

EP Series

Machine Unit Specification

Item	Unit	JMNC32A	JMNC43A	JMNC50	JMNC53	JMNC60	JMNC62	JMNC1140	JMNC1142
Work table size	mm	600 x 300	650 x 400	750 x 520	800 x 550	900 x 650	900 x 650	900 x 650	900 x 650
X travel	mm	300	400	500	500	600	600	1150	1150
Y travel	mm	200	300	400	350	400	400	400	400
Z travel	mm	300	350	350	350	350	350	350	350
Ram platen to work table	mm	167 ~ 467	290 ~ 640	270 ~ 620	310 ~ 660	255 ~ 605	446 ~ 796	255 ~ 605	446 ~ 796
Max. electrode weight	kgs	80	75	150	150	150	150	150	150
Max. workpiece weight	kgs	500	800	1200	1600	2000	2000	2000	2000
Work tank (W x D x H)	mm	845x510x300	1080x560x340	1290x715x420	1160x670x340	1300x900x430	1300x900x430	1500x900x430	1500x900x430
Weight of machine	kgs	1150	1400	1800	2800	3000	3000	3400	3400
Outside dimensions (W x D x H)	mm	1675x1200x2075	1480x1900x2340	1875x1730x2375	1430x2175x2330	1870x2495x2335	1870x2495x2660	2165x2495x2335	2165x2495x2660

Dielectric Tank Specification

Item	Unit	D32	D43	D50	D53	D60	D62	D1140	D1142
Capacity	L	280	320	570	600	800	800	1200	1200
Pump	HP	0.5HP x1	0.5HP x1	0.85HP x1	0.85HP x1	0.85HP x2	0.85HP x2	0.85HP x2	0.85HP x2
Net weight	kgs	built-in	100	150	180	200	200	300	300
Filter method		Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter
Outside dimensions (W x D x H)	mm	built-in	850x1150x1000	950x1400x1100	2060x800x1160	1200x2000x1100	1200x2000x1100	1350x2000x1100	1350x2000x1100

EP series Generator (CNC) Specification

Item	Unit	EP50	EP75	EP100
Max. Machining current	A	50	75	100
Total power input	KVA	4.5	7	9
Max. Metal removal rate	mm ³ /min	390	610	770
Electrode wear ratio	%	0.2	0.2	0.2
Best surface roughness	µmRa	0.2	0.2	0.2
Net weight	kgs	320	330	360
Outside dimensions (WxDxH)	mm	680 x 1070 x 1820	680 x 1070 x 1820	680 x 1260 x 1820

STANDARD ACCESSORIES

Paper filters	1 set
Tool box	1 pcs
Flushing nozzle	1 set
Drill chuck	1 pcs
Clamping kit	1 set
Electrode holder	1 pcs
Halogen machine work lamp	1 pcs
Leveling pads	1 set
Linear scale (installed on machine)	1 set

OPTIONAL ACCESSORIES

Auto fire extinguisher
Permanent magnetic table
Dielectric cooler
Spare PCB set

※ All specification and design subject to change without notices.



JOEMARS MACHINERY & ELECTRIC INDUSTRIAL CO., LTD.
 No.66, Lane 124, Sec. 1, Youyuan Rd., Tatu District,
 Taichung, Taiwan 432
 TEL: 886-4-2691-7566 FAX: 886-4-2691-7555
 E-mail: joemars@ms11.hinet.net
 http://www.joemars.com.tw

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EP series CNC EDM



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CNC EDM CONTROL FEATURES

EP CNC EDM CONTROLLER is a PC-BASED CNC controller. The Graphic-User-Interface uses industrial-grade 486-PC architecture. The closed-loop servo control is by the high speed 32 bits DSP processor, and achieve the best efficiency discharge machining and high accuracy. Intuitive graphics / Several orbit cutting / Multi-depth cutting / Simulation-cutting / Multi-Area mark line cutting / Skip line / Software-Protect-Limit, these provide a substantial increase in the efficiency of programming and to avoid causing mistakes. Provide comment line functions and common word input, USB files import / export, you can put the project information to achieve the project management and the effectiveness of the memorandum.

SPARKING CIRCUIT

1. Most advanced "L.W.F" sparking circuit able to control the peak current rising slope, reduce the corner wear substantially.
2. Tracking mode OFF-TIME control circuit to prevent Arcing.
3. Using "MOSFET" sparking circuit to enhance performance.
4. All PC boards are sectioned in modular box design, reduce maintenance cost.
5. Dual voltage (High & Low voltage) currents being synchronously discharged allows faster metal removal rate and uniform surface finish.

CNC EDM MECHANICAL FEATURES

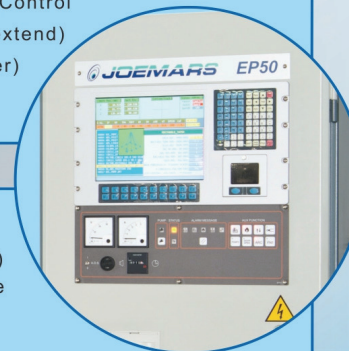
01. Using symmetrical structure design and the castings are all made by high-strength cast iron and being annealed with high rigidity and well-balanced thermal stability.
02. Using high-precision ball-screw on each axis, some use bigger location pin and with pretension design. Therefore, it has great characteristics on positioning accuracy, machine rigidity and motion.
03. Using high-precision and gapless ball / roller guide way on each axis, provide high-precision motion guidance.
04. Using precise wide angular ball bearings on each axis to ensure the required loads for axial and radial, providing the running smoothness and accuracy when machining.
05. The surface of work table has been hardened and grinding treatment, with excellent abrasion resistance and improves machine life.
06. Using high-resolution linear scales on each axis, to ensure the accuracy under static and dynamic condition.
07. The advanced transmission mechanism for each axis, to improve the efficiency, stability and accuracy when machining.
08. Adopt the electromagnetic brake on Z-axis, to offer its function instantly.
09. Using high-capacity lubricator, with efficient lubricating loop, providing a reliable lubricant supply for each axis, to enhance the life-time of mechanical parts.
10. Using full-covered protective structure for each axis, to ensure operator's safety and to prevent dust or liquid falling into the machine.
11. With both oil flushing and suction devices on work tank and work head, to offer a convenient way for different kind of workpieces application.
12. The dielectric level in the work tank is controlled by stepless feature, to provide efficient speed to the expected dielectric height.
13. Work tank drain system uses a larger diameter drain device, dielectric can be processed into the dielectric tank in a very short time.
14. Use a high flow rate PUMP, to fill up the dielectric in the work tank within a very short time.
15. Labyrinth compartment design in the dielectric tank, which can effectively improve the cleanliness of processing dielectric.
16. Using a high efficiency paper filter for dielectric tank, to provide fast and cleaned dielectric.
17. The pressure gauge in dielectric tank, provides instant information for normal flow of dielectric in the filtration system and in the pipelines.
18. Some models equipped with high loading capacity wheels for easy movement of dielectric tanks, as well as provide convenience for maintenance or cleaning of the tank.
19. A simple configuration for Machine body, Generator and Dielectric tank, to reduce the floor space and easy for maintenance purpose.

CNC CONTROLLER HARDWARE SPECIFICATION

01. POWER : AC 100V~240V (50Hz/60Hz)
02. CPU : Industrial Grade 486 PC
03. VGA Resolution : 800 × 600
04. Key Board : PS2
05. Control Axes : X / Y / Z
06. Hard Disk : CF Card
07. Servo Control Board : High Speed 32 Bits DSP Closed-Loop Control
08. Digital IO : DC24V Standard DI:48 / DO:48 (can extend)
09. Sys-Interface Card : RS485 x 2 (One is for USB-Disk Reader)
10. USB Disk Reader : USB disk maximum 32GB (USB2.0)

CNC CONTROLLER SOFTWARE FUNCTION

01. Language : English / Chinese
02. Unit : British system (inch) / Metric system (mm)
03. Coordinate : Machine Coordinate / Working Coordinate
04. Jogging Mode : Continuous / Increase / No Guard
05. JOG Speed : 1 / 10 / 100μm
06. File Maximum Lines : 1000 Lines
07. Subroutine-Level : Maximum 5 Levels
08. Program Edit : Dialog programming (Range Prompt & Check)
09. Files Import/Export : USB Disk (FAT32/FAT16)
10. Finding Function : Home / Edge / Internal_Cavity / External_Cavity / Apex / Sparkle Tooling Correction
11. Positioning : Mechanical Position, Working Position, Set Position, 1/2 XY
12. Cutting Function : XYZ Linear / Orbit / Cone / Loran / Vector / Extension / Circle-Holes / Array-Cut
13. E-Code Number : 256 set
14. Multi-Depth-Cutting : Maximum 100 Groups, 15 Depths per Group.
15. Cutting Mode : Simulation-Run / Multi-Mark-Cutting / Line-Skip / Normal-Cutting
16. Provide Software-Protect-Limit Function & Enabled / Disabled.
17. Private Remark Line & User-Defined-Word.
18. Help function.



SYSTEM SETTING UNIT

Item	Minimum Input Unit	Minimum Command Value	Maximum Stroke Setting
Metric	0.001 mm	0.001 mm	9999.999 mm
English	0.0001 inch	0.0001 inch	999.9999 inch

Work, Pos. &...		Tech Pos.		Cutting Track		Status - Normal	
X	0.0000	0.0000				Manual Guard	Good
Y	0.0000	0.0000				Guard	Good
Z	0.0000	0.0000					

Machining parameter editing screen

[illegible]

Multi-depth editing screen

Work Pos.: 0.000		Tach Pos.: 0.000		Cutting-Track		Status: 00000	
X	0.000	0.000				Maximal	Cont.
Y	0.000	0.000				Guard	Cont.
Z	0.000	0.000				Speed	Cont.

F-No.	IP	IV	TON	TOFF	OV	SV	AJD	WT	Speed	LP	09:46:05
10	4	6	85	48	55	90	1	1.0	100	5	0000:00:00

Star: ---

N0001 SET_POSITI
 N0002 CIRCLE_14
 N0003 RECTANGLE
 N0004
 N0005 REL_17.000
 N0006 CIRCLE_10

CIRCLE_EXTENSION
 G01 (0.001 - 999.999) 0.1
 V5.0 (0.001 - 999.999) 0.05
 BACK NODE (B) (1:z - 3:center 4:YDD) 1
 F-CODE (F) (z - 254) 6
 -ENT: (0)NTRM -ESC:EXIT ->: 5
 -ENT: (0)NTRM -ESC:EXIT

CIRCLE_EXTENSION editing screen

The screenshot displays the Siemens STEP 7 HW Config interface. The main window shows a rack configuration with the following components:

- Rack 1:** PS 307 5A (Power Supply)
- Rack 2:** CPU 314C-2 DP (Central Processing Unit) with integrated modules: DI16xDC24V/DO16xDC24V/0A12Bit, DI16xDC24V/DO16xDC24V/0A12Bit, and CP 343-1 (Communication Module).

The 'I/O View' on the right shows the distribution of I/O points:

- DI (Digital Input):** 32 points (16 from CPU, 16 from CP 343-1)
- DO (Digital Output):** 32 points (16 from CPU, 16 from CP 343-1)
- AI (Analog Input):** 0 points
- AO (Analog Output):** 0 points

The 'Properties' window for the CP 343-1 module is open, showing the 'General' tab. The IP address is set to 192.168.1.10. The 'Rectangle Extension' checkbox is checked, and the 'Back Memory (B)' is set to 256 Kbytes.

RECTANGLE_EXTENSION editing screen

Work Pos: 0.000 Z-Pos: 0.000 Outline Track Status: NORMAL

X 0.000 0.000 Manual Guard Load

Y 0.000 0.000 Speeds

Z 0.000 0.000

F: 1000 IP: 0 MV: 5 TN: 81 TFR: 90 GV: 90 SV: 2 AD: 0 WT: 0.6 LW: 0 99:42:55 0000:00:00

N0001 X 0.000

N0002 Y 0.000

N0003 Z 0.000

N0004 G01 X10.0 Y0.0 Z0.0

REL LINEAR XYZ

CUT-DEPTH(Z): 1000.000 - 1000.000

CUT-DEPTH(Y): 500.000 - 500.000

CUT-DEPTH(X): 600.000 - 600.000

BACK MODE(B): 2: 2

E-CODE(E): 1 - 256

ENT:CONFIRM ESC:EXIT -->:Extend

ENT:CONFIRM ESC:EXIT

Linear cutting editing screen

Work Post: 0.0000		Zach Post: 0.0000		Cutting Track: 0.0000		Status: NORMAL	
X	0.0000	Y	0.0000	Manual	Feed Rate	0.0000	0.0000
X	0.0000	Y	0.0000	Guard	Speed	0.0000	0.0000
Z	0.0000	Z	0.0000				

U-Pos:	TP	HW	TRN	TOFF	OV	SV	ADP	WT	SPEED	Lat	09:41:11
11	0	5	41	58	50	70	5	9.6	1000	1	0000:00:00


```

N0001 SET_POST
N0002
N0003
N0004 CIRCLE_L0

```

```

10 CIRCLE_L0
11 CIRCLE_SPIRAL_L0
12 EXTENSION_L0
13 CIRCLE_L0
14 CIRCLE_SPIRAL_L0
15 CIRCLE_L0
16 CIRCLE_EXTEND
17 RECTANGLE_EXTEND
18 VECTOR_CIRCLE
19 VECTOR_RECTANGLE
20 CONTINUE
21 END

```

Orbit editing screen

Work Pos. (mm)		Tach Pos. (mm)		Cutting Time (s)		Status: Normal					
X	0.000		0.000			Cont. Manual Speeds					
Y	0.000		0.000								
Z	0.000		0.000								
E-n		TP	W	TOR	TRF	CV	AJD	WT	SPED	LT	09:46:39
E-n		4	4	45	48	55	4	1.0	100	5	0000:00:00
N0001 SET POS:10 N0002 CIRCLE I:10 N0003 RECTANGLE N0004 N0005 SET POS:10 N0006 CIRCLE I:10 VECTOR_CIRCLE FR (0.001...9999.999) 0.1 SAC 360.000...360.000 0 EA(-SAC 360.000...360.000 0) 0.0 TAO(0.001...360.000 45 BACK MODE (B) 1:Z 3:Center 4:450 1 E-CODE(F) (-256,500-599) 16 -ENT:0NF:16F -ESC:EXIT ->:Extend											

VECTOR_CIRCLE editing screen

Work Pos. (mm)		Tach Pos. (mm)		Continue Track		Status/Signal																									
X	0.000	X	0.000			Manual	Good 10																								
Y	0.000	Y	0.000			Speed																									
Z	0.000	Z	0.000			Guards																									
<table border="1"> <thead> <tr> <th>E-no.</th> <th>TP</th> <th>HW</th> <th>T0N</th> <th>T0FF</th> <th>GV</th> <th>SV</th> <th>A10</th> <th>wt</th> <th>SPED</th> <th>Lst</th> <th>pp:47:00</th> </tr> </thead> <tbody> <tr> <td>Ex</td> <td>4</td> <td></td> <td>82</td> <td>40</td> <td>VS</td> <td>30</td> <td>1.0</td> <td>000</td> <td></td> <td></td> <td>0000:00:00</td> </tr> </tbody> </table>								E-no.	TP	HW	T0N	T0FF	GV	SV	A10	wt	SPED	Lst	pp:47:00	Ex	4		82	40	VS	30	1.0	000			0000:00:00
E-no.	TP	HW	T0N	T0FF	GV	SV	A10	wt	SPED	Lst	pp:47:00																				
Ex	4		82	40	VS	30	1.0	000			0000:00:00																				
<pre> N0001 SET_POSIT N0002 CIRCLE_L N0003 RECTANGLE N0004 N0005 REL_LINE N0006 CIRCLE_L N0007 CIRCLE_L </pre>																															
<pre> VECTOR_RECTANGLE ER(0.001 - 9999.999) SA(-360.000 - 360.000) EA(SA) (-360.000 - 360.000) IA(0.001 - 360.000) BACK MODE(B):C1:2; C:center A:4500 E-CODE(E)(C1-256,500-599) <ENT:CONFIRM- ESC:EXIT> <-> <Extend- </pre>																															

VECTOR_RECTANGLE editing screen

Work_Para.(mm)		Tech_Para.		Cutting_Track		Status	
X	0.0000	0.0000				Manual	Cont.Para
Y	0.0000	0.0000				Guard	Cont.Para
Z	0.0000	0.0000				Speed	Cont.Para

E-No.	TP	MP	Ton	ToFF	GV	SV	AJD	WT	SPED	Wd		09:41:35
11	0	5	41	35	90	70	0	0.6	1.00			0000:00:00

Start -

CIRCLE_L0R01

HR(0.001- 9999.999) 0.1

VD(0.0)-600.000- 600.000) -0.5

BACK HOME(DY(1-2- 3- Center(4: 450)) 1

E-CODE(E(1-256,500,500)) 1

-ENT:CONF1R01- -ESC:EXIT- -->Extend-

-ENT:CONF1R01- -ESC:EXIT-

CIRCLE_LORAN editing screen

Mort Pay.(cm)		Tech Pay.		Cutting Track								Status: NORMAL	
X	0.0000		0.0000									Manual	<u>Cut to start</u>
Y	0.0000		0.0000									Guard	
Z	0.0000		0.0000									Speeds	

E-No:	TP	HW	TW	TOFF	GV	SV	AJD	WT	SPEED	LwT	
EE	0	5	41	36	90	70	2	9.6	0.00		09:43:51
											0000:00:00


```

N0001 SET_POSIT
N0001 CIRCLE_L0
N0001 RL_L0
N0001 CIRCLE_L0
        
```

Φ100 100 R

Star :

CIRCLE SPHERAL LON

H(R(0.001 - 9999.999)) 0.2

VD((1-0)*(-600.000 - 600.000)) 0.6

BACK NODE(B)(1:2) : Center:(4:450)

F CODE(E)(1:-256,-500.000) 8

-ENT:CONFIRM.. -ESC:EXIT...->Extend

-ENT:CONFIRM.. -ESC:EXIT..

CIRCLE_SPIRAL_LORAN editing screen

Work Parts - Tools		Tool Parts		Cutting Tools		Status																																					
X	Y	Z				Maximal Speed	SPRINT																																				
X	0.000	0.000					Guard																																				
Y	0.000	0.000					Guard																																				
Z	0.000	0.000					Guard																																				
<table border="1"> <thead> <tr> <th>F-No</th> <th>IP</th> <th>IV</th> <th>TV</th> <th>TOFF</th> <th>CV</th> <th>SV</th> <th>AJD</th> <th>WT</th> <th>Speed</th> <th>LF</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4</td> <td>8</td> <td>45</td> <td>48</td> <td>55</td> <td>50</td> <td>1</td> <td>1.8</td> <td>100</td> <td>5</td> <td>09:47:37</td> </tr> <tr> <td colspan="10"></td> <td>00:00:00</td> <td>00:00:00</td> </tr> </tbody> </table>							F-No	IP	IV	TV	TOFF	CV	SV	AJD	WT	Speed	LF	Time	1	4	8	45	48	55	50	1	1.8	100	5	09:47:37											00:00:00	00:00:00	
F-No	IP	IV	TV	TOFF	CV	SV	AJD	WT	Speed	LF	Time																																
1	4	8	45	48	55	50	1	1.8	100	5	09:47:37																																
										00:00:00	00:00:00																																
<pre> N0001 SET POSITIVE N0002 CIRCLE I# N0003 RECTANGLE I# N0004 N0005 DEL I# N0006 CIRCLE I# </pre>																																											
<pre> CIRCLD TAPER (E:0.001 - 9999.999) VD (-) (-600.000 - 600.000) VC (0.001 - 9999.999) TA (-90.000 - 90.000) SA (-360.000 - 360.000) EA (-SA) (-360.000 - 360.000) ID (0.001 - 360.000) TD (0.001 - 360.000) BACK HOX (B:1 - 2 - 3 - Center 4.410) E-CORDE (E:1 - 2 - 5 - 500.999) -ENT (-END)RDS -ESC:EXIT ->->->Extend- </pre>																																											

CIRCLE_TAPER editing screen

Input Pos. (mm)		Pitch Pos.		Outline Track		Status: Normal	
X	0.0000					Cont	Top
Y	0.0000					Guard	
Z	0.0000					Speed	10

F no.	IP	HW	Ton	TOFF	GV	SV	AJD	wt	SPEED	Lat	PR:48:72
Es	4		42	45	VS	50	3.0	100			0000:00:00


```

N0001 SET POS.
N0002 CIRCLE L#1
N0003 RECTANGLE
N0004
N0005 REC. LINE
N0006 CIRCLE L#1
        
```

```

RECTANGLE_F_TAPER
R(0.0000, 9999.9999) 0 1
VD(1-0) (-600.0000, 600.0000) 0 1
VS(0.0001, 9999.9999) 0 1
TA(-90.0000, 90.0000) 0 1
SA(-360.0000, 360.0000) 0 2
JAC(0.0001, 360.0000) 0 3
BACK HOLE(D)=2, 3:center,4:450 0
F-CODE(FC1=-500,500) 8
-ENT:CONFIRM, -ESC:EXIT, -<-:Ext-ends
        
```

RECTANGLE_TAPER editing screen

Work Pos. (mm)		Path Pos. (mm)		Outline Track		Status (mm/s)			
X	0.0000	X	0.0000			Manual			
Y	0.0000	Y	0.0000			Guard			
Z	0.0000	Z	0.0000			Speed			
E-No. IP AV TOK TIME GV SV ADT WT SPEED W/F 09:44:33									
E1	0	5	41	50	90	2.0	0.6	1000	00:00
Start									
CLOCK_LOCAL									
N0001 SET_POSIT N0000 CHGCL_LIN N0004 REL_LIN N0005 CHGCL_LIN									
H500(0.9999, 999) H500(0.9999, 999) VD(1+0)-(600.000, 600.000) BACK HOME(B)(1+2) : 3 Center : 4 (450) E-CODE(E)(1-256, 500-599)									
-ENT:CONF1R8 -ESC:EXIT- <->:Extend-									
-ENT:CONF1R8 -ESC:EXIT-									

COLUMN_LORAN editing screen

Next Pos. Lim.						Each Pos.						Cutpoint Track						Status	
X	0.0000				0.0000													Manual Guard Speeds	Lock Halt Error
Y	0.0000				0.0000														
Z	0.0000				0.0000														
E-No.	TP	HV	TOK	TOFF	OY	SV	AJD	WT	SPEED	Lwt	09:44:47								
EE	0	5	41	58	50	70	0	9.6	500	0000	00:00:00								
Star _____																			
N0001 SET_POSIT	COLUMNS_SPIRAL_LORIN																		
N0001 CIRCUL_01	HS(C) (0-9999, 9999)																		
N0001 REL_LIN	HS(T) (0-9999, 9999)																		
N0001 CIRCUL_10	VD(1-0) (-600, -600, -600, -600)																		
BACK MODE(B)(1:2; 3:center 4:kiso)																			
E-CODE(E)(1-256, 500-599)																			
-ENT=CONFIRM; -ESC=EXIT; <->=Extend;																			
-ENT=CONFIRM; -ESC=EXIT;																			

COLUMN_SPIRAL_LORAN editing screen

Work Pos. (mm)		Tool Pos.		Cutting Track		Status	
X	0.000	Z	0.000			Manual	Feed
Y	0.000	X	0.000			Spindle	Control
Z	0.000	Y	0.000			Speed	Control

E-no	IP	W	TON	TOFF	CV	SV	AJD	WT	Speed	Feed	09:49:48
10	4	0	45	48	55	50	1	1.0	100.0	0.000	00:00:00


```

N0001 SET POS(1)
N0002 CIRCLE I(0)
N0004
N0005 REL I(25)
N0006 CIRCLE I(0)

```


STEP		CIRCLE HOLES	
CUT DEPTH(Z)	600.000 - 600.000		1
H(R)	(0.001 - 9999.999)		50
SA(-A)	(0 - 360.000)		50
IA(-SA)	(0 - 360.000)		50
Oty(O-Z)			8
Add Offset(ZA)	(0 - 10.000)		0
BACK HOD(B)	(1-z, 2-track)		1
E-CODE(C)	(1-256, 500-599)		66

END: CONFIRM - EXEC: EXTEND -> EXTEND

CIRCLE_HOLES editing screen

Work Pcs./cm		Pach Area		Edit/Line Track		Status: 50000	
X	0.0000		0.0000			Manual	Good 100
Y	0.0000		0.0000			Guard	10
Z	0.0000		0.0000			Speeds	

E-No	TP	HW	T0N	T0FF	GV	SV	AD	wT	SPEED	Lwt	09:48:55
56	4		82	40	55	30	1.0	1.00			0000:00:00

Star ~~~~~

```

N0001 SET_POSG
N0002 CIRCLE_10
N0003 RECTANGLE
N0004
N0005 RECT_LIN
N0006 CIRCLE_10

```

RECTANGLE_400

CUT-DEPTH(0 - 600, 0.000, 0.000) 0.5

X-PITCH(-1000, -000, -1000, 0.000) 1

X Xtry(1-50) 3

Y-PITCH(-500, -000, -500, 0.000) 1.5

Y Ytry(1-50) 1

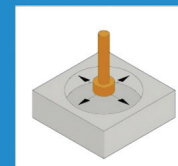
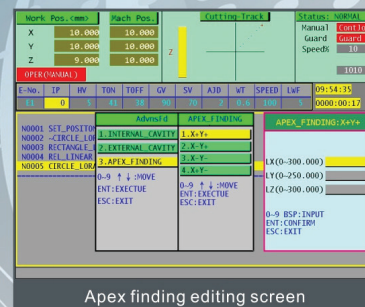
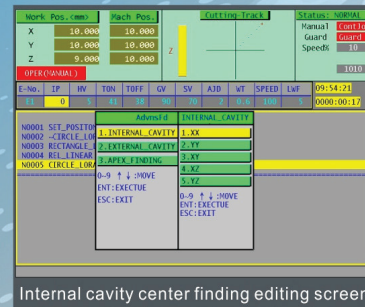
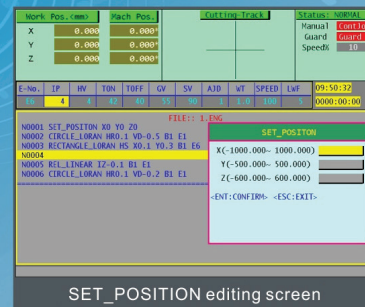
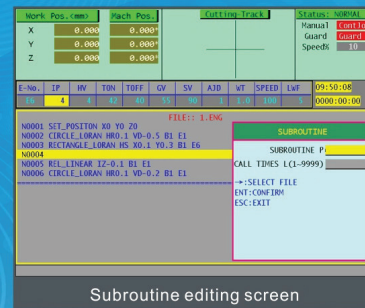
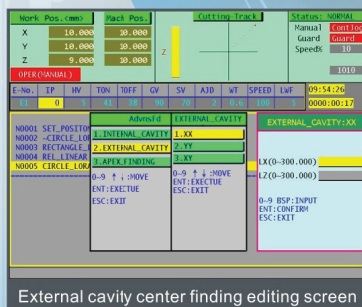
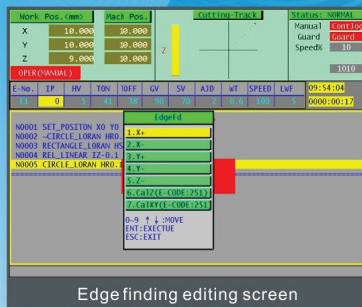
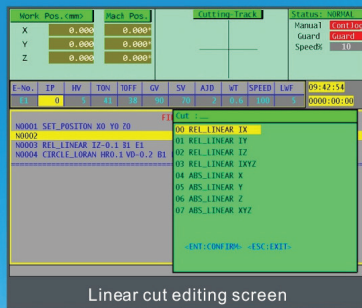
Add Offset(ZA)(0-10, 0.000) 0

BACK MOVE(B)(1-2, 2:Track) 1

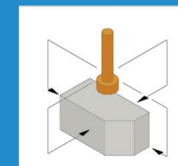
E-CODE (E)(1-256, 500-599) 23

~ENT,CONF,LINE,~EXEC,EXIT, ~->Extend-

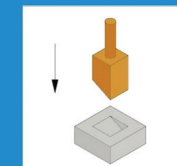
RECTANGLE_ARRAY editing screen



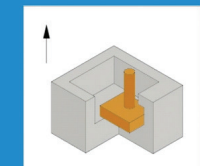
Finding center (inside)



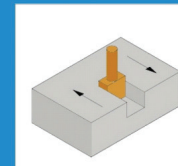
Finding center (outside)



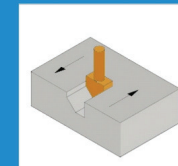
Z-axis Vertical machining (Z-)



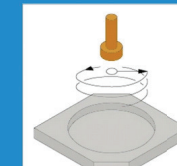
Z-axis Vertical machining (Z+)



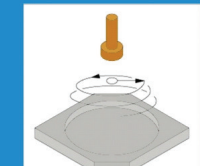
X-axis lateral machining



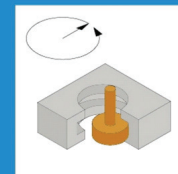
Y-axis lateral machining



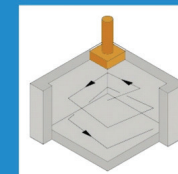
Orbiting machining



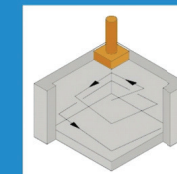
Orbiting machining



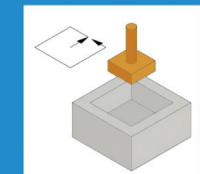
Orbiting machining



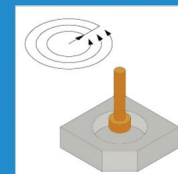
Orbiting machining



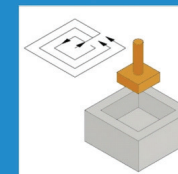
Orbiting machining



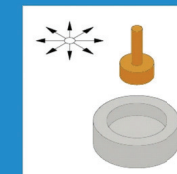
Orbiting machining



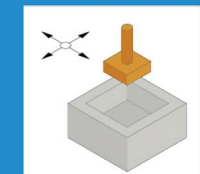
Orbiting machining



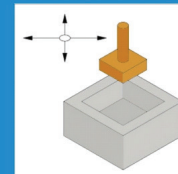
Orbiting machining



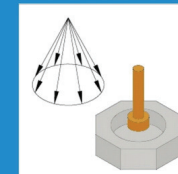
Orbiting machining



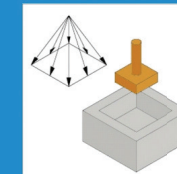
Orbiting machining



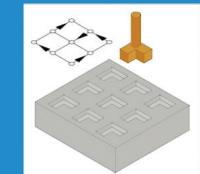
Orbiting machining



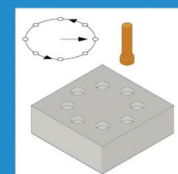
Orbiting machining



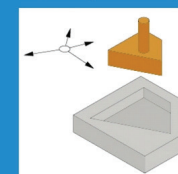
Orbiting machining



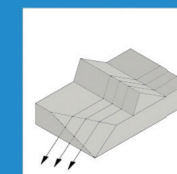
Rectangle array machining



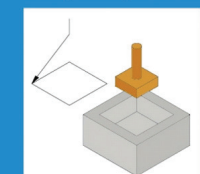
Circle holes machining



2-axes lateral machining



3-axes contour machining



3-axes contour machining