# Model EP-O PERMANENT ELECTROMAGNETIC CHUCK FOR MILLING

A Line-up of Products Selectable According to Machining Methods and Workpieces.

■ Revised design reduces electric power consumption providing a more compact size chuck master.

■The detachable power connector type is provided to respond to pallet changing.



#### [Application]

Suitable for securing workpieces during cutting on milling machines and

#### [Features]

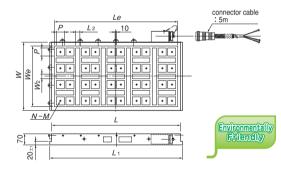
- Can be used in wet machining operations.
- The chuck is very thin, 70 mm in height, and light weight.
- Less accuracy change and highly robust construction.
- Achieve significant power savings compared to conventional products. (270:50%Reduction, 50:70%Reduction)



- Magnetization and demagnetization in a very short time.
- Tapped holes on the attractive face can be used to install various blocks to hold workpieces by various methods according to machining operations.
- Straightening blocks are also available that are mounted on the chuck work face to hold workpieces by an induction field. These optional products are very useful for such workpieces of irregular attractive faces that for example have steps and distortion and for machining the bottom and side faces of workpieces.



Chuck controller required additionally



		<u> </u>	JK COIII (	0.1101 110	rquii ou	addition.	٠۶	241	1-		-1			[mm (in)]
Standard Siz	o Modol	Chuck W	Vork Face			Pole Dimer	nsions			Mounting Face	Attractive Face	Thread Hole	Mass	Applicable
Stariuaru Siz	e iviouei	W L		We	Le	No. of Poles	P	W <sub>2</sub>	L <sub>2</sub>	L <sub>1</sub>	N	М	IVIdos	Chuck Master
	3060A	300 (11.8)	610 (24.0)	252 (9.92)	570 (22.4)	24		18(0.70)	16(0.63)	630 (24.8)	24 (0.94)		90kg/198 lb	
EP-QN5	4080A	420 (16.5)	960 (37.8)	372 (14.6)	760 (29.9)	40	50(1.96)	28(1.10)	25(0.98)	820 (32.2)	40 (1.57)	8(0.31)	160kg/352 lb	EPS-P2100B
EP-QN5	50100A	500 (19.6)		432 (17.0)	917(36.1)	60	50(1.96)	18(0.70)	26(1.02)	980 (38.5)	60 (2.36)	0(0.31)	230kg/507 lb	EP3-P2100B
	60100A	600 (23.6)	960 (37.6)	552(21.7)	917 (30.1)	72		24 (0.94)	20(1.02)	960 (36.5)	72 (2.83)		280kg/617 lb	
	4080A	390 (15.3)	800 (31.5)	332 (13.0)	760 (29.9)	24			24(0.94)	820 (32.2)	24 (0.94)		150kg/330 lb	EPS-P2100B
-	50100A	500 (19.6)	1000 (39.3)	452 (17.8)	960 (37.8)	40	70 (2.75)	28(1.10)	25(0.98)	1000(40.1)	40 (1.57)	10(0.39)	240kg/529 lb	EDC D0100D 0
	60100A	620 (24.4)	1000 (39.3)	572 (22.5)	960 (37.6)	50			25(0.96)	8) 1020 (40.1)	50 (2.36)		300kg/661 lb	EPS-P2100B-2

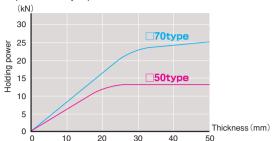
\*\*Turning the permanent electromagnetic chucks on and off must be limited to once per several minutes. If on/off operations are repeated frequently, the chucks may be damaged by overheat



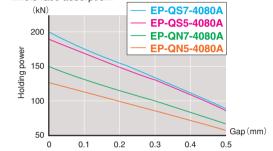
					,			81 1-	LI				[mm (in)]
Chandard Ci-	Standard Size Model		Vork Face		Р	ole Dimensions			Mounting Face	Attractive Face Thread Hole		Mana	Applicable
Standard Siz	ze iviodei	W	L	We Le		No. of Poles	P	L <sub>2</sub>	L <sub>1</sub>	N M		Mass	Chuck Master
	3060A	300(11.8)	610 (24.0)	252 (9.92)	570 (22.4)	32		16 (0.55)	630 (24.8)	32(1.26)		90kg/198 lb	EPS-P2100B
EP-QS5	4080A	420(16.5)	800 (31.5)	372(14.6)	760 (29.9)	60	FO(4.00)	25 (0.98)	820 (32.2)	60 (2.36)	0(0.04)	160kg/352 lb	LF3-F2100B
EP-QS5	50100A	500 (19.6)	960 (37.8)	432(17.0)	917 (36.1)	84	50 (1.96)	26(1.02)	980 (38.5)	84(3.31)	8(0.31)	230kg/507 lb	EPS-P2100B-2
	60100A	600 (23.6)	960 (37.8)	552(21.7)	917 (36.1)	108		26(1.02)	980 (38.5)	108 (4.25)		280kg/617 lb	EPS-P2100B-2
	3060A	300(11.8)	600 (23.6)	252 (9.92)	562 (22.1)	18		25 (0.98)	620 (24.4)	18(0.70)		86kg/189 lb	EPS-P2100B
EP-QS7	4080A	390 (15.3)	800 (31.5)	332(13.0)	760 (29.9)	32	70(2.75)	24 (0.94)	820 (32.2)	32(1.26)	10 (0.39)	150kg/330 lb	EPS-P2100B
EP-Q5/	50100A	470 (18.5)	1000 (39.3)	412(16.2)	960 (37.8)	50	70(2.75)	25 (0.98)	1020(40.1)	50(1.96)	10 (0.39)	220kg/485 lb	EPS-P2100B-2
	60100A	620(24.4)	1000 (39.3)	572(22.5)	900 (37.6)	70		25 (0.96)	1020 (40.1)	70 (2.75)		300kg/661 lb	EP3-P2100B-2

Relation between workpiece thickness and holding power. Test piece held by 4 poles.

■EP-Q type holding power characteristic



 Relation between gaps and holding power comparison at whole face adsorption.



## ■ Model designation

## Chuck size CHUCK: EP-QN5-3060A N.....Normal (Ribs arranged between poles) Pole size S.....Strong (Poles arranged densely) (5…□50 7…□70)

#### (When ordering)

- •Sizes other than the standard sizes listed in the left-side table are also
- The maximum one-piece size is W1300 x L1500 mm. For larger sizes, chucks are to be connected.
- ■When workpieces are hardened steels or special steels, they may be difficult to dismount due to strong residual magnetism.
- ●In these cases it is recommended EP-D type (P.33).

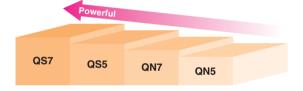
### A guide for selection

General milling operations	Good attractive condition such as plate machining.	>	QN
Planomiller, horizontal M/C, use of straightening blocks, etc.	Poor attractive conditions such as heavy duty cutting	>	QS

#### Selection of pole size □50 or □70

- •The  $\square$ 70 size is superior in the absolute holding power and gap characteristic.
- •The  $\square$ 50 size is recommended for relatively small and thin workpieces. (The plate thickness of magnetic saturation is  $20\sim25$  mm for  $\square50$  and  $30\sim35$  mm for  $\square70$ .)

### Relation between chuck models and holding power



### Holding power

□50 produces the maximum holding power of 2.94 kN (300 kgf) or over and □70 produces 5.88 kN (600 kgf) or over per pole.

#### (An example of calculation)

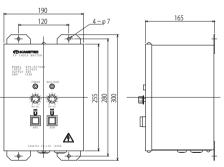
Maximum holding power on entire attractive face of EP-QH50-4080 2.94kN×60 (number of poles)=176.4kN {18000kgf}

### Model of special specification



#### ■EP Chuck Master\* Compact design for limited installation space.





		[mm (in)]				
Model	EPS-P2100B	EPS-P2100B-2				
Dimensions (W×H×D)	190(7.48)×165(	6.5) ×255(10.03)				
Power Source	200 VAC 5	0/60Hz 1 φ				
Output	10~90 VDC A	Average: 100A				
Output Switchover	No switchover	2				
Magnetizing Time(approx.) Demagnetizing Time(approx.)	1s	3s				
Breaker Capacity (Ref.)	Breaker Capacity (Ref.) 30A					
Mass	7.5kg	7.6kg				

\*Power supply cable shall be more than 3.5 mm and less than 10 m.

### Options





		[mm (in)]						
Mo	del	T						
□50×H28	□70×H37	Туре						
KT-Q50	KT-Q70	Fixed						
KT-Q50M KT-Q70M Movable								
*H-sizes are standard hight								

②Separately installed feeder box Recommended for pallet change spec.



PERMANENT CHUCK ELECTROMAGNETIC MAGNETIC CHUCKS CONTROLLERS CHUCKS

MAGNETIC TOOLS

# Model EP-QZ POWERFUL TYPE

# Longer size rail is strongly attracted without jig.



an example of special fabrication

#### [Application]

For use in milling machines, machining centers e.t.c. for long size rail type work, the work piece is strongly fixed and clamped at once.

- ●Gap attraction is more excellent than such our conventional model of EP-QN/QS type. This chuck is most suitable for such work in which parallel is worse and needs larger attractive
- Replacing conventional hydraulic , mechanical clamp, working time can be shorten and
- ●The alignment of magnetic pole can be made in accordance with shape and length of work piece such as rail.
- Exclusive fixing block designed for a particular shape of work piece can be manufactured as
- The same chuck but with brass separators can be manufactured.

[mm(in)]

Model	MAX.Holding Power	Pole Size	No.of Poles1	Features	Electro Chuck Master
EP-QZ8-15100A	□75 (□2.95) 750kgf	□75 (□2.95)	5(0.19)	Single type	EPS-P2100B
EP-QZW-30100A	□75(□2.95) 750kgf □50(□1.96) 300kgf	□75(2.95)+□50(1.96)	10 (□75) +14 (□50) 0.39 (□2.95) +0.55 (□1.96)	Double type	EPS-P2100B-2

# Model EP-D ELECTRO PERMANENT MAGNETIC CHUCK FOR MILLING EQUIPPED WITH DEMAGNETIZING FUNCTION



#### [Features]

- Releasing performance of a work piece has been tremendously improved by coils exclusively designed for reduction of magnetization.
- ■Magnetic pole pattern design producing concentrated magnetism on the work piece resulting in strong holding force.
- Better releasing performance is achieved in comparison with conventional electro-permanent magnetic chuck, for annealed steel or special steel .on which residual magnetism is large.
- Because electricity supply is necessary only when holding or releasing a work piece, no internal heat is generated resulting in higher accuracy and power cost savings.
- This chuck is workable for wet operation.

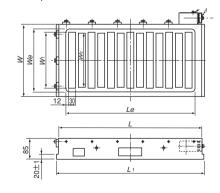
									[mm (in)]	
Model	Top Plate				Dimensions	Bottom Plate	Mass	Electro Chuck		
iviodei	W	L	We Le		W <sub>1</sub>	W <sub>2</sub>	L <sub>1</sub>	IVIASS	Master	
EP-D 3060	304 (11.9)	618 (24.3)	264 (10.3)	558 (21.9)	240 (9.44)	232 (9.13)	638 (25.1)	110kg (242)	EPS-D2100A	
EP-D 4080	404 (15.9)	786 (30.9)	364 (14.3)	726 (28.5)	340(13.3)	332 (13.0)	806 (31.7)	185kg (407)	EPS-D2100A	
EP-D50100	504 (19.8)	1038	464 (18.2)	978	440(17.3)	432 (17.0)	1058(41.6)	305kg (672)	EPS-D2100A-2	
EP-D60100	604 (23.7)	(40.8)	564 (22.2)	(38.5)	240 (9.44) ×2 (0.07)	232(9.13)×2(0.07)	1056(41.6)	365kg (804)	EP3-D2100A-2	

**Electro Chuck master** 

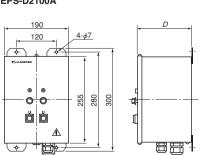
is separately needed.

FP-D3060

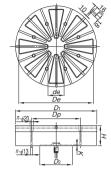
<sup>\*\*</sup>Turning the permanent electromagnetic chucks on and off must be limited to once per several minutes. If on/off operations are repeated frequently, the chucks may be damaged by overheat.







							[m	m (in)]
Model	Dimensions (W×D×H)	Power Source	Output	Output Switchover	Magnetizing Time (Approx.)	Demagnetizing Time (Approx.)		Mass
EPS- D2100A	190×165×255 (7.48)×(6.49)×(10.0)	200VAC 50/60Hz	10~90VDC Average	No Switchover	18	4S	30A	7.5kg (16.5)
PS-D2100A-2	190×200×255	1 φ	:100A	2	38	6S	JUA	8kg



Designed for application processes of large ring shape work piece as bearing, e.t.c., by lathe, turning, cylindrical, rotary grinding machine, e.t.c.

- Exclusive chuck controller provides adjustable strong and weak magnetic force.
- •As almost no internal heat is generated, deformation by heat is eliminated with higher accuracy achieved.
- responding to wet operation.
- With T slot, it can respond to various work pieces.

Larger chuck sizes of dia. more than 1.200mm is possible to be manufactured.

Lmm	(in)	

	Model	Nominal	Top Plate			No.	No. Bottom Plate					Voltage	Current	Mass	Electro Chuck	
	iviodei	Dimensions	D <sub>1</sub>	De	de	of Poles	D <sub>2</sub>	Kn		Dp	Н	voitage	Current	t iviass	Master	
ı	EPC- 50AST	500 (19.6)	500 (19.6)	460 (18.1)	100 (3.93)		200 (7.87)		8(0.31)	300 (11.8)	125 (4.92)		27A	140kg/ 308 lb	EPS-RW230A	
Ī	EPC- 70AST	700 (27.5)	700 (27.5)	656 (25.8)	120 (4.72)	°	400 (15.7)	5(0.19)	5(0.19)	0(0.31)	500 (19.6)	130(5.11)	DC180V	32A	330kg/ 727 lb	EPS-RW250A
Ī	EPC- 90AST	900 (35.4)	900 (35.4)	850 (33.4)	200 (7.87)	12	500 (19.6)		12(0.47)	700 (27.5)	140(5.51)	DC180V	45A	600kg/1323 lb	EPS-RW250A	
	EPC-120AST	1200 (47.2)	1200 (47.2)	1150(45.2)	300 (11.8)	18	650 (25.5)	6(0.23)	18(0.70)	1000 (39.3)	150 (5.90)		60A	1100kg/2425 lb	EPS-RW275A	

Slip Ring (including carbon brush) sold separately.

NOTE: Supporting bar for brush holder of slip ring by the Customer

NOTE: On/off operations of this EP Chuck should be made once in several minutes pause. If power on/off is repeated frequently, it can cause damage by overheat

\*exclusive operation box

							[mm(in)]	
Model	Power	Out	put		Mass			
iviouei	Source	Voltage	Current	Width	Height	Depth	IVIdSS	
EPS-RW230A			30A		480 (18.8)	190 (7.48)	15kg/33.0 lb	
EPS-RW250A	AC200V (50/60Hz)	DC180V (16step)	50A	400 (15.7)	725 (28.5)	250(9.84)	25kg/77.1 lb	
EPS-RW275A		(Tostop)	75A		725 (28.5)	250 (9.64)	35kg/77.1 lb	

# Model EPC-Z POWERFUL CIRCULAR TYPE

# To support ring shape work pieces such as various bearing for industries of construction machine, ship building, nuclear, wind mill power generation.







EPC-Z90

**Electro Chuck master** is separately needed

#### [Application]

suitable for processing such ring shape work pieces as bearing by lathe, turning, cylindrical, rotary grinding machine, e.t.c.

#### [Features]

- By designing a magnetic pole structure suitable for milling, stronger magnetic forces are achieved. Suitable for milling, to which the load is large.
- Due to rectangular magnetic pole, stable magnetic force is produced regardless of work size.
- ●With optional adapter block with T slot, it is possible to hold and attract various work pieces of smaller diameter to larger diameter.
- Work piece can be processed with use of equipping block from any direction. In addition, maintenance cleaning out of feed cutting waste can be done easily.

[mm(in)]

Model	Dimensions	No.of Poles	Applicable	Diameter	Mass	Electro Chuck Master	
Model	Dimensions	No.01 Poles	Min.Diameter	Max.Diameter	IVIdSS		
EPC-Z60	φ 640 (25.1) × 90 (3.54)			600 (23.6)	170kg/ 374 lb	EPS-PZ2100A-2	
EPC-Z90	φ 950 (37.4) ×90 (3.54)	28(14+14)	250 (9.84)	900 (35.4)	410kg/ 904 lb	EPS-PZ2100A-4	
EPC-Z120	φ 1250 (49.2) × 90 (3.54)	(1.10)		1200 (47.2)	725kg/1598 lb	EPS-PZ2100A-6	
EPC-Z150	φ 1550 (61.0) × 110 (4.33)	44(22+22) (1.73)	500 (19.6)	1500 (59.0)	1280kg/2822 lb	EPS-PZ2100A-8	
EPC-Z180	φ 1850 (72.8) × 110 (4.33)	43 (16.9)	800 (31.4)	1800 (70.8)	1580kg/3483 lb	EPS-PZ2100A-10	
EPC-Z200	$\phi 2050 (80.7) \times 110 (4.33)$	50 (1.96)	1000 (39.3)	2000 (78.7)	1800kg/3969 lb	EPS-PZ2100A-10	

<sup>\*</sup>The power is supplied through the metal connection cable(with confirmation signal of cable connection) from the chuck side

[mm(in)]

Model	Dawar as was	Out	Breaker		Mass				
iviodei	Power source	Voltage	Current	Capacity	Width	Height	Depth	IVIdSS	
EPS-PZ2100A-2		DC90V× 2switching		30A	450 (17.7)	450 (17.7)	200 (7.87)	15kg/33.0 lb	
EPS-PZ2100A-4	AC200V	DC90V× 4switching		60A	650 (25.5)	750 (29.5)	250 (9.84)	35kg/77.1 lb	
EPS-PZ2100A-6	(50/60Hz)	DC90V× 6switching	Pulse100A (Per switching)					40kg/88.2 lb	
EPS-PZ2100A-8	1 φ	DC90V× 8switching	(i di switchinig)	75A	600 (23.6)	850 (33.4)		50kg/110 lb	
EPS-PZ2100A-10		DC90V×10switching		75A	800 (31.4)	925 (36.4)	300(11.8)	80kg/176 lb	
					1				

AGNETIC OLS

# Model EPT STANDARD TYPE



Most suitable for highly accurate grinding such as precision grinding and slicing.

- Electricity is applied momentarily only to control the magnetomotive force when mounting and dismounting workpieces, minimizing heat generated internally to ensure high precision machining operations.
- Electricity needs not be applied continuously even when holding workpieces, helping reduce running costs.
- The holding power is maintained by the permanent magnet in the event of

# Please refer to N-6 page of 2015 NEW PRODUCTS GUIDE

Voltage EPT- 1535D EPT- 4080D

The KANETEC chucks work best when a KANETEC chuck controller is used \*\*Turning the permanent electromagnetic chucks on and off must be limited to once per several minutes. If on/off operations are repeated frequently, the chucks may be damaged by overheat.

#### Model EPT-H **POWERFUL TYPE**

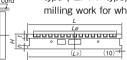


Chuck controller

required additionally







#### [Application]

Most suitable for highly accurate grinding such as precision grinding and slicing.

●It has the structure, which generates stronger magnetic force than standard type ( EPT-F type) and therefore, it fixes a work piece strongly even during milling work for which processing load is heavy.

> NOTE: The dimension L2 has not been machined together with the dimension L and some variation exists.

[mm(in)]

Model	Nominal		Top P	late		Pole Pitch	Bottom Plate		Height	Voltage	Power	Mass	Electro
iviouei	Dimensions	В	L	Le	t	P	L <sub>2</sub>	h	Н	voitage	Cord	IVIdSS	Chuck Master
EPT-H1530F	150(5.90) × 300(11.8)	150(5.90)	300 (11.8)	240 (9.44)		14(2+12)	300 (11.8)				2m(78.7)	30kg/ 66.1 lb	
EPT-H2050F	200 (7.87) × 500 (19.6)	200 (7.87)	500 (19.6)	436(17.1)	17.1)	0.55(0.07+0.47)	500 (19.6)		100		3m (118)	83kg/ 183 lb	EPS-W215B
EPT-H3060F	300 (11.8) × 600 (23.6)	300(11.8)	600 (23.6)	529(20.8)	30 (1.18)	19.5(2.5+17)	600 (23.6)	(0.78)	100	DC180 V	3111(116)	142kg/ 313 lb	
EPT-H4080F	400 (15.7) × 800 (31.5)	400(15.7)	800 (31.5)	724(28.5)	(1.10)	0.76	800 (31.5)	(0.78)	(3.93)		5m(196)	215kg/ 474 lb	
EPT-H50100F	500 (19.6) × 1000 (39.3)	500(19.6)	1000(39.3)	919(36.1)		(0.09+0.66)	1000(39.3)					335kg/ 738 lb	

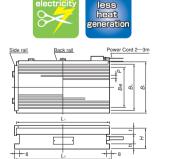
\*\*The chuck controller and clamp parts are not included. The KANETEC chucks work best when a KANETEC chuck controller is used.

\*\*Turning the permanent electromagnetic chucks on and off must be limited to once per several minutes. If on/off operations are repeated frequently, the chucks may be damaged by overheat.

#### **MICROPITCH TYPE**



Chuck controller required additionally



#### [Application]

Suitable for precision grinding on grinders and for holding thin and thick workpieces having a large area.

#### [Features]

- ●Thanks to finer pole pitches on the chuck work face, these chucks hold thin and wide workpieces firmly.
- Electricity is applied momentarily only to control the magnetomotive force when mounting and dismounting workpieces, minimizing heat generated internally to maintain accuracy.
- Electricity needs not be applied continuously even when holding workpieces, helping reduce running costs.
- The holding power is maintained in the event of power failure or cable breakage, thus improving safety. [mm(in)]

														2111111 (1117)
Model	Nominal		Top Pla	Top Plate			Pole Pitch Bottom Plate			Height	Voltage	Power	Mass	Electro
Model	Dimensions	B <sub>1</sub>	L <sub>1</sub>	t	Be	P	B <sub>2</sub>	L <sub>2</sub>	h	Н	voitage	Cord	IVIdSS	Chuck Master
EPTW-1530	150(5.90) ×300(11.8)	150 (5.90)	300(11.8)	20	125(4.92)		148 (5.82)	300(11.8)	18	95		0	29kg/ 63 lb	
EPTW-1545	150(5.90) ×450(17.7)	150 (5.90)	450(17.7)	(0.78)	125(4.92)	4(0.8+3.2)	140 (3.62)	450(17.7)	(0.70)	(3.74)		2m (78.7)	44kg/ 97 lb	EPS-215B
EPTW-2040	200 (7.87) × 400 (15.7)	200 (7.87)	400 (15.7)		173(6.81)		198 (7.79)	400(15.7)			90 VDC		65kg/143 lb	
EPTW-2050	200 (7.87) ×500 (19.6)	200(7.87)	500(19.6)	25	173(0.01)			500(19.6)	20			3m (118)	82kg/180 lb	
EPTW-2560	250 (9.84) ×600 (23.6)	250 (9.84)	600(23.6)	(0.98)	217(8.54)	(0.05 1 0.12)	248 (9.76)	600(23.6)	(0.78)				123kg/271 lb	
EPTW-3060	300(11.8)×600(23.6)	300 (11.8)	600(23.6)		269(10.5)		298 (11.7)	7 000 (23.6)					147kg/324 lb	

\*The chuck controller and clamp parts are not included. The KANETEC chucks work best when a KANETEC chuck controller is used.

# Model EPZ-U ROTARY TYPE





# less heat required additionally

## EPZ-1030UF Chuck controller

Power cord 2m Back rai L

#### [Application]

Suitable for angle grinding on grinders. Easy installation. [Features]

- The scaled rotary shaft facilitates angle setting.
- Electricity is applied momentarily only to control the magnetomotive force when mounting and dismounting workpieces, minimizing heat generated internally to ensure high precision machining operations.
- Electricity needs not be applied continuously even when holding workpieces, helping reduce running costs.
- The holding power is maintained in the event of power failure or cable breakage, thus improving safety.

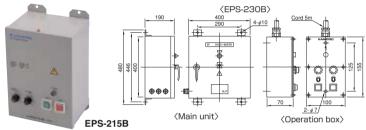
_		_
mm	(in)	П

Model	Nominal	Top Plate					Pole Pitch	Pole Pitch Rotary Stand					Length	Height Voltage		al Macc I	Electro	
Model	Dimensions	B <sub>1</sub>	L <sub>1</sub>	Be	Le H <sub>1</sub>		P	B <sub>2</sub>	$\ell_1$	$\ell_2$	G	h <sub>1</sub>	h <sub>2</sub>	L2	H <sub>2</sub>		IVIASS	Chuck Master
EPZ-1025UF	100 (3.93) ×250 (9.84)	100(3.93)	250 (9.84)	78 (3.07)	211 (8.30)		11 (2+9)					80		368 (14.4)	100		22kg/ 48 lb	
EPZ-1030UF	100 (3.93) × 300 (11.8)	100 (3.93)		76(3.07)	255(10.0)	100	0.43(0.07+0.35)	100		29		(3.15)	1.5		130		24kg/ 52 lb	
EPZ-1230UF	120 (4.72) ×300 (11.8)	120(4.72)	300 (11.8)	96(3.78)	240(9.44) (3.93)	(3.03)	14(2+12)	100		6) (1.14)	(0.55)	95	15 (0.59)	418 (16.4)	(3.11)	90 VDC	30kg/ 66 lb	EPS-215B
EPZ-1530UF	150 (5.90) ×300 (11.8)	150(5,90)		120(4.72)	240(9.44)	(3.93)	0.55(0.07+0.47)	(3.93)	(1.90)	(1.14)	(0.55)	(3.74)	(0.59)		145	]	37kg/ 81 lb	
<b>EPZ-1545UF</b>	150 (5.90) ×450 (17.7)	150(5.90)	450 (17.7)	120(4.72)	408 (16.0)		0.55(0.07+0.47)					(3.74)		568 (22.3)	(5.70)		52kg/114 lb	

\*Turning the permanent electromagnetic chucks on and off must be limited to once per several minutes. If on/off operations are repeated frequently, the chucks may be damaged by overheat

#### **EP CHUCK MASTER\*** Model EPS

# Power source for permanent electromagnetic chucks



#### [Application]

Rectifies an input from the AC power source to DC and momentarily outputs exciting current to permanent electromagnetic chucks. The automatic demagnetization circuit is activated to reduce residual magnetism in permanent electromagnetic chucks.

#### [Features]

- This chuck master is designed for use with electro permanent models : EPT,EPT-H, EPTW, and EPZ-U.
- Microcomputer control ensures effective automatic demagnetization.
- Adjustable holding power.

### General models

[mm	(in)]

Model	Power Source	Output		Dimensions			iviounting				Mass	Operating box			
Model	Power Source	Voltage	Current	Width	Depth	Height	Width	Height	Н	ole	IVIdSS	Width	Depth	Height	Cord
EPS-215B	Single-phase 200 VAC (50/60Hz)	20 00 VDC		180 (7.08)	130(5.11)	250 (9.84)	120(4.72)	275 (10.8)	4-φ 7	7(0.27)	4.7kg/10.3 lb				
EPS-230B		, 20— 90 VDC	30A	400 (15.7)	190 (7.48)	400 (15.7)	290(11.4)	446 (17.5)	4-φ 10	0(0.39)	18.3kg/40.3 lb	100(3.93)	70 (2.75)	155(6.10)	5m(196)
EPS-W215B		40—180 VDC	15A	180 (7.08)	130(5.11)	250 (9.84)	120(4.72)	275 (10.8)	4-φ 7	7(0.27)	4.7kg/10.3 lb				

\*The applicable models are limited to EPT,EPT-H,EPTW and EPZ-U.

# Model EPH-LW EP CHUCK MASTER\*

## Low magnetic force control function



EPH-LW205B

### [Application]

The use of the low magnetic force control function enables straightening operations as with electromagnetic chucks.

The use of the low magnetic force control function facilitates positioning of workpieces. (The low magnetic force control requires electricity to be supplied continuously. When used under low magnetic force control for long hours, accuracy change due to heat generated in the permanent electromagnetic chuck may slightly affect the machining accuracy.)

#### [Features]

These Chuck Masters enable it to control the low magnetic force (weak holding power), which is difficult with permanent electromagnetic chucks. When a conventional permanent electromagnetic chuck is used, it is necessary to turn it off once and after lowering the magnetizing voltage, turn it on again in order to set a low magnetic force for straightening grinding operations. These Chuck Masters have a control function by which the power can be applied continuously only in the low output region, which makes it possible to finely and continuously adjust the low magnetic force region as with electromagnetic chucks. They offer a capability of straightening grinding with permanent electromagnetic chucks. Workpieces can also be positioned smoothly with the low magnetic force control.

⟨EPH-LW205B⟩	
CULAMITY CO	
5 0 0 0 256	
(73)	
80 110 140	
8 0 0	
175	

[mm(in)]

1	Model	Power Source	Output	Dimensi	ions		Mass		
	iviodei	Power Source	Voltage		Width	Height	Depth	Chack Master	Operation Box
ı	EPH-LW205B	0:	D	5A	140(+ 5) 5.51(+0.19)	230 (9.05)	175	Approx.4.7kg/10.3 lb	Operated from main unit panel.
	EPH-LWE205B	Single-phase 200 VAC 50/60Hz	Permanent electromagnetic: 0—180 VDC (2sec) Low magnetic force: ±0—60 VDC (continuous)	JA.	140(+30) 5.51(+1.18)	230 (9.05)	175	Approx.4.5kg/ 9.9 lb	Approx O Glaz /1 2 lb
	EPH-LWE210B		Low magnetic lorde: _0—60 VDC (continuous)	10A	220(+30) 8.66(+1.18)	250 (9.84)	(0.09)	Approx.6.0kg/13.2 lb	Approx.0.6kg/1.3 lb

CHUCK PERMANENT MAGNETIC CHUCKS

BLOCKS FOR MC

VACUUM

PROMELTA SYSTEM

SINE BAR CHUCKS

WORKING TOOLS

MEASURING TOOL HOLDERS

MAGNETIC HOLDERS

MAGNETIC TOOLS

<sup>\*</sup>The low magnetic force control is possible when used in combination with the permanent electromagnetic chuck Model EPT-LW.

<sup>\*\*</sup>Three types; rated output of 180 VDC-5A, 180 VDC-5A (with operation box) and 180 VDC-10A (with operation box) are available