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TECHNOLOGY · CREATIVITY · QUALITY · SERVICE



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CERTIFIED SYMBOL OF EXCELLENCE CERTIFIED WINNER



EMC ISO 9001
CERTIFIED

HIGH PERFORMANCE WIRE CUT EDM



MACHINE UNIT & FILTRATION SYSTEM

	AWT355S/ WT355S	WT355	AWT455S/ WT455S	WT455	AWT655S/ WT655S	WT655	AWT855S/ WT855S	WT855	AWT125S/ WT125S	WT125
Max. work piece dimension (WxDxH)	mm 710x50x255	850x460x215	750x650x245	900x650x245	1100x720x345	1100x800x345	1280x780x345	1280x780x345	1700x1050x445	1700x1050x445
Max. work piece weight	kg 300	400	450	550	700	830	1000	1000	5000	5000
X Travel	mm 350	350	450	450	650	650	850	850	1200	1200
Y Travel	mm 250	250	300	300	400	400	450	450	700	700
Z Travel	mm 210	210	250	250	350	350	350	350	450	450
U Travel	mm 80	80	100	100	100	100	100	100	150	150
V Travel	mm 80	80	100	100	100	100	100	100	150	150
Drive system	AC servo motor	AC servo motor	AC servo motor	AC servo motor	AC servo motor	AC servo motor	AC servo motor	AC servo motor	AC servo motor	AC servo motor
Wire diameter	mm Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)	Ø0.15-Ø0.30 (JIS wire)
Max. taper angle	mm +/- .24 / .60mm	+/- .20 / .60mm	+/- .24 / .60mm	+/- .20 / .60mm	+/- .24 / .60mm	+/- .20 / .60mm	+/- .24 / .60mm	+/- .20 / .60mm	+/- .24 / .60mm	+/- .20 / .60mm
Machine net weight	kg 2100	2000	2200	2100	2650	2700	5500	5300	9000	8700
Filter system capacity	L 640	500	700	500	1200	700	1500	550	2800	600
Filter element	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter
Ion exchange resin capacity	L 14	8.8	14	8.8	14	8.8	30	8.8	30	8.8
Water quality control	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto
Water temperature control	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto
Machine layout dimension (WxDxH)	mm 2036x2181x1930	1986x2096x1930	2236x2306x2107	2186x2186x2107	2780x2780x2140	2730x2930x2400	3890x3160x2940	3900x2900x2290	4830x4050x2620	4300x4050x2620

AWT655S

STANDARD ACCESSORIES

- Auto vertical alignment by / 1 set
- Tool kit / 1 set
- Wire guide Ø0.25 mm - 1 set
- Grass wire roll Ø0.25 mm / 1 set
- Filter element / 1 set
- OPTIONAL ACCESSORIES
- Wire tension meter
- Dielectric cooling unit
- Construable parts (wire, turning nozzles, etc.)
- Super fine mesh cloth
- Wire feed motor
- Linear scale (for X & Y axis)
- Auto voltage regulator (AVR)
- 20 kgs wire loading system
- The 6th axis (The rotary B-axis)

HIGH THICKNESS CUTTING

- Work piece thickness.....100 mm
- Wire diameter.....0.20 mm
- Wire speed.....10 m/min
- Total cutting time.....4.5 hours

FEED APPLICATION



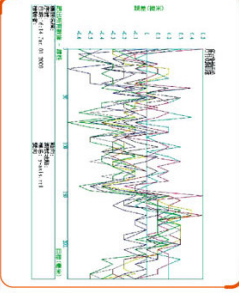
REMOTE CONTROL BOX



POWER SUPPLY

- Controller device
- Memory device
- Screen display
- Input means
- Servo Control means
- No. of control
- Instruction value
- Max. Instruction value
- Pattern rotation
- Processing condition
- Discharge power supply
- Surface roughness
- Intelligent optical probe supply
- Electricity required

LAZER POSITIONING INSTRUCTION



QUALITY MANAGEMENT (CIRCULARITY TEST)



MECHANICAL FEATURES

- Special upper / lower wire guide set, provides high-speed automatic wire threading in water.
- Simple and reliable Automatic Threading Device, applies high precision accuracy and easy for operator's maintenance.
- Smooth lower arm movement fitted with anti-leaking system.
- Hardened Stainless work tank base, enhance rigidity and support sealed, well-balanced, box-type design casting of the machine body ensures high thermal balance stability.



WORK TANK FEATURES

- Semi-Submerged water level can be set in the work tank to cover the work table, to control the working area's water temperature in good condition.
- Special designed water float-drain system can keep the work tank in a clean way.

HIGH RIGIDITY STRUCTURE

- Well-balanced, box-type design casting of machine body, ensures high thermal balance stability and rigidity.
- U/V/Z axis all located upper from the machine column to offer accurate stability.
- Lower arm applies with special thermal and hardened procedures, it does not transform during high water pressure machining.

PRECISE SERVO AND DRIVER SYSTEM

Each axis uses high precision C1 class ball screw with grinded and sub-zero treatment with manual single shot lubrication system to control the temperature change and consume of parts. The procedures make the smoothness better and bring more accurate machining, bring a longer life time for ball screw and control the accuracy gap to happen. With high power and strong response AC servo motor, another optional can also be considered "Linear Scales" to make the total close loop circuit control. Our linear guide way adapt new generation high smoothness linear guide way, reduces the problem of friction and ensures the stability when making the machining.

WELL-BALANCED THERMAL DESIGN

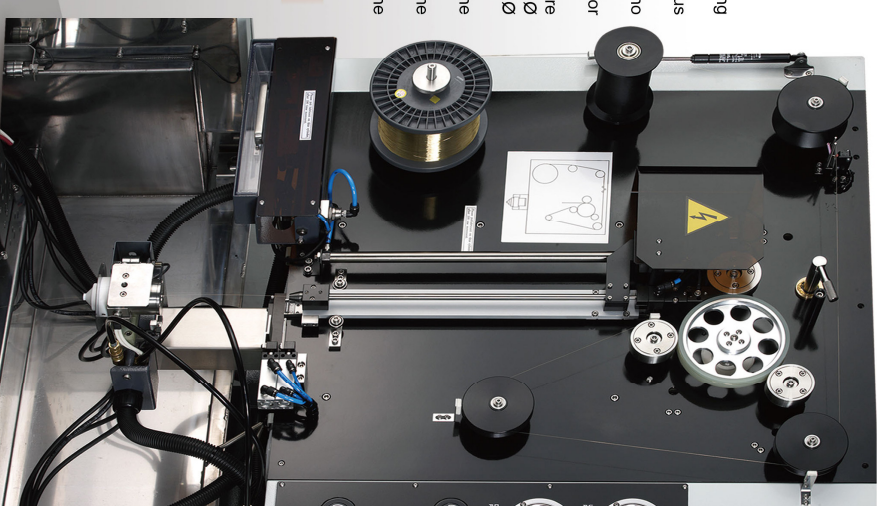
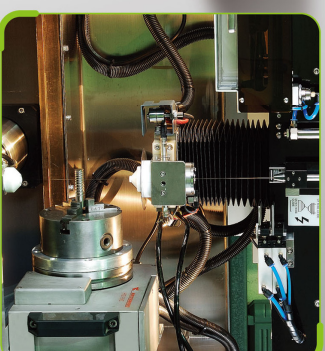
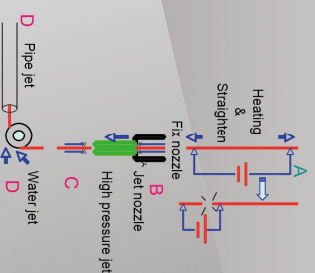
The well-balanced mechanical structure design, casting applies thermal treatment and heat current procedure. Lower arm with water cooling circulation equipment and combine with super anti-transform alloy material, to bring the high accuracy.

AWT FEATURES

- AC servo motors are used on machine, provides "Positioning & Tension" control with high reliability.
- DC motors control offer different wire diameters for various data.
- High pressure air applied at wire-melting system, makes no burns to the new wire.
- Intelligent wire-cutting device, a different voltage occurs for different wire diameters.
- Unique upper wire guide structure produces a high pressure water jet. AWT can be done in water, operation can choose Ø 0.5 mm ~ Ø 2.0 mm assistant flushing nozzles to thread the Ø 0.15mm~ Ø 0.3 mm wire.
- Special lower wire guide to offer 45° and 180° that ensure the wire to be threaded successfully.
- Ceramic wire collecting wheel is used to bring a longer lifetime for parts.
- PWM DC wire collecting motor is equipped to provide the linear stability.

Joemars Unique Leading Technology for auto wire threading

- Wire can be threaded in water at the wire breaking position, (wire-breaking point)
- Wire threading successful rate approaching 100%.
- Fastest wire threading speed less than 10 seconds under suitable condition and settings.
- AWT (Auto Wire Threading) can be done for work piece up to each model's Z axis travel height.



The 6th Axis Application: (B-axis, Rotary Axis) (FOR WINDOWS CONTROLLER)

- Must adapt Joemars controller available for the 6th application.
- Maximum axes of control: 6 axes. (X / Y / U / V / Z / B axis)
- Simultaneously machining axes: 5 axes. (X / Y / U / V / B axis)
- The 6th device can do the real 6-axis work job, not only for rotary, positioning, or index functions. (The real Wire Cut machine with 6 axis application)
- Joemars own designed servo index system and controller system.
- DDR motor driver used directly, rotary positioning accuracy reaches 0.5 seconds.
- The 6th Axis (B-axis) with "IP68" – water proof design, no rusting concern.
- Controller, rotary system, index plate and the related parts are all 100% designed and made in Taiwan!

WINDOWS CONTROLLER (optional)

- Standard keyboard & mouse operation with touch screen, user friendly design.
- 15" TFT-LCD monitor, shows the better view of data and function needed.
- USB insert available, USB machining programs inserts provides convenience.
- Multiple language online change available.
- LAN connection, operation can connect to PC to edit program, data transmission.
- Remote on-line internet connection control, allows operator/company to monitor the machine status and cutting situation either at work or via the internet service. The online technical data checking for machining consulting issues, on-line update, consumable parts maintenance...the unlimited features can be built.
- Built-in simple CAD/CAM software, provides operator easier efficiency.



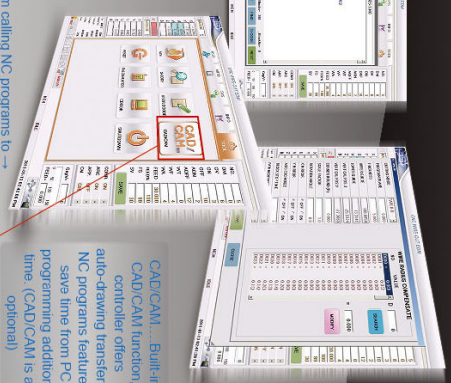
USB transmission interface, provides efficiency and convenience for operators.

Self-Guided operation panel



Online drawings pre-view functions, easy to find the old NC programs which were executed before.

User friendly interface, from calling NC programs to prepare to do cutting, total self-guided operation way to make the procedures easier and quicker.



CAD/CAM Built-in CAD/CAM function, controller offers to auto-drawing transfer to NC programs features, save time from PC programming additional time. (CAD/CAM is an optional)

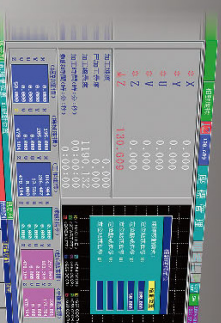
DOS CONTROLLER (Standard)

- Applies high tech 64 Bit CPU control and high stability industrial professional computer, provides powerful NC function and carry out the high accuracy machining result. Sufficient and high efficient operation panel shows new generation PC-BASED super powerful way of control system.



▶ Provide easy operation and checking mode.

▶ Data base for different material work piece and machining condition parameter and settings can be the reference for the operators.



▶ Insert the zero point or positioning function.



▶ CF card available, replaces old-fashion 3.5" hard-disk, and provide bigger memory capacity of machining data.