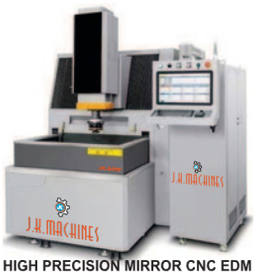
OUR PRODUCTS RANGE



CNC EDM NEXT GEN V1.1 (Pg. No. 03)



HIGH PRECISION MIRROR CNC EDM
AUTOMATIC LIFTING OIL TANK (Pg. No. 04)



CNC EDM (Pg. No. 05)



CNC EDM (Pg. No. 06)



ZNC EDM DC SERVO (Pg. No. 07)



ZNC EDM AC SERVO (Pg. No. 08)



DRILL EDM NEXT GEN (Pg. No. 09)



CNC DRILL EDM (Pg. No. 10)



WIRE CUT EDM STEPPER (Pg. No. 11)



WIRE CUT EDM SERVO (Pg. No. 12)



MOULD LASER WELDING (Pg. No. 13)



LASER MARKING/ENGRAVING
MICRO TIG WELDINNG (Pg. No. 14)



CNC ENGRAVING (Pg. No. 15 & 16)



CNC ENGRAVING (Pg. No. 15 & 16)



CNC WOOD ROUTER (Pg. No. 17)



CUTTER GRINDER'S (Pg. No. 18)



DIGITAL READOUT (Pg. No. 19)



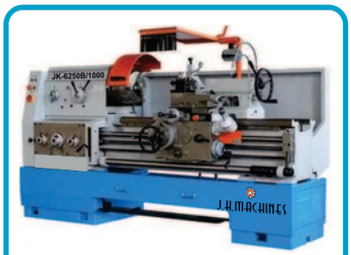
CONSUMABLES/SPARES (Pg. No. 20)



VERTICAL TURRET MILLING (Pg. No. 21)



HYDRAULIC SURFACE GRINDER (Pg. No. 22)



ALL GEARED LATHE (Pg. No. 23)



RADIAL DRILL MACHINE (Pg. No. 24)



VERTICAL MOULDING (Pg. No. 25)



ELECTRICAL SCOOTY (Pg. No. 26)



JSEDM To be Perfect is Our Nature



Quality First

CNC ELECTRIC DISCHARGE MACHINE

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



CNC-EB1000R — Patent Certificate : New type M 444236

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J.K.MACHINES

Deals In industrial Machinery

ABOUT US

J.K. MACHINES is a highly promising young business enterprise specializing in Electric Discharge Machine (EDM), CNC Wire Cut Machine, Tool Room Machines, Laser Welding, Cutting, Marking Machines & Injection Moulding Machine. It was started in the year 2009 by Mr. J.K.SHARMA (M.E.) having vast knowledge of the functioning, application and marketing of these products.

Apart from it, **J.K. MACHINES** also offer various other types of machines, tools and equipment's including CNC Machines, Testing & Measuring Equipment, Woodworking Machinery, Plastic Processing Machinery and machines for Engineering institute workshop.

Feature :

- Select the industrial PC system (IPC) compatibility construct, it collocation the industrial C.F card (Compact Flash card) and support the USB copy / 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.
- Automatically Edge finding, Home finding, Center or Inner hole finding, and Apex finding.
- The Conversation type program with Loop & Call, Note & Pause, Mark / Copy / Delete Block and Skip line function, It more easy to learn and write & edit the program.
- With Side loran function (X, Y axis), Angle Vector machining function, and ARC clockwise & ARC counter Clockwise function.
- Single or 3 axis lateral machining, Round orbiting, Square orbiting, Vector machining.
- Optional accessories A.T.C., C Axis (Including the helical-gear machining, C-X / C-Y axis lateral rock machining, and other applied machining commands).



CNC-EB600L(S.F)

Mirror Processing (Big Dimension) Controller Advantage :

- JSEDM original creation S.F (super Finishing), Mirror processing circuit, with high purity nanometer fine power of mix system, it machining small size work piece (sparking area) with best surface Ra 0.1 μm, and the biggest size work piece with best surface Ra 0.2 ~ 0.3 μm.
- The S. F function with the automatic control mix fine powder and filter the Iron powder, it easy to control the machining process and raise the machine work efficiency.
- 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. Industrial C.F card (Compact Flash Card).
- Which can be wrote and read over 100,000 times at least.



CNC-EB433



CNC-EB600L



CNC-EB5435L



CNC-EB700L



CNC-EB860L



CNC-EB1060L

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ELECTRIC DISCHARGE MACHINE


CNC-EB1270L


CNC-EB1470L


CNC-EB1675L


CNC-EB1880L


CNC-EB2010L


CNC-EB2210L


CNC-EB2210L-2H

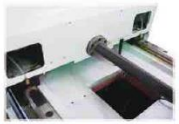

CNC-EB3010L


CNC-EB3010L-2H



High Rigidity and Thick Base

- The base is made by (Meehanite) cast iron and eliminated stress by heat treatment. The structure of base also is designed evenly with high rigidity and symmetry. The work table is processed with heat treatment and precision grinding, so the work table is wear-resistant and can maintain its certain flatness when it is weighted.
- The base is moving column (RAM type) structure and also can carry 4000kg work piece while ensuring flat movement of machine without any effect, in order to improve the processing accuracy. The design of thick base ensure when the machine face long time heavy item oppression, it will not have the occurrence of the deformation question.



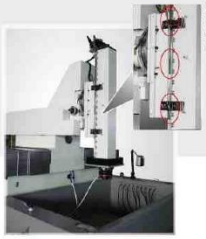
Spacious Span of Linear Guide Way and Precision Ball Screw

- X - Y axis use linear guide way on a low coefficient of friction, in order to ensure the mechanical precision and smart operation under the machine movement. Using wide linear guide and span, make sure that the mechanical moving around a long time to do (especially machine doing reaming and vector processing), the positioning of the machine and the actual processing of feed data is more accurate to constantly maintain the machine accuracy. (Backlash value)
- X axis linear guide way (ø45mm) is installed on the middle seat of machine, to ensure installation are flat and useful life are long for the linear guide way. And also is collocated with precision ball screw (Ø40mm) to ensure accuracy location while the machine moving in long period.
- Y axis linear guide way(ø45mm) is installed on the upper seat of machine, to ensure lightweight guide way for reducing the coefficient of friction of guide way and extending the life period. Besides, the machine is collocated with precision ball screw (ø32mm) to ensure the machine in accuracy.

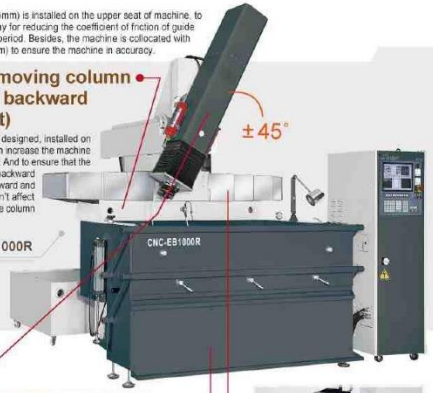


Lightweight moving column (forward and backward displacement)

Lightweight moving column designed, installed on top of the machine which can increase the machine processing travel and height. And to ensure that the machine to do forward and backward movement without tilting (forward and backward) problem, and don't affect the stability problem while the column is moving.



CNC-EB1000R



Precision of Spindle

- Spindle is integrated design casting, in order to ensure it is smooth movement with bigger electrode. And use alloy steel guide way, collocate roller bearing with low coefficient of friction to increase accuracy feed and dexterity while moving.
- Don't use pull counterweight on spindle, but with 350W servo motor and the structure is designed 6 pcs of sliding block on spindle two sides. In order with keep correct position without vibration and improving the life of ball screw while the spindle is tapper processing.



Hydraulic pressure (oil type) function upper / down work door

- With automatic control equipment, allowing user to open and close door more simply, more easily, and it will be more durable and useful.



Select the steel cover protect the X axis

- The X axis used the steel cover as same the machine center that protect efficiency are better more then the traditional type (cloth and plastics material), the steel are more durable, fireproof, and not easy broken.

CNC EB1000R will be change the sparking process and increase efficiency Function :

Item \ Function	Z axis with rotation function	Z axis is traditional vertical type
Work efficiency	The Z axis action by vertical function, that it can reduce the machining time and protect the work piece machining accuracy and quality.	Used edge side machining only, it will be short the machine use lift, and delay machining process, the electrode will be easy wear also, besides, it with shake and position lost situation during process, of course, the work piece accuracy and quality not well.
Prepare the Electrode and wear situation	Electrode easy to made and wear rate lower	Electrode made need to consider the angle first, and with the angle electrode will be easy to wear during sparking process.
Safety & convenient	Work piece easy to set on the work table level type.	Setting the clamping tool and setting the work piece in the clamping tool, because the work piece had angle that it more danger during process.
Preparations	(a) Made the work piece angle datum plane process. (b) Made the electrode edge datum plane process. (c) Adjust the z axis rotation angle. (d) Adjust the work piece and electrode plane and start sparking process.	(a) Made the clamping tool for clamp work piece. (b) Need to use the CNC machine center and CNC \Wire Cut EDM to made the clamping tools (c) Made the work piece angle datum plane process. (d) Made the electrode edge datum plane process (e) Made the work piece level plane process (f) Addition the electrode extender part. (g) Edge two reference side and start sparking process.

JSEDM To Be Perfect Is Our Nature



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.
- With center of circle function, you can select three point key in the edge finding and automatic find the circle of center.
- The Z axis with diversification up (Deslagging) function, easy for machining depth, corner bigger area, thin slice, and tapper type machining process.
- Special customize command, according controller that we can feasibility analysis customer request special machining process function and addition the customize function or command.

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 hight level.
- If improper use casues 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.



C-axis

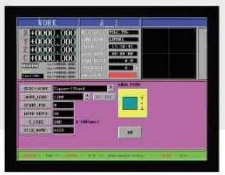


ATC system

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.

FRIENDLY SYSTEM ASSURES OPERATION EASE



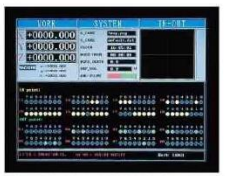
• "AI" function, with built-in the capacity of "ARTIFICIAL INTELLIGENCE," automatically adjusts for optimum performance.



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



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



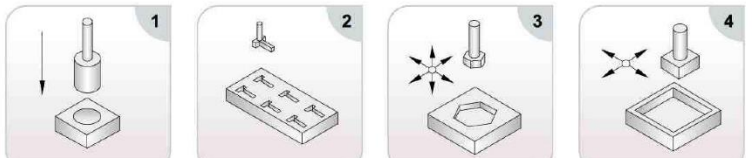
• LED display quickly helps for checking the input or output conditions of the machine.



• 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.



STANDARD ACCESSORIES



OPTIONAL ACCESSORIES





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CNC ELECTRIC DISCHARGE MACHINE

SPECIFICATIONS	CNC-EB433	CNC-EB600L	CNC-EB600L(S.F)	CNC-EB5435L	CNC-EB700L	CNC-EB860L	CNC-EB1060L	CNC-EB1000R	CNC-EB1270L
Capacity of work tank	900x520x385mm	1100x600x400mm	1100x600x400mm	1250x800x520mm	1500x940x520mm	1800x1100x620mm	1900x1100x620mm	1960x1100x550mm	2100x1250x620mm
Work table size	600x350mm	700x400mm	700x400mm	850x450mm	1000x600mm	1200x700mm	1250x750mm	1100x700mm	1350x820mm
Longitudinal travel(X-axis)	400mm	400mm	400mm	500mm	600mm	800mm	1000mm	1000mm	1200mm
Cross travel(Y-axis)	300mm	300mm	300mm	400mm	450mm	600mm	600mm	600mm	700mm
Z axis travel(Z-axis)	300mm	300mm	300mm	350mm	400mm	500mm	500mm	500mm	500mm
Distance between platen to table	310~610mm	270~570mm	270~570mm	420~770mm	350~750mm	450~950mm	450~950mm	500~1000mm	510~1010mm
Max. Electrode weight	100kgs	100kgs	100kgs	200kgs	250kgs	350kgs	350kgs	100kgs/3kgs (Slope machining process)	400kgs
Max. Work piece weight	500kgs	1000kgs	1000kgs	2000kgs	3000kgs	4000kgs	4500kgs	4000kgs	5000kgs
Fluid tank capacity	300L	370L	370L	850L	1100L	1400L	1600L	1560L	1900L
Machine outside dimensions(WxDxH)	1700x1600x2350mm	1900x1750x2350mm	2700x1750x2350mm	2700x2250x2400mm	2850x2700x2610mm	3400x3250x3200mm	3600x3250x3200mm	3600x3200x3200mm	4000x3400x3250mm
Machine weight	1750kgs	2250kgs	2400kgs	2700kgs	3600kgs	4700kgs	5200kgs	5000kgs	6500kgs
Max. Machining current	60A / 90A(Optional)	60A / 90A(Optional)	60A / 90A(Optional)	60A / 90A(Optional)	60A / 90A(Optional)	90A / 120A(Optional)	90A / 120A(Optional)	90A / 120A(Optional)	90A / 120A(Optional)
Max. Power input	7KVA / 10KVA	7KVA / 10KVA	7KVA / 10KVA	7KVA / 10KVA	7KVA / 10KVA	10KVA / 13KVA	10KVA / 13KVA	10KVA / 13KVA	10KVA / 13KVA
Max. Machining rate(mm^3/min)	400 / 600	400 / 600	400 / 600	400 / 600	400 / 600	600 / 800	600 / 800	600 / 800	600 / 800
Min. Electrode wear ratio	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%
Best surface / Ra	Ra 0.2 μm	Ra 0.2 μm	Ra 0.1 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm
Min. D. R. O. resolution(mm)	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm
Generator weight				320 kgs	320 kgs	350 kgs	350 kgs	350 kgs	350 kgs

SPECIFICATIONS	CNC-EB1470L	CNC-EB1510L	CNC-EB1675L	CNC-EB1880L	CNC-EB2010L	CNC-EB2210L	CNC-EB2210L-2H	CNC-EB3010L	CNC-EB3010L-2H
Capacity of work tank	2250x1350x620mm	2300x1700x800mm	2400x1320x700mm	2600x1320x700mm	2700x1700x800mm	2850x1700x800mm	2900x1700x800mm	3900x1700x800mm	3900x1700x800mm
Work table size	1850x1000mm	1580x1100mm	1850x1000mm	1850x1000mm	2250x1100mm	2250x1100mm	2250x1100mm	3100x1100mm	3100x1100mm
Longitudinal travel(X-axis)	1400mm	1500mm	1600mm	1800mm	2000mm	2200mm	1550(SM) 775(DM)mm	3000mm	2550(SM) 1275(DM)mm
Cross travel(Y-axis)	700mm	1000mm	750mm	800mm	1000mm	1000mm	1000mm	1000mm	1000mm
Z axis travel(Z-axis)	500mm	600mm	550mm	600mm	600mm	600mm	600mm	600mm	600mm
Distance between platen to table	550~1050mm	650~1250mm	500~1050mm	450~1050mm	660~1260mm	660~1260mm	720~1320mm	660~1260mm	720~1320mm
Max. Electrode weight	450kgs	500kgs	450kgs	500kgs	500kgs	500kgs	500kgs	500kgs	500kgs
Max. Work piece weight	6000kgs	11000kgs	6500kgs	7000kgs	9500kgs	9500kgs	10000kgs	16000kgs	16000kgs
Fluid tank capacity	2100L	3500L	2600L	2800L	3800L	4100L	4700L	5800L	6000L
Machine outside dimensions(WxDxH)	4300x3400x3250mm	4600x4800x3620mm	4800x3800x3200mm	5000x4000x3200mm	5200x4500x3570mm	5500x4600x3570mm	6500x4600x3570mm	6000x4600x3620mm	7000x4600x3620mm
Machine weight	8000kgs	14500kgs	8500kgs	9000kgs	12500kgs	13500kgs	15000kgs	19000kgs	21000kgs
Max. Machining current	90A / 120A(Optional)	90A / 120A(Optional)	90A / 120A(Optional)	90A / 120A(Optional)	90A / 120A(Optional)	120A	120A	120A	120A
Max. Power input	10KVA / 13KVA	10KVA / 13KVA	10KVA / 13KVA	10KVA / 13KVA	10KVA / 13KVA	13KVA	13KVA	13KVA	13KVA
Max. Machining rate(mm^3/min)	600 / 800	600 / 800	600 / 800	600 / 800	600 / 800	800	800	800	800
Min. Electrode wear ratio	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%
Best surface / Ra	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm	Ra 0.2 μm
Min. D. R. O. resolution(mm)	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm	0.001mm
Generator weight	350 kgs	350 kgs	350 kgs	350 kgs	350 kgs	380 kgs	380 kgs	380 kgs	380 kgs

Note : All specifications and design are subject to change without notice.
The date above is 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.

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