

## ◆ The Features of CNC-Series EDM:

1. The Highly Rigid, Fine-Grained Cast Iron Machine Base, Column, Table, And MEEHANITE Cast Iron Components, Provide for Stability & Long Service life.
2. Three Axes Equipped P-Class Linear Guides (Made in Japan, Germany Or Switzerland) on Slideways. (CNC-430,460,580,650,2010) And Linear Scales Feed Back DC Servo (or AC Servo) System for Precise Orbital Positioning.
3. X,Y,Z Axes Adopt Precision Class Ballscrews And Double Nuts on Wide Saddle, Support The Table (or Over-Arm) Movement for Easy & Accuracy Positioning.
4. The PC Based Controller adapted Dialog Program Editor And Color 15" LCD-TFT. Simple & Clear touch Panel. All Digital EDM Parameter (S-Code) for Easy to Understand & Operation.
5. Automatic Positioning, Orbiting Motion & Side Sparking Function. And Automatic Edge, Center Point & Deepest Point Finding, Reference Point Searching & Multi-Coordinate Memory Function.
6. New CNC Controller Equipped Various Motion Mode for Setting (E-Code) As : Circle, Square, Sector, Taper, Inner & Outer Sphere, Radiation, 45 Degree, And The 3-Axes Linear, 2-Axes Arc, 3-Axes Spatial And 4-Axes Contouring (Optional C-Axis.) Off-Set Movement.
7. Auto Editing Function : Just Input that E-Code (Motion mode) & P-Code (Programming Mode) & EDM Depth, Other Machining Conditions Will be Auto Preset from The Save Data Bank. Then Machine Automatically Operate from Rough to Fine Finish Circle.
8. New Fuzzy Logic for Arcing Control, And Fuzzy Servo Voltage Control. When the Discharging is Unsteady, EDM Parameters Will be Adjusted By The Controller, The Electrode Will be Jump Back & Up And Pulse-Off When Arcing.
9. New CIS Color, With New Metal Shield Cover on Machine Which Correspond With CE Safety Standard 89/392EEC & 93/68/EEC.
10. Automatic Electrode Changer-ATC & The Extra C-Axis Option Available.



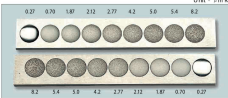
◆ 430 Linear guiders



◆ 460,580,650,2010 Linear guiders



◆ The four sets of prehe linear bearing in the servo spindle of Z-axis  
Stands for quality by ARISTECH EDM



◆ The Test report from MITUTOYO SURETEST.

## ◆ Standard Accessories:

1. Industrial PC & 15" LCD-TFT & 3-Axes Linear Scales.
2. 3 Axes DC, Or AC Servo Motors & Ballscrews.
3. 1Pc Electrode Holder.
4. 1 Pc Working Lamp.
5. 1 Set Tools With Tool Box & Clamping Kits.
6. 1 Set Cartridge Paper Filters.
7. Machine Level Mounts.
8. Auto Fired Detect System & Fire Extinguisher.
9. Remote Controller.
10. Operation Manual & Technical Data.

## ◆ Optional Accessories:

1. System 3R, Tool Holders.
2. ATC/Automatic Electrode Changers. Erowa Or System 3R.
3. Extra C-Axis.
4. Chiller Unit From Habor.
5. Hydraulic Power For Up/Down Worktank Front Door.



◆ CNC POWER SUPPLY UNIT



◆ ISO-9001 CERTIFICATION



◆ CE MARK CERTIFICATION



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CNC-EV17-1807-1500

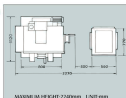


# ARISTECH®

## PRECISION 3-D CNC EDM SERIES

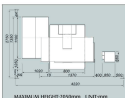


## CNC-250



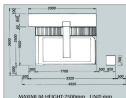
## CNC-430

[WITH LINEAR GUIDES]



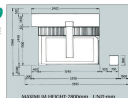
## CNC-460

OVERARM TYPE  
[WITH LINEAR GUIDES]



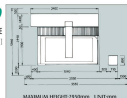
## CNC-580

OVERARM TYPE  
[WITH LINEAR GUIDES]



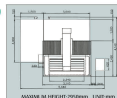
## CNC-650

OVERARM TYPE  
[WITH LINEAR GUIDES]



## CNC-2010

OVERARM TYPE  
[WITH LINEAR GUIDES]



## CNC-3010

OVERARM TYPE  
[WITH LINEAR GUIDES]  
[WITH Double Head]



### ◆ MACHINE UNIT

| SPECIFIC.                                                           | SERIES NO. | CNC-250                            | CNC-430                                                   | CNC-460                             | CNC-580                             | CNC-650                            | CNC-2010                             | CNC-3010                             |
|---------------------------------------------------------------------|------------|------------------------------------|-----------------------------------------------------------|-------------------------------------|-------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|
| Work tank(WxHx)Inner size                                           | mm/inch    | 750x500x340 (29.5x19.7x13.4)       | 1,090x600x370 (42.9x23.6x14.6)                            | 1,400x800x500 (55.1x31.5x19.7)      | 1,700x1,050x700 (66.9x41.3x27.6)    | 2,150x1,150x700 (84.7x45.3x27.6)   | 2,900x1,500x700 (114.2x59.1x27.6)    | 4,000x1,600x800 (157.5x63.0x31.5)    |
| Work table size (DxH)                                               | mm/inch    | 600x300 (23.6x11.8)                | 650x350 (25.6x13.8)                                       | 900x600 (35.4x23.6)                 | 1,100x700 (43.3x27.6)               | 1,400x900 (55.1x35.4)              | 2,240x1,050 (88.2x41.3)              | 3,100x1,050 (122x41.3)               |
| Work table travel (X-axis)                                          | mm/inch    | 300x200 (11.8x7.9)                 | 400x300 (15.7x11.8)                                       | 600x500 (23.6x19.7)                 | 1,000x600 (39.4x23.6)               | 1,200x700 (47.3x27.6)              | 2,000x1,000 (78.7x39.4)              | 3,000x1,000 (118x39.4)               |
| Work head travel (Y-axis)                                           | mm/inch    | 200 (7.9)                          | 270 (10.6)                                                | —                                   | —                                   | —                                  | —                                    | —                                    |
| Ram servo travel (Z-axis)                                           | mm/inch    | 180 (7.1)                          | 200 (7.9)                                                 | 300 (11.8)                          | 450 (17.7)                          | 450 (17.7)                         | 530 (21.7)                           | 550 (21.7)                           |
| Minimum/Max. distant between the table surface and electrode plate. | mm/inch    | 0-380 (0-14.9)                     | 40-510 (1.6-20.0)-STANDARD<br>160-560 (6.3-22.0)-OPTIONAL | 100-530 (5.1-20.9)                  | 320-970 (12.5-38.2)                 | 560-1,100 (22.1-43.3)              | 600-1,150 (23.6-45.3)                | 600-1,150 (23.6x45.3)                |
| Max.electrode weight                                                | kgs/lbs    | 50 (110)                           | 120 (264)                                                 | 200 (440)                           | 400 (880)                           | 500 (1,100)                        | 500 (1,100)                          | 500 (1,100)                          |
| Max. workpiece weight                                               | kgs/lbs    | 300 (660)                          | 400 (880)                                                 | 1,800 (3,960)                       | 3,000 (6,600)                       | 4,000 (8,800)                      | 9,000 (19,800)                       | 12,000 (26,400)                      |
| External dimension (WxDxH)                                          | mm/inch    | 1,200x1,200x2,240 (47.2x47.2x88.6) | 1,210x1,400x2,040 (47.6x55.1x83.3)                        | 1,700x2,000x2,450 (66.9x78.8x96.5)  | 2,500x1,900x2,880 (98.4x74.8x113.4) | 2,340x2,300x2,500 (92.2x90.6x98.5) | 3,000x2,400x3,150 (118.1x94.5x124.0) | 4,800x2,400x3,150 (189.0x94.5x124.0) |
| Packing dimension (WxDxH)                                           | mm/inch    | 1,245x1,215x2,220 (49.4x47.8x87.8) | 1,515x1,320x2,230 (59.7x52.0x87.8)                        | 2,170x1,760x2,560 (85.4x69.3x100.8) | 2,320x2,280x3,190 (91.4x89.8x125.6) | 2,340x2,300x2,500 (92.2x90.6x98.5) | DEPEND ON REQUIRED                   | Separated packing in container       |
| Net weight                                                          | kgs/lbs    | 1,050 (2,310)                      | 1,800 (3,960)                                             | 2,800 (6,160)                       | 5,400 (11,880)                      | 6,300 (13,800)                     | 13,000 (28,600)                      | 15,000 (33,000)                      |

※Optional X,Y Axes travel 1,500mm/70mm

### ◆ DIELECTRIC FLUID UNIT.

|                            |         |          |                                    |                                  |                                     |                                     |                                 |                     |
|----------------------------|---------|----------|------------------------------------|----------------------------------|-------------------------------------|-------------------------------------|---------------------------------|---------------------|
| Capacity                   | LITERS  | 300      | 350                                | 850                              | 1,000                               | 2,000                               | 4,200                           | 5,400               |
| Filter paper/pump          | PCS     | 2/1PCS.  | 4/1PCS.                            | 5/2PCS.                          | 6/2PCS.                             | 6/2PCS.                             | 6/2PCS.                         | 6/2                 |
| External dimension (WxDxH) | mm/inch | BUILT-IN | 1,350x1,400x2,050 (53.1x55.1x80.7) | 2,000x850x500 (78.8x33.5x19.7)   | 1,400x2,400x800 (55.1x94.5x31.5)    | 1,840x2,760x1,000 (72.4x108.7x39.4) | 1,500x3,000x470 (59x118.1x18.5) | Upon required tanks |
| Packing dimension (WxDxH)  | mm/inch | BUILT-IN | 1,210x1,110x1,025 (47.6x43.7x40.4) | 2,150x955x1,020 (84.6x37.6x40.2) | 3,130x1,430x1,030 (123.3x56.3x40.6) | 2,820x1,400x1,560 (111.1x55.2x61.5) | DEPEND ON REQUIRED              | Upon required tanks |
| Net weight                 | kgs/lbs | BUILT-IN | 120 (264)                          | 200 (440)                        | 300 (660)                           | 450 (990)                           | 500 (1,100)                     | Upon required tanks |

### ◆ POWER SUPPLY UNIT

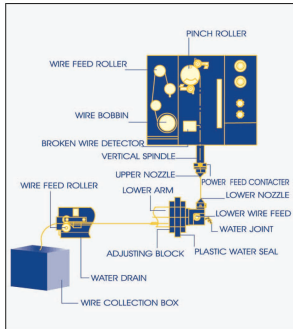
|                            |                                                                                     |                                   |         |
|----------------------------|-------------------------------------------------------------------------------------|-----------------------------------|---------|
| Control Axes               | X,Y,Z                                                                               |                                   |         |
| Moving Locus               | CIRCLE, SQUARE, SECTOR, INNER, OUTER, SPHERE, TAPER, PARABOLA, 45° HOLE/LARGE, ETC. |                                   |         |
| Least Input Increment      | mm<br>inch                                                                          | 0.001<br>(0.00004)                |         |
| Max.Input Increment        | mm<br>inch                                                                          | ± 9999.999<br>(± 393.7)           |         |
| Coordinates System         | Relative                                                                            |                                   |         |
| Display System             | 15" LCD-TFT                                                                         |                                   |         |
| Normal current             | A                                                                                   | 30                                | 60 120  |
| Total Power Input          | KVA                                                                                 | 3.5                               | 6 10    |
| Max.Material Removal Rate  | mm <sup>3</sup> /min                                                                | 360                               | 550 700 |
| Electrode Wear Rate        | %                                                                                   | < 0.3                             |         |
| Best Surface Roughness     | μm Ra                                                                               | 0.3                               | μm      |
| External Dimension (WxDxH) | mm<br>inch                                                                          | 800x730x1,800<br>(31.5x28.8x70.9) |         |
| Packing Dimension (WxDxH)  | mm<br>inch                                                                          | 950x880x2,000<br>(37.4x34.7x78.7) |         |
| Net Weight                 | kgs/lbs                                                                             | 200(440)                          |         |

※ Subject changed without notice.

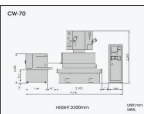
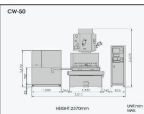
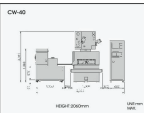
### ◆ FUNCTION OF POWER SUPPLY UNIT

| NO | DESCRIPTION                         | SPECIFICATION                                                                      |
|----|-------------------------------------|------------------------------------------------------------------------------------|
| 1  | Display                             | 15" LCD-TFT                                                                        |
| 2  | Control Method                      | CNC Close Loop                                                                     |
| 3  | Control Axes                        | X,Y,Z(Optional C-Axis)                                                             |
| 4  | Minimum Setting Unit                | 0.001mm/0.00004inch                                                                |
| 5  | Arithmetic limits                   | ±9999.999mm                                                                        |
| 6  | Positioning Command Format          | Incremental, Absolute                                                              |
| 7  | Manual Feed Rate(Romote Controller) | 4 Speed                                                                            |
| 8  | Inching(x1)                         | 0.001mm/0.00004inch per push                                                       |
| 9  | Positioning Parameters Sets         | E-Code                                                                             |
| 10 | Machining Parameters Sections       | S-Code                                                                             |
| 11 | Enlarged Machining Functions        | Circle, Square, Sector, Inner, Outer, Sphere, Taper, Parabol, 45° hole/Large, etc. |
| 12 | Orbital Movement Control            | X,Y,Z(Free, X,Y(Fixed)                                                             |
| 13 | Machining Position (Max)            | 200 Position                                                                       |
| 14 | Screen Pages                        | 20 Pages                                                                           |
| 15 | Program Date Capacity               | 100 Files At Least                                                                 |
| 16 | Linear Scales Resolution            | 0.001mm/0.00004inch                                                                |

## SEMI-AUTOMATIC WIRE FEED SYSTEM.



## OVERALL MACHINE DIMENSIONS.



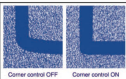
## A WIDE RANGE OF MACHINING NEEDS.



## MAXIMUM TAPER ANGLE: $\pm 15$ DEGREES



## CORNER CONTROL



ISO-9001 CERTIFICATION



CE MARK CERTIFICATION



◆ OUR SECOND PLANT IN TA-LI DIST.



◆ OUR FIRST PLANT IN TA-LI DIST.

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CW-EV12-1702-1500

DESIGN & PRINT: CHAO CHEN 063284393.D



# ARISTECH®



## FEATURE:

### MULTI FUNCTIONS

- By inputting the wire diameter, workpiece material & thickness, and desired surface finish, optimum cutting conditions are automatically generated from memory.

- It is possible to carryout the machining conditions of second, third, fourth cutting; the second cutting easily obtained by using the retract function.

### WIRE BREAKAGE RECOVERY

- In case of wire breakage during machining, just press  button and wire returns to start point. By pressing  button, wire will move rapidly retracting machining path back to that point.

### WATER COOLING CONTROL

- The inverter control for pump and water coolant unit keep the thermal balance on every part of the machine and low expansion of material in submerged machining.

### CW-10



### CW-30



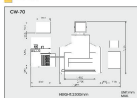
### CW-40



### CW-50



### CW-70



### CW-10



### CW-30/CW-40



### CW-50/CW-70



### WIRE FEEDING

- Operator has only to pass wire through lower nozzle guide and wire will be taken by the water-jet wire-collecting device to the collector.
- With AC Servo motors mounted directly onto the ball screws and using linear guide ways for X, Y, U, V, Z axes traverses, high accuracy of positioning and repeatability are obtained, and movements have been calibrated by laser measurement.
- The U-V axes head has been designed for high rigidity and stability ensuring high precision taper cutting.
- Using a stainless steel work table with adjustable design, different shapes and sizes of workpiece can be mounted for machining.
- Equipped with a good filter and ion exchange resin treatment system to ensure clear water, and three high pressure pumps designed to deliver a powerful jet of dust-free fluid.
- The machine body is made from high quality heat-treated and stress-relieved Meehanite cast iron for superior stability and rigidity. Symmetrical design ensures even distribution due to load and heat deformation.
- Equipped with a semi-automatic wire feeding system where the lower arm has a water-jet type of wire-carrying device.

### REMOTE CONTROL BOX

- For the convenience of operator, the remote control box contains many of the functions required for set-up.
- PC-base designed, IPC with dual CPU controller, using G.M. NC-code edit. standard with CF CARD and RS-232C interface.

- A Equipped a semi-automatic wire feeding system, brass wire range from  $\phi 0.20 \sim \phi 0.30$ mm diameter, and the submerge type work-tank.

- B With automatic conductivity control system and water coolant system offering best dielectric condition for wire cutting (submerged type).

- C With AC Servo motors mounted directly onto the ball screws and using linear guide ways for X, Y, U, V, Z axes traverses, high accuracy of positioning and repeatability are obtained, and movements have been calibrated by laser measurement.

- D The U-V axes head has been designed for high rigidity and stability ensuring high precision taper cutting.

- E Using a stainless steel work table with adjustable design, different shapes and sizes of workpiece can be mounted for machining.

- F Equipped with a good filter and ion exchange resin treatment system to ensure clear water, and three high pressure pumps designed to deliver a powerful jet of dust-free fluid.

- G The machine body is made from high quality heat-treated and stress-relieved Meehanite cast iron for superior stability and rigidity. Symmetrical design ensures even distribution due to load and heat deformation.

- H Equipped with a semi-automatic wire feeding system where the lower arm has a water-jet type of wire-carrying device.

### CNC FUNCTION

- Mirror image
- Pitch error compensation
- Stored stroke limit
- Machine lock
- Automatic positioning
- Start point return
- Axis exchange
- Parallel compensation
- Dry run
- Optional block skip
- Manual data input(MDI)
- Hold point return
- Backlash compensation
- Software limit
- Single block
- Optional stop
- Automatic power recovery
- Reference point return
- Trace function
- Background edit
- Taper cutting, corner R
- Chinese/English display
- Retrace function
- Diagnostic function
- Inch/metric conversion
- Block stop
- Cutting path display
- Program editing, copy, delete
- Top and bottom different machining
- RS-232 interface

### MACHINE UNIT SPECIFICATION

| ITEM                               | CW-10                | CW-30                                  | CW-40                             | CW-50                              | CW-70                              |
|------------------------------------|----------------------|----------------------------------------|-----------------------------------|------------------------------------|------------------------------------|
| Machining method                   | Submerge/Flushing    |                                        |                                   |                                    |                                    |
| Max. workpiece size(WxDxH)         | mm 680x420x150       | 780x500x250                            | 880x500x250                       | 1000x690x300                       | 1200x790x300                       |
| Max. workpiece weight              | kg 250               | 500                                    | 550                               | 800                                | 1000                               |
| X,Y axes travel                    | mm 300x200           | 400x300                                | 500x300                           | 600x400                            | 800x500                            |
| Z axis travel                      | mm 150               | 250                                    | 250                               | 300                                | 300                                |
| U,V axes travel                    | mm $\pm 30x \pm 30$  | $\pm 50x \pm 50$                       | $\pm 50x \pm 50$                  | $\pm 60x \pm 60$                   | $\pm 60x \pm 60$                   |
| X,Y axis feed rate                 | mm/min               | Max. 900                               |                                   |                                    |                                    |
| Best surface roughness             | $\mu m$              | Ra 0.65                                |                                   |                                    |                                    |
| Machining speed(SKD-11.60mm)       | mm <sup>2</sup> /min | 200                                    |                                   |                                    |                                    |
| Drive motor(X,Y,U,V)               | AC Servo Motor       |                                        |                                   |                                    |                                    |
| Wire diameter(standard)            | mm                   | $\phi 0.25$ ( $\phi 0.15 - \phi 0.3$ ) |                                   |                                    |                                    |
| Wire feeding speed                 | m/min                | 0-15                                   |                                   |                                    |                                    |
| Wire tension                       | gf                   | 200 - 2500                             |                                   |                                    |                                    |
| Max. taper angle                   | degree               | $\pm 15^\circ / 80$                    |                                   |                                    |                                    |
| Max. wire bobbin weight            | kg                   | 6                                      | 6                                 | 10                                 | 10                                 |
| Work tank inner dimensions (WxDxH) | mm                   | (S)850x573x375<br>(F)920x573x400       | (S)970x719x510<br>(F)1040x719x550 | (S)1070x719x480<br>(F)1140x719x550 | (S)1136x900x530<br>(F)1272x862x480 |
| Machine weight                     | kg                   | 1500                                   | 2200                              | 2400                               | 2800                               |

### DIELECTRIC FLUID SUPPLY UNIT (FILTERING UNIT)

|                                          |                 |                                       |                                       |                                       |                                       |
|------------------------------------------|-----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Filter tank capacity (liter)             | 480 / 420       | 690 / 420                             | 830 / 420                             | 1215 / 420                            | 420                                   |
| Filter element                           | Paper filters   |                                       |                                       |                                       |                                       |
| Ion exchange resin                       | Standard        |                                       |                                       |                                       |                                       |
| Conductivity control system              | Standard        |                                       |                                       |                                       |                                       |
| Fluid temperature control (With coolant) | Auto (optional) |                                       |                                       |                                       |                                       |
| Outside dimensions(WxHxD)                | mm              | (S)1100x1400x1290<br>(F)950x1400x1290 | (S)1100x1570x1290<br>(F)950x1400x1290 | (S)1150x1800x1360<br>(F)950x1400x1290 | (S)1200x1800x1470<br>(F)950x1400x1290 |
| Net weight(without water)                | kg              | 200                                   | 250                                   | 260                                   | 280                                   |

### POWER SUPPLY UNIT (GENERATOR UNIT)

|                     |                      |     |  |  |  |
|---------------------|----------------------|-----|--|--|--|
| Circuit system      | Power MOS transistor |     |  |  |  |
| Max. output current | A                    | 25  |  |  |  |
| Voltage select      | V                    | 145 |  |  |  |
| IP select           |                      | 10  |  |  |  |
| Off time select     |                      | 50  |  |  |  |

### CNC CONTROL UNIT

|                            |     |                                          |
|----------------------------|-----|------------------------------------------|
| I/O device                 |     | Keyboard, RS-232C, CF CARD               |
| Display type               |     | 15" LCD-TFT                              |
| Control system             |     | IPC, closed loop software servo system   |
| Control axis               |     | X,Y,U,V,Z                                |
| Min. setting unit          | mm  | 0.001                                    |
| Max command value          | mm  | ± 9999.999                               |
| Interpolation              |     | Linear / Circular                        |
| Command system             |     | Abs. / Incl.                             |
| Machining feed control     |     | Servo / Const. Feed                      |
| Scaling                    |     | 0.001 ~ 9999.999                         |
| Auto 2nd cut system        |     | Re-trace and auto changed machining data |
| Machining condition memory |     | 0-9999                                   |
| Outside dimensions(WxHxD)  | mm  | 600x870x1850                             |
| Total AC power input       | KVA | 3 φ 220V ± 10% / 13 KVA                  |

\*Specifications subject to change without notice.

### STANDARD ACCESSORIES

- Automatic vertical alignment jig 1 set
- Wire guider(0.25mm) & Wire 1 set
- Water filtering system 1 set
- Remote controller 1 set
- Tool box 1 set

### OPTIONAL ACCESSORIES

- Water coolant unit.
- AVR-Auto. Voltage Regulator unit.
- Die guides, water nozzle.
- WT cam system software.
- AC Power(Non-Electrolytic Cutting).
- AWT-AUTO WIRE THREAD SYSTEM.





CE  
ISO-9001

# ARISTECH®

**CNC WIRE CUT E.D.M.  
AWT - AUTO WIRE THREADING SYSTEM**



## New Fast AWT System

- Fast & Reliable "AWT" System, Nearing 100% Success Rate.
- Flexible Cutting Database Supported In Controller.
- Fully Compatible With Other Brand Post Processor In CAM Software.



## ◆ CNC WIRE-CUT EDM SPECIFICATION :

| MODEL                        | CW-30S/25A                                | CW-50S/25A            |
|------------------------------|-------------------------------------------|-----------------------|
| MACHINE BODY                 | 5-AXES CNC + Auto Wire Threading          |                       |
| Machining method             | Submerged (In Stainless Steel Work Tank.) |                       |
| Max. work piece size (WxDxH) | mm 745X600X210                            | 930X700X290           |
| Max. work piece weight       | kg 300                                    | 450                   |
| X,Y axes travel              | mm 400X300                                | 600X400               |
| Z axis travel                | mm 220                                    | 300                   |
| U,V axes travel              | mm 60 x 60                                | 100 x 100             |
| X-Y axes feed rate           | mm/min                                    | Max. 800              |
| Drive system (S axes)        | AC Servo Motor                            |                       |
| Wire diameter (standard)     | mm                                        | Ø 0.25                |
| Option wire diameter         | mm                                        | Ø 0.15 - Ø 0.3        |
| Wire feed rate (max.)        | mm/sec                                    | 0-300                 |
| Wire tension                 | gf                                        | 300 - 2500            |
| Max. taper angle             | degree                                    | ±15° / 80 ±15° / 100  |
| Tank capacity                | l                                         | 300 350               |
| Outside dimensions (WxDxH)   | mm 1,700X2,060 x 2,100                    | 1,650 x 2,060 x 2,230 |
| Machine weight               | kg 2,300                                  | 3,000                 |

## ◆ FILTERING FLUID SUPPLY UNIT :

|                            |    |                 |                 |
|----------------------------|----|-----------------|-----------------|
| Tank capacity              | l  | 520             | 650             |
| Filter element             |    | Paper           |                 |
| Ion exchange resin         | l  | 6               |                 |
| Conductivity control       |    | Auto            |                 |
| Fluid temperature control  |    | Auto (standard) |                 |
| Outside dimensions (WxDxH) | mm | 1,410x600x1,270 | 1,600x750x1,500 |
| Net weight (without water) | kg | 300             | 400             |

## ◆ POWER SUPPLY UNIT :

|                     |       |                      |
|---------------------|-------|----------------------|
| Circuit system      |       | Power MOS transistor |
| Max. output current | Amp.  | 25A                  |
| Voltage select      | Volt. | 16                   |
| IP select           | Steps | 10                   |
| Off time select     | Steps | 50                   |

## ◆ CNC CONTROLLER UNIT :

|                            |                                               |                            |
|----------------------------|-----------------------------------------------|----------------------------|
| Data input                 | keyboard, RS-232C, CF Card.                   |                            |
| Display type               | 15" TFT-LCD Monitor                           |                            |
| Control system             | 32 bit CPU, closed loop software servo system |                            |
| Control axis               | X,Y,U,V,Z (5 axes)                            |                            |
| Setting unit               | 0.001                                         |                            |
| Max. command value         | mm                                            | ±9999.999                  |
| Interpolation              | Linear / Circular                             |                            |
| Command system             | Abs. / Inc.                                   |                            |
| Machining feed control     | Servo / Const. Feed                           |                            |
| Scaling                    | 0.001 - 9999.999                              |                            |
| Auto 2nd cut system        | Re-trace and auto changed machining data      |                            |
| Machining condition memory | 1000 - 9999                                   |                            |
| Outside dimensions (WxDxH) | mm                                            | 780X720X1,900 / N.W. 300kg |
| Total AC power input       | KVA                                           | Ø3 220V ±10% / 13KVA       |

## ◆ CNC CONTROLLER FUNCTIONS :

|                           |                               |
|---------------------------|-------------------------------|
| Graphical X-Y, X-Y-Z      | Backlash compensation         |
| Graphical color 16 item   | NC data memory                |
| Cutting position indicate | Dry run                       |
| Machining monitor         | Single block                  |
| Graphical auto scaling    | Machine lock                  |
| Zoom                      | Start point return            |
| Machining time            | Stop point return             |
| Machining speed           | (Straight, Trace)             |
| Machining length          | Retrace function              |
| Stored scribe limit       | Dwell                         |
| Reference point return    | Subprogram                    |
| Pitch error compensation  | Background edit               |
| Automatic positioning     | Taper Cut                     |
| (I-hole, Side Edge)       | Top-bottom independent        |
| Non-Electrolytic AC       | Route machining               |
| Power Cutting             | Power Cutting                 |
|                           | Corner Control Aided Function |

\*Specifications subject to change without notice.

## ◆ STANDARD ACCESSORIES :

1. Transformer For 380V, 415V, 440V, 600V.
2. Automatic vertical alignment jig.
3. Water Filtering System & Chiller Unit.
4. Wire Guide & Brass Wire Dia. 0.25mm Standard.
5. Remote Controller & Tools Box.

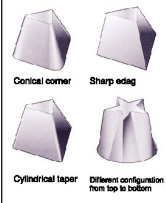
## ◆ OPTIONAL ACCESSORIES :

1. AVR (Auto Voltage Regulator) 15KVA.
2. WTCam V3 High Level Version software for wire cutting.
3. Linear Scales.
4. EXTRA 30KG WIRE FEEDING BOX.

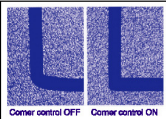
## AUTOMATIC WIRE THREADING SYSTEM



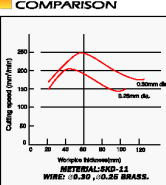
## MAXIMUM TAPER ANGLE: ± 15 DEGREES



## CORNER CONTROL



## CUTTING SPEED COMPARISON



**LIEN SHENG MECHANICAL & ELECTRICAL CO., LTD.**

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E-mail: sales@aristech.com.tw

# CNC WIRE-CUT EDM SPECIFICATION :

| MODEL                        |        | CW-30S/25A                                | CW-50S/25A            |
|------------------------------|--------|-------------------------------------------|-----------------------|
| MACHINE BODY                 |        | 5-AXES CNC + Auto Wire Threading          |                       |
| Machining method             |        | Submerged (In Stainless Steel Work Tank.) |                       |
| Max. work piece size (WxDxH) | mm     | 745X600X210                               | 930x700x290           |
| Max. work piece weight       | kg     | 300                                       | 450                   |
| X,Y axes travel              | mm     | 400X300                                   | 600x400               |
| Z axis travel                | mm     | 220                                       | 300                   |
| U,V axes travel              | mm     | 60 x 60                                   | 100 x 100             |
| X-Y axis feed rate           | mm/min | Max. 800                                  |                       |
| Drive system (5 axes)        |        | AC Servo Motor                            |                       |
| Wire diameter (standard)     | mm     | Ø 0.25                                    |                       |
| Option wire diameter         | mm     | Ø 0.15- Ø 0.3                             |                       |
| Wire feed rate (max.)        | mm/sec | 0-300                                     |                       |
| Wire tension                 | gf     | 300 - 2500                                |                       |
| Max. taper angle             | degree | ± 15° / 80                                | ± 15° / 100           |
| Tank capacity                | ℓ      | 300                                       | 350                   |
| Outside dimensions (WxDxH)   | mm     | 1,700X2,060 x 2,100                       | 1,650 x 2,060 x 2,230 |
| Machine weight               | kg     | 2,300                                     | 3,000                 |

# FILTERING FLUID SUPPLY UNIT :

|                            |    |                 |                 |
|----------------------------|----|-----------------|-----------------|
| Tank capacity              | ℓ  | 520             | 650             |
| Filter element             |    | Paper           |                 |
| Ion exchange resin         | ℓ  | 6               |                 |
| Conductivity control       |    | Auto            |                 |
| Fluid temperature control  |    | Auto (standard) |                 |
| Outside dimensions (WxDxH) | mm | 1,410x600x1,270 | 1,600x750x1,500 |
| Net weight (without water) | kg | 300             | 400             |

# POWER SUPPLY UNIT :

|                     |       |                      |  |
|---------------------|-------|----------------------|--|
| Circuit system      |       | Power MOS transistor |  |
| Max. output current | Amp.  | 25A                  |  |
| Voltage select      | Volt. | 16                   |  |
| IP select           | Steps | 10                   |  |
| Off time select     | Steps | 50                   |  |

# CNC CONTROLLER UNIT :

|                            |     |                                               |  |
|----------------------------|-----|-----------------------------------------------|--|
| Data input                 |     | keyboard, RS-232C, CF Card.                   |  |
| Display type               |     | 15" TFT-LCD Monitor                           |  |
| Control system             |     | 32 bit CPU, closed loop software servo system |  |
| Control axis               |     | X,Y,U,V,Z (5 axes)                            |  |
| Setting unit               | mm  | 0.001                                         |  |
| Max. command value         | mm  | ± 9999.999                                    |  |
| Interpolation              |     | Linear / Circular                             |  |
| Command system             |     | Abs. / Inc.                                   |  |
| Machining feed control     |     | Servo / Const. Feed                           |  |
| Scaling                    |     | 0.001 ~ 9999.999                              |  |
| Auto 2nd cut system        |     | Re-trace and auto changed machining data      |  |
| Machining condition memory |     | 1000 - 9999                                   |  |
| Outside dimensions (WxDxH) | mm  | 780X720X1,900 / N.W. 300kg                    |  |
| Total AC power input       | KVA | Ø3 220V ± 10% / 13KVA                         |  |

# CNC CONTROLLER FUNCTIONS :

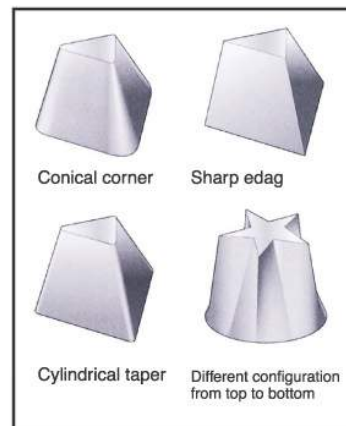
|                                          |                                         |
|------------------------------------------|-----------------------------------------|
| Graphic X-Y, X-Y-Z                       | Backlash compensation                   |
| Graphic color 16 item                    | NC data memory                          |
| Cutting position indicate                | Dry run                                 |
| Machining monitor                        | Single block                            |
| Graphic auto scaling                     | Machine lock                            |
| Zoom                                     | Start point return                      |
| Machining time                           | Stop point return (Straight, Trace)     |
| Machining speed                          | Retrace function                        |
| Machining length                         | Dwell                                   |
| Stored stroke limit                      | Subprogram                              |
| Reference point return                   | Background edit                         |
| Pitch error compensation                 | Taper Cut                               |
| Automatic positioning (Hole, Slit, Edge) | Top-bottom independent figure machining |
| Non-Electrolytic AC Power Cutting.       | Corner Control Aided Function.          |

\*Specifications subject to change without notice.

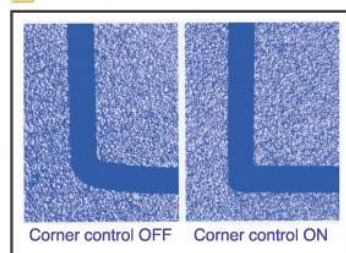
# AUTOMATIC WIRE THREADING SYSTEM



# MAXIMUM TAPER ANGLE: ± 15 DEGREES



# CORNER CONTROL



# STANDARD ACCESSORIES :

1. Transformer For 380V, 415V, 440V, 600V.
2. Automatic vertical alignment jig.
3. Water Filtering System & Chiller Unit.
4. Wire Guide & Brass wire Dia. 0.25mm Standard.
5. Remote Controller. & Tools Box.

# OPTIONAL ACCESSORIES :

1. AVR (Auto Voltage Regulator) 15KVA.
2. WTCam V3 High Level Version software for wire cutting.
3. Linear Scales.
4. EXTRA 30KG WIRE FEEDING BOX.

# LIEN SHENG MECHANICAL & ELECTRICAL CO., LTD.

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E-mail:sales@aristech.com.tw



## SAMPLE OF DRILLING:



Spherical surface drilling  
Diameter: 50mm  
Tool diameter: 1.0/0.8/0.5/0.3mm



Variable deepness drilling  
Thickness: 25/50/75mm



Rectangle pattern drilling  
Hole deepness: 5mm  
Tool diameter: 1.0mm

## GENERAL FEATURES:

1. Machines are designed in compliance with EC MACHINERY DIRECTIVE 89/392/EEC and EN 292 CODES for technical and safety aspects.
2. Being for COMPACT DESIGN and thus saving space, equipped with 2(or 3) axes DIGITAL READOUT system for easy positioning (optional instrument).
3. The LSD-25, 30, 35, 65 provide Z-2 axis travel for large mould operating.
4. Whole digitize operate panel. And 10 sets of random access of parameters in memory.
5. It is able to drill the deep holes on the materials such as stainless steel, hard metal alloy, copper, aluminum, etc. With diameter from 0.30mm (0.0118") to 3.0mm (0.118").
6. Use clean water for dielectric fluid, and with resing filtering system. Which is unharmed to human body.

## STANDARD ACCESSORIES:

1. 1 Pc electrode drill chuck Ø0.3- Ø3.0 mm.
2. 1 Pc electrode guide Ø1.0mm.
3. 10 Pcs electrode pipe Ø0.2- Ø3.0mm [0.1 mm per step].
4. 1 set tool box & kits.
5. 1 unit fibre bucket.

## OPTIONAL ACCESSORIES:

1. Digital Read Out & scales.
2. Electrode guide Ø0.2- Ø3.0mm [0.1 mm per step].
3. Electrode pipe Ø0.2- Ø3.0mm [0.1 mm per step].
4. Precision electrode 3-JAW chuck.
5. Air compressor.

## DNC-35, 50, CNC FUNCTION:

1. Automatic edge & center point finding and start point return.
2. DXF edit (ICAM, Graphic transfer file).
3. Chinese / English display.
4. Mirror image in X, Y axes and copy function.

5. Cutting path dry run & display.
6. Machining interrupt & return.
7. Automatic electrode wear rate compensation.
8. Diagnostic function (alarm & warning display).

## DNC STANDARD ACCESSORIES ( With 16-ATC Electrode Tube Changer. ) :

1. Electrode ER 16 collet. From Ø0.7mm To Ø1.0mm, But 16 pieces in one size Only.
2. Electrode Guide Ø1.0mm.
3. Electrode Tube Ø1.0mm.
4. Tools Box & Kits.
5. Halogen Work Lamp.
6. Filtering unit.
7. XYZ Axes in AC Servo Motors & W-Axis by AC Servo Motor.
8. 15" TFT LCD Displayed And 16 Pieces Electrode Tubes Changer System.



DNC-35, 50, CNC CONTROLLER PANEL

## DNC OPTIONAL ACCESSORIES ( With 16-ATC Electrode Tube Changer. ) :

1. Electrode Guide Ø0.3 to Ø3.0mm, Per 0.1mm One size one piece.
2. Electrode Copper Tube Ø0.3mm, 300mmL.
3. Electrode Brass Tube Ø0.4 to 3.0mm, 400mmL, Per 0.1mm one size.
4. Metal Net Water Filter.
5. Electrode collet ER-16 & Nut [Ø0.4-0.6, 0.7-1.0mm] 2 Sizes/2 sets.
6. Electrode collet ER-16 & Nut [Ø1.1-2.0, 2.1-3.0mm] 2 Sizes/2 sets.
7. Ion Exchanging Dielectric Stainless Steel Tank, Capacity 320 Liters.



ISO-9001 CERTIFICATION



CE MARK CERTIFICATION



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E-mail: [sales@aristech.com.tw](mailto:sales@aristech.com.tw)

LSD-EV10-1807-1500



CE  
ISO-9001

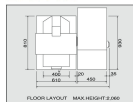
# ARISTECH®

LSD ZNC & CNC DRILL E.D.M.

DNC-35



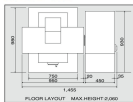
## LSD-20



## LSD-25



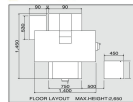
## LSD-30



## LSD-35



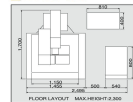
## LSD-65



## DNC-35



## DNC-50



(Without "ATC")

## MACHINE UNIT:

| SPECIFICATIONS              | SERIES NO. | LSD-20                             | LSD-25                             | LSD-30                             | LSD-35                             | LSD-65                             |
|-----------------------------|------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Work table (LxW)            | mm/inch    | 450x210<br>(17.7x8.3)              | 450x210<br>(17.7x8.3)              | 600x300<br>(23.6x11.8)             | 600x300<br>(23.6x11.8)             | 700x450<br>(27.6x17.7)             |
| Work tank (LxWxH)           | mm/inch    | 790x490<br>(31.1x19.3)             | 790x490<br>(31.1x19.3)             | 860x560<br>(33.8x22.2)             | 1030x650<br>(40.6x25.6)            | 1410x740<br>(55.5x29.1)            |
| X axis travel               | mm/inch    | 300 (11.8)                         | 300 (11.8)                         | 350 (13.8)                         | 400 (15.7)                         | 450 (17.7)                         |
| Y axis travel               | mm/inch    | 200 (7.9)                          | 200 (7.9)                          | 250 (9.8)                          | 300 (11.8)                         | 450 (17.7)                         |
| Ram servo travel Z1 Axis    | mm/inch    | 330 (12.9)                         | 330 (12.9)                         | 330 (12.9)                         | 330 (12.9)                         | 330 (12.9)                         |
| Workhead travel Z2 Axis     | mm/inch    | 0 (0)                              | 200 (7.9)                          | 200 (7.9)                          | 200 (7.9)                          | 350 (13.8)                         |
| Handwheel travel W-Axis     | mm/inch    | 150 (5.9)                          | 150 (5.9)                          | 150 (5.9)                          | 150 (5.9)                          | 150 (5.9)                          |
| Max.workpiece weight        | kgs/lbs    | 100 (220)                          | 100 (220)                          | 300 (660)                          | 300 (660)                          | 500 (1100)                         |
| Electrode pipe diameter     | mm/inch    | Ø0.2-Ø3.0 (0.0078-0.118)           |                                    |                                    |                                    |                                    |
| The max.height of workpiece | mm/inch    | 50-200 (2-7.9)                     | 50-400 (2-15.8)                    | 50-400 (2-15.8)                    | 50-400 (2-15.8)                    | 220-720 (8.7-28.4)                 |
| Outside dimension           | mm/inch    | 1040x1060x2000<br>(40.9x41.7x78.4) | 850x900x1980<br>(33.5x35.5x78.4)   | 1040x1140x2100<br>(40.9x44.9x82.7) | 1200x1200x2050<br>(47.2x47.2x80.7) | 1490x1365x2110<br>(58.7x53.8x83.1) |
| Packing dimension           | mm/inch    | 1230x1170x2220<br>(48.4x46.1x87.4) | 1110x1305x2230<br>(43.7x51.4x87.8) | 1185x1245x2240<br>(46.7x49.8x88.2) | 1560x1340x2252<br>(61.4x52.8x88.7) | 1652x1610x2240<br>(65.6x63.4x88.2) |
| Net weight                  | kgs/lbs    | 750 (1650)                         | 750 (1650)                         | 900 (1980)                         | 900 (1980)                         | 1500 (3300)                        |

## POWER SUPPLY UNIT:

| SPECIFICATIONS                           | SERIES NO. | 30A                                     |
|------------------------------------------|------------|-----------------------------------------|
| Nominal current                          | A          | 30                                      |
| Total power input                        | KVA        | 3.5                                     |
| Circuit system                           |            | Power MOS FET                           |
| Control axis                             |            | Z AXIS                                  |
| Control system                           |            | 10 steps cutting data                   |
| Display type                             |            | LED Displayed                           |
| Coordinate system (Positioning commands) |            | -                                       |
| Jog speed                                |            | Manual                                  |
| Least input increment (X,Y axes)         | mm/inch    | 0.005 (0.0002") when with linear scales |
| Outside dimension                        | mm/inch    | 1100x540x850 (43.3x21.3x33.5)           |
| Packing dimension                        | mm/inch    | 1100x540x850 (43.3x21.3x33.5)           |
| Net weight                               | kgs/lbs    | 170 (374)                               |

\*Optional current 50A is available.  
\*Specifications are subject to change without notice.

## MACHINE UNIT:

| SPECIFICATIONS                | SERIES NO. | DNC-35                             | DNC-50                             |
|-------------------------------|------------|------------------------------------|------------------------------------|
| Work table (LxW)              | mm/inch    | 600x350<br>(23.6x13.8)             | 700x450<br>(27.6x17.7)             |
| Work tank (LxWxH)             | mm/inch    | 1000x500x100<br>(39.4x25.6x3.9)    | 1160x935x100<br>(45.7x36.8x3.9)    |
| X axis travel                 | mm/inch    | 400 (15.7)                         | 650 (25.6)                         |
| Y axis travel                 | mm/inch    | 300 (11.8)                         | 450 (17.7)                         |
| Ram servo travel Z            | mm/inch    | 250 (9.8)                          | 380 (14.9)                         |
| Work head Sparking travel W   | mm/inch    | 380 (14.9)                         | 380 (14.9)                         |
| Max. work piece weight        | kgs/lbs    | 250 (550)                          | 300 (660)                          |
| Electrode pipe diameter       | mm/inch    | Ø 0.3-Ø 3.0 (0.0118-0.118)         | Ø 0.3-Ø 3.0 (0.0118-0.118)         |
| Mini/Max. height of workpiece | mm/inch    | 50-300 (1.9-11.8)                  | 50-300 (1.9-11.8)                  |
| Outside dimension (LxWxH)     | mm/inch    | 1100x1300x2300<br>(43.3x51.2x90.6) | 1500x1700x2300<br>(59.6x67.0x90.6) |
| Packing dimension (LxWxH)     | mm/inch    | 1870x1450x2230<br>(73.7x57.1x87.8) | 1590x1790x2230<br>(62.6x70.5x87.8) |
| Net weight                    | kgs/lbs    | 1200 (2640)                        | 1900 (4180)                        |

## POWER SUPPLY UNIT:

| SPECIFICATIONS                           | SERIES NO. | DNC - 30 A                                                |
|------------------------------------------|------------|-----------------------------------------------------------|
| Nominal current                          | A          | 30                                                        |
| Total power input                        | KVA        | 3.5                                                       |
| Circuit system                           |            | Power MOS transistor                                      |
| Control axis                             |            | X, Y, Z (fast positioning)                                |
| Control system                           |            | 32 bit CPU, CF Card, close loop, encoder feed back system |
| Display type                             |            | 15" TFT LCD                                               |
| Coordinate system (Positioning commands) |            | Absolute/Incremental                                      |
| Least input increment (X,Y axes)         | mm/inch    | 0.001 (0.00004")                                          |
| Outside dimension                        | mm/inch    | 540x800x1700 (21.3x31.5x67.0)                             |
| Packing dimension                        | mm/inch    | 790x990x1970 (31.1x39.0x77.6)                             |
| Net weight                               | kgs/lbs    | 200 (440)                                                 |

\*Optional current 50A is available.  
\*Specifications are subject to change without notice.