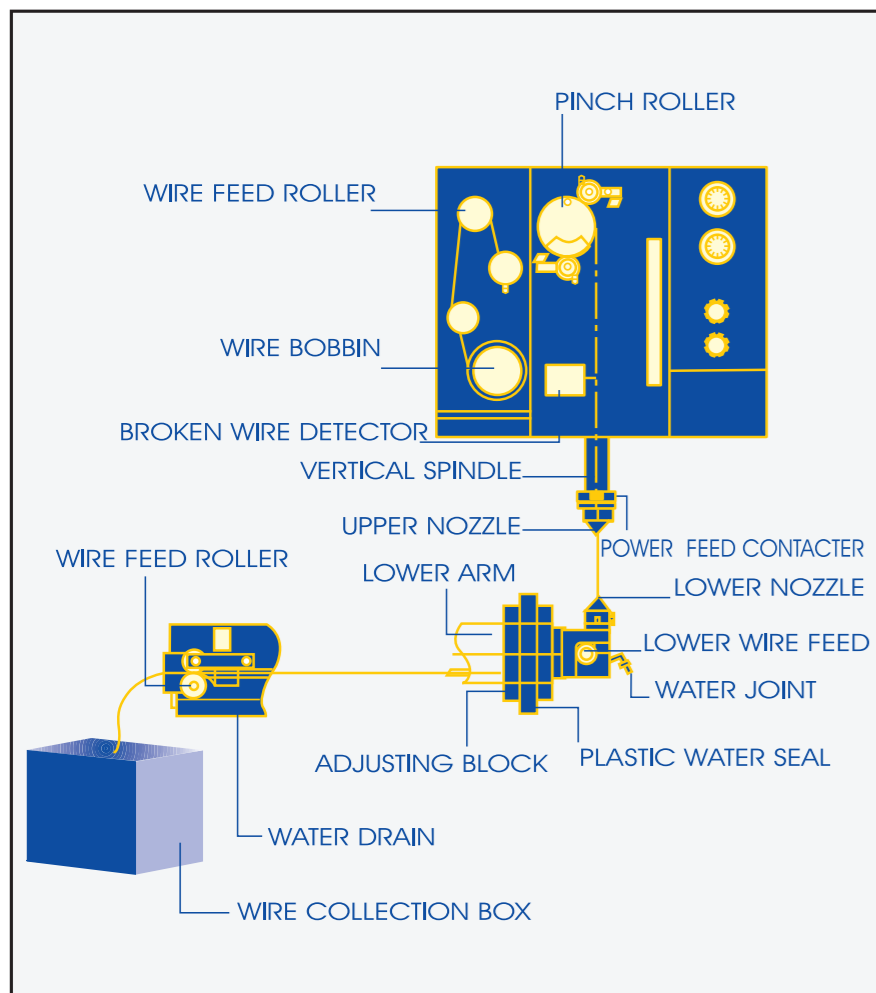


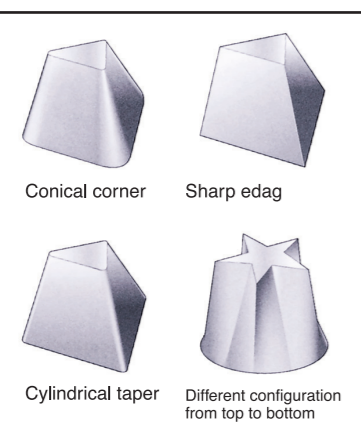
## SEMI-AUTOMATIC WIRE FEED SYSTEM.



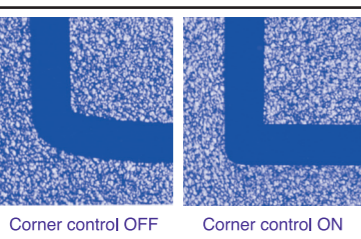
## A WIDE RANGE OF MACHINING NEEDS.



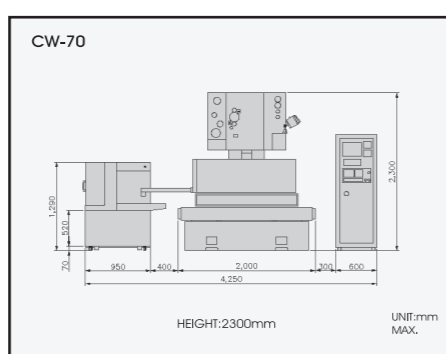
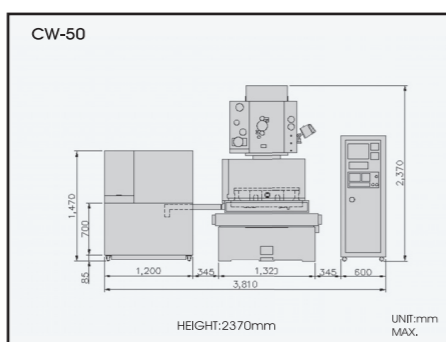
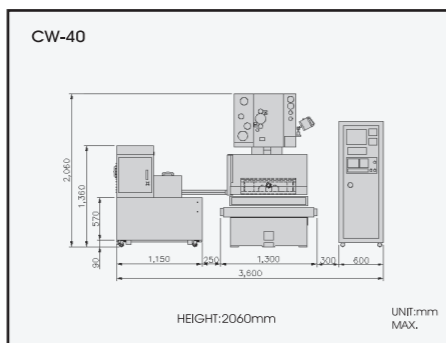
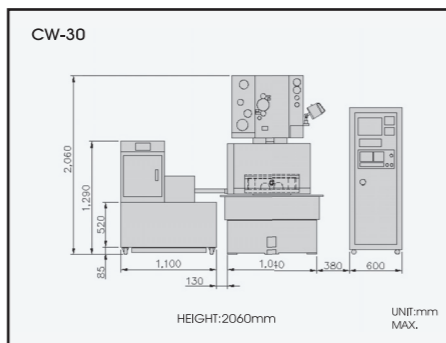
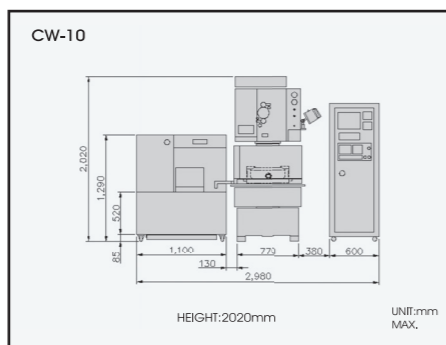
## MAXIMUM TAPER ANGLE: ± 15 DEGREES



## CORNER CONTROL



## OVERALL MACHINE DIMENSIONS.



ISO-9001 CERTIFICATION



CE MARK CERTIFICATION



◆ OUR SECOND PLANT IN TA-LI DIST.,



◆ OUR FIRST PLANT IN TA-LI DIST.,

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

No. 225, Jen Hwa Road, Ta-Li Dist., 41278  
Taichung City, TAIWAN, R.O.C.  
TEL: 886-4-2491-9588 • FAX: 886-4-2491-5275.  
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E-mail: [sales@aristech.com.tw](mailto:sales@aristech.com.tw)



CW-EV11-1502-1500



ISO-9001

# ARISTECH®



**5-AXES CNC WIRE CUT E.D.M.**

### 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 retrace 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 retracing 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.

#### 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.
- Equipped power mos-transistor circuit system. max. out-put current 25 ampere. The maximum constant machining speed 180mm<sup>2</sup>/minute in the wire diameter  $\phi$ 0.25mm, material SKD-11. and testing sample from CW-10.

#### 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, used 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— $\phi$ 0.30mm 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 ballscrews 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 adjust-able slide 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 recover
- 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				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				
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	6	10	10
Outside dimensions(WxDxH)	mm	(S)850x573x375 (F)920x573x400	(S)970x719x510 (F)1040x719x450	(S)1070x719x480 (F)1140x719x450	(F)1136x900x530 (S)1272x862x480	1492x972x480
Machine weight	kg	1500	2200	2400	2800	4100

### WORKING FLUID SUPPLY UNIT

		480 / 420	690 / 420	830 / 420	1215 / 420	420
Tank capacity (liter)						
Filter element		Paper filters				
Ion exchange resin		15/				
Conductivity control system		Standard				
Fluid temperature control(With coolant)		Auto (optional)				
Outside dimensios(WxHxD)	mm	(S)1100x1400x1290 (F)950x1400x1290	(S)1100x1570x1290 (F)950x1400x1290	(S)1150x1820x1360 (F)950x1400x1290	(S)1200x1800x1470 (F)950x1400x1290	950x1400x1290
Net weight(without water)	kg	200	250	260	280	280

### POWER SUPPLY UNIT

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

### CNC UNIT

I/O device		Keyboard, RS-232C, CF CARD	
Display type		15" LCD-TFT	
Control system		32 bit, 1 -CPU, closed loop software servo system	
Control axis		X,Y,U,V,Z	
Min. setting unit	mm	0.001	
Max.command value	mm	$\pm 9999.999$	
Interpolation		Linear / Circuler	
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 $\phi$ 220V $\pm 10\%$ / 13 KVA	

\*Specifications subject to change without notice.

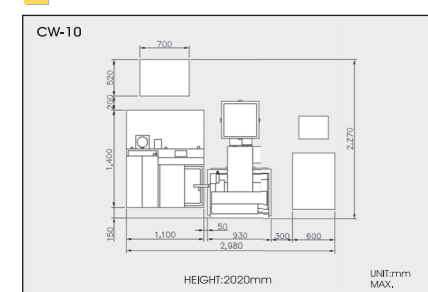
### STANDARD ACCESSORIES

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

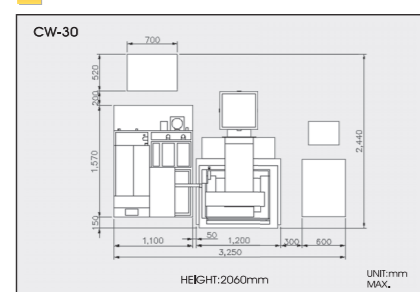
### OPTIONAL ACCESSORIES

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

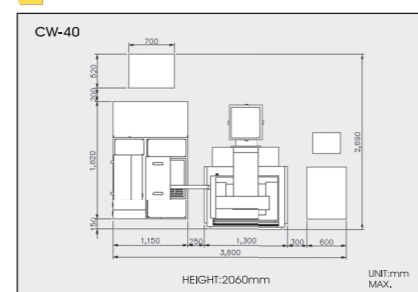
CW-10



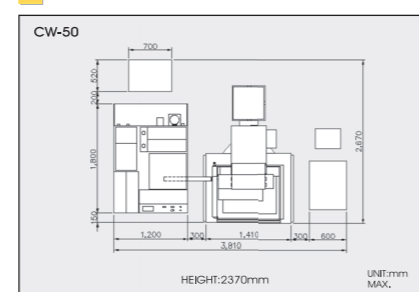
CW-30



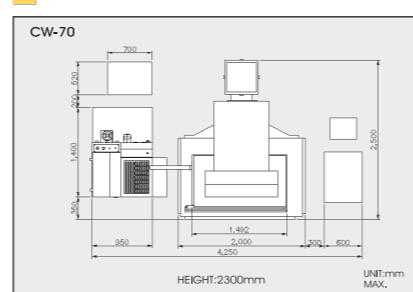
CW-40



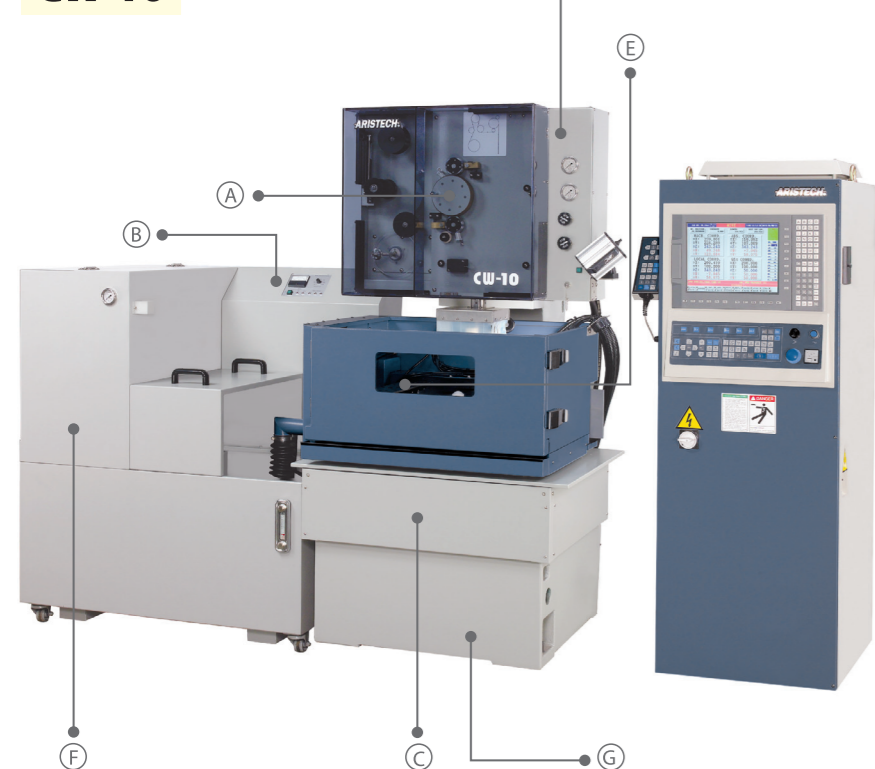
CW-50



CW-70



CW-10



CW-30/CW-40



CW-50/CW-70

