ALIC

PRECISION
CNC EDM

Sure First

CNC-640

X-Y-Z axis
600x400x300mm

Hardware Specification	AI EDM	SI EDM	Specification	AI EDM	SI EDM
*Central Processing Unit (CPU)	Pentium	486	3-Dimension Orbit	O	X
*Monitor	TFT	CRT	Machining Along Path	O	O
*Program operation panel	O	O	Time Limited Machining	O	O
Text data input keys	O	O	Multi-Hole Macro	O	X
mode switch keys	O	X	Multi-section Finishing	O	O
function keys	O	O	Cutting with C Axis	O	O
*Second operation panel	O	O	Deep cave machining flushing	O	X
Standard dedicated panel	O	O	Low wear-rate machining selection	O	X
*Control axes (X、Y、Z axes)	O	O	Extra small electrode collision protect	O	X
*Control axes (C axis)	opt	opt	Big area machining jump	O	X
*Incremental jog feed rate			*Offset function		
1 / 10 / 50 / 100μm	O	O	Tool LengthThread	O	X
*Interpolation(linear/arc/jog)	O	O	Tool Radius	O	X
*Maximum programmable size	200KB	10KB	Backlash	O	O
*RS232(19200 Baud Rate)	O	X	Pitch	O	O
*BUS (ISA BUS)	O	O	*MLC function		
*DRAM(8 Mb or above)	O	O	I/O Point	O	O
*Hard disk	OPT	X	C Point	O	O
Compact Flash memory card	O	X	S Point	O	O
*Floppy disk(1.44 M 3.5")	O	O	A Point	O	O
*CPU board(Industry PC board)	O	O	Timer / Counter	O	O
*Signal I/O point (64 points)	O	O	Ladder Diagram Display	O	X
*Optional functions			*General function		
MPG/C axis/ATC	O	O	Multi-Coordinate System		
Software Specification			Zoom Scale	O	X
*Language	Multi	English/Chinese	Rotation	O	X
*Unit (British/Metric)	O	O	Graph Rotation	O	X
*Programming			Machining Path Display	O	O
Dialog programming	O	X	User Macro Command	O	X
G/M code programming	O	X	On-Line Instruction	O	X
background programming	O	X	*E code number	1M	256
expert system	O	X			
auto-programming	O	X	Axis control		
RS232	O	X	Basic axis	3 axis	3 axis
*Operation mode			Extended axis	1(Caxis-opt)	1(Caxis-opt)
Auto/Manual/Edit	O	O	No. of Basic Co-axis	3 axis	3 axis
Manual Data Input(MDI)	O	X	No. of simultan. Axis	Max.4 axis	Max.4 axis
*Screen function			No. of MPG Axis	3 axis-C opt	3 axis-C opt
Expert/Graph/Alarm/Set	O	X	System Setting Unit		
Diagnostic	O	O	*Metric		
*Software panel function	O	X	Min. input unit	0.001mm	0.001mm
*Positioning function			Min. command value	0.001mm	0.001mm
Rim Searching	O	O	Max. stroke setting	9999.999mm	9999.999mm
Groove Center Searching	O	O	*English		
Hole Center Searching	O	O	Min. input unit	0.0001"	0.0001"
Outer Center Searching	O	O	Min. command value	0.0001"	0.0001"
Apex	O	O	Max. stroke setting	999.9999"	999.9999"
Sparkle electrode alignment	O	O	*Angle		
*Machining function			Min. input unit	0.001°	0.001°
Orbit Cutting / Cone	O	O	Min. command value	0.001°	0.001°
Planar Expansion Orbit	O	O	Max. stroke setting	359.999°	359.999°
Vector Orbit	O	O			

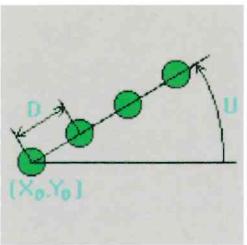
AI series

SI series

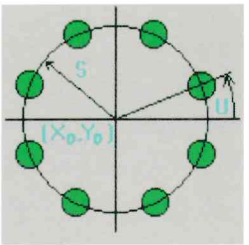
- EXCELLENT CONTROL SYSTEM FOR MACHINING
- EXPERT PROGRAMMING
- MULTI-HOLES MACRO PROGRAMMING
- POWERFUL FUNCTIONALITIES OF PLANAR EXPANSION ORBIT

- TOOL PATH GRAPHIC DISPLAY DURING MACHINING.
- ATC,C-AXIS…ETC.ARE AVAILABLE AS OPTION.
- AUTOMATIC EDGE FINDING AND CENTER POINT SEARCHING.
- FOUR KINDS OF ELECTRODE RETRACTING MODES (ORIGINAL PATH, CENTER, 45°,ZP).

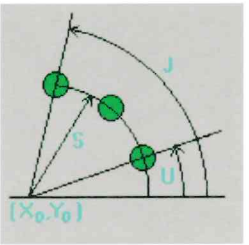
Multi-holes macro programming



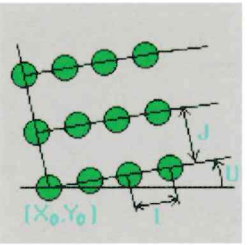
(Line Multi Holes)



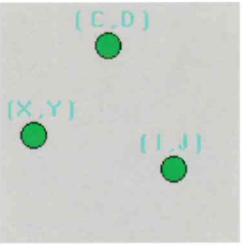
(Circular Multi Holes)



(Arc Multi Holes)



(Array Multi Holes)



(Arbitrary Multi Holes)

Other products:(detailed catalogues are available)

Tool-type EDM device Series

CONVENTIONAL EDM Series

Auto Z axis NC function EDM Series

CNC WIRE CUT EDM Series

CNC GRAPHITE CUTTING M/C Series

CNC-326
X-Y-Z axis 300x200x200mm

CNC-462
X-Y-Z axis 400x300x200mm

CNC-408
X-Y-Z axis 400x300x200mm

CNC-433
X-Y-Z axis 400x300x300mm

CNC-860
X-Y-Z axis 800x600x400mm

CNC-1280
X-Y-Z axis 600x400x300mm

CNC ENGRAVING MACHINE Series

HIGH SPEED MACHINING CENTER Series

CNC ENGRAVING MILLING MACHINE

CNC ENGRAVING MILLING MACHINE

SUPER DRILL EDM Series

CNC-326/408/433/640/860/1280

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DO GOOD TO EACH OTHER

MACHINE SPECIFICATION

ITEM	UNIT	CNC-326	CNC-408	CNC-433	CNC-640	CNC-860	CNC-1280
Work tank volume (WxDxH)	mm(in)	750x480x300 (29 1/2"x18 7/8"x11 13/16")	1000x600x415 (39 3/8"x23 5/18"x16 5/16")	850x600x300 (33 7/16"x23 5/18"x11 13/16")	1300x750x520 (51"x29 1/2"x20 1/2")	2000x1000x600 (78 3/4"x39 3/18"x23 5/8"	1400x2000x600 (55 1/8"x78 3/4"x23 5/8")
Type of work tank		Door opening	Door opening	Door opening	Door opening	Door opening	Door opening
Max. workpiece weight	kgs(lbs)	500(1100)	500(1100)	1000(2200)	2200(4850)	4500(9900)	7000(fluid immersed)-14000 (15400(fluid immersed)-30800)
Work table area(LxW)	mm(in)	500x300 (19 11/16"x11 13/16")	700x400 (27 9/16"x15 3/4")	600x450 (23 5/8"x17 3/4")	850x450 (33 1/2"x17 3/4")	1200x750 (47 1/4"x29 1/2")	1200x750 (47 1/4"x29 1/2")
Type of work table		Moveable	Moveable	Moveable	Fixed	Fixed	Fixed
Travel (X, Y axes)	mm(in)	300x200 (19 13/16"x7 7/8")	400x300 (15 3/4"x11 13/16")	400x400 (15 3/4"x15 3/4") 400x300 (15 3/4"x11 13/16")(W/ATC)	600x400 (23 5/8"x15 3/4")	800x600 (31 1/2"x23 5/8")	800x1200 (31 1/2"x47 1/4")
Quill stroke(Z axis)	mm(in)	200(7 7/8")	300(7 7/8")	300(11 13/16")	300(11 13/16")	400(15 3/4")	500(19 11/16")
Type of servo motor		DC SERVO MOTOR	DC SERVO MOTOR	DC SERVO MOTOR	DC SERVO MOTOR	DC SERVO MOTOR	AC SERVO MOTOR
Machine head stroke(W axis)	mm(in)	200(7 7/8") (W/oATC) —(w/ ATC)	—	—	—	—	—
Max. electrode load	kgs(lbs)	60 (132)	60 (132)	60 (132)	85 (187)	85 (187)	500(1100)(Still available for heavier weight by counter weight)
Distance between working table & electrode holder plate	mm(in)	200~600(7 7/8"~23 5/8")(W/oATC) 225~425(8 7/8"~16 3/4")(W/ATC)	250~550 (9 13/16"x21 15/25")	250~550 (9 13/16"~21 15/25")	420x720 (16 1/2"x28 3/8")	490~890(19 1/4" ~35")(w/ATC)	550~1050 (21 5/8"x41 3/8")
Size of electrode holder plare	mm(in)	180x135 (7 1/16" x5 5/16")	180x135 (7 1/16"x5 5/16")	230x125 (9 1/16"x4 15/16")	230x125 (9 1/16" x4 5/16")	230x125 (9 1/16"x4 15/16")	300x200 (11 3/16"x7 7/8")
Machine weight	kgs(lbs)	1300 (2865)	1800 (3960)	2300 (5070)	3800 (8360)	5000 (11000)	÷10000 (22000)
Machine installation dimension (including generator)(WxDxH)	mm(in)	2050x1320x2080 (80 11/16"x51 15/16"x81 7/)	1400x1500x2300 (55 1/8"x59x90 1/2")	1990x2040x2450 (78 3/8"x80 5/16"x96 7/16")	3500x2040x2480 (137 4/5"x80 5/16"x97 5/8")	3920x3250x2730 (154 3/8"x128"x107 1/2"	2300x2800x4090 (90 1/2"x110 1/4" x161")
Max. workpiece dimension(WxDxH)	mm(in)	500x300x300 (19 11/16"x11 13/16"x11 13/)	700x400x350 (27 9/16"x15 3/4"x13 3/4")	700x500x300 (27 1/2"x19 11/16"x11 13/16")	850x450x520 (33 1/2" x17 3/4" x20 1/2")	1200x750x600 (47 1/4" x29 1/2"x23 5/8"	1400x2000x600 (55 1/8"x78 3/4" x23 5/8")

ACCURACY AND POWER SUPPLIES

Max. working speed+Cu:St	g/min	2.01	3.06	3.06	3.06	3.06	6.2
Max. working speed+Gr:St	g/min	2.69	3.52	3.52	3.52	3.52	7.01
Best surface roughness	μm	RA0.3-0.5 RMS14-21	RA0.3-0.5 RMS14-21	RA0.3-0.5 RMS14-21	RA0.3-0.5 RMS14-21	RA0.3-0.5 RMS14-21	RA0.3-0.5 RMS14-21
Min. electrode wear rate	% less	0.2	0.2	0.2	0.2	0.2	0.2
Max. process current	A	30(50)	50(30,75)	50(30,75)	50(75,100)	50(75,100)	100(75)
Max. power consumption	KVA	4(6)	6(4,9)	6(4,9)	6(9, 12)	6(9,12)	12(9)
Power supply dimension	mm(in)	920x660x1900 (36 1/4"x26x74 13/16")	920x660x1900 (36 1/4"x26x74 13/16")	920x660x1900 (36 1/4"x26x74 13/16")	920x660x1900 (36 1/4"x26x74 13/16")	920x660x1900 (36 1/4"x26x74 13/16")	920x1300x1900(100A) (36 1/4"x51 3/16"x74 13/16")

DIELECTRIC FLUID TANK

Tank dimension(WxDxH)	mm(in)	(built-in)	1230x800x450 (48 7/16"x31 1/2"x17 3/4")	1230x800x450 (48 7/16"x31 1/2"x17 3/4")	1100x1950x600 (43 1/4"x76 3/4"x23 5/8")	R"650x1950x600 (23 13/16"x76 3/4"x23 5/8") L:1100x1950x600 (43 1/4"x76 3/4"x23 5/8")	(built-in)
Pump flow	ℓ/min	80	100	80	Large:110 Small:80	Large:110 Small:80	Large:240 Small:100
Pump motor	kw	0.375	0.375	0.375	Large:0.75 Samll:0.375	Large:0.75 Samll:0.375	Large:0.75 Samll:0.375
Tank weight	kgs(lbs)	-(built-in)	350(770)	350(770)	250(550)	450(990)	-(built-in)
Volume of dielectric fluid	ℓ(gal)	300(79)	500(132)	500(132)	900(238)	1700(430)	÷3077(814)

◎The manufacturer reserves the right to modity the design, specifications, mechanisms...etc, to improve the performance of the machine without notice.
All the specifications shown above are just for reference.

Since 1974

Sure First

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