



"EDM Technology Leader Since 1982"

Quality First

CNC

ELECTRIC DISCHARGE MACHINE



- High-Quality
- High-Stability
- High-Performance
- Multi-Functions
- Easy-Operation

Feature:

- Select the x 86 industrial PC system (IPC) compatibility construct, it collocation the industrial C.F card (Compact Flash card) and support the USB port / read data function, it will be save the date easy and convenient, reliable.
- Chinese & English display.
- Metric & British system display & program setting.
- 1,000 stations processing programs.
- Simplify the program editing; with one block command, you can finish the line multi-cavity machining and matrix multi-cavity machining.
- 10 files, and there are 256 sets processing parameter memory in each file; it can store the processing conditions.
- Single or 3 axis lateral processing, round orbiting, square orbiting, vector, sector processing, C Axis (Including the helical-gear machining, C-X/C-Y axis lateral rack machining, and other applied machining commands), and ATC system.
- Automatically edge approaching, home finding, center or inner-hole finding, center of outer-hole finding and Apex finding.

Mirror Processing (Big Dimension) Controller Advantage:

- JSEDM original creation, S. F (Super Finishing), mirror processing circuit.
- DSP (Digital Signal Processors) servo control system speeds the response time up to 0.2ms in a location circuit control versus. (Traditional PC based control is 1ms in a versus.) DSP provides the more stable sparking and smooth machine movement.
- MOSFET transistors couple with responsive POWER SINK circuitry can reach the high processing with low wear and tear rate.
- Pulse circuit adopts the IC of FPGA, the latest generation of field programmable gate array, to ensure the fastest response and capability of "UNI-PULSE" monitor, thus ensure the better burning efficiency by "avoiding" carbon built up. (Less ARC condition.)
- Operator friendly interferes with "AI" logic to assist in setup and operation. Once the basic material, depth, and shape data are entered, the CNC fuzzy logic controller can set and adjust the optimum burning parameters to quickly and efficiently achieve the targeted results. 6. Industrial C.F card (Compact Flash Card). Which can be wrote and read over 100,000 times at least.



CNC-EB60E



CNC-EB600L



CNC-EB600L(S.F)



CNC-EB700L



CNC-EB860L



CNC-EB1060L



CNC-EB1270L



CNC-EB1470L



CNC-EB1675L



CNC-EB1880L



CNC-EB2010L



CNC-EB2210-2H



CNC-EB2210L



CNC-EB3010-2H



CNC-EB3010L

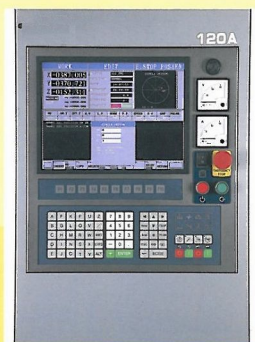


1 Hour To Master The Control System

CNC EDM EB SERIES CONTROLLER ADVANTAGE

- DSP (Digital Signal Processors) servo control system speeds the response time up to 0.2ms in a location circuit control versus. (Traditional PC based control is 1ms in a versus.) DSP provides the more stable sparking and smooth machine movement.
- MOSFET transistors couple with responsive POWER SINK circuitry can reach the high processing with low wear and tear rate.
- Pulse circuit adopts the IC of FPGA, the latest generation of field programmable gate array, to ensure the fastest response and capability of "UNI-PULSE" monitor, thus ensure the better burning efficiency by "avoiding" carbon built up. (Less arc condition.)
- Operator friendly interferes with "AI" logic to assist in setup and operation. Once the basic material, depth, and shape data are entered, the CNC fuzzy logic controller can set and adjust the optimum burning parameters to quickly and efficiently achieve the targeted results.

Superior Controller



FEATURE

- Industrial IPC system, ensure the best stability in any machining condition.
- 15" LCD screen, simplify the operation.
- Dialogued computer editing, easy to learn and use; understand.
- During machining, electrode moving path, time, and machining conditions are all clear displayed in the LCD screen.
- The computer controlled power system, higher efficiency, lower electrode wear rate, fine and delicate surface.

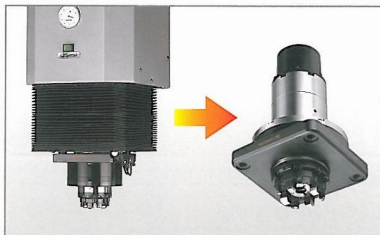
SAFETY

- Fluid height level protection will shut off the electricity automatically when fluid level is lower than preset high level.
- If improper use causes fire, then the machine shuts off automatically.
- When the work head reaches the preset depth, the work head will retract to its original position and shut off the electricity.
- When short circuit occurs, the machine shuts off automatically.

Model is mounted inside the spindle and therefore allows for greater Z axis clearance.

MACHINE STRUCTURE

- Sturdy and compact headstock for easy operation with high precision.
- Main shaft adopts of alloy steel guide rail to coordinate with ball bearing, low rate of friction to secure the precision of feeding.
- Auto depth position stop setting, it stops automatically when reaching the processing depth.
- X,Y saddles are stuck with linear way & ball screws, ensure the precision & delicate operation.
- Machine frame is constructed with tempered FC-30 casting under head treatment to keep accurate precision.
- With C axis accessory, the electrode can turn a arbitrary angle to make processing.
- With optional ATC accessory, the machining would be finished in no-attended condition.

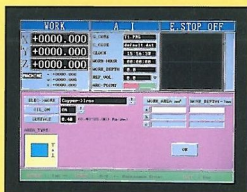


C-axis

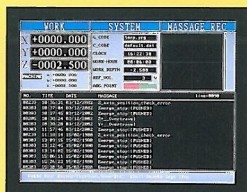


ATC system

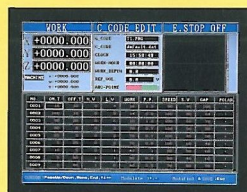
FRIENDLY SYSTEM ASSURES OPERATION EASE



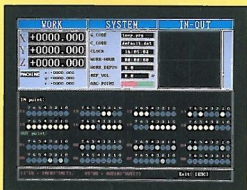
- "AI" function, with built-in the capacity of "ARTIFICIAL INTELLIGENCE," automatically adjusts for optimum performance.



- Alarm message, all alarms are recorded in processing log.



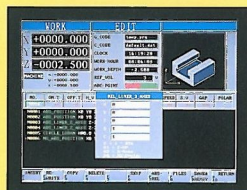
- 256 processing conditions allow the operator to amend the condition when processing.



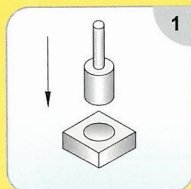
- LED display quickly helps for checking the input or output conditions of the machine.



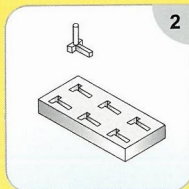
- Operator can do the vector processing according to the instruction, and also can set a starting angle to process with different step angles.



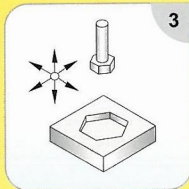
- Simultaneous 3 axes straight line processing.



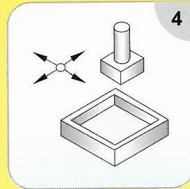
• Z-axis vertical machining



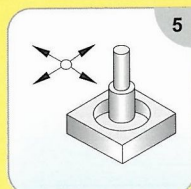
• Repetitive machining



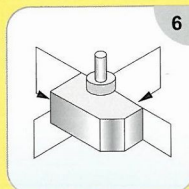
• Scalar machining



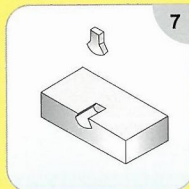
• Orbiting machining



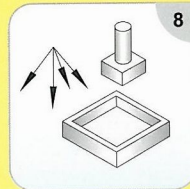
• Finding center (Inside)



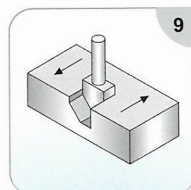
• Finding center (Outside)



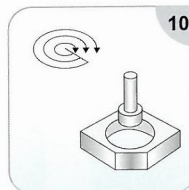
• Sector machining



• Corner machining



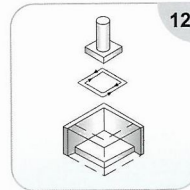
• Lateral machining



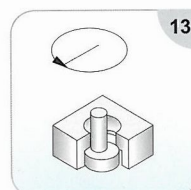
• Orbiting machining



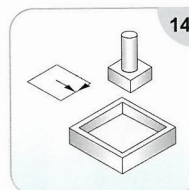
• Orbiting machining



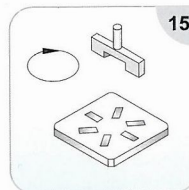
• Orbiting machining



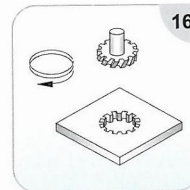
• Orbiting machining



• Orbiting machining



• C-axis index machining
(Option)



• C-axis helical-gear
machining (Option)

STANDARD ACCESSORIES



Tool box



Work head



Automatic fire extinguisher



Work lamp



Filter

OPTIONAL ACCESSORIES



3R clamping tool



C Axis
(System 3R / EROWA)



MPG



EROWA - ATC



Permanent magnetic chuck



EROWA clamping tool



ATC system 3R

SPECIFICATIONS

	CNC-EB60E		CNC-EB600L		CNC-EB600L(S.F)	
Capacity of work tank	900x520x400mm		1100x600x400mm		1100x600x400mm	
Work table size	600x350mm		700x400mm		700x400mm	
Longitudinal travel(X-axis)	400mm		400mm		400mm	
Cross travel(Y-axis)	300mm		300mm		300mm	
Z axis travel(Z-axis)	300mm		300mm		300mm	
Distance between platen to table	180~480mm		270~570mm		270~570mm	
Max. Electrode weight	100kgs		100kgs		100kgs	
Max. Work piece weight	800kgs		1500kgs		1500kgs	
Fluid tank capacity	350L		370L		370L	
Machine outside dimensions(WxDxH)	2250x1450x2450mm		2400x1600x2350mm		3200x2000x2350mm	
Machine weight	1200kgs		2000kgs		2100kgs	
Max. Machining current	60A	90A(Optional)	60A	90A(Optional)	60A	90A(Optional)
Max. Power input	7KVA	10KVA	7KVA	10KVA	7KVA	10KVA
Max. Machining rate(mm ³ /min)	400	600	400	600	400	600
Min. Electrode wear ratio	0.12%		0.12%		0.12%	
Best surface / Ra	Ra 0.2 μm		Ra 0.2 μm		Ra 0.1 μm	
Min. D. R. O. resolution(mm)	0.001mm		0.001mm		0.001mm	
Generator weight	320kgs		320kgs		330kgs	

SPECIFICATIONS

	CNC-EB1470L		CNC-EB1675L		CNC-EB1880L	
Capacity of work tank	2200x1320x620mm		2400x1320x620mm		2600x1320x700mm	
Work table size	1700x950mm		1800x950mm		1850x1000mm	
Longitudinal travel(X-axis)	1400mm		1600mm		1800mm	
Cross travel(Y-axis)	700mm		750mm		800mm	
Z axis travel(Z-axis)	500mm		550mm		600mm	
Distance between platen to table	550~1050mm		500~1050mm		450~1050mm	
Max. Electrode weight	450kgs		450kgs		500kgs	
Max. Work piece weight	6000kgs		6500kgs		7000kgs	
Fluid tank capacity	2300L		2600L		3000L	
Machine outside dimensions(WxDxH)	4700x3600x3250mm		5000x3800x3200mm		5200x4000x3200mm	
Machine weight	8000kgs		8500kgs		9000kgs	
Max. Machining current	90A	120A(Optional)	90A	120A(Optional)	90A	120A(Optional)
Max. Power input	10KVA	13KVA	10KVA	13KVA	10KVA	13KVA
Max. Machining rate(mm ³ /min)	600	800	600	800	600	800
Min. Electrode wear ratio	0.12%		0.12%		0.12%	
Best surface / Ra	Ra 0.2 μm		Ra 0.2 μm		Ra 0.2 μm	
Min. D. R. O. resolution(mm)	0.001mm		0.001mm		0.001mm	
Generator weight	350kgs		350kgs		350kgs	

CNC-EB700L		CNC-EB860L		CNC-EB1060L		CNC-EB1270L		CNC-EB1310L	
1500x940x520mm		1700x1100x615mm		1900x1100x615mm		2100x1250x620mm		2200x1700x700mm	
1000x600mm		1200x700mm		1250x750mm		1350x820mm		1425x1100mm	
600mm		800mm		1000mm		1200mm		1300mm	
450mm		600mm		600mm		700mm		1000mm	
400mm		500mm		500mm		500mm		500mm	
300~700mm		420~920mm		420~920mm		510~1010mm		550~1050mm	
250kgs		350kgs		350kgs		400kgs		450kgs	
3000kgs		4000kgs		4500kgs		5000kgs		6000kgs	
1200L		1570L		1750L		2100L		2200L	
2850x2700x2610mm		3600x3300x3200mm		4000x3500x3200mm		4600x3600x3250mm		4700x4500x3350mm	
3600kgs		5000kgs		5500kgs		6500kgs		9000kgs	
60A	90A(Optional)	90A	120A(Optional)	90A	120A(Optional)	90A	120A(Optional)	90A	120A(Optional)
7KVA	10KVA	10KVA	13KVA	10KVA	13KVA	10KVA	13KVA	10KVA	13KVA
400	600	600	800	600	800	600	800	600	800
0.12%		0.12%		0.12%		0.12%		0.12%	
Ra 0.2 μm		Ra 0.2 μm		Ra 0.2 μm		Ra 0.2 μm		Ra 0.2 μm	
0.001mm		0.001mm		0.001mm		0.001mm		0.001mm	
320kgs		350kgs		350kgs		350kgs		350kgs	

CNC-EB2010L		CNC-EB2210L		CNC-EB2210L-2H		CNC-EB3010L		CNC-EB3010L-2H	
2700x1600x700mm		2850x1600x740mm		3100x1700x800mm		4100x1700x800mm		4100x1700x800mm	
2150x1100mm		2250x1100mm		2250x1100mm		3100x1100mm		3100x1100mm	
2000mm		2200mm		1550(SM) 775(DM)mm		3000mm		2550(SM) 1275(DM)mm	
1000mm		1000mm		1000mm		1000mm		1000mm	
600mm		600mm		600mm		600mm		600mm	
660~1260mm		660~1260mm		750~1350mm		750~1350mm		750~1350mm	
500kgs		500kgs		500kgs		500kgs		500kgs	
9500kgs		9500kgs		10000kgs		16000kgs		16000kgs	
3800L		4150L		5100L		6550L		6550L	
3400x4500x3570mm		6500x4600x3570mm		7500x4600x3570mm		7000x4600x3620mm		8000x4600x3620mm	
12500kgs		13500kgs		15000kgs		19000kgs		21000kgs	
90A	120A(Optional)	120A		120A		120A		120A	
10KVA	13KVA	13KVA		13KVA		13KVA		13KVA	
600	800	800		800		800		800	
0.12%		0.12%		0.12%		0.12%		0.12%	
Ra 0.2 μm		Ra 0.2 μm		Ra 0.2 μm		Ra 0.2 μm		Ra 0.2 μm	
0.001mm		0.001mm		0.001mm		0.001mm		0.001mm	
350kgs		380kgs		380kgs		380kgs		380kgs	

Note: • The data above is the test result base on certain working condition. The actual result will be varied depends on the input voltage, shape and size of electrode, spark condition, material of work piece and working fluid.
• All specifications and designs are subject to change without notices



FREJOTH INTERNATIONAL LTD.

8F #501, SEC.2, WU CHUAN W. RD., TAICHUNG 408, TAIWAN, R.O.C.

TEL: 886-4-23816977

FAX: 886-4-23813584, 23813769

E-mail: mail@frejoth.com.tw

web-site <http://www.frejoth.com.tw>

www.acra.com.tw