

JSEDM EVOLUTION >>

- 1983 - "JS" is the first manufacturer to utilize DC servo motor to control EDM in Taiwan.
- 1985 - "JS" developed the first CNC ORBITING-CUT SYSTEM with patent no 36630 of CNS.
- 1986 - "JS" purchased a 5950 square meters of land in Taichung Industrial Park.
- 1987 - The new factory was built.
- 1989 - The CNC ORBITING-CUT SYSTEM was awarded as the "Best Product Design" in Taiwan.
- 1991 - "JS" developed to the next level by expanding the R&D department and upgrade the technology for CNC EDM & Wire Cut EDM.
- 1996 - "JS" obtained the "CE Certificate" of CNC EDM.
- 1997 - "JS" obtained ISO-9002 certification.
 - CNC EDM and Wire Cut EDM both obtained good reputation.
- 1999 - "JS" is the first company to develop the technology for Wire Cut EDM to adapt AC power.
 - "JS" obtained the CE Certificate based on the new technology.
- 2001 - The Submerge type Wire Cut EDM has developed.
- 2002 - New CNC control and EDM system has developed and passed the performance test.
- 2005 - Initially design the Auto Wire Threading for Wire Cut EDM.
- 2006 - Developing Fine Cutting technology for Wire Cut EDM with patent pending.
- 2009 - Developing new technology to automatize Wire Cut EDM.
- 2010 - Developing PCD machine.
- 2012 - Upgrading the performance of Wire Cut EDM to be more accurate by installing linear servo motor on X & Y axis and allow the machine using smaller diameter wires during machining.
- 2013 - Tilt Machining is allowed in EDMs.
- 2014 - Designing various kinds of EDMs.
- 2015 - Designing customize robot arm.



EBN control screen description (AI / FUZZY / Control) >>



EBN (ZNC) controller specification >>

1. Auto Index has been introduced to the controlling system to be more user friendly. The new function allows the user to select the conditions (material of the work piece, depth, working area, etc.) in order to generate the sparking parameter.
2. Sparking parameters (ON Time, OFF Time, Working Time, Jump Height, Jump Height, Jump Speed, etc.) are able to be adjusted during machining via FUZZY in order to improve the sparking efficiency and the quality of the final product.
3. Color LCD. PC Base, 32bit Industrial Level Computer (IPC).
4. Chinese / English and Inch / Metric Mode.
5. The Spark Circuit Design includes MOS-FET high power transistor and High Speed POWER-SINK reduce electrode wear and increase working speed.
6. Reduce electrode wear and increase working speed.
7. Modules insert card design is used in power controller for easily maintain.
8. Two groups of coordinates are both switchable and editable ; this helps user to set the reference point easier.
9. Allow user to have the option of choosing absolute depth or relative depth based on the preference.
10. Sparking parameter and depth input are displayed under the same mode for user to read easier.
11. 200 lines of working conditions are provided in the system, user can select any block as start and ending line. In addition, the system can save up to 50 files.
12. The Jog mode includes 3 functions, Jog, Feed and Protect / Unprotect switch. Regarding to the Jog and Feed function, Jog mode has 4 speeds (x5.x50.x250.x500µm) allow user to have the flexibility when adjusting the position of the workpiece and z-axis.
13. The Z-Axis Alignment function can be operated without using Manual Edge Find so that the time for edge find is reduced. The value of current can be changed as needed.
14. EDM allows the cutting process to be automatized, start from rough cut to fine finish.
15. A standard EDM features the Z-Axis lock function allows to expand the orbiter.
16. The system features the Center Find function which helps the user during alignment on a circular workpiece.
17. The Z-axis features multiple kinds of slag tapping. This function is utilized based on various of machining such as deep machining, corner sharpening, machining at large area, machining on thin workpiece, tilt machining, etc.

EBN (ZNC) Machine Structure >>

1. The machine frame has run through FC30 by having heat treatment and annealing process to ensure the metal with high toughness and prevent deformation.
2. The working table has gone through high frequency induction hardening and surface polishing to increase hardness and decrease tolerance.
3. Ball screws are utilized in X, Y Axis. (EB304B, EB606N, EB707B, EB808B)
4. One V and one flat design for maximum accuracy. (EB304B, EB606N, EB707B, EB808B)
5. The contacting faces of X, Y Axis are TURICE-B for smoother movement. (EB304B, EB606N, EB707B, EB808B)
6. Linear Guide Way and High Accuracy screw are used on Z axis, with PWM servo system (Same class as CNC model) can perform maximum working efficiency. (EB304B, EB606N, EB707B, EB808B)
7. Back slide is provided for Z axis. (EB304B, EB606N, EB707B, EB808B)
8. Remote Controller is provided to the user.
9. Model that travels more than 800mm on both X, Y axis (EB860N), utilizes precision ball screws on X, Y, Z axis.
10. Model that travels more than 800mm on both X, Y axis (EB860N), utilizes precision Linear Guide Way on X, Y, Z axis.
11. A standard Up/Down door is installed in model that travels more than 800mm on both X, Y axis (EB860N).
12. Model that travels more than 800mm on both X, Y axis (EB860N), the movement of X, Y axis are controlled by servo motor.
13. Model that travels more than 800mm on both X, Y axis (EB860N), the movement of the X, Y axis are relied on a movable column.

Standard accessories >>



Optional Accessories >>

1. Super Sparking : Able to generate a high energy pulse of current instantly. This function is used on steel or tungsten steel alloy that have 60 degree of hardness or above.
2. DC servo motor control is able to add on X/Y axis for model EB707B & EB808B.
3. The resolution of the linear guide can upgrade to 0.001mm.
4. All models (except for 304B & 606N) can upgrade to PNC or CNC control system.



Specifications >>

	EB304B		EB606N		EB707B		EB808B		EB860N		EB1060N		EB1270N		EB1470N	
Capacity of work tank	850x530x340mm		1100x600x400mm		1170x700x430mm		1700x1000x550mm		1800x1100x620mm		1900x1100x620mm		2100x1250x620mm		2250x1350x620mm	
Work table size	600x300mm		700x400mm		800x450mm		1100x600mm		1200x700mm		1250x750mm		1350x820mm		1850x1000mm	
Longitudinal travel (X-axis)	300mm		400mm		500mm		700mm		800mm		1000mm		1200mm		1400mm	
Cross travel (Y-axis)	250mm		300mm		400mm		550mm		600mm		600mm		700mm		700mm	
Z axis travel (Z-axis+W-axis)	150+200mm		180+250mm		200+300mm		250+300mm		500mm		500mm		500mm		500mm	
Distance between platen to table	160~510mm		210~640mm		240~740mm		250~830mm		450~950mm		450~950mm		510~1010mm		550~1050mm	
Max. Electrode weight	60kgs		100kgs		150kgs		250kgs		350kgs		350kgs		400kgs		450kgs	
Max. Work piece weight	500kgs		1500kgs		1500kgs		2000kgs		4000kgs		4500kgs		5000kgs		6000kgs	
Fluid tank capacity	330L		350L		550L		1250L		1400L		1600L		1900L		2100L	
Machine outside dimensions (WxDxH)	2100x1300x2000mm		2500x1500x2250mm		2800x1600x2250mm		3300x2000x2300mm		3400x3250x3200mm		3600x3250x3200mm		4000x3400x3250mm		4300x3400x3250mm	
Machine weight	1000kgs		1800kgs		2000kgs		3100kgs		4700kgs		5200kgs		6500kgs		8000kgs	
Max. Machining current	30A	60A(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	4KVA	7KVA	7KVA	10KVA	7KVA	10KVA	7KVA	10KVA	10KVA	13KVA	10KVA	13KVA	10KVA	13KVA	10KVA	13KVA
Max. Machining rate (mm ³ /min)	200	400	400	600	400	600	400	600	600	800	600	800	600	800	600	800
Min. Electrode wear ratio	0.15%		0.15%		0.15%		0.15%		0.15%		0.15%		0.15%		0.15%	
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	
Min. D. R. O. resolution(mm)	0.005mm		0.005mm		0.005mm		0.005mm		0.005mm		0.005mm		0.005mm		0.005mm	

Specifications >>

	EB1510N		EB1675N		EB1880N		EB2010N		EB2210N		EB2210N-2H		EB3010N		EB3010N-2H	
Capacity of work tank	2300x1700x800mm		2400x1320x700mm		2600x1320x700mm		2700x1700x800mm		2850x1700x800mm		2900x1700x800mm		3900x1700x800mm		3900x1700x800mm	
Work table size	1580x1100mm		1850x1000mm		1850x1000mm		2250x1100mm		2250x1100mm		2250x1100mm		3100x1100mm		3100x1100mm	
Longitudinal travel (X-axis)	1500mm		1600mm		1800mm		2000mm		2200mm		1550(SM)775(DM)mm		3000mm		2550(SM)1275(DM)mm	
Cross travel (Y-axis)	1000mm		750mm		800mm		1000mm		1000mm		1000mm		1000mm		1000mm	
Z axis travel (Z-axis+W-axis)	600mm		550mm		600mm		600mm		600mm		600mm		600mm		600mm	
Distance between platen to table	650~1250mm		500~1050mm		450~1050mm		660~1260mm		660~1260mm		720~1320mm		660~1260mm		720~1320mm	
Max. Electrode weight	500kgs		450kgs		500kgs		500kgs		500kgs		500kgs		500kgs		500kgs	
Max. Work piece weight	11000kgs		6500kgs		7000kgs		9500kgs		9500kgs		10000kgs		16000kgs		16000kgs	
Fluid tank capacity	3500L		2600L		2800L		3800L		4100L		4700L		5800L		6000L	
Machine outside dimensions (WxDxH)	4600x4800x3620mm		4800x3800x3200mm		5000x4000x3200mm		5200x4500x3570mm		5500x4600x3570mm		6500x4600x3570mm		6000x4600x3620mm		7000x4600x3620mm	
Machine weight	14500kgs		8500kgs		9000kgs		12500kgs		13500kgs		15000kgs		19000kgs		21000kgs	
Max. Machining current	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	13KVA	18KVA	13KVA		13KVA		13KVA		13KVA	
Max. Machining rate (mm ³ /min)	600	800	600	800	600	800	600	800	800		800		800		800	
Min. Electrode wear ratio	0.15%		0.15%		0.15%		0.15%		0.15%		0.15%		0.15%		0.15%	
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	
Min. D. R. O. resolution(mm)	0.005mm		0.005mm		0.005mm		0.005mm		0.005mm		0.005mm		0.005mm		0.005mm	

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.