

Ultimate Excellent Magnetic force Simultaneous Precision

Mag Vise Magnetic Workholding

(5 sides machining)



Electro-Permanent Magnetic Chuck Connection Type EEPM-C Series

The 19th Taiwan SMEs Innovation/ The 21st Taiwan & Excellence.



Patented Taiwan M358689

Electro-Permanent Magnetic Chuck EEPM-CIR & EEPM-CIRS Series

EEPM-CIR Award the 18th Taiwan SMEs Innovation









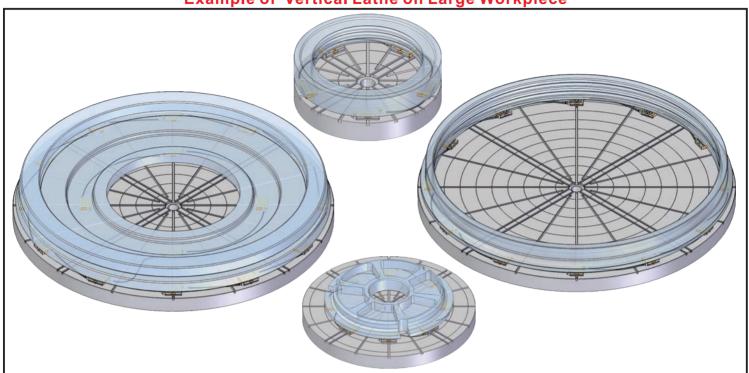


Electro-Permanent Magnetic Chuck-Connection Type

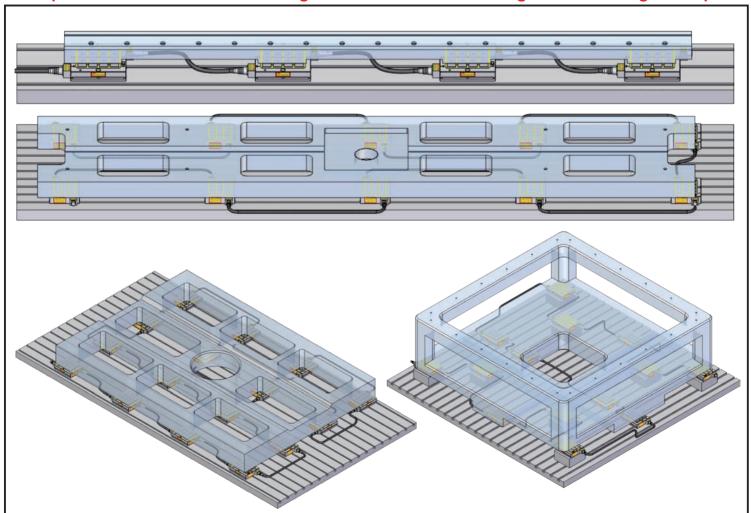
EEPM-C Series

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

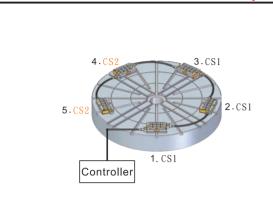
Example of Vertical Lathe on Large Workpiece



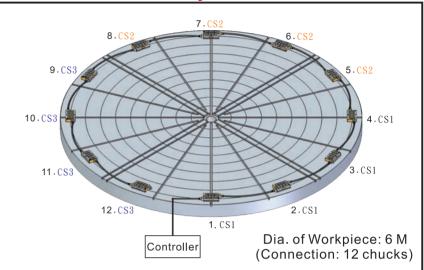
Example of Double Column Machining Center and CNC Machining Center on Large Workpiece

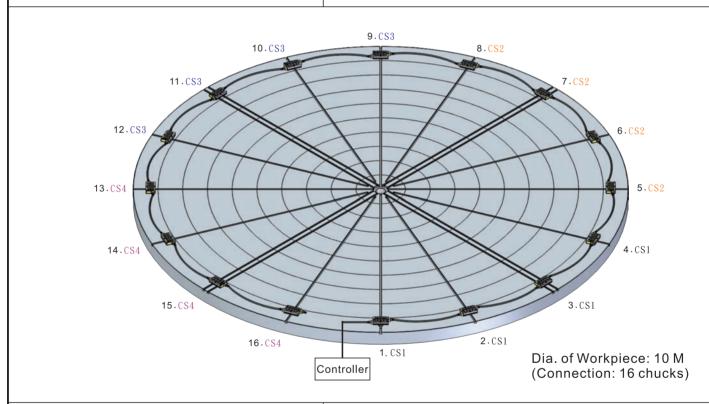


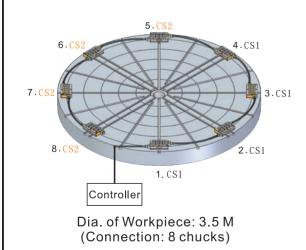
Example of Vertical Lathe on Assembly:

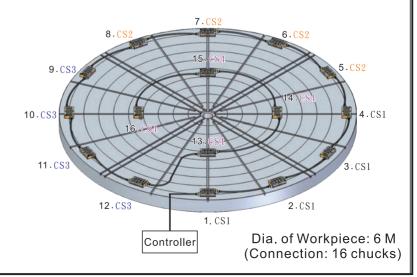


Dia. of Workpiece: 2 M (Connection: 5 chucks)









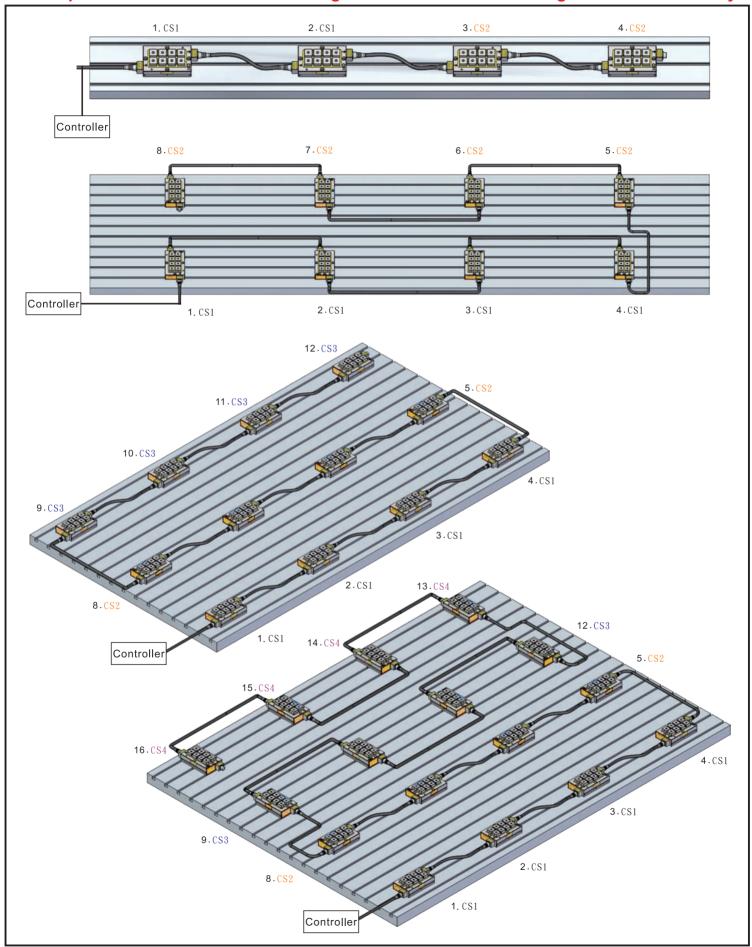


Electro-Permanent Magnetic Chuck-Connection Type

EEPM-C Series

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

Example on Double Column Machining Center and CNC Machining Center on Assembly





Electro-Permanent Magnetic Chuck-Connection Type

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

Features:

- 1. Super power magnetic force 1250 kgf/100cm²±5%(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.

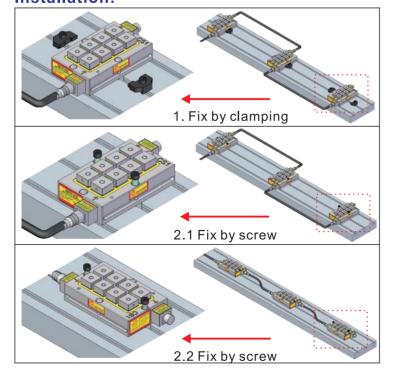
Description:

Customer can choose EEPM-C Series refer following steps:

- 1. Choose number of chucks according to Voltage and workpiece required.
- 2. Choose Chuck Controller.
- 3. Choose Chuck Connection Cables (Length: 300 mm; 500 mm; 1000 mm; 1500mm)

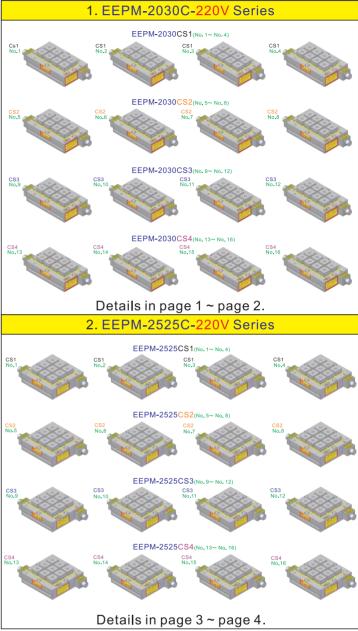
Note: A maximum of 16 chucks can be connected to one controller. If the workpiece dimension requests more than 16 chucks please choose two groups.

Installation:

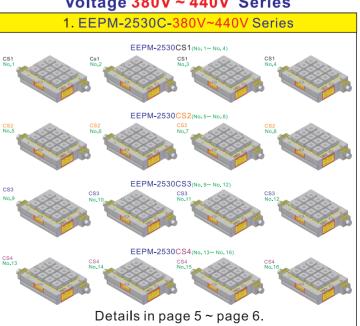


Voltage 220V Series

EEPM-C Series



Voltage 380V ~ 440V Series







Chuck Controller

The controller EEPM-C4C can be controlled for 1 to 4 piece of EEPM-CS1 \ CS2 \ CS3 \ CS4 at same time and with detection abnormal function.

Unit: mm

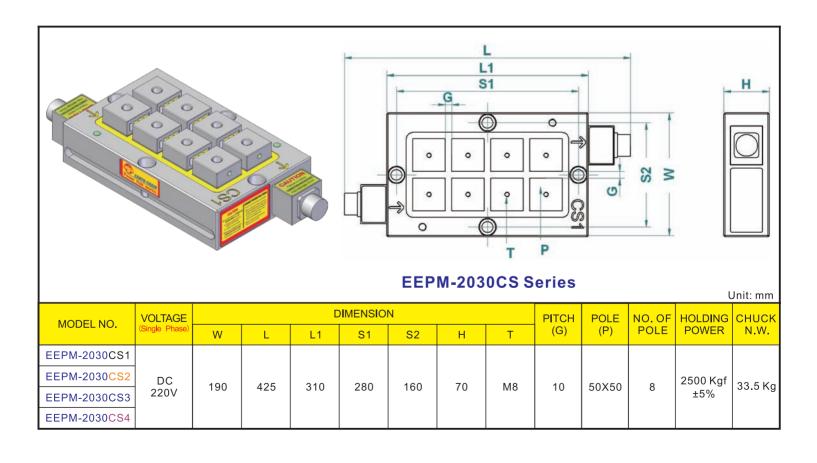
MODEL NO.	VOLTAGE	DIMENSION			CONNECTION AVAILABLE
	(Single Phase)	L	W	Н	CONNECTION AVAILABLE
EEPM-C4C	AC 220V	370	220	125	3~16 Chucks (CS1 x 1~4 pcs, CS2 x 1~4 pcs, CS3 x 1~4 pcs, CS4 x 1~4 pcs)

Standard Accessories: Induction soft block (EEPM-IB425 *2PCS)



EEPM-IB425

Convenience and Accuracy: The induction blocks screwed on the magnetic chuck are replaceable and consumable accessories. You can fine grinding the surface or forming induction blocks according to requirements of workpiece by the machine directly that the parallelism of induction blocks can be 100% with the machine and the 5-sided machining can be easily conducted.

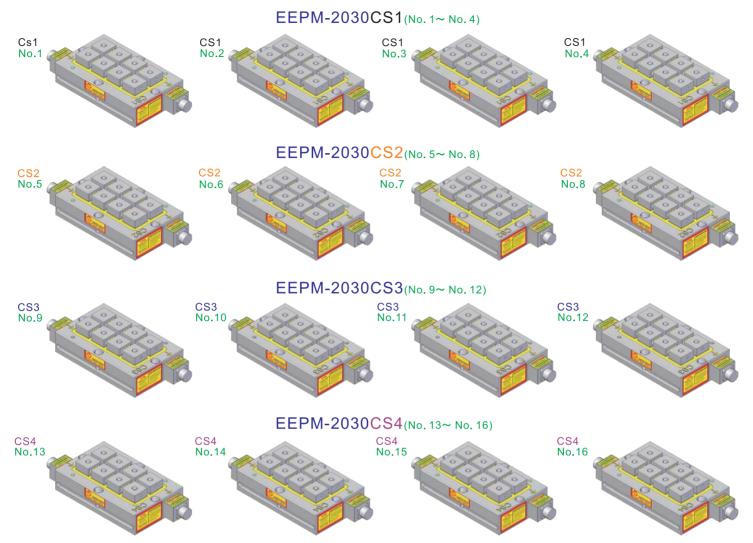


Chuck Connection Cable (4 types for options):



MODEL NO. EEPM-CC03:300mm; EEPM-CC05:500mm; EEPM-CC10:1000mm; EEPM-CC15:1500mm.





CONNECTION TABLE FOR EEPM-2030C-220V

CHUCK NOS.	MAX DISTANCE BETWEEN CHUCKS	CHUCKS CONNECTION	POLE NO. OF EACH CHUCK	HOLDING POWER OF EACH CHUCK	TOTAL HOLDING POWER ±5%	CURRENT AMP	CONTROLLER
3	800 mm	CS1x2pcs, CS2x1pcs			7500 Kgf	15A	C4C
4	000111111	CS1x2pcs, CS2x2pcs			10000 Kgf	15A	C4C
5		CS1x3pcs, CS2x2pcs			12500 Kgf	25A	C4C
6		CS1x3pcs, CS2x3pcs			15000 Kgf	32A	C4C
7	1000 mm	CS1x4pcs, CS2x3pcs		2500 Kgf ±5%	17500 Kgf	32A	C4C
8	1000 111111	CS1x4pcs, CS2x4pcs	8		20000 Kgf	32A	C4C
9		CS1x4pcs, CS2x3pcs, CS3x2pcs			22500 Kgf	32A	C4C
10		CS1x4pcs, CS2x3pcs, CS3x3pcs	8		25000 Kgf	32A	C4C
11		CS1x4pcs, CS2x4pcs, CS3x3pcs			27500 Kgf	32A	C4C
12		CS1x4pcs, CS2x4pcs, CS3x4pcs			30000 Kgf	32A	C4C
13	1500 mm	CS1x4pcs, CS2x4pcs, CS3x3pcs, CS4x2pcs			32500 Kgf	32A	C4C
14	1300 111111	CS1x4pcs, CS2x4pcs, CS3x3pcs, CS4x3pcs			35000 Kgf	32A	C4C
15		CS1x4pcs, CS2x4pcs, CS3x4pcs, CS4x3pcs			37500 Kgf	32A	C4C
16		CS1x4pcs, CS2x4pcs, CS3x4pcs, CS4x4pcs			40000 Kgf	32A	C4C

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





Chuck Controller

The controller EEPM-C4C can be controlled for 1 to 4 piece of EEPM-CS1 \ CS2 \ CS3 \ CS4 at same time and with detection abnormal function.

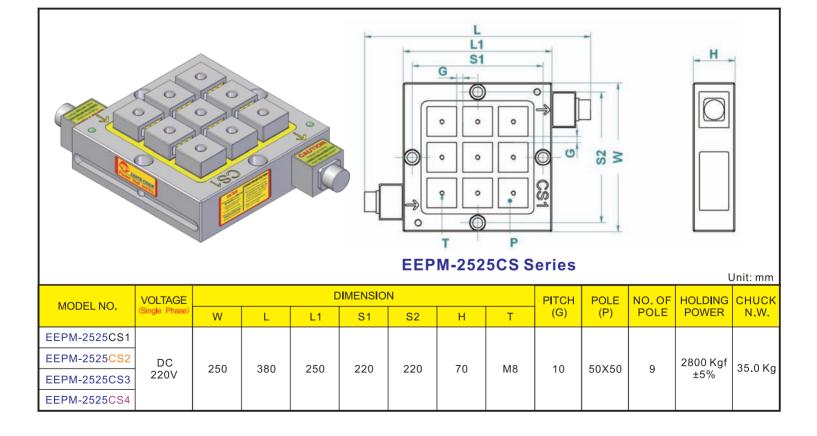
Unit: mm

MODEL NO.	VOLTAGE	DII	MENSI	NC	CONNECTION AVAILABLE					
MODEL NO.	Single Phase)	L	W	Н	CONNECTION AVAILABLE					
EEPM-C4C	AC 220V	370	220	125	3~16 Chucks (CS1 x 1~4 pcs, CS2 x 1~4 pcs, CS3 x 1~4 pcs, CS4 x 1~4 pcs)					

Standard Accessories: Induction soft block (EEPM-IB325 *3PCS)



Convenience and Accuracy: The induction blocks screwed on the magnetic chuck are replaceable and consumable accessories. You can fine grinding the surface or forming induction blocks according to requirements of workpiece by the machine directly that the parallelism of induction blocks can be 100% with the machine and the 5-sided machining can be easily conducted.

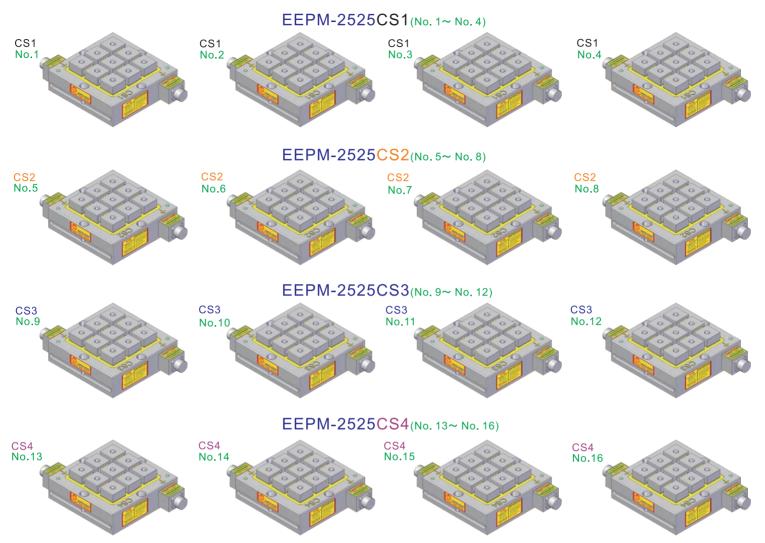


Chuck Connection Cable (4 types for options):



MODEL NO. EEPM-CC03:300mm; EEPM-CC05:500mm; EEPM-CC10:1000mm; EEPM-CC15:1500mm.





CONNECTION TABLE FOR EEPM-2525C-220V

CHUCK NOS.	MAX DISTANCE BETWEEN CHUCKS	CHUCKS CONNECTION	POLE NO. OF EACH CHUCK	HOLDING POWER OF EACH CHUCK	TOTAL HOLDING POWER ±5%	CURRENT AMP	CONTROLLER
3	800 mm	CS1x2pcs, CS2x1pcs			8400 Kgf	15A	C4C
4	000 111111	CS1x2pcs, CS2x2pcs			11200 Kgf	15A	C4C
5		CS1x3pcs, CS2x2pcs			14000 Kgf	20A	C4C
6		CS1x3pcs, CS2x3pcs		2800 Kgf ±5%	16800 Kgf	20A	C4C
7	1000 mm	CS1x4pcs, CS2x3pcs			19600 Kgf	30A	C4C
8	1000 111111	CS1x4pcs, CS2x4pcs			22400 Kgf	30A	C4C
9		CS1x4pcs, CS2x3pcs, CS3x2pcs	9		25200 Kgf	30A	C4C
10		CS1x4pcs, CS2x3pcs, CS3x3pcs	9		28000 Kgf	30A	C4C
11		CS1x4pcs, CS2x4pcs, CS3x3pcs			30800 Kgf	30A	C4C
12		CS1x4pcs, CS2x4pcs, CS3x4pcs	CS1x4pcs,CS2x4pcs,CS3x4pcs CS1x4pcs,CS2x4pcs,CS3x3pcs,CS4x2pcs		33600 Kgf	30A	C4C
13	1500 mm	CS1x4pcs, CS2x4pcs, CS3x3pcs, CS4x2pcs			36400 Kgf	30A	C4C
14	1500 mm	CS1x4pcs, CS2x4pcs, CS3x3pcs, CS4x3pcs			39200 Kgf	30A	C4C
15		CS1x4pcs, CS2x4pcs, CS3x4pcs, CS4x3pcs			42000 Kgf	30A	C4C
16		CS1x4pcs, CS2x4pcs, CS3x4pcs, CS4x4pcs			44800 Kgf	30A	C4C

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



Electro-Permanent Magnetic Chuck-Connection Type EEPM-2530C-380V~440V Series

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



Chuck Controller

The controller EEPM-C4C can be controlled for 1 to 4 piece of EEPM-CS1 \ CS2 \ CS3 \ CS4 at same time and with detection abnormal function.

Unit: mm

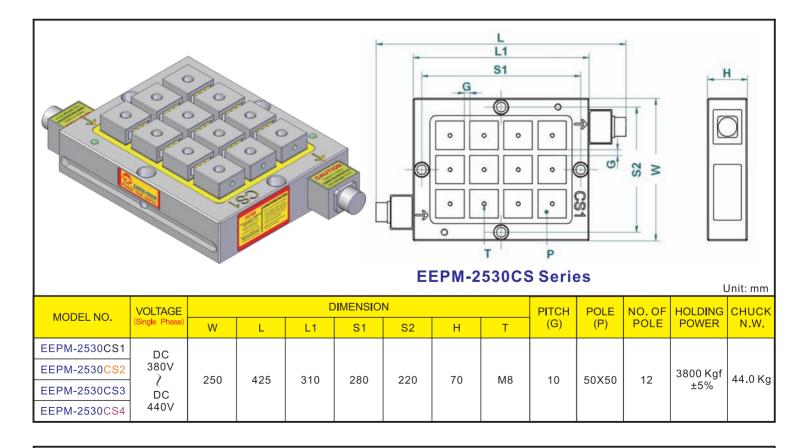
MODEL NO.	VOLTAGE	DIMENSION			CONNECTION AVAILABLE
	(Single Phase)	L	W	Н	CONNECTION AVAILABLE
EEPM-C4C	AC 380V / AC 440V	370	220	125	3~16 Chucks (CS1 x 1~4 pcs, CS2 x 1~4 pcs, CS3 x 1~4 pcs, CS4 x 1~4 pcs)

Standard Accessories: Induction soft block (EEPM-IB425 *3PCS)



EEPM-IB425

Convenience and Accuracy: The induction blocks screwed on the magnetic chuck are replaceable and consumable accessories. You can fine grinding the surface or forming induction blocks according to requirements of workpiece by the machine directly that the parallelism of induction blocks can be 100% with the machine and the 5-sided machining can be easily conducted.



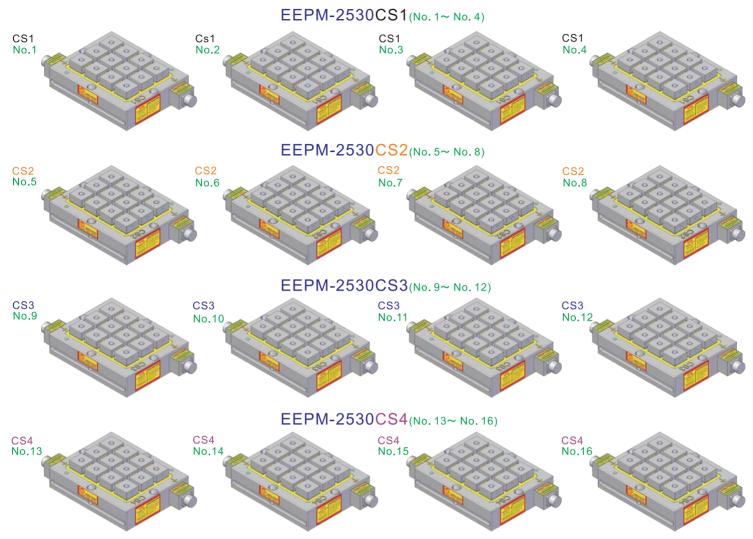
Chuck Connection Cable (4 types for options):



MODEL NO. EEPM-CC03:300mm; EEPM-CC05:500mm; EEPM-CC10:1000mm; EEPM-CC15:1500mm.

Electro-Permanent Magnetic Chuck-Connection Type EEPM-2530C-380V~440V Series

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



CONNECTION TABLE FOR EEPM-2530C-380V~440V

NOS	MAX DISTANCE BETWEEN CHUCKS	CHUCKS CONNECTION	POLE NO. OF EACH CHUCK	HOLDING POWER OF EACH CHUCK	TOTAL HOLDING POWER ±5%	CURRENT AMP	CONTROLLER
3	800 mm	CS1x2pcs, CS2x1pcs			11400 Kgf	15A	C4C
4	800 11111	CS1x2pcs, CS2x2pcs			15200 Kgf	15A	C4C
5		CS1x3pcs, CS2x2pcs			19000 Kgf	20A	C4C
6		CS1x3pcs, CS2x3pcs			22800 Kgf	25A	C4C
7	1000 mm	CS1x4pcs, CS2x3pcs			26600 Kgf	25A	C4C
8	1000111111	CS1x4pcs, CS2x4pcs CS1x4pcs, CS2x3pcs, CS3x2pcs CS1x4pcs, CS2x3pcs, CS3x3pcs		3800 Kgf ±5%	30400 Kgf	30A	C4C
9					34200 Kgf	30A	C4C
10					38000 Kgf	35A	C4C
11		CS1x4pcs, CS2x4pcs, CS3x3pcs			41800 Kgf	40A	C4C
12		CS1x4pcs,CS2x4pcs,CS3x4pcs			45600 Kgf	40A	C4C
13	1500 mm	CS1x4pcs,CS2x4pcs,CS3x3pcs,CS4x2pcs			49400 Kgf	40A	C4C
14	1300 111111	CS1x4pcs,CS2x4pcs,CS3x3pcs,CS4x3pcs			53200 Kgf	40A	C4C
15		CS1x4pcs,CS2x4pcs,CS3x4pcs,CS4x3pcs			57000 Kgf	45A	C4C
16		CS1x4pcs, CS2x4pcs, CS3x4pcs, CS4x4pcs			60800 Kgf	45A	C4C

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



Electro-Permanent Magnetic Chuck EEPM-CIR Series

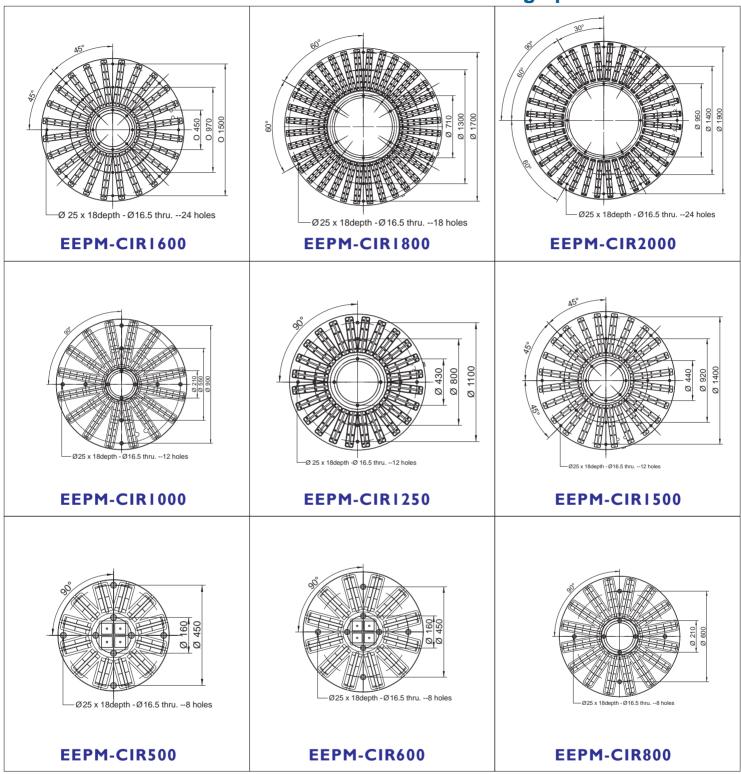
Suitable for use on Vertical Lathe, CNC 5 Axis Machining Center ...etc.



										Unit:mm				
MODEL NO.	D	IMENSIC	N	NO.OF	T-SLOT	MAGNET	C FORCE	N.W.		CURRENT	CONTROLLER	VOLTAGE	CURRENT	CONTROLLER
MODEL NO.	OD	ID	HEIGHT	POLE	1 0201	MIN.		(Single Phas	(Single Phase)	AMP	(included)	(Single Phase)	AMP	(included)
EEPM-CIR500	<i>φ</i> 500	0	70	12/4		1340 kgf	6600 kgf	104 kg		33A	C1		15A	C1
EEPM-CIR600	<i>φ</i> 600	0	70	12/4		1920 kgf	9600 kgf	148 kg		27A	C2		15A	C2
EEPM-CIR800	<i>φ</i> 800	φ250	85	16		3060 kgf	15200 kgf	302 kg		30A	C2		28A	C2
EEPM-CIR1000	<i>φ</i> 1000	φ250	85	16	. 11 .	4600 kgf	23000 kgf	471 kg		24A	C4	AC 380V } AC 440V	20A	C4
EEPM-CIR1250	<i>φ</i> 1260	φ500	110	24		5760 kgf	28800 kgf	828 kg	AC	33A	C4		18A	C4
EEPM-CIR1500	<i>φ</i> 1520	φ500	120	24	- 18 -	8060 kgf	40200 kgf	1325 kg	220V	24A	C8		25A	C8
EEPM-CIR1600	<i>φ</i> 1630	φ500	120	24		9200 kgf	46000 kgf	1507 kg		24A	C8		20A	C8
EEPM-CIR1800	<i>φ</i> 1820	φ800	120	36		12100 kgf	60400 kgf	2290 kg		33A	C8		28A	C8
EEPM-CIR2000	<i>φ</i> 2050	<i>φ</i> 1000	130	36		12100 kgf	60400 kgf	2490 kg		33A	C8		28A	C8
EEPM-CIR2600														
EEPM-CIR3000														



Dimension of screw holes for seting up



Panted Patent No:M358689

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.



Applications:

1. Suitables in use for combine with Vertical Lathe, CNC 5 Axis Index Device, CNC 5 Axis Machining Center ...etc.

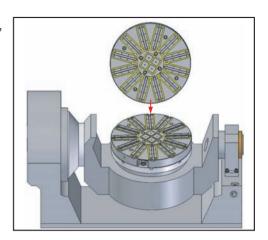
- 2. Minimum thickness of workpiece required: 10 mm.
- 3. Minimum dimension of workpiece required as:

EEPM-CIR500- φ 300mm ; EEPM-CIR600- φ 360mm ° EEPM-CIR800- φ 500mm ; EEPM-CIR1000- φ 500mm ° EEPM-CIR1250- φ 850mm ; EEPM-CIR1500- φ 850mm °

EEPM-CIR1600- \$\phi\$ 1200mm \$; EEPM-CIR1800- \$\phi\$ 1200mm \$\phi\$

or same dimensions of any other forms of workpiece.

4. More functions for cooperate with induction plate, can do positioning on workholding.

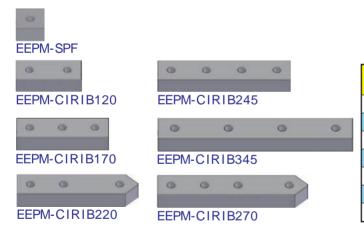


Unit:mm

Option Accessories

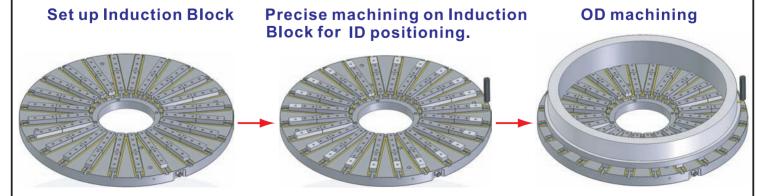
Induction Block 1. Induction Block EEPM-CIRIB series are use for EEPM-CIR chucks, can do many more functions on workholding.

2. Covenience 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.



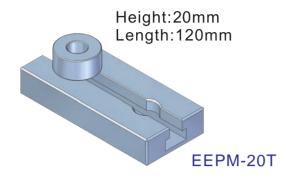
				01111111111
INDUCTION BLOCK	L	W	Н	SUITABLE
EEPM-SPF	50		32.5	All
EEPM-CIRIB120	120			EEPM-CIR500
EEPM-CIRIB170	170			EEPM-CIR600
EEPM-CIRIB245	245	50	20	EEPM-CIR800
EEPM-CIRIB335	335			EEPM-CIR1000
EEPM-CIRIB220	220			EEPM-CIR500
EEPM-CIRIB270	270			EEPM-CIR600

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



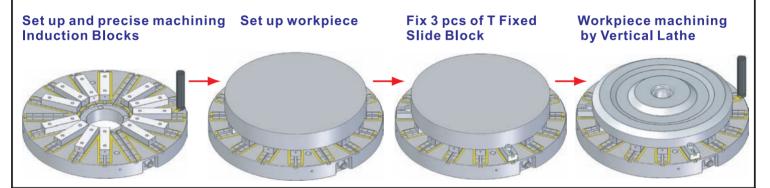


T Fixed Slide Block

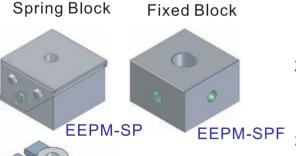


- 1. T Fixed Slide Block can do base points for workpiece positioning.
- 2. Due to the holding surface of small workpiece is not big enough, so please always use the T fixed slide Block to avoid the workpiece moving when machining.

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



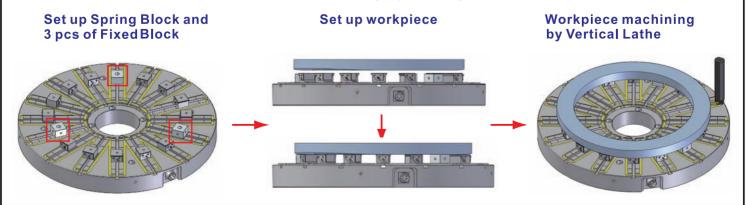
Spring Block · Fixed Block



EEPM-30T

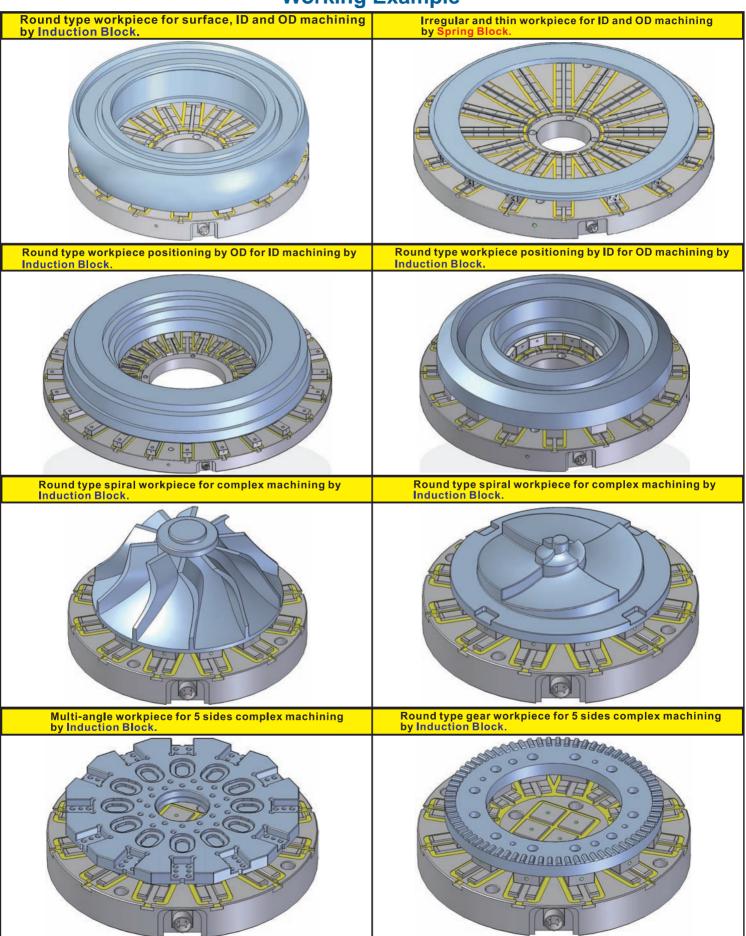
- 1. Suitable for clamping on iron cast, flexuous and thin workpieces, it will not be out of shape of the workpiece after machining.
- 2. 3 pcs of Fixed Blocks is necessary for workpiece clamping, it could be makes a basic surface for the workpiece touch to the Spring Blocks.
- 3. Elastic range of Spring Block:each 2.5 mm for up and down.

Working Example: Vertical Lathe machining by Spring Block with Fixed Block.

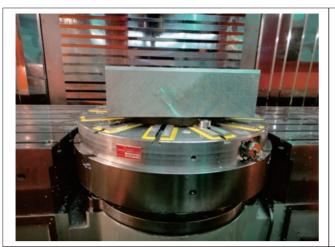




Working Example



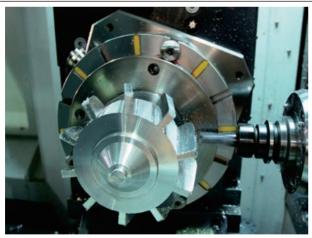


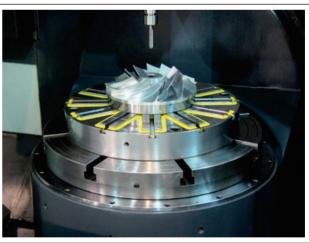


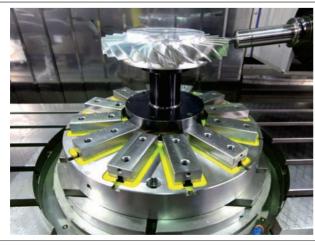


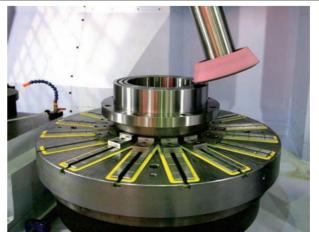




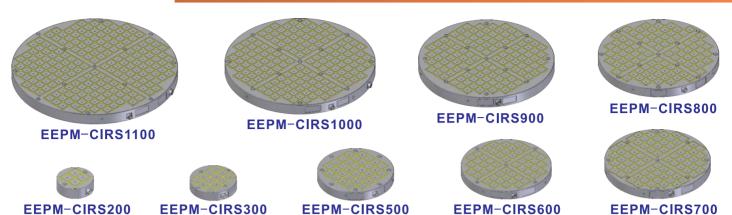




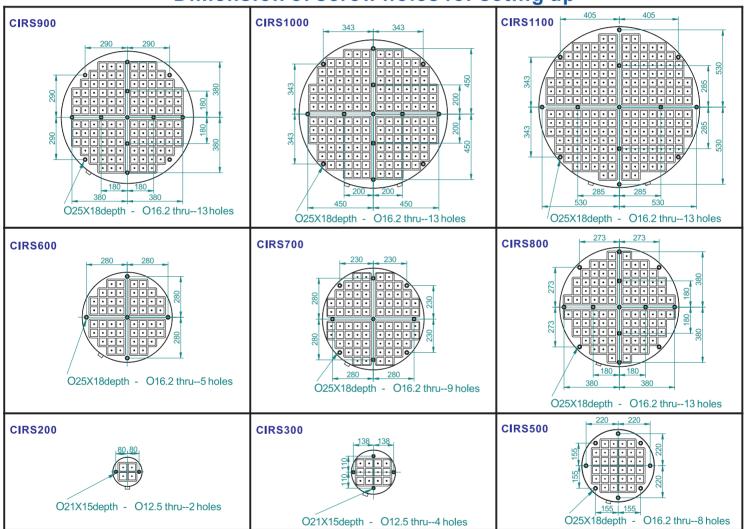




Suitable in use for combine with Rotary type Surface Grinding Machine, CNC 5 Axis Machining Center...etc.



Dimension of screw holes for seting up



												Unit:mm
MODELNIC	DIMEN	SION			NO.OF POLE N.W.		VOLTAGE (Single Phase)	CURRENT	CONTROLLER	VOLTAGE	CURRENT	CONTROLLER
MODEL NO.	DIAMETER	HEIGHT	PITCH	POLE		N.W.		AMP	(included)	(Single Phase)	AMP	(included)
EEPM-CIRS200	ψ203	70			4	16kg		16A	C1		_	_
EEPM-CIRS300	ϕ 305	70			12	35kg	g g	18A	C1		6A	C1
EEPM-CIRS500	ϕ 500	70			32	97kg		31A	C1	4.0	15A	C1
EEPM-CIRS600	φ620	70		50x50	52	150kg		25A	C2	AC 380V	15A	C2
EEPM-CIRS700	φ 7 00	70	10		76	191kg		16A	C4	AC AC	14A	C4
EEPM-CIRS800	φ820	70			96	262kg	2200	25A	C4		15A	C4
EEPM-CIRS900	φ910	80			120	362kg		30A	C4	440V	15A	C4
EEPM-CIRS1000	ψ 1020	80			164	464kg		25A	C8		15A	C8
EEPM-CIRS1100	ϕ 1106	80			204	546kg		24A	C8		20A	C8

Electro-Permanent Magnetic Chuck

EEPM-CIRS Series

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

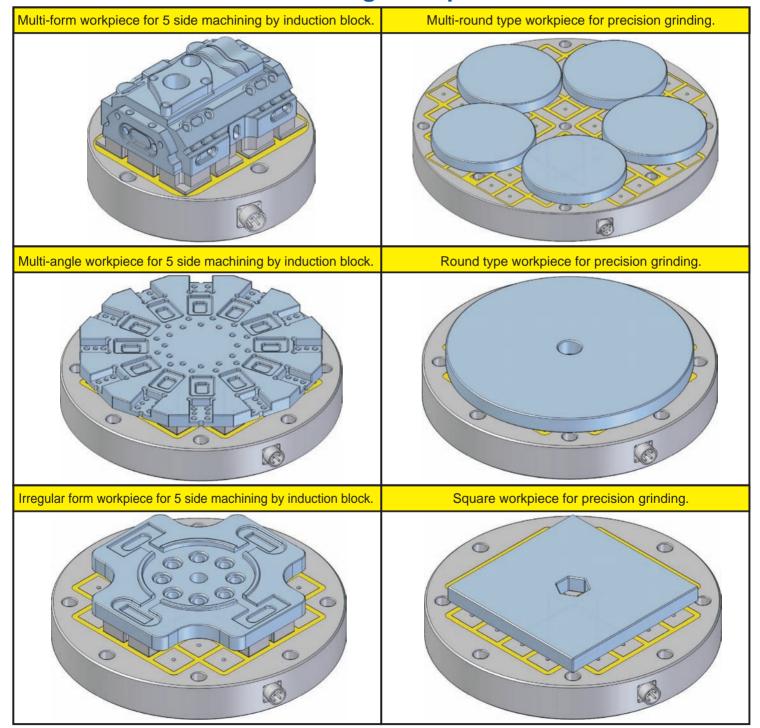
Features:

- 1. Super power magnetic force 1250 kgf/100cm² ±5%. (4 poles)
- 2. 3~15 seconds control for power ON & OFF. No electric power supply required to keep the magnetic chuck ON, cable can be taken off for turning freely while maching or grinding.
- 3. Can do 5 side 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 in use for combine with Rotary type Surface Grinding machine, CNC 5 Axis Machining Ceter...etc.
- 2. Minimum thickness of workpiece required: 10 mm
- 3. Minimum size of workpiece required as 4 alternate magnetic square poles and above contacts is neccessoy for optimum clamping.
- 4. More functions for cooperate with Induction Block and Spring Block. (See the detail of Option Accessories)

Working Example









OUR OTHER PRODUCTS SYSTEM









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