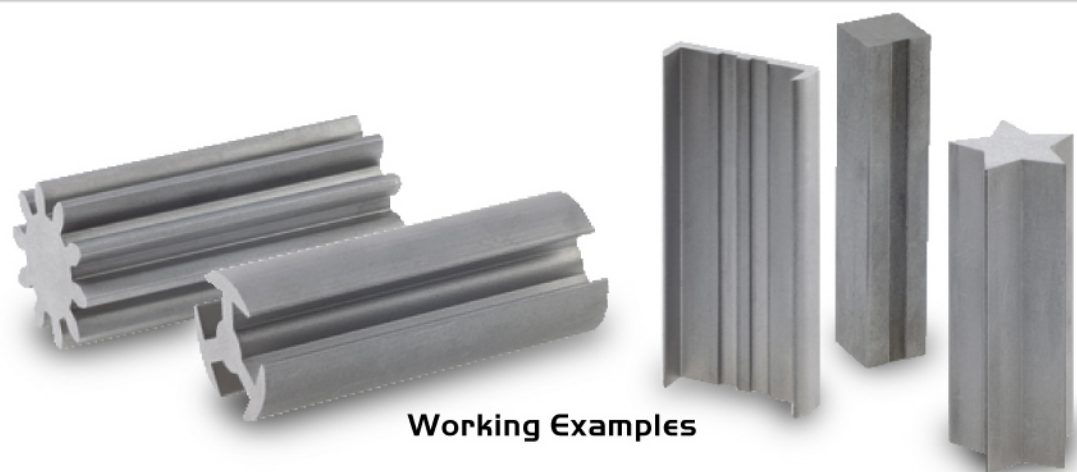


Creator Cw Series WIRE CUT EDM

Creating a New Level of
Performance and Productivity
in Wire Cutting



CREATOR



Working Examples

These advanced wire-cut EDMs from CREATOR are designed for precision mold manufacturers, wherever there is a demand efficient cutting and extra fine surface effect. The CREATOR CW series wire-cut EDM provides flushing and submerged type to choose from. The CW series is equipped with the latest discharge power unit and 64-bit IPC control featuring 5 axes control. The machine series is ruggedly built and precision constructed, incorporating modern design throughout.

High Speed , High Accuracy , Superior Surface Finish CW-325S

CW-640



CW-325S

Submerged type

- X / Y-axis travel 350 x 250 mm.
- U / V-axis travel ± 50 x ± 50 mm.
- Z axis travel 200 mm.
- Max. workpiece sizes 850 x 550 x 200 mm.
- X, Y, U and V axes are simultaneously controlled.

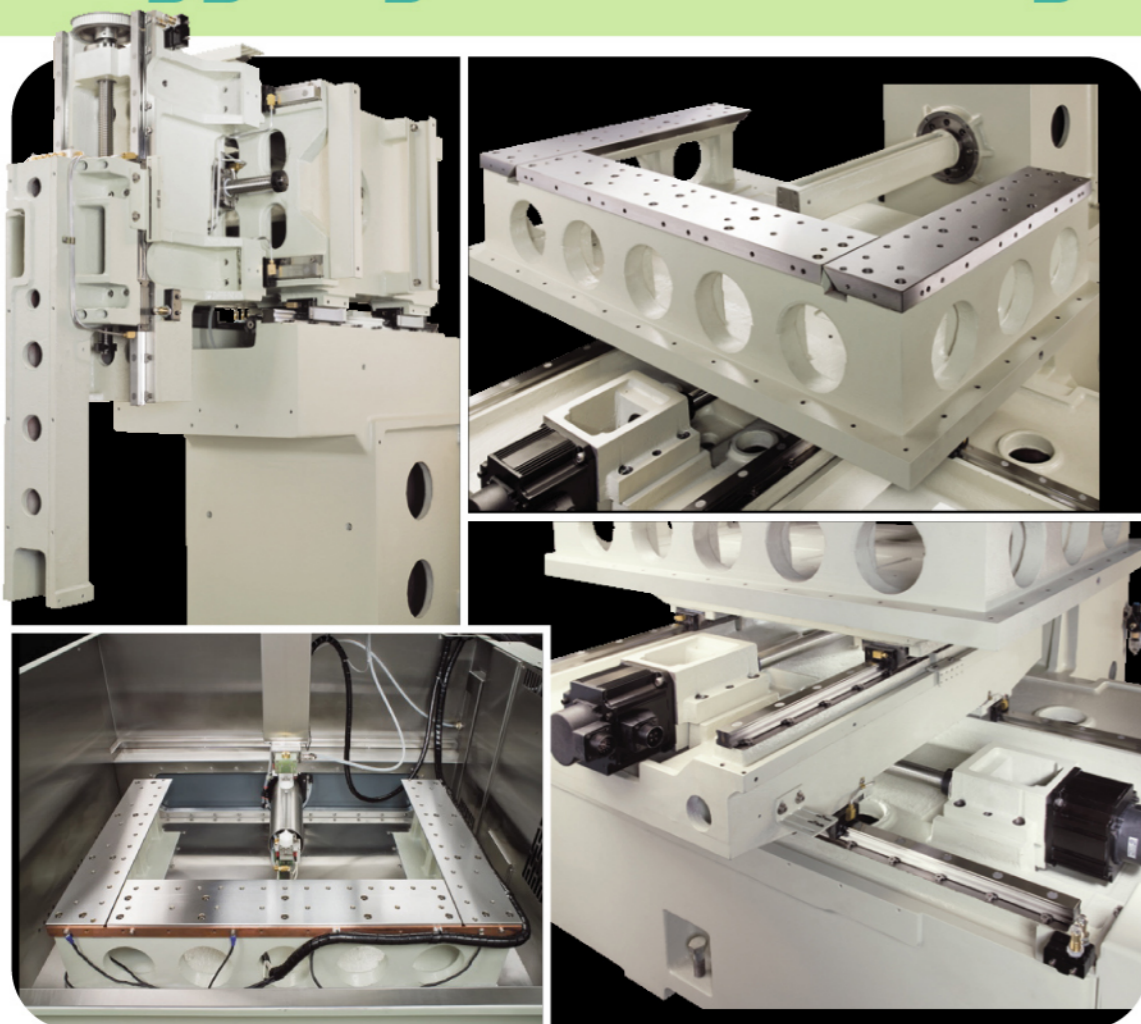


CW-640

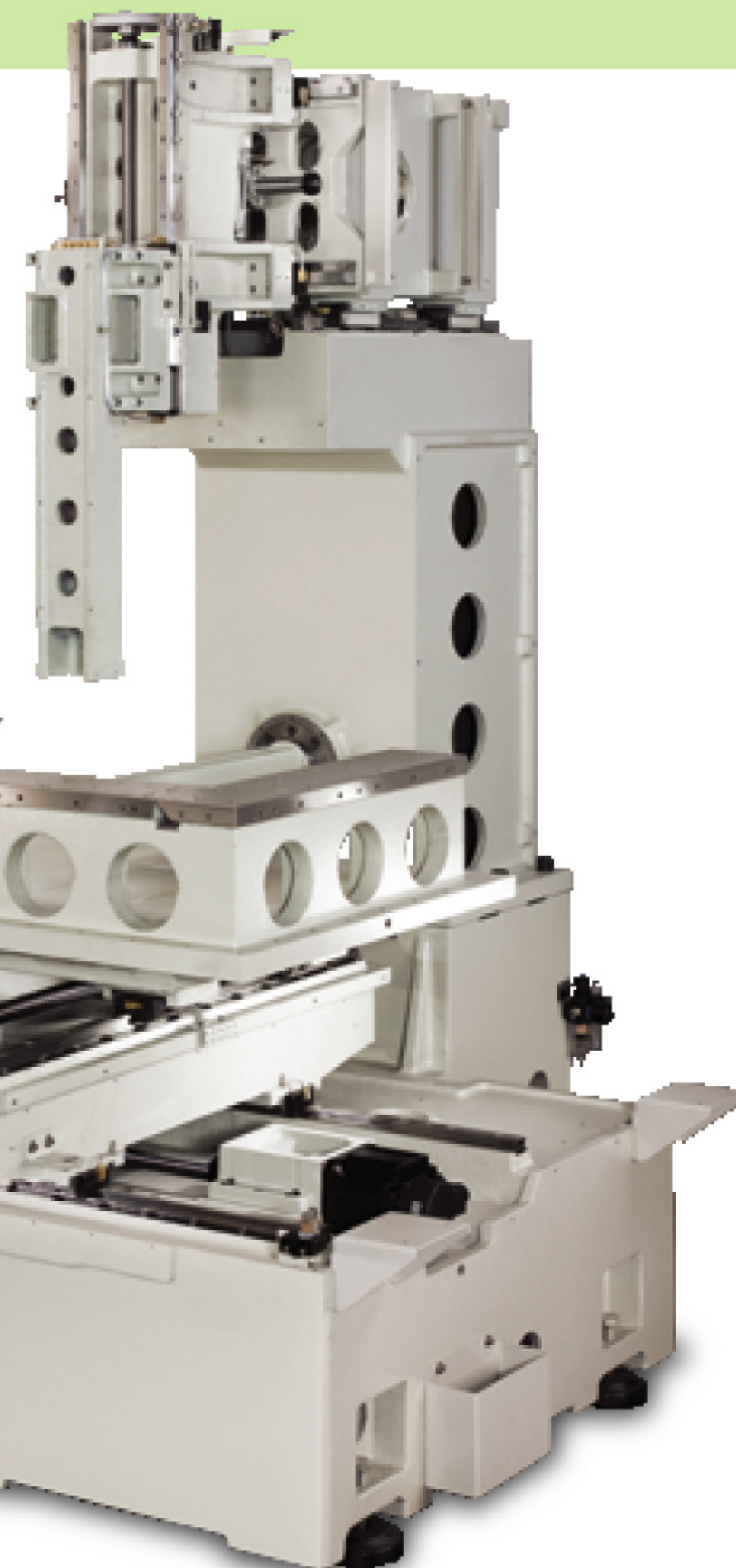
Flushing type

- X / Y-axis travel 600 x 400 mm.
- U / V-axis travel ± 50 x ± 50 mm.
- Z axis travel 300 mm.
- Max. workpiece sizes 1,200 x 700 x 320 mm.
- X, Y, U and V axes are simultaneously controlled.

Ruggedly and Precisely Built Throughout



- The C-frame machine structure is analyzed by the advanced Finite Element Analysis to simulate stress/strain conditions. It assures the best possible structural rigidity and machine accuracy.
- Multi-layer box type base provides a solid support for the entire machine.
- High rigidity column combined with extra large U.V.Z.-axes.
- Lower arm is reinforced by melting alloy to greatly upgrade structural stiffness.
- No deformation even under powerful flushing.



High precision Transmission System

- Equipped with classical precision ball screws, pre-tensioned and force lubricated to minimize the displacement of ball screws. Maximum wear resistance and backlash-free.
- The AC servo motor drive is available to equip with optional linear scale to achieve close-loop feedback control.
- Each axis is calibrated by high-tech laser to assure outstanding geometric accuracy.
- Equipped with high precision linear guide ways featuring fast feedrate and reduced friction co-efficient.
- Stable wire feeding system guarantees extra fine workpiece surface and contour.

Minimum Thermal Deformation

- Minimized thermal deformation on the machine structure, combined with circulated water cooling system, assures high machining accuracy at all times.

Automatic Fluid Level Control

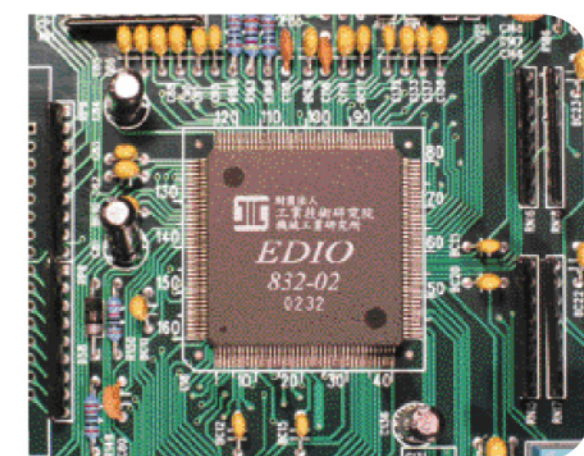
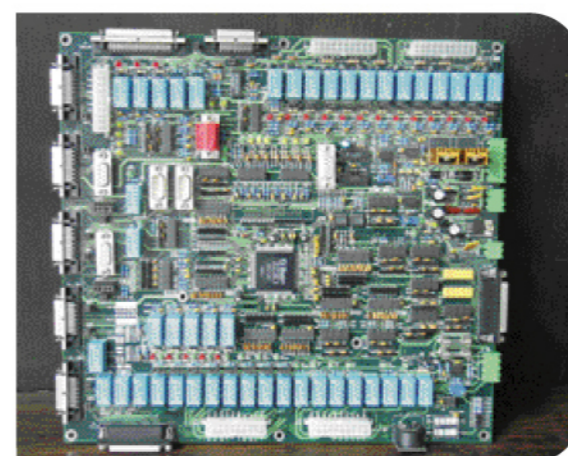
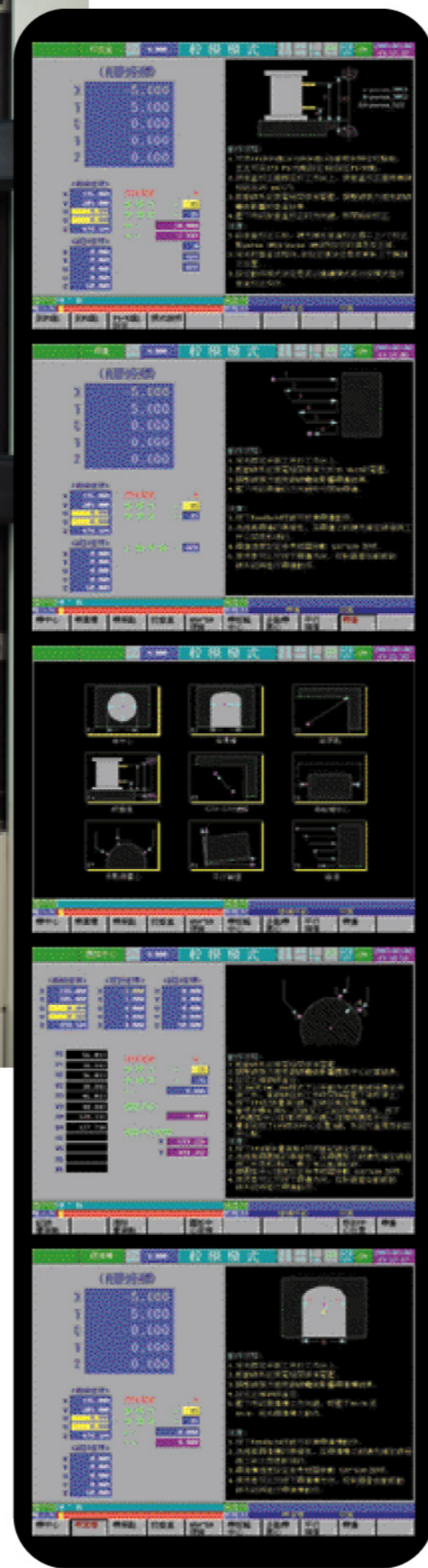
- The submerged type machine features automatic fluid level control. It automatically adjusts fluid level according to work-piece thickness.



High Stiffness Lower Arm

The lower arm is manufactured from alloy material. This high quality lower arm features minimum deformation while upgrading cutting stability.

State-of-the-Art Control



NC Program Compatibility

Easy to read NC programs from other brands. Saving time for programming.

64 Bit CPU Powerful Calculation Function

- Industrial grade PC
- 800 x 600 TFT monitor
- 64-bit, high speed CPU
- 6 axes control card
- Fully closed loop servo circuit control.

Advanced Control-Powerful Functions, User Friendly Control

The controller features detailed operation instructions, machining information and warning messages for operational convenience.

- Simply input the wire diameter, workpiece material and thickness and surface roughness required, then the proper machining conditions can be selected from the machining data bank.
- Automatic reset in care of power off.
- Automatic start cutting condition adjustment.
- Notice for consumable parts life and routine maintenance.
- Warning messages and HELP function.
- Machining conditions history.
- 3-D graphics preview.
- Corner control function avoids corner breaking problems.
- Wire consumption compensate function for coarse cutting assures straightness accuracy at high speed cutting.

Electrolysis-free machining

The electrolysis-free discharge machining effectively avoids workpiece cracking or electrolyzing problems, while extending the service life of mold.

Intelligent Ignition Control Circuit

This advanced control circuit provides proper adjustment and control for ignition voltage, and is suitable for various kinds of material-especially for thick and thin plates. It ensures stable voltage, ensuring discharge machining is always maintained at high speed with superior stability.

Wire Breakage Protection Reduced Wire Breakage Possibility by 40%

In case abnormal discharge occurs, the automatic detection and calculation functions provide automatic adjustment and control for discharge energy output. This upgrades discharging stability and working efficiency, while reducing the possibility of wire breakage by 40%.

Modular Design Convenient to Maintain

The PC boards are a modular design, featuring self diagnostic output and clear lamp indications. This greatly reduces the possibility of trouble and is convenient to maintain.

Extra Fine Machining Capability

The fine finishing employs a high frequency, non-electrolysis machining system combined with wire tension control and high precision servo drive. It creates extra fine surface effect up to Ra 0.25 μ m.

Pulse Control for Discharge Circuit

The discharge control chip set is specially developed for high speed machining. It provides real-time judging and calculation for various discharging conditions. It automatically adjusts and controls discharging energy output for abnormal discharging waves.

The discharge circuit employs high efficiency MOSFET components, suitable for machining various thicknesses of workpiece. This combines with an intelligent circuit to achieve high efficiency machining.

Machine Body

Model		CW-325 Flushing	CW-640 Flushing	CW-745 Flushing	CW-325S Submerged	CW-640S Submerged	CW-745S Submerged
Machine dimensions	mm	1700 x 1500 x 2120	1800 x 1900 x 2400	2050 x 1750 x 2160	1700 x 1500 x 2120	1800 x 1900 x 2400	2050 x 1750 x 2160
Max. workpiece size	mm	850 x 550 x 200	1200 x 700 x 320	1200 x 800 x 400	850 x 550 x 200	1200 x 700 x 320	1200 x 800 x 400
Max. workpiece weight	kg	700	1200	1000	700	1200	1000
XY-axis trip	mm	350 x 250	600 x 400	750 x 450	350 x 250	600 x 400	750 x 450
UV-axis trip	mm	±50 x ±50	±50 x ±50	±80 x ±80	±50 x ±50	±50 x ±50	±80 x ±80
Z-axis trip	mm	200	300	350	200	300	350
Wire diameter used	mm	Ø0.10~0.3	Ø0.10~0.3	Ø0.10~0.3	Ø0.10~0.3	Ø0.10~0.3	Ø0.10~0.3
Wire tension	N	2~25	2~25	2~25	2~25	2~25	2~25
Max. workpiece height	mm	180	250	350	180	250	350
No. of axes for simultaneous control		XYUV-4 axes	XYUV-4 axes	XYUV-4 axes	XYUV-4 axes	XYUV-4 axes	XYUV-4 axes
Transmission system		5 axes, AC service transmission	5 axes, AC service transmission	5 axes, AC service transmission	5 axes, AC service transmission	5 axes, AC service transmission	5 axes, AC service transmission
Max. cut taper		±22.5°	±22.5°	±22.5°	±22.5°	±22.5°	±22.5°
Space occupied		2200 x 2300 x 2200	3000 x 2300 x 2300	3120 x 3050 x 2200	2200 x 2300 x 2200	3000 x 2300 x 2300	3120 x 3050 x 2200
Total weight	kg	2200	4850	4500	2200	4850	4500

Filter System

Filter system capacity	liters	320	480	300	320	480	900
Ion exchange resin	liters	15	15	10	15	15	10
Water quality control		AUTO	AUTO	AUTO	AUTO	AUTO	AUTO
Water temperature control		AUTO	AUTO	AUTO	AUTO	AUTO	AUTO

Discharge Power Unit

Discharge power supply		AC / MOSFET	AC / MOSFET	AC / MOSFET	AC / MOSFET	AC / MOSFET	AC / MOSFET
Surface roughness		Ra0.25µm	Ra0.25µm	Ra0.25µm	Ra0.25µm	Ra0.25µm	Ra0.25µm
Super fine power supply		Standard	Standard	Standard	Standard	Standard	Standard
Max. cutting speed		180 mm ² / mim	180 mm ² / mim	180 mm ² / mim	180 mm ² / mim	180 mm ² / mim	180 mm ² / mim
Outside voltage-regulating transformer		Optional	Optional	Optional	Optional	Optional	Optional

CNC Unit

Controller device		64-bit IPC
Memory device		16MB DOM
Screen display device		10.4" / 12.1" / 15" 800 x 600 Color TFT
Input means		Keyboard, RS-232, 3.5" Floppy Disk
Servo control loop		Full-closed loop
No. of control axes		Five axes
Instruction unit		0.001 mm
Max. instruction value		9999.9999 mm
Instruction unit		mm / INCH

Power Source Requirement

Electricity requirement		3-phase, AC 220V ± 10% / 30A
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• Continuing improvement will allow the maker to modify the design or specification without notice.



"GRUNDFOS" High Pressure Pump

- The filter system employs Denmark-imported high pressure pump, featuring extra powerful flushing and stable flow performance.
- Increasing cutting stability.
- Reducing wire breakage possibility to a minimum.

Cooler (Standard)

Transformer (Optional)