool arbor, can be used for automatic multi- round magnetic chuck precisely positioning exchange, flexible fixture scheduling can effectively improve the utilization rate of a small amount of various production lines.

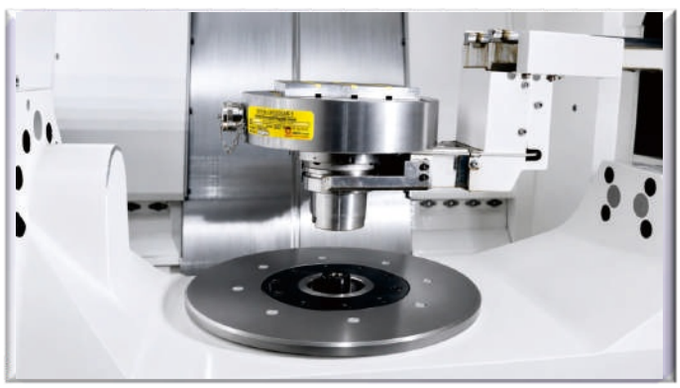


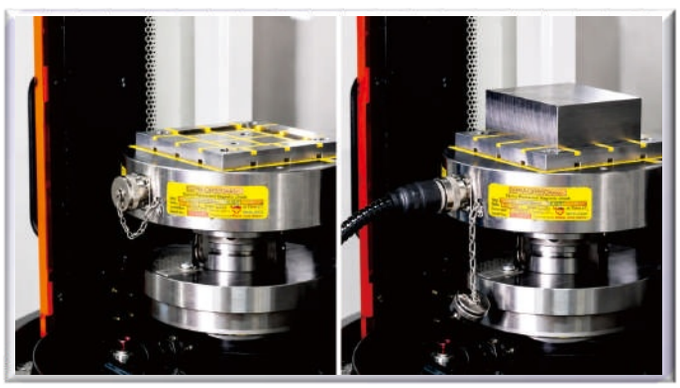
Features:

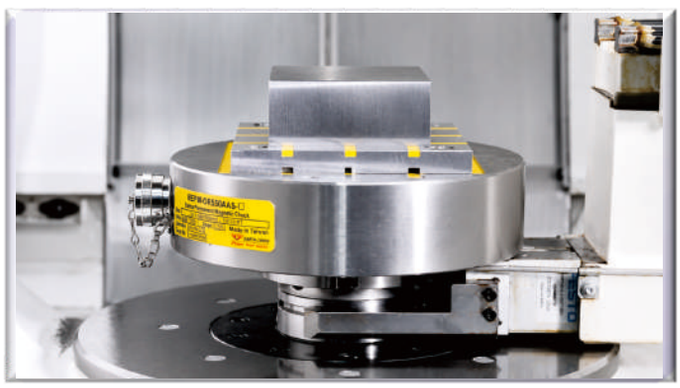
1. 1~2 seconds control for power ON & OFF. No electric power supply required to keep magnetic chuck ON and provides maximized safety in case of power failure. Never get temperatures to affect the accuracy of workpieces.
2. The tool arbor can be customized for different specification magnetic chucks.
3. Used with induction blocks, available 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.
4. The processing is carried out inside the machine, and the loading and unloading actions can be completed synchronously on the outside, which greatly improves the machine's productivity.
5. High-precision and high-rigidity tool arbor and broach mechanism design to ensure clamping tightness and reduce repeated positioning tolerances.

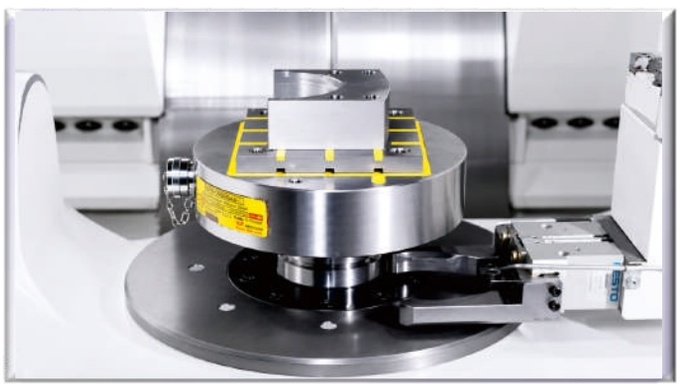








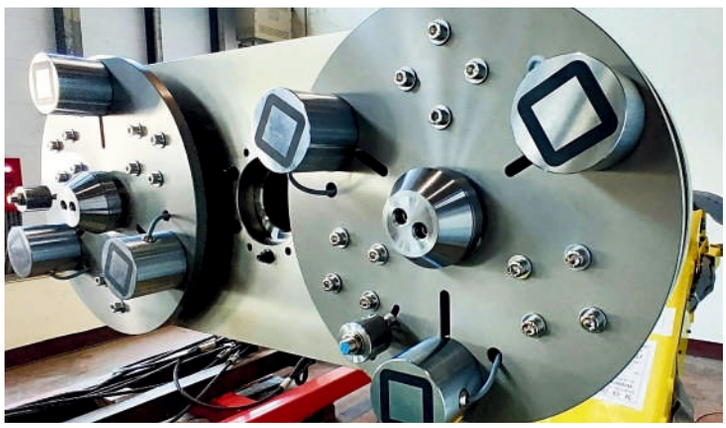


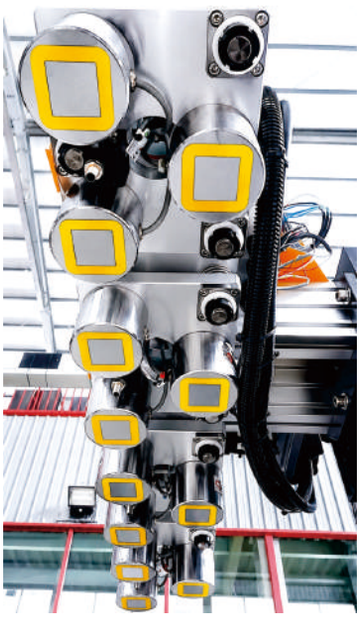


Professional R & D team-Custom-Made is available

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.





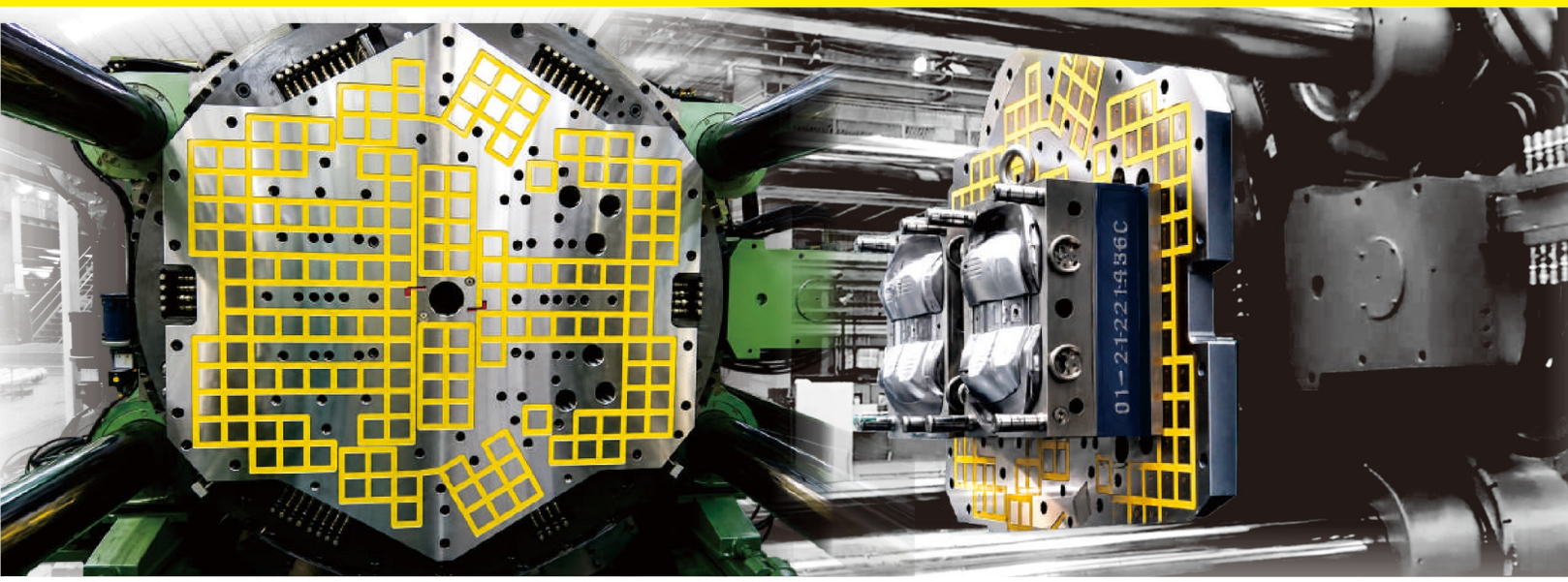












Safety: 1. Electro-Permanent Magnetic design, no power supply to keep the magnetic chuck ON.
2. Safety in case of power failure. Magnetic power 6~7 times safety factor.
3. Rare-earth material bear up to max. 120℃.

Humanity: 1. Proximity. 2. IC safety device.

Quickly: 1. Reduce 70% mold setting time significantly. 2. Shorten delivery time.

Flexibility: 1. Low cost and high quality. 2. Apply to any kinds of shapes mold.

Economic: 1. Low labor cost. 2. Low mold repair cost. 3. Less than 1 KW power consuming.
4. Low maintenance cost.

Improved: 1. Improve machine mold size capacity. 2. Improve machine shifts rotate.
3. Improve quick production demand. 4. Improve production quality
5. 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℃, 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.

Unit: mm

Model No.	Pole Size	Chuck height	Magnetic field height	Magnetic Force (kgf/ 4 poles)
EEPM-PIM Series	50x50	35 ~ 60	25	1200 ±5%
EEPM-PIM-D Series	70x70	70	40	2800 ±5%
EEPM-PIM-E Series	92x92	80	50	4800 ±5%

Human Machine Interface controller upcoming

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

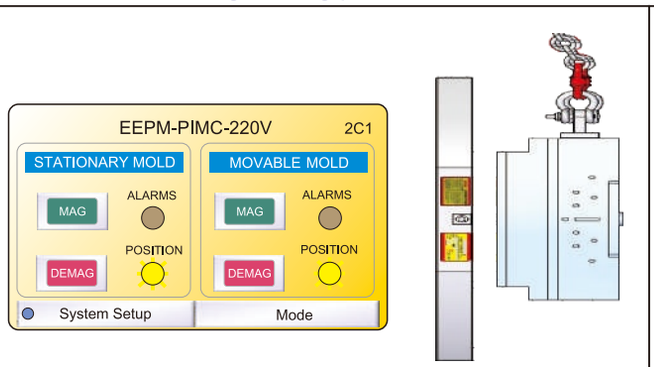




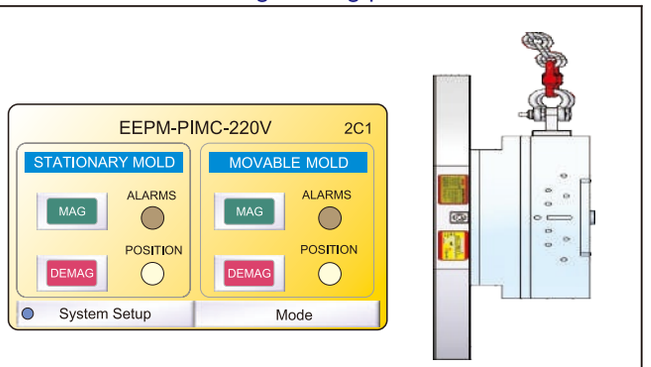
Proximity Sensor Device (Mold clamping detective system)

EEPM-PIM 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.



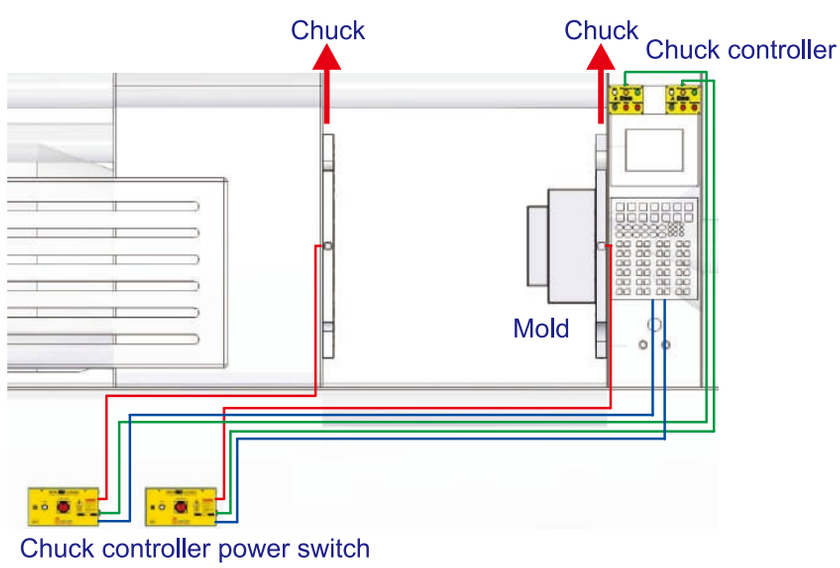
IC Controller (Safety device)

To ensure operator's safety, EEPM-PIM 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.

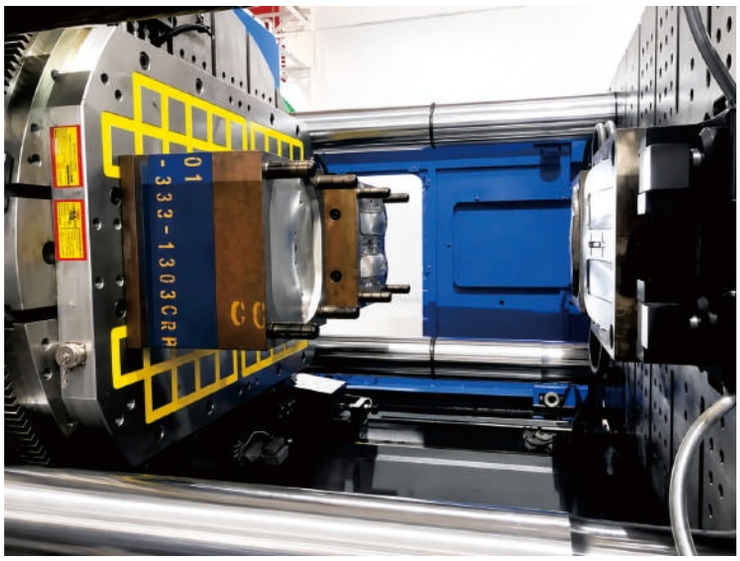
Chuck and controller

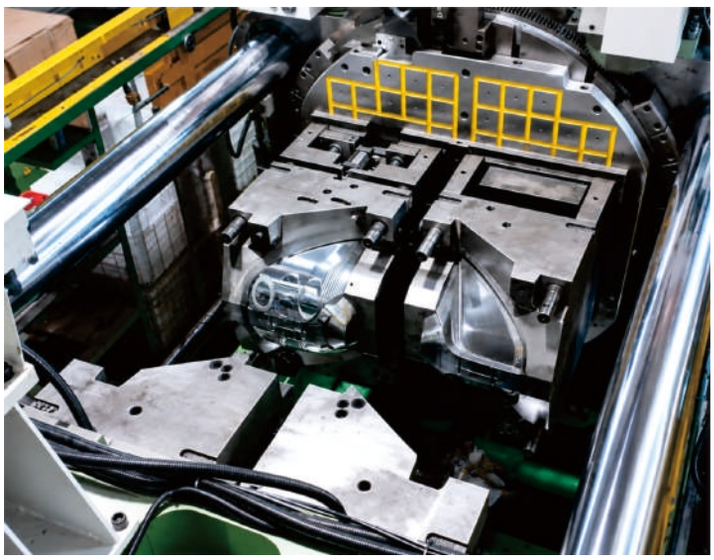
Chuck controller and power switch

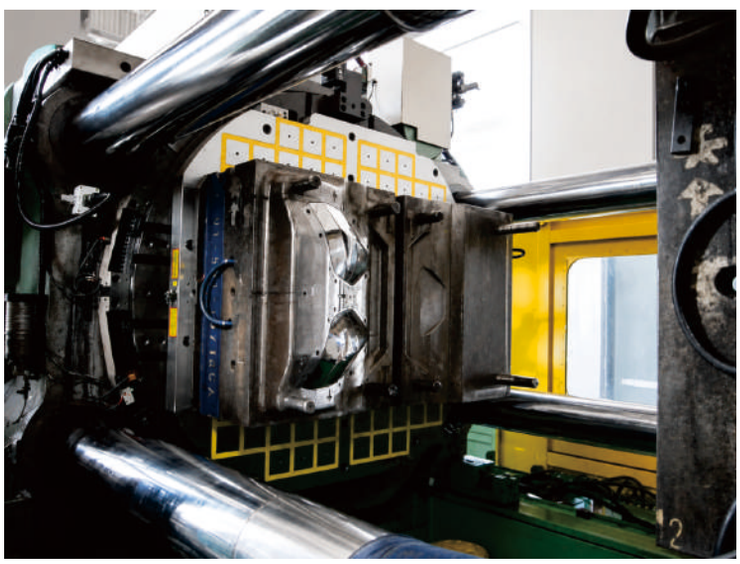
Chuck controller and CNC signal

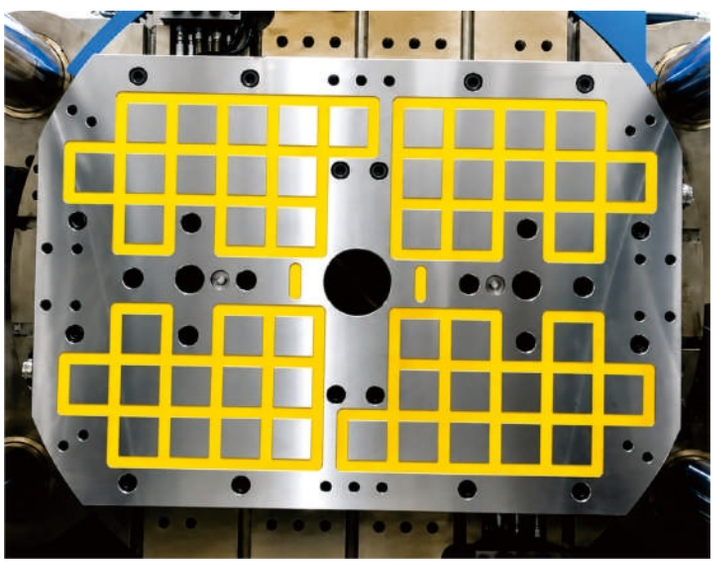


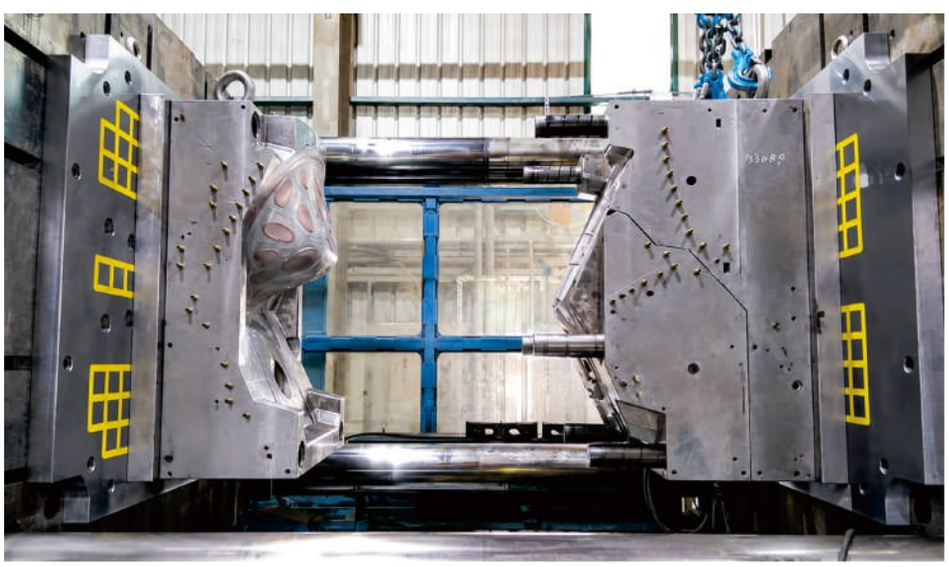
Working Example

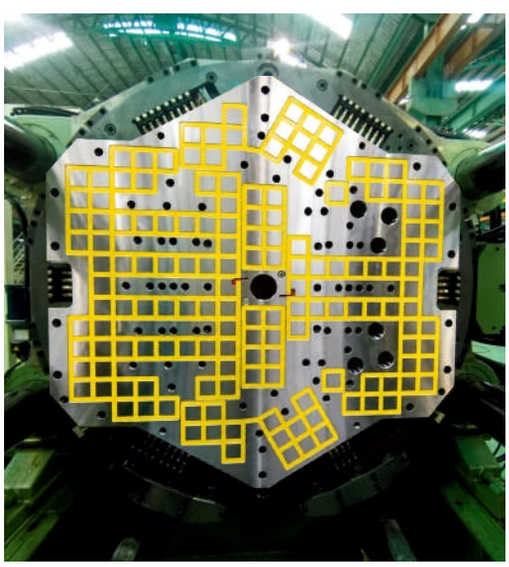












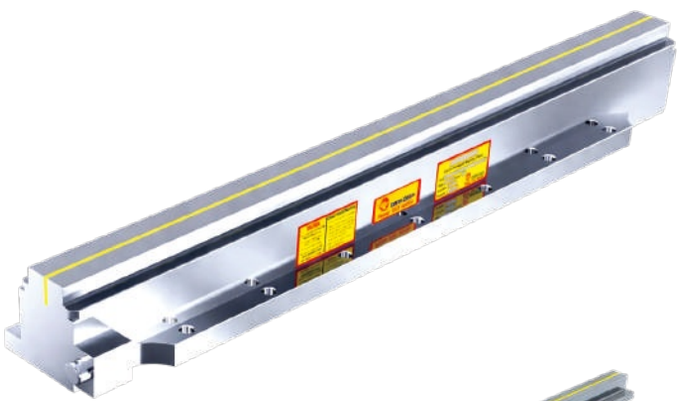
Used on Linear Guideway high precision or high accuracy long strip workpiece drilling, grinding machining...etc.



Applications:

EEPM-08102WS Series

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



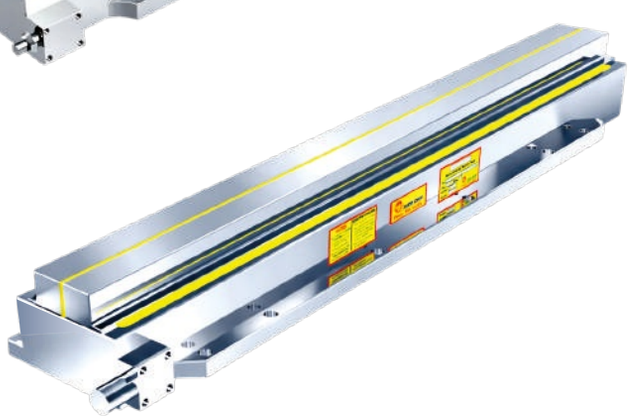
EEPML-11-08102 Series

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.

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

Unit: mm

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)
EEPM-08102WS	1020×130×80	14	3150	60kg	CHUCK DC 220V CONTROLLER AC 220V~480V	20A	C1-G	CHUCK DC 380V CONTROLLER AC 380V~440V	10A	C1-B
EEPML-11-08102	1020×130×88	14	2275	65kg		20A	C1-G		10A	C1-B
EEPML-11-08102-1	1020×130×88	14	2275	63kg		20A	C1-G		10A	C1-B
EEPML-15-15102	1020×200×88	28	4550	101kg		33A	C1-G		15A	C1-B

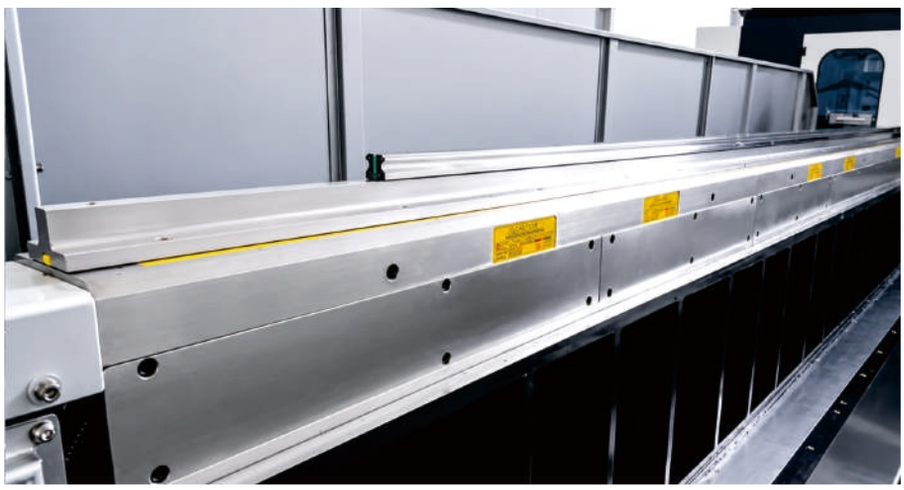
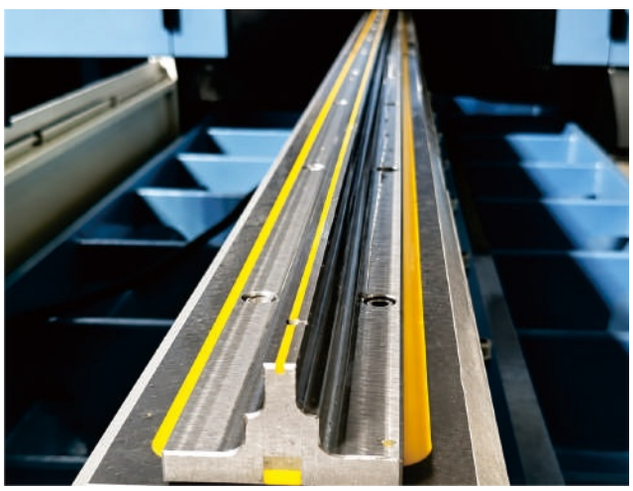
Custom-Made products (above specification are for reference only)

Used on Linear Guideway high precision or high accuracy long strip workpiece drilling, grinding machining...etc.

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. EEPM 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



Permanent Magnetic Clamping

Suitable to be used with medium & large workpiece (Can do 5 sides machining)





Patented

Taiwan M258824, Italy 1414610,USA us7, 224, 251, B2, Japan 3106264, Korea 0366170, Germany 20 2004 009 776.1, China ZL2004 2 0067865.1

Standard Accessories



Induction block 1 set



ECB-050
ECB-075



ECB-120
ECB-210

	Set	Center Hole Dia	Thickness
ECB-050	4 pcs	17 mm	32 mm
ECB-075	4 pcs	17 mm	30 mm
ECB-120	2 pcs	17 mm	30 mm
ECB-210	2 pcs	21 mm	25 mm

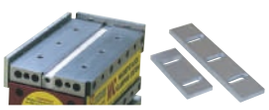
Clamping Plate 1 set



Handle 1 set



Guide key 2 pcs



Stopping plate 1 set



Switch connector 1 set

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.



"ON"

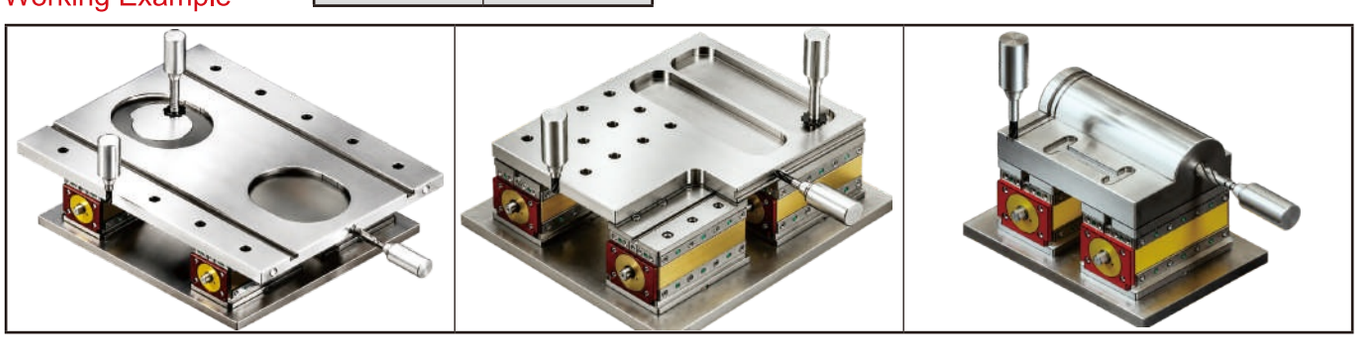


"OFF"

Note:

1. Please always make sure the Switch was in ON position before machining.
2. The Magnetic Clamping Blocks are not suitable for non-magnetic material, such as brass, copper, aluminum and stainless steel, etc.
3. The principle of Magnetic Clamping Blocks is magnetism of N. S. poles, so please always put the workpiece between N. S. poles.
   (The middle of top clamping range)

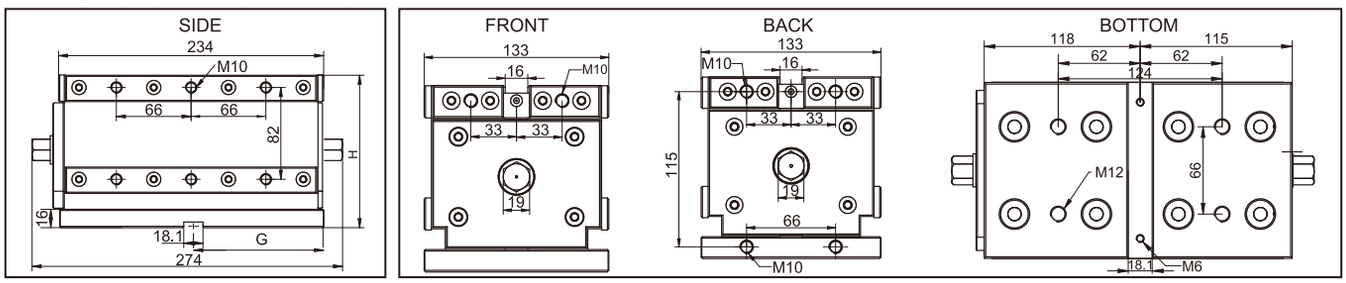
Working Example



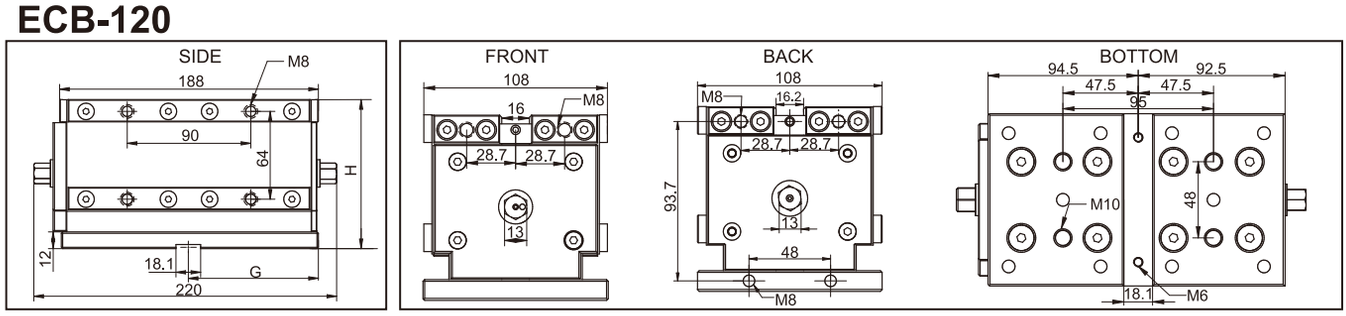
MODEL NO	HOLDING POWER	MINIMUM THICKNESS OF WORKPIECE REQUIRED	G	H	Height Total (including Induction Block)	N.W.
ECB-210	2100kgf±5%	30	115	134	155	36kg
ECB-120	1200kgf±5%	20	92.5	108	123	18kg
ECB-075	750kgf±5%	15	85	78	90	9.5kg
ECB-050	500kgf±5%	15	61	78	90	7kg

Continual to next page.

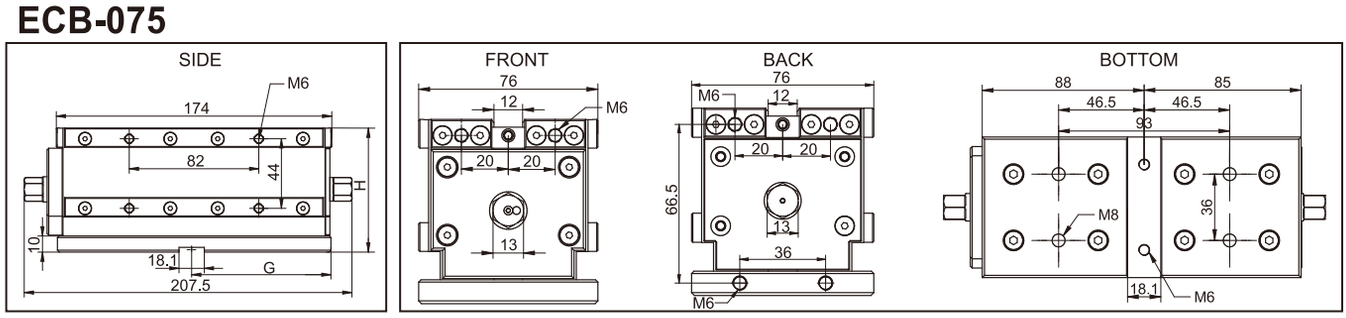
Dimension ECB-210



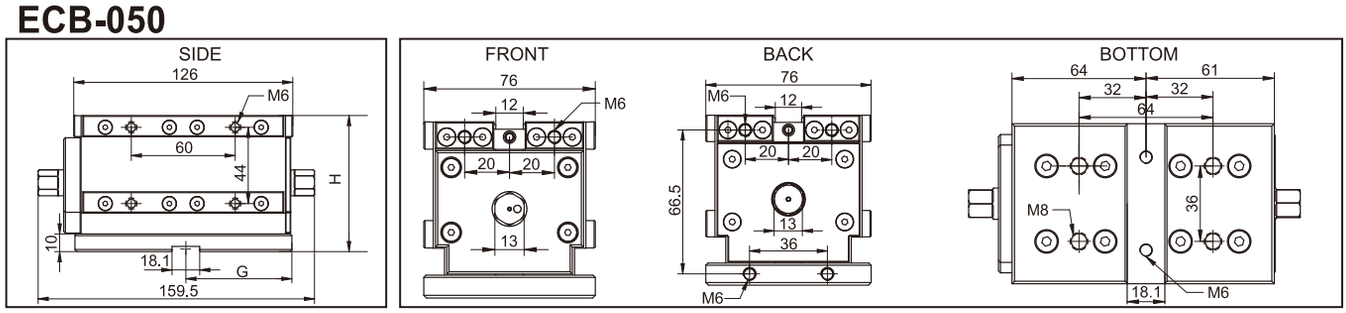
ECB-120



ECB-075



ECB-050



Permanent Magnetic Clamping

Suitable to be used with medium & large workpiece (Can do 5 sides machining)

Customer can be makes switch connector by standard hexagon steel bar themselves for depends on length required. The dimension of hexagon bar required as ECB-210 --- 19mm,

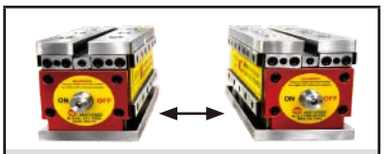
ECB-120, 075, 050 --- 13mm.



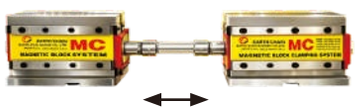
Maximum & Minimum distance required

Unit:mm

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



Side Distance



Front & Back Distance

Special made Induction Block:

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

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







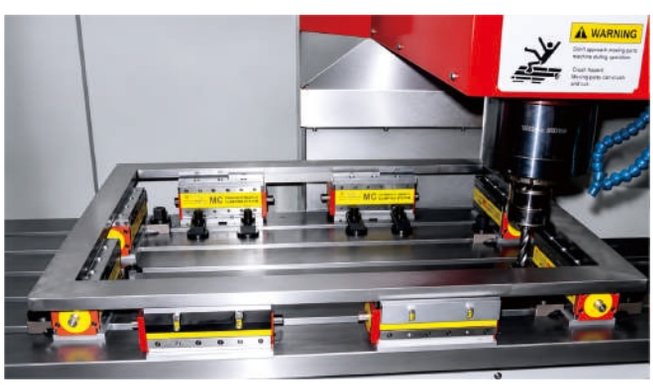


Working Example









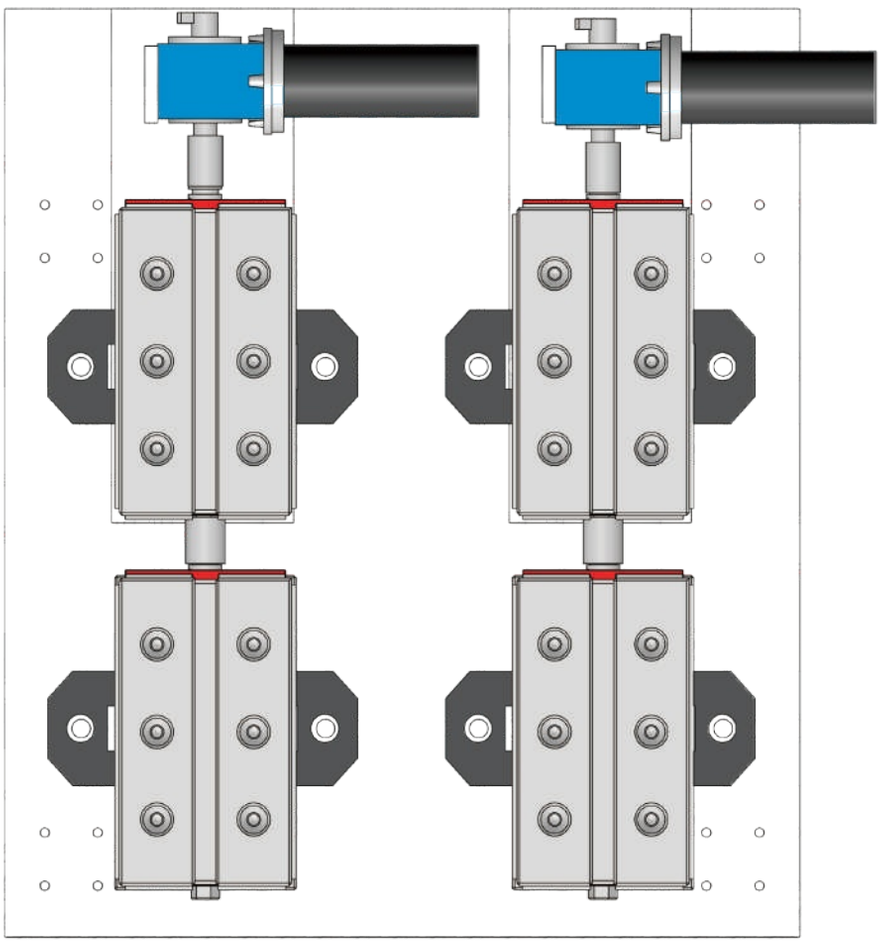
Permanent Magnetic Clamping(Custom-made)

Automatic Switching System For ECB Series Permanent Magnetic Clamping Block.

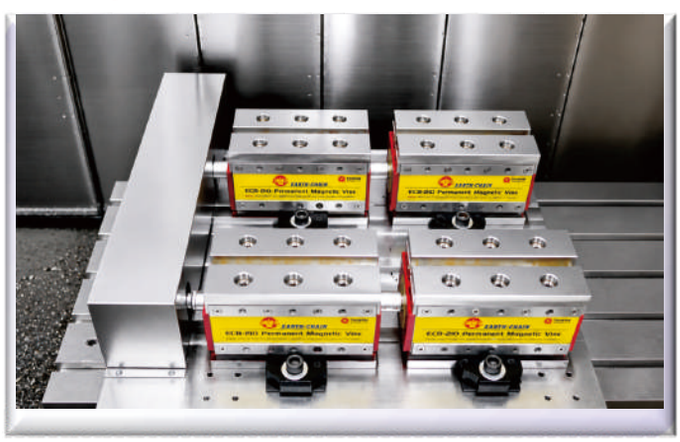
Used for enable the automatic production line with ECB Series.

The Gear Motor with reducer can automatically switching the magnetization and demagnetization operation, which saves time and labor, suitable for large size machines which using our ECB Series products.

Panted Patent No:Taiwan M644135



Working Example



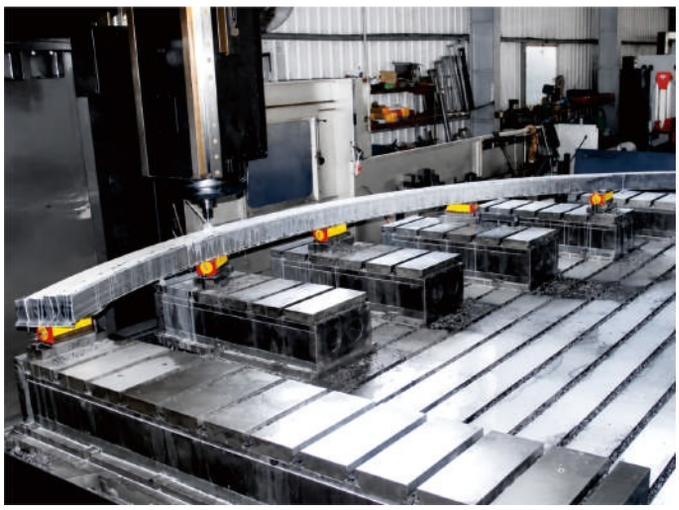


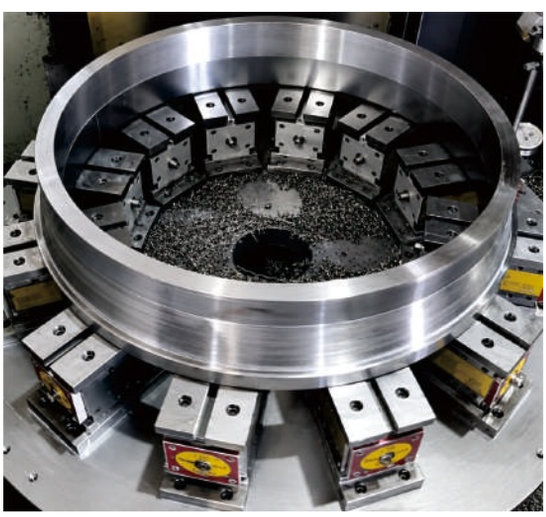
Permanent Magnetic Clamping

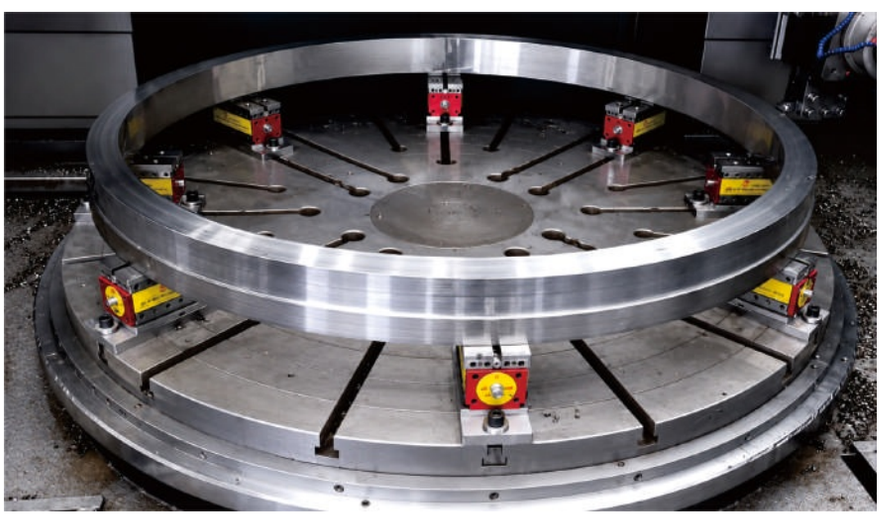
Suitable to be used with medium & large workpiece (Can do 5 sides machining)

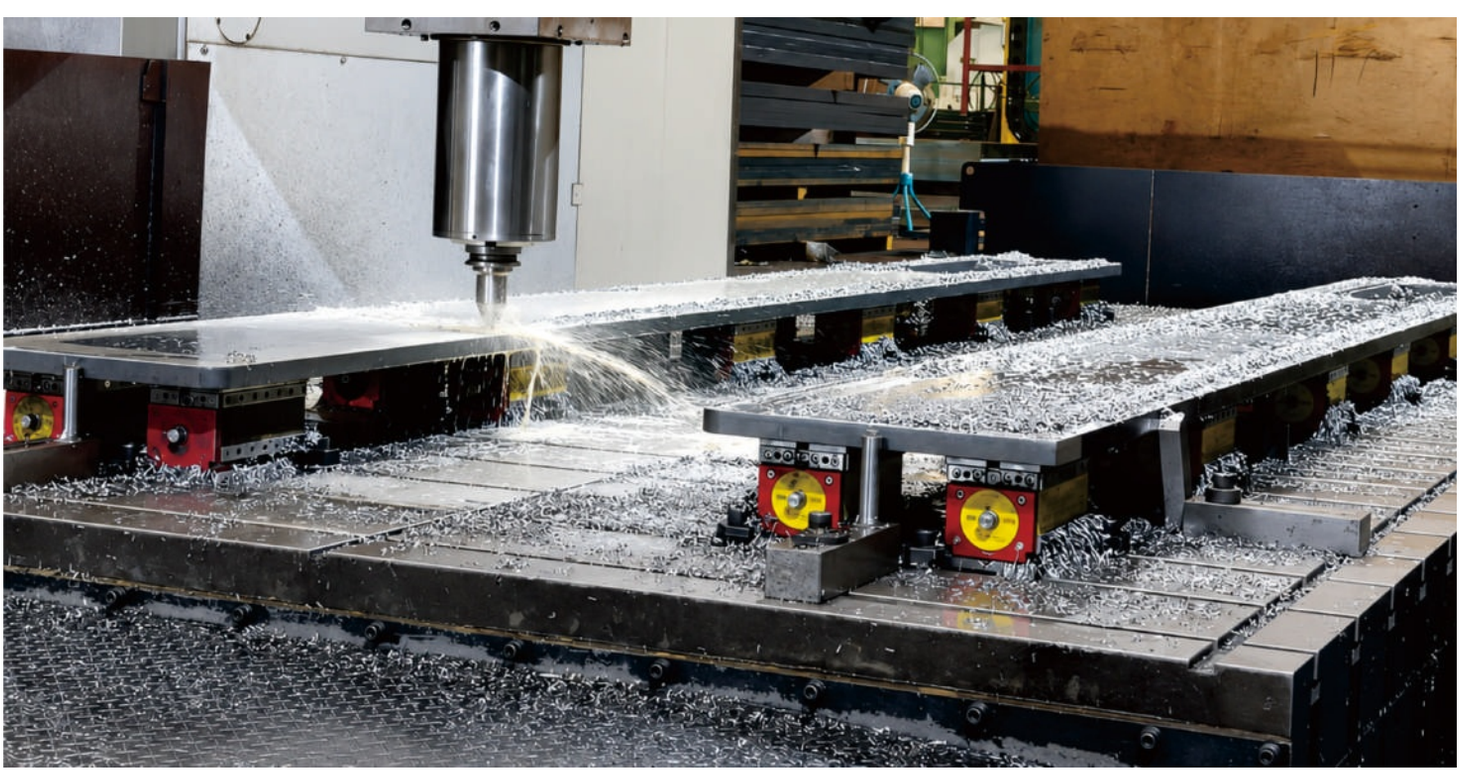
Working Example









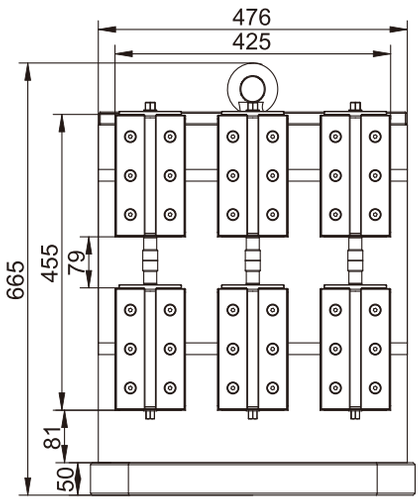


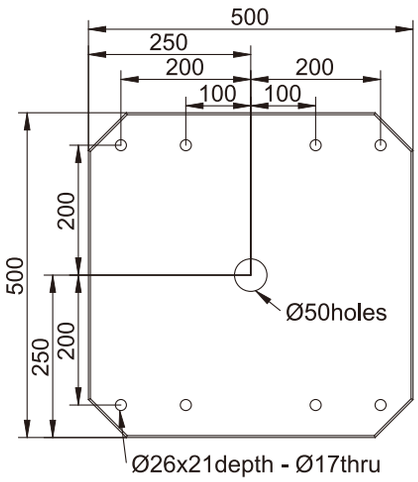
Permanent Magnetic Clamping

ECB-120V12

Suitable to be used with CNC Horizontal machining center



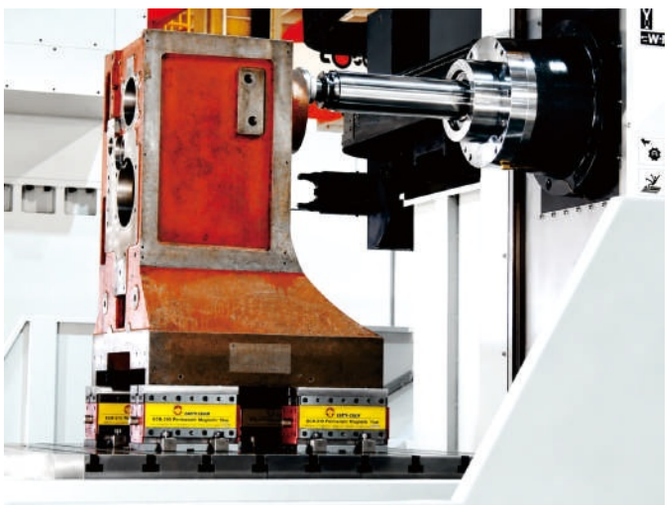


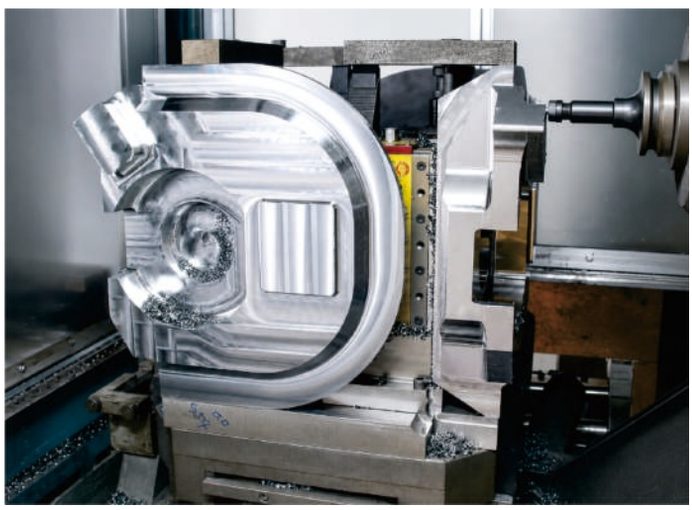


Features & Applications:

1. Each 6pcs of ECB-120 magnetic clamping block on 2 working face each of 7200 kgf ±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









Magnetic Automation

Green Manufacturing



Driving Toward Net-Zero

CARBON REDUCTION COMMITMENT

Earth-Chain Enterprise is leading the way in sustainable manufacturing with **ISO 14064-1** compliance and a strategic roadmap for net-zero emissions by 2026.

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台灣精品
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